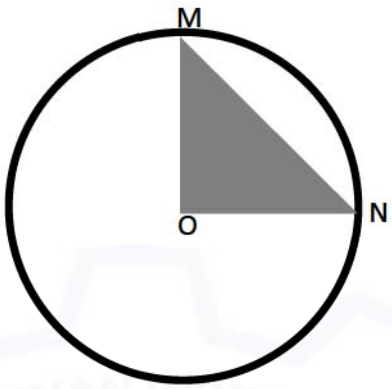
General Aptitude (GA)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Consider the following sentences:** **(i) After his surgery, Raja hardly could walk.** **(ii) After his surgery, Raja could barely walk.** **(iii) After his surgery, Raja barely could walk.** **(iv) After his surgery, Raja could hardly walk.** **Which of the above sentences are grammatically CORRECT?**
(A)	(i) and (ii)
(B)	(i) and (iii)
(C)	(iii) and (iv)
(D)	(ii) and (iv)

Q.2	**Ms. X came out of a building through its front door to find her shadow due to the morning sun falling to her right side with the building to her back. From this, it can be inferred that building is facing _____**
(A)	North
(B)	East
(C)	West
(D)	South

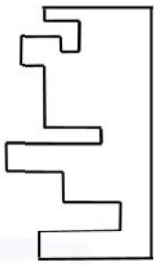
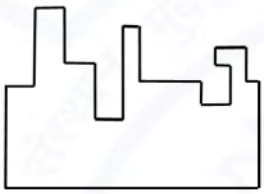
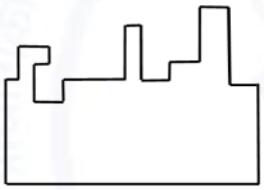
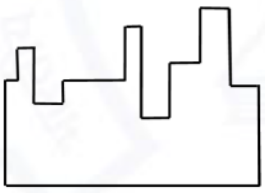
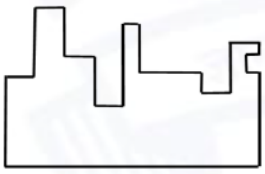
Q.3	 **In the above figure, O is the center of the circle and, M and N lie on the circle.** **The area of the right triangle MON is 50 cm^2.** **What is the area of the circle in cm^2 ?**
(A)	2π
(B)	50π
(C)	75π
(D)	100π

Q.4	**If** $\begin{cases} "\oplus" \text{ means } "-", \\ "\otimes" \text{ means } "\div", \\ "\Delta" \text{ means } "+", \\ "\nabla" \text{ means } "\times", \end{cases}$ **then, the value of the expression** $\Delta\, 2 \oplus 3\, \Delta \left((4 \otimes 2) \nabla\, 4 \right) =$
(A)	-1
(B)	-0.5
(C)	6
(D)	7

Q.5	**"The increased consumption of leafy vegetables in the recent months is a clear indication that the people in the state have begun to lead a healthy lifestyle"** **Which of the following can be logically inferred from the information presented in the above statement?**
(A)	The people in the state did not consume leafy vegetables earlier.
(B)	Consumption of leafy vegetables may not be the only indicator of healthy lifestyle.
(C)	Leading a healthy lifestyle is related to a diet with leafy vegetables.
(D)	The people in the state have increased awareness of health hazards causing by consumption of junk foods.

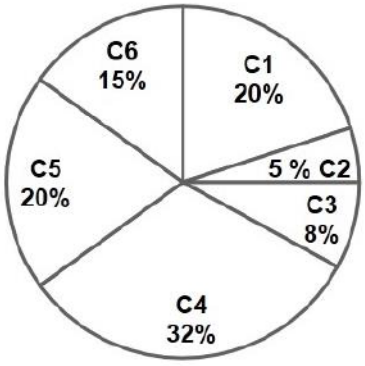
Q. 6 – Q. 10 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: – 2/3).

Q.6	**Oxpeckers and rhinos manifest a symbiotic relationship in the wild. The oxpeckers warn the rhinos about approaching poachers, thus possibly saving the lives of the rhinos. Oxpeckers also feed on the parasitic ticks found on rhinos.** **In the symbiotic relationship described above, the primary benefits for oxpeckers and rhinos respectively are,**
(A)	Oxpeckers get a food source, rhinos have no benefit.
(B)	Oxpeckers save their habitat from poachers while the rhinos have no benefit.
(C)	Oxpeckers get a food source, rhinos may be saved from the poachers.
(D)	Oxpeckers save the lives of poachers, rhinos save their own lives.

Q.7	 **A jigsaw puzzle has 2 pieces. One of the pieces is shown above. Which one of the given options for the missing piece when assembled will form a rectangle? The piece can be moved, rotated or flipped to assemble with the above piece.**
(A)	
(B)	
(C)	
(D)	

Q.8	**The number of hens, ducks and goats in farm P are 65, 91 and 169, respectively. The total number of hens, ducks and goats in a nearby farm Q is 416. The ratio of hens:ducks:goats in farm Q is 5:14:13. All the hens, ducks and goats are sent from farm Q to farm P.** **The new ratio of hens:ducks:goats in farm P is_____**
(A)	5:7:13
(B)	5:14:13
(C)	10:21:26
(D)	21:10:26

Q.9



Company	Ratio
C1	3:2
C2	1:4
C3	5:3
C4	2:3
C5	9:1
C6	3:4

The distribution of employees at the rank of executives, across different companies C1, C2, …, C6 is presented in the chart given above. The ratio of executives with a management degree to those without a management degree in each of these companies is provided in the table above. The total number of executives across all companies is 10,000.

The total number of management degree holders among the executives in companies C2 and C5 together is_____.

(A)	225
(B)	600
(C)	1900
(D)	2500

Q. 10	**Five persons P, Q, R, S and T are sitting in a row not necessarily in the same order. Q and R are separated by one person, and S should not be seated adjacent to Q.** **The number of distinct seating arrangements possible is:**
(A)	4
(B)	8
(C)	10
(D)	16

Reasoning and Comprehension (XH-B1)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**According to a recent article in a medical journal, consuming curcumin (from turmeric) significantly lowers the risk of COVID-19. The researchers draw this conclusion from a study that found that people who consumed one or more teaspoons of curcumin extract everyday were half as likely to be diagnosed with the disease as people who did not consume curcumin.** **Which of the following, if true, most weakens the argument in the article?**
(A)	In another study, people who were given a zinc supplement everyday were more than four times less likely to be diagnosed with COVID-19 as those who did not.
(B)	All the participants in this study were from the same state where no other spices or herbs are consumed.
(C)	The participants who consumed curcumin were also more likely to exercise than those who did not.
(D)	In another study, COVID-19 patients who were given curcumin were no more likely to recover than others.

Q.2	**Froot Inc. carried out an internet advertisement campaign for its new beverage CocoLoco. After the campaign, the director of the advertising company conducted a survey and found that the CocoLoco sales were higher than that of TenderJoos a competing product from Joos Inc. The agency concluded that the internet advertising campaign is more effective than advertising through other media.** **Which of the following statements could strengthen the conclusion above by the agency?**
(A)	A ₹2 discount was offered on CocoLoco during the campaign period.
(B)	CocoLoco sales were higher than those of TenderJoos before the internet campaign.
(C)	A newspaper advertisement campaign the previous year did not increase CocoLoco sales.
(D)	During the campaign for CocoLoco, Joos Inc. did not advertise TenderJoos at all.

Q.3	**An e-commerce site offered a deal last month conditional on the customer spending a minimum of ₹500. Any customer who buys 2 kg of fresh fruit will receive a hand mixer and any customer who buys 2 kg of fresh vegetables will receive a vegetable chopper.** **Which of the following is NOT a possible outcome of the above?**
(A)	A customer purchased 3 kg of fresh fruit and did not receive a vegetable chopper.
(B)	A customer purchased items for ₹500 which included 1 kg of vegetables and received a hand mixer.
(C)	A customer purchased items for ₹500 which included 2 kg of vegetables and 1 kg of fruit and received a hand mixer.
(D)	A customer purchased items for ₹300 which included 2 kg of fruit and received neither a hand mixer nor a vegetable chopper.

Q.4	**Writers of detective fiction often include an incompetent detective as a foil for the brilliant investigator-protagonist as they follow different paths in trying to solve the crime. In the individual accounts, the incompetent detective is frequently distracted by the culprit's careful plans, while the competent investigator solves the case after a final confrontation. Analysts of such fiction believe that the authors select this story-telling technique to provide readers with more complexities in the form of misleading clues, while figuring out the crime.** **Which of the following statements most logically follows from the passage above?**
(A)	A detective story is considered well-written if the brilliant investigator is accompanied by an incompetent detective.
(B)	Writers of detective fiction use the contrast of an incompetent detective to mainly show how complex the investigation is.
(C)	Writers of detective fiction never write stories where the incompetent detective solves the case.
(D)	Writers of detective fiction use two investigative accounts to make it difficult for the reader to figure out the outcome.

Q.5	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled (L,M,N,O). Reorder these parts so that the sentence can be read through correctly and select one of the options given.** *P1: Studies of several Sahitya Akademi award winners show that…* L: or encounter professional M: and invariably develop a strained relationship with other literary figures N: they often publish very little O: after winning the prize *P6: …envy and rivalry.* **The correct order is:**
(A)	NOLM
(B)	MLON
(C)	ONML
(D)	MOLN

Q.6 – Q.10 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 6	**Gerrymandering refers to the targeted redrawing of election constituencies so as to benefit a particular party. This is especially important where the electoral system is "first past the post" in each constituency (i.e. one winner is selected in each constituency based on a majority of votes won) and where there is no other provision for proportional representation (as for example in the German system). For a simple illustration of gerrymandering, if a region consists of districts 1, 2, 3, …, 9 with districts 1, 2, 3, 4, 5, 6 favouring party P and 7, 8, 9 favouring party Q, then grouping of districts to constituencies as {1,2,3}, {4,5,6}, {7,8,9} will give two seats to party P and one seat to party Q, whereas the grouping {1,2,7}, {3,4,8}, {5,6,9} will give all three seats to party P, as they will secure a majority in each constituency.** **Which of these statements can be deduced from the above?**
(A)	Gerrymandering implies that constituency boundaries can sometimes be drawn to favour one party over the other.
(B)	Gerrymandering implies that proportional representation is impossible when districts are grouped to form constituencies.
(C)	To counteract gerrymandering political parties should concentrate on districts where they are favoured.
(D)	The grouping of districts to constituencies has very little impact on proportional representation.

Q. 7	**X-ray examination of a recently discovered painting that some authorities judge to be a self-portrait by Michelangelo revealed an under-image of a woman's face. Either Michelangelo or some other artist must have repainted over the first painting that had now been seen on the canvas. Because the woman's face also appears on other paintings by Michelangelo, this painting is determined to indeed be an authentic painting by Michelangelo.** **Which of the following assumptions must be made in reaching the conclusion above?**
(A)	When an already painted canvas of an artist is used, the second artist using that canvas for a new painting is usually influenced by the artistic style of the first.
(B)	Several painted canvases that art historians attribute to Michelangelo contain under-images that appear on at least one other of Michelangelo's paintings.
(C)	Subject or subjects that appear in authenticated paintings of Michelangelo are rather unlikely to show up as under-images on painted canvases not attributed to Michelangelo.
(D)	No painted canvas can be attributed to a particular artist with certainty without an X-ray analysis.

Q. 8	**This season _____ tourists visited Ladakh than last season; however, _____ to be the biggest tourist destination in India. The tourism department explains that the number of tourists to India has _____ relative to previous years, _____ have chosen to visit Ladakh.** **Select the correct sequence of phrases to fill in the blanks to complete the passage above.**
(A)	more / for the first time in many seasons it does not appear / increased / and it seems that most
(B)	fewer / as in the past, it appears / in fact decreased / but it seems that only a small proportion
(C)	fewer / for the first time in many seasons it appears / in fact decreased / but it seems that most
(D)	more / this season as well, it appears / in fact decreased / but it seems that a large proportion

Q. 9	**Reorder the sentences in (1) – (5) such that they form a coherent paragraph.** **(1) In fact, dozens of languages today have only one native speaker still living, and that person's death will mean the extinction of the language: It will no longer be spoken, or known, by anyone on earth.** **(2) Many languages are falling out of use and are being replaced by others that are more widely used in the region or nation, such as English in Australia or Portuguese in Brazil.** **(3) Many other languages are no longer being learned by new generations of children or by new adult speakers.** **(4) An endangered language is one that is likely to become extinct in the near future.** **(5) Unless the trends are reversed, these endangered languages will become extinct by the end of the century.** **(Adapted from *What is an Endangered Language* by A. Woodbury.)**
(A)	2 3 1 4 5
(B)	2 3 5 4 1
(C)	4 1 5 2 3
(D)	4 2 3 1 5

Q. 10	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled L,M,N,O. Reorder these parts so that the sentence can be read correctly and select one of the sequences below.** ***P1: For a little while…*** **L: it was a common belief** **M: right after the treaty of Versailles** **N: that Germany had caused World War I not just by her actions** **O: held by analysts and politicians alike** ***P6: … but by also encouraging Italy in her own aggressions.***
(A)	LMNO
(B)	MLON
(C)	LNMO
(D)	MOLN

Q.11 – Q.15 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 11	**After Florentino Ariza saw her for the first time, his mother knew before he told her because he lost his voice and his appetite and spent the entire night tossing and turning in his bed. But when he began to wait for the answer to his first letter, his anguish was complicated by diaorrhea and green vomit, he became disoriented and suffered from sudden fainting spells, and his mother was terrified because his condition did not resemble the turmoil of love so much as the devastation of cholera. Florentino Ariza's godfather, an old homeopathic practitioner who had been Tránsito Ariza's confidant ever since her days as a secret mistress, was also alarmed at first by the patient's condition, because he had the weak pulse, the hoarse breathing, and the pale perspiration of a dying man. But his examination revealed that he had no fever, no pain anywhere, and that his only concrete feeling was an urgent desire to die. All that was needed was shrewd questioning, first of the patient and then of his mother, to conclude once again that the symptoms of love were the same as those of cholera. He prescribed infusions of linden blossoms to calm the nerves and suggested a change of air so he could find consolation in distance, but Florentino Ariza longed for just the opposite: to enjoy his martyrdom.** **(Adapted from *Love in a Time of Cholera* by Gabriel García Márquez.)** **The author of the passage is implying that:**
(A)	Homeopathy cures love.
(B)	The doctor could not distinguish between love and cholera.
(C)	The doctor could distinguish between love and cholera.
(D)	The symptoms of love and cholera are similar.

Q. 12	**Now, it is clear that the decline of a language must ultimately have political and economic causes: it is not due simply to the bad influence of this or that individual writer. But an effect can become a cause, reinforcing the original cause and producing the same effect in an intensified form, and so on indefinitely. A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the slovenliness of our language makes it easier for us to have foolish thoughts.** **(Adapted from *Politics and the English Language* by George Orwell.)** **The illustration of the man who takes to drink is used to underscore which of the following ideas in the passage above?**
(A)	Political and economic causes control deterioration of language.
(B)	Foolish thoughts are enabled by inaccurate language.
(C)	Effect of an action becomes the cause in a cyclic pattern.
(D)	Drinking enables people to have foolish thoughts and slovenly language.

Q. 13	**It is a pity that Caste even today has its defenders. The defences are many. It is defended on the grounds that the Caste System is but another name for division of labour, and if division of labour is a necessary feature of every civilised society, then it is argued that there is nothing wrong in the Caste System. Now the first thing to be urged against this view is that Caste System is not merely division of labour. It is also a division of labourers. Civilised society undoubtedly needs division of labour but nowhere is division of labour accompanied by this unnatural division of labourers into watertight compartments, grading them one above the other. This division of labour is not spontaneous or based on natural aptitudes. Social and individual efficiency requires us to develop the individual capacity and competency to choose and to make his own career. This principle is violated in so far as it involves an attempt to appoint tasks to individuals in advance, not on the basis of trained original capacities, but on that of birth. Industry undergoes rapid and abrupt changes and an individual must be free to change his occupation and adjust himself to changing circumstances, to gain his livelihood. (Adapted from *Annihilation of Caste* by Dr. B.R. Ambedkar.)** **Which of the following observations substantiate the arguments found in the passage above?**
(A)	Newer generations are unable to change and move away from low-paying family professions, even with changed economic circumstances.
(B)	Sedentary desk jobs are considered to have more value and are in greater demand than those involving manual labour.
(C)	The government's jobs guarantee programme makes low-level management jobs available across all industries to all graduates in the nation.
(D)	A bus driver becomes an app creator and, in the course of one month, reaches one million downloads on Playstore with a four-star rating.

Q. 14	**Imagine that you're in a game show and your host shows you three doors. Behind one of them is a shiny car and behind the others are goats. You pick one of the doors and get what lies within. After making your choice, your host chooses to open one of the other two doors, which inevitably reveals a goat. He then asks you if you want to stick with your original pick, or switch to the other remaining door. What do you do? Most people think that it doesn't make a difference and they tend to stick with their first pick. With two doors left, you should have a 50% chance of selecting the one with the car. If you agree, then you have just fallen afoul of one of the most infamous mathematical problems – the Monty Hall Problem. In reality, you should switch every time which doubles your odds of getting the car. Over the years, the problem has ensnared countless people, but not, it seems, pigeons. The humble pigeon can learn with practice the best tactic for the Monty Hall Problem, switching from their initial choice almost every time. Amazingly, humans do not!** **(Adapted from an article by Ed Yong in *Discover Magazine*.)** **Which of the following conclusions follow from the passage above?**
(A)	Humans calculate the probability of independent, random events such as the opening of a door by dividing the specific outcomes by the total number of possible outcomes.
(B)	Humans find it very difficult to learn to account for the host's hand in making the event non-random and, thereby, changing the outcome of the event.
(C)	Calculating probabilities is difficult for humans but easy for pigeons; which is why the pigeons succeed where the humans fail.
(D)	Humans are governed by reason, but pigeons are irrational and only interested in the outcome and will do whatever it takes to get food.

Q. 15	**The truth is that, despite the recent success of car-makers P and Q, India's automobile industry is in a state not that different from the bad old days of the license-permit quota raj when two carmakers dominated a captive domestic market with substandard vehicles and with very little, if any, research and development, and low to negligible productivity growth. High tariff barriers have certainly induced foreign automobile makers to enter the Indian market by setting up local operations, but this so-called "tariff jumping" foreign investment has produced an industry that is inefficient, operating generally at a low scale, and whose products are not globally competitive either in terms of cost or of innovation. It is noteworthy that the automobile parts industry, which has faced low tariffs (as low as 12.5%) and has been largely deregulated, has been characterised by higher productivity and much better export performance than the completely-built units' sector in the years since liberalisation.** **(Adapted from an Op-Ed in *The Mint*.)** **Which of the following statements can be inferred from the above?**
(A)	Low tariff barriers increase productivity.
(B)	Tariff jumping leads to increases in productivity.
(C)	Deregulation has worked for the automotive parts industry and therefore should be applied to completely-built units.
(D)	P and Q do not invest enough in research and development.

Economics (XH-C1)

Q.1 – Q.20 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**A firm finds that for the product that it produces, its (own) price elasticity of demand is 4. Currently, the firm is selling 2000 units per month at ₹ 5 per unit. If it wishes to increase its sales by 10%, it must**
(A)	lower its price by 4%
(B)	lower its price by 2%
(C)	lower its price by 2.5%
(D)	increase its price by 2%

Q.2	**"Inflation increases the average level of prices". Which of the following is(are) necessarily implied by this statement:** **(i) The prices of commodities exceed income** **(ii) Money supply grows at a higher rate than the real GDP**
(A)	Only (i)
(B)	Only (ii)
(C)	Both (i) and (ii)
(D)	Neither (i) nor (ii)

Q.3	**For the production function $Q = F(K, L) = \sqrt{KL}$ with $P_K = 4$ and $P_L = 2$, find the values of K and L that will minimize the cost of producing 2 units of output.**
(A)	$K = 2\sqrt{3}\,;\ L = 3\sqrt{2}$
(B)	$K = 2\sqrt{2}\,;\ L = \sqrt{2}$
(C)	$K = \sqrt{2}\,;\ L = 2\sqrt{2}$
(D)	$K = 2\,;\ L = 2$

Q.4	**If the sum of price elasticities of imports and exports of a country exceeds unity, then a depreciation of domestic currency will ultimately result in**
(A)	contraction in trade deficit of the country
(B)	widening of trade deficit of the country
(C)	an uncertain net effect on the trade balance
(D)	a huge outflow of foreign portfolio capital from that country

Q.5	**To determine the relationship between y and x_1, Rohit estimated two different OLS models. In the first model, Rohit regressed y on x_1 and x_2 as given below** $y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + u$ (1) **In the second model, Rohit regressed y only on x_1 as given below** $y = \delta_0 + \delta_1 x_1 + v$ (2) **The estimated coefficients of x_1 in the above two models are exactly same. From this observation we can state conclusively that** **(i)** $Cov(x_1, y) = 0$ **(ii)** $\widehat{\beta_2} = 0$ **(iii)** $Cov(x_2, x_1) = 0$ **where $\widehat{\beta_2}$ is the estimated coefficient of x_2 in the equation (1)**
(A)	Only (i) is true
(B)	Only (ii) is true
(C)	Either (ii) or (iii) or both are true
(D)	Neither (ii) nor (iii) is true

Q.6	**XYZ Co. Ltd. is a costless monopoly from suburban Mumbai producing and selling exotic mushrooms. The demand for mushrooms is given by $Q = 700 - 100P$. Do you agree that XYZ will have a maximum possible total revenue of ₹1500?**
(A)	Yes, the maximum possible total revenue is ₹1500
(B)	No, the maximum possible total revenue is less than ₹1500
(C)	No, the maximum possible total revenue is more than ₹1500
(D)	No, the maximum possible total revenue cannot be estimated

Q.7	**In a demand function estimation of a good X, a researcher collected data on various households' consumption of good X (Q_x) for various price levels. The researcher also collected data on household income (M) and household size (S). The estimated regression result is** $$\log Q_x = -0.345(0.111) - 1.543(2.345)\log P_x + 1.123(0.012)\log M + 0.234(0.123)\log S$$ **where P_x is price per unit of X. The values in the parentheses are the *standard errors* of the estimated coefficients. From the estimation one can conclude that**
(A)	the demand for good X is highly elastic
(B)	X is an inferior good
(C)	the estimated price elasticity of demand is not statistically significant
(D)	the estimated price elasticity of good X is 2.345

Q.8	**Consider a duopoly market in which the market demand function is as follows: $P = 40 - Q$. For the two firms producing with identical marginal costs of 10, the Bertrand-Nash equilibrium price will be:**
(A)	40
(B)	10
(C)	20
(D)	30

Q.9	**What would be the consequences for the OLS estimator if heteroscedasticity is present in a regression model but ignored? *Assume that all the other classical assumptions are valid.***
(A)	It will be biased
(B)	It will be inconsistent
(C)	It will be unbiased but inefficient
(D)	It will be unbiased but inconsistent

Q.10	**Walras' Law implies that if there are N markets in the economy, then one only needs to find equilibrium prices in**
(A)	$N-2$ markets
(B)	$N-1$ markets
(C)	$N+1$ markets
(D)	all the N markets

Q.11	**There are many reasons why a poor country may fail to catch up with a rich neighbour. Which of the following is NOT one of these reasons?**
(A)	The poor country may have more rapid population growth
(B)	The rich country may have more human capital
(C)	The poor country may have a higher saving ratio
(D)	The rich country through trade may be more integrated with the world economy

Q.12	**In a two country model, an increase in foreign country's national income generally leads to:**
(A)	increased exports and increased domestic output
(B)	decreased exports but increased domestic output
(C)	decreased exports and decreased domestic output
(D)	increased exports but decreased domestic output

Q.13 **Piku faces a lottery with outcomes of ₹24, ₹12, ₹48 and ₹6 given by the following probability distribution**

Lottery Outcome	₹24	₹12	₹48	₹6
Probability of Outcome	$^2/_6$	$^3/_6$	$^1/_6$	0

She is indifferent between the lottery and receiving ₹28 with certainty. Given the information we can conclude that Piku is a

(A) risk lover

(B) risk averse

(C) risk neutral

(D) hedger

Q.14	**Consider a regression model $y = \beta_0 + \beta x + u$ where the continuous variable y is regressed on a dummy variable x, which takes the value either 1 or 0.** **However, the model was estimated using the instrumental variable (IV) estimation method, wherein the indicator variable z is used as an instrument of x.** **Let** **$\bar{y}_1$ and $\bar{y}_0$ be the sample averages of y when z takes the value 1 and 0, respectively** **$\bar{x}_1$ and $\bar{x}_0$ be the sample averages of x when z takes the value 1 and 0, respectively** **$\bar{y}^1$ and $\bar{y}^0$ be the sample averages of y when x takes the value 1 and 0, respectively** **$\bar{z}^1$ and $\bar{z}^0$ be the sample averages of z when x takes the value 1 and 0, respectively** **Then the estimated coefficient of β_{IV} is**
(A)	$\frac{\bar{y}_1 - \bar{y}_0}{\bar{y}^1 - \bar{y}^0}$
(B)	$\frac{\bar{y}_1 - \bar{x}_1}{\bar{y}_0 - \bar{x}_0}$
(C)	$\frac{\bar{y}_1 - \bar{y}_0}{\bar{x}_1 - \bar{x}_0}$
(D)	$\frac{\bar{y}_1 - \bar{y}_0}{\bar{z}^1 - \bar{z}^0}$

Q.15	**Assuming that external economies exist, when demand increases in a perfectly competitive market, in the long-run, the price of the product**
(A)	rises above the initial price (before the demand increase) and quantity increases
(B)	remains the same as the initial price (before the demand increase) and quantity increases
(C)	falls below the initial price (before the demand increase) and quantity increases
(D)	equals the initial price (before the demand increase) and quantity decreases

Q.16	**Consider an individual who maximizes her expected utility having Bernoulli utility function $u(w) = \alpha - \beta e^{-rw}$; $w > 0$ is wealth. The individual displays _____ relative risk aversion.**
(A)	constant
(B)	increasing
(C)	decreasing
(D)	uncertain

Q.17	**For an open economy, the '*twin deficits*' can be expressed by:** **[where S = Savings; I = Gross Private Investment; G = Government Expenditures; TR = Transfer Payments; TX = Taxes; X = Exports; M = Imports and $NFIA$ = Net Factor Income from Abroad]**
(A)	$S - I = [G - TR - TX] + [X - M]$
(B)	$I - S = [G + TX - TR] + [M - X]$
(C)	$S - I = [G + TR - TX] + [X - M]$
(D)	$I - S = [TX - G + TR] + [NFIA]$

Q.18	**If expectations about inflation are formed as per the rational expectations hypothesis, then the short-run Philips curve will be**
(A)	negatively sloped
(B)	parallel to the vertical axis
(C)	parallel to the horizontal axis
(D)	coinciding with the NAIRU

Q.19	As economic development proceeds, income inequality tends to follow a(n) _____ curve.
(A)	asymptotically convex
(B)	inverted U-shaped
(C)	V-shaped
(D)	S-shaped

Q.20	India has the highest amount of foreign debt in the form of
(A)	Non Resident Indian (NRI) Deposits
(B)	Commercial Borrowings
(C)	Loans taken from the International Monetary Fund
(D)	Loans taken from the Bank of England

Q.21 – Q.25 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 21	**Let A and B be two events with probabilities $P(A) = \frac{3}{4}$ and $P(B) = \frac{1}{3}$; then which of the following options is true?**
(A)	$P(A \cap B) \geq max.[\frac{3}{4}, \frac{1}{3}]$
(B)	$\frac{1}{3} \geq P(A \cap B) \geq \frac{1}{12}$
(C)	$\frac{3}{4} \geq P(A \cap B) \geq \frac{1}{3}$
(D)	$P(A \cap B) \geq min.[\frac{3}{4}, \frac{1}{3}]$

Q. 22	**If $S^2 = \frac{1}{n-1}\sum_{i=1}^{n}(x_i - \bar{x})^2$ is an unbiased and consistent estimator of the population variance, then one can conclude that $S = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(x_i - \bar{x})^2}$ is a(an) _____ estimator of the population standard deviation.**
(A)	unbiased and consistent
(B)	biased and consistent
(C)	unbiased and inconsistent
(D)	biased and inconsistent

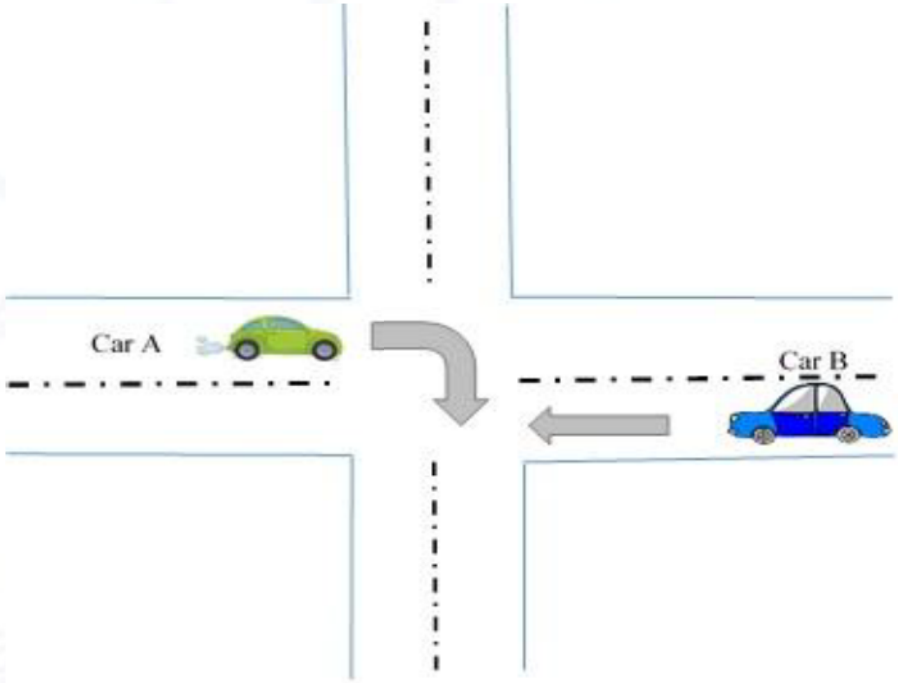
Q. 23	**Consider the following demand–supply model, where** **Demand function:** $P = Q^2 - 12Q + 35$ **Supply function:** $4P - 3Q = 0$ **The *stable* market equilibrium price-quantity combination will be**
(A)	$(P^*, Q^*) = (3, 4)$
(B)	$(P^*, Q^*) = (\frac{105}{16}, \frac{70}{8})$
(C)	$(P^*, Q^*) = (6, 8)$
(D)	$(P^*, Q^*) = (14, 3)$

Q. 24	**Trisha's consumption preference on biryani (x) and pudding (y) is given by the utility function $U(x, y) = x + 4y$. The price per unit of biryani is ₹2 and the price per unit of pudding is ₹3. Trisha's total income is ₹120. However, she faces an extra quantity constraint as she is not allowed to consume biryani more than 60 units and pudding more than 30 units. The optimum quantity of biryani and pudding consumed by Trisha is**
(A)	$(x^*, y^*) = (30, 20)$
(B)	$(x^*, y^*) = (15, 30)$
(C)	$(x^*, y^*) = (30, 15)$
(D)	$(x^*, y^*) = (60, 0)$

Q. 25	**Consider a Cournot type n-firm natural spring oligopoly where the market demand for natural spring water is given by $P(Q) = a - Q,\ a > 0$. The n firms are symmetric. Each firm incurs a bottling cost of $C_i = cq_i,\ c > 0$ and $a > c$. The equilibrium market price will be**
(A)	$\frac{(n+1)}{a} + \frac{n(n+1)}{c}$
(B)	$\frac{a}{(n+1)} + \frac{nc}{(n+1)}$
(C)	$\frac{na}{(n+1)} + \frac{nc}{(n+1)}$
(D)	$\frac{(a-c)}{(n+1)} + \frac{c}{n(n+1)}$

Q.26 – Q.30 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 26	**Goods and Services Tax (GST) is**
(A)	a 'destination based' consumption tax
(B)	an origin based tax assigned to the State of origin where the sale takes place
(C)	an indirect tax
(D)	a modified form of value added tax

Q. 27	**Consider an intersection of roads without any traffic light. Two cars A and B approach an intersection and they want to proceed as indicated by respective arrows in the following diagram. If both proceed without stopping and there is an accident, then A would have a payoff of −100 and B would have a payoff of −500 (since B is responsible for the accident). If one stops, and the other proceeds then the payoff is: −5 and 10, respectively. If both of them stop, then it takes a little longer to reach their respective destinations, they have a payoff of −5 each. Find the Pure Strategy Nash Equilibrium (*PSNE*) of the players (Car drivers).** 
(A)	(Car A, Car B) = (Stop, Stop)
(B)	(Car A, Car B) = (Stop, Proceed)
(C)	(Car A, Car B) = (Proceed, Stop)
(D)	(Car A, Car B) = (Proceed, Proceed)

Q. 28	A Government Security (G-Sec)
(A)	is a tradeable instrument issued by the Central Government
(B)	is a tradeable instrument issued by State Governments
(C)	can have maturity of *only* more than one year
(D)	cannot be considered as 'gilt-edged' instrument

Q. 29	If a country has flexible exchange rate regime with perfect capital mobility, then according to the Mundell-Fleming Model, an expansionary fiscal policy will lead to
(A)	no change in output
(B)	reduced net exports
(C)	appreciation of nominal exchange rate
(D)	expansion of output

Q. 30	The basic tenets of 'Monetarism' are
(A)	acceptance of the 'quantity theory' approach to macroeconomic analysis
(B)	a strict rule based monetary policy
(C)	a monetary approach to the balance-of-payments and exchange-rate theory
(D)	an active stabilization policy through expansionary monetary/fiscal policies

Q.31 – Q.40 Numerical Answer Type (NAT), carry TWO mark each (no negative marks).

Q.31

Two farmers, Rohit and Harish, graze their animals on a common land. They can choose to use this common resource 'lightly' or 'heavily' and the resulting strategic interaction may be described as a simultaneous-move game. The payoff matrix is given below:

		Harish	
		Graze Lightly	Graze Heavily
Rohit	Graze Lightly	40,40	20,55
	Graze Heavily	55,20	30,30

The *minimum value* of the discount rate (where the discount rate is less than one) under *infinite repetition* of the game where the threat strategy ("Graze lightly if the opponent also grazes lightly, whereas, if the opponent renege then always graze heavily in all the future periods"), is a Sub-game Perfect Nash Equilibrium (SPNE) and, both the farmers graze their animals lightly is _____ (*round off to one decimal place*).

Q. 32

Suppose Vijay has purchased a high-speed car worth ₹1000000. During the purchase, an Insurance company has shared the latest available road safety survey, wherein it is mentioned that, due to heavy congestion on roads, there is 40% chance of an accident within the first year of car purchase resulting in loss of the car value by 60%. Vijay's utility function for wealth (W) is given by $U(W) = ln(W)$. If Vijay plans to buy an accident insurance having a premium of 30%, then he will purchase an insurance of ₹ _____ (*round off to the nearest integer*).

Q. 33

Consider the following Table.

Month	Currency in Circulation	Cash with Banks	Currency with the Public	Other Deposits with the RBI	Bankers' Deposits with the RBI	Demand Deposits	Time Deposits
April	2523	98	2425	40	457	1582	12988
May	2611	98	2513	42	468	1565	13112
June	2661	94	2567	39	484	1573	13141

(All values are in Rupees Thousand Crore)

Based on the given data, the average Broad Money Multiplier for the period April - June is _____ (*round off to three decimal places*).

Q. 34

Consider two regression models estimated on a sample of 350 observations.

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + u \quad \text{---------(1)}$$

$$y = \alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + v \quad \text{---------(2)}$$

The R^2 in model (1) is $R_1^2 = 0.3521$ and in model (2) is $R_2^2 = 0.2314$. The value of the test statistic to test the H_0: $\beta_3 = \beta_4 = \beta_5 = 0$ is _____(*round off to three decimal places*).

Q. 35

Consider a competitive market where the demand and supply functions are given by $q^D = 12 - 2P$ and $q^S = 4P$, respectively. The tax rate per unit of output that maximizes the tax yield (revenue) is _____ (*in integer*).

Q. 36

Suppose the demand for a new pharmaceutical drug, on which the manufacturer has a patent monopoly, is given by: $Q = (100 - P)A^{0.5}$; where Q is output, P is the price and A is advertising expenditure. Production cost of the patented drug is given by: $C(Q) = 60Q$. At the firm's optimal choices, the ratio of advertising expenditure to sales revenue for the pharmaceutical product will be 1: ____ (*in integer*).

Q. 37	**Let the rate of inflation in an economy be 4.2%, the growth rate of velocity of money be 2% and, the growth rate of real GDP be 6%. According to Milton Friedman's '*k*' percent rule, the rate of growth of money supply for maintaining stable prices will be _____(*round off to one decimal place*).**

Q. 38	**The long-run cost function of all identical firms in a perfectly competitive industry is given by: $C = 25q - 3q^2 + 1.5q^3$** **The market demand function is: $P = 2500 - 0.25Q$** **The number of firms in the industry at equilibrium is _____(*in integer*).**

Q. 39 **Given below is an inter-industry transactions matrix. If final demand for the *agriculture* sector changes from 150 units to 300 units and for the *manufacturing* sector changes from 120 units to 200 units, then the output of the *agriculture* sector should be _____ units (*in integer*).**

		User		Final Demand	Total Output
		Agriculture	Manufacturing		
Producer	Agriculture	500	350	150	1000
	Manufacturing	320	360	120	800

Q. 40	**Consider that a sample of size 3 is randomly drawn from a population that takes only two values, equally likely: -1 and 1. Let $z = \max.(x_1, x_2, x_3)$ where x_1, x_2, x_3 are the sample observations. The expected value of z, $E(z)$ is _____ (*round off to two decimal places*).**

END OF THE QUESTION PAPER

Graduate Aptitude Test in Engineering (GATE 2021)

Subject/Paper: Humanities and Social Sciences (XH) / Economics (XH-C1)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
1	7	MCQ	GA	D	1	1/3
2	7	MCQ	GA	D	1	1/3
3	7	MCQ	GA	D	1	1/3
4	7	MCQ	GA	D	1	1/3
5	7	MCQ	GA	C	1	1/3
6	7	MCQ	GA	C	2	2/3
7	7	MCQ	GA	A	2	2/3
8	7	MCQ	GA	C	2	2/3
9	7	MCQ	GA	C	2	2/3
10	7	MCQ	GA	D	2	2/3
1	7	MCQ	XH-B1	C	1	1/3
2	7	MCQ	XH-B1	C	1	1/3
3	7	MCQ	XH-B1	C	1	1/3
4	7	MCQ	XH-B1	D	1	1/3
5	7	MCQ	XH-B1	C	1	1/3
6	7	MCQ	XH-B1	A	2	2/3
7	7	MCQ	XH-B1	C	2	2/3
8	7	MCQ	XH-B1	C	2	2/3
9	7	MCQ	XH-B1	D	2	2/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Economics (XH-C1)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
10	7	MCQ	XH-B1	B	2	2/3
11	7	MSQ	XH-B1	C; D	2	0
12	7	MSQ	XH-B1	B; C	2	0
13	7	MSQ	XH-B1	A; B	2	0
14	7	MSQ	XH-B1	A; B	2	0
15	7	MSQ	XH-B1	A; C; D	2	0
1	7	MCQ	XH-C1	C	1	1/3
2	7	MCQ	XH-C1	B	1	1/3
3	7	MCQ	XH-C1	C	1	1/3
4	7	MCQ	XH-C1	A	1	1/3
5	7	MCQ	XH-C1	C	1	1/3
6	7	MCQ	XH-C1	B	1	1/3
7	7	MCQ	XH-C1	C	1	1/3
8	7	MCQ	XH-C1	B	1	1/3
9	7	MCQ	XH-C1	C	1	1/3
10	7	MCQ	XH-C1	B	1	1/3
11	7	MCQ	XH-C1	C	1	1/3
12	7	MCQ	XH-C1	A	1	1/3
13	7	MCQ	XH-C1	A	1	1/3
14	7	MCQ	XH-C1	C	1	1/3
15	7	MCQ	XH-C1	C	1	1/3
16	7	MCQ	XH-C1	B	1	1/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Economics (XH-C1)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
17	7	MCQ	XH-C1	C	1	1/3
18	7	MCQ	XH-C1	B	1	1/3
19	7	MCQ	XH-C1	B	1	1/3
20	7	MCQ	XH-C1	B	1	1/3
21	7	MCQ	XH-C1	B	2	2/3
22	7	MCQ	XH-C1	B	2	2/3
23	7	MCQ	XH-C1	A	2	2/3
24	7	MCQ	XH-C1	B	2	2/3
25	7	MCQ	XH-C1	B	2	2/3
26	7	MSQ	XH-C1	A; C; D	2	0
27	7	MSQ	XH-C1	B; C	2	0
28	7	MSQ	XH-C1	A; B	2	0
29	7	MSQ	XH-C1	A; B; C	2	0
30	7	MSQ	XH-C1	A; B; C	2	0
31	7	NAT	XH-C1	0.6 to 0.6	2	0
32	7	NAT	XH-C1	950000 to 999999	2	0
33	7	NAT	XH-C1	5.300 to 5.600	2	0
34	7	NAT	XH-C1	21.100 to 21.800	2	0
35	7	NAT	XH-C1	3 to 3	2	0
36	7	NAT	XH-C1	8 to 8	2	0
37	7	NAT	XH-C1	4.0 to 4.0	2	0
38	7	NAT	XH-C1	9904 to 9908	2	0

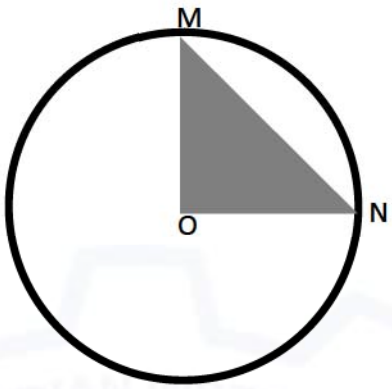
Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
39	7	NAT	XH-C1	1860 to 1880	2	0
40	7	NAT	XH-C1	0.70 to 0.80	2	0

General Aptitude (GA)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Consider the following sentences:** **(i) After his surgery, Raja hardly could walk.** **(ii) After his surgery, Raja could barely walk.** **(iii) After his surgery, Raja barely could walk.** **(iv) After his surgery, Raja could hardly walk.** **Which of the above sentences are grammatically CORRECT?**
(A)	(i) and (ii)
(B)	(i) and (iii)
(C)	(iii) and (iv)
(D)	(ii) and (iv)

Q.2	**Ms. X came out of a building through its front door to find her shadow due to the morning sun falling to her right side with the building to her back. From this, it can be inferred that building is facing _____**
(A)	North
(B)	East
(C)	West
(D)	South

Q.3	 **In the above figure, O is the center of the circle and, M and N lie on the circle.** **The area of the right triangle MON is 50 cm^2.** **What is the area of the circle in cm^2 ?**
(A)	2π
(B)	50π
(C)	75π
(D)	100π

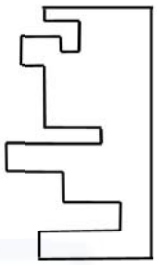
Q.4	**If** $\begin{cases} "\oplus" \text{ means } "-", \\ "\otimes" \text{ means } "\div", \\ "\Delta" \text{ means } "+", \\ "\nabla" \text{ means } "\times", \end{cases}$ **then, the value of the expression** $\Delta\, 2 \oplus 3\, \Delta \left((4 \otimes 2) \nabla\, 4 \right) =$
(A)	-1
(B)	-0.5
(C)	6
(D)	7

Q.5	**"The increased consumption of leafy vegetables in the recent months is a clear indication that the people in the state have begun to lead a healthy lifestyle"** **Which of the following can be logically inferred from the information presented in the above statement?**
(A)	The people in the state did not consume leafy vegetables earlier.
(B)	Consumption of leafy vegetables may not be the only indicator of healthy lifestyle.
(C)	Leading a healthy lifestyle is related to a diet with leafy vegetables.
(D)	The people in the state have increased awareness of health hazards causing by consumption of junk foods.

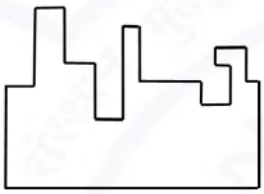
Q. 6 – Q. 10 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: – 2/3).

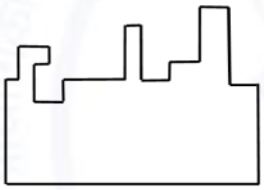
Q.6	**Oxpeckers and rhinos manifest a symbiotic relationship in the wild. The oxpeckers warn the rhinos about approaching poachers, thus possibly saving the lives of the rhinos. Oxpeckers also feed on the parasitic ticks found on rhinos.** **In the symbiotic relationship described above, the primary benefits for oxpeckers and rhinos respectively are,**
(A)	Oxpeckers get a food source, rhinos have no benefit.
(B)	Oxpeckers save their habitat from poachers while the rhinos have no benefit.
(C)	Oxpeckers get a food source, rhinos may be saved from the poachers.
(D)	Oxpeckers save the lives of poachers, rhinos save their own lives.

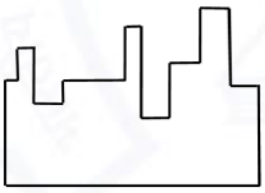
Q.7

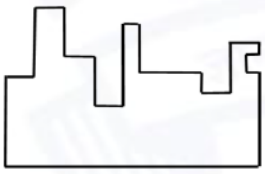


A jigsaw puzzle has 2 pieces. One of the pieces is shown above. Which one of the given options for the missing piece when assembled will form a rectangle? The piece can be moved, rotated or flipped to assemble with the above piece.

(A) 

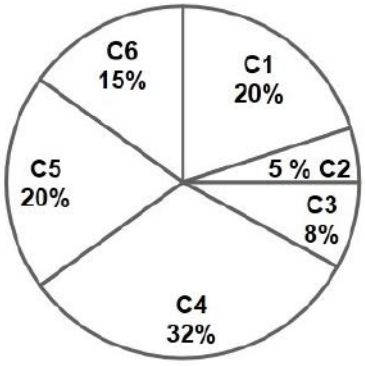
(B) 

(C) 

(D) 

Q.8	**The number of hens, ducks and goats in farm P are 65, 91 and 169, respectively. The total number of hens, ducks and goats in a nearby farm Q is 416. The ratio of hens:ducks:goats in farm Q is 5:14:13. All the hens, ducks and goats are sent from farm Q to farm P.** **The new ratio of hens:ducks:goats in farm P is_____**
(A)	5:7:13
(B)	5:14:13
(C)	10:21:26
(D)	21:10:26

Q.9



Company	Ratio
C1	3:2
C2	1:4
C3	5:3
C4	2:3
C5	9:1
C6	3:4

The distribution of employees at the rank of executives, across different companies C1, C2, ..., C6 is presented in the chart given above. The ratio of executives with a management degree to those without a management degree in each of these companies is provided in the table above. The total number of executives across all companies is 10,000.

The total number of management degree holders among the executives in companies C2 and C5 together is_____.

(A)	225
(B)	600
(C)	1900
(D)	2500

Q. 10	**Five persons P, Q, R, S and T are sitting in a row not necessarily in the same order. Q and R are separated by one person, and S should not be seated adjacent to Q.** **The number of distinct seating arrangements possible is:**
(A)	4
(B)	8
(C)	10
(D)	16

Reasoning and Comprehension (XH-B1)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**According to a recent article in a medical journal, consuming curcumin (from turmeric) significantly lowers the risk of COVID-19. The researchers draw this conclusion from a study that found that people who consumed one or more teaspoons of curcumin extract everyday were half as likely to be diagnosed with the disease as people who did not consume curcumin.** **Which of the following, if true, most weakens the argument in the article?**
(A)	In another study, people who were given a zinc supplement everyday were more than four times less likely to be diagnosed with COVID-19 as those who did not.
(B)	All the participants in this study were from the same state where no other spices or herbs are consumed.
(C)	The participants who consumed curcumin were also more likely to exercise than those who did not.
(D)	In another study, COVID-19 patients who were given curcumin were no more likely to recover than others.

Q.2	**Froot Inc. carried out an internet advertisement campaign for its new beverage CocoLoco. After the campaign, the director of the advertising company conducted a survey and found that the CocoLoco sales were higher than that of TenderJoos a competing product from Joos Inc. The agency concluded that the internet advertising campaign is more effective than advertising through other media.** **Which of the following statements could strengthen the conclusion above by the agency?**
(A)	A ₹2 discount was offered on CocoLoco during the campaign period.
(B)	CocoLoco sales were higher than those of TenderJoos before the internet campaign.
(C)	A newspaper advertisement campaign the previous year did not increase CocoLoco sales.
(D)	During the campaign for CocoLoco, Joos Inc. did not advertise TenderJoos at all.

Q.3	**An e-commerce site offered a deal last month conditional on the customer spending a minimum of ₹500. Any customer who buys 2 kg of fresh fruit will receive a hand mixer and any customer who buys 2 kg of fresh vegetables will receive a vegetable chopper.** **Which of the following is NOT a possible outcome of the above?**
(A)	A customer purchased 3 kg of fresh fruit and did not receive a vegetable chopper.
(B)	A customer purchased items for ₹500 which included 1 kg of vegetables and received a hand mixer.
(C)	A customer purchased items for ₹500 which included 2 kg of vegetables and 1 kg of fruit and received a hand mixer.
(D)	A customer purchased items for ₹300 which included 2 kg of fruit and received neither a hand mixer nor a vegetable chopper.

Q.4	**Writers of detective fiction often include an incompetent detective as a foil for the brilliant investigator-protagonist as they follow different paths in trying to solve the crime. In the individual accounts, the incompetent detective is frequently distracted by the culprit's careful plans, while the competent investigator solves the case after a final confrontation. Analysts of such fiction believe that the authors select this story-telling technique to provide readers with more complexities in the form of misleading clues, while figuring out the crime.** **Which of the following statements most logically follows from the passage above?**
(A)	A detective story is considered well-written if the brilliant investigator is accompanied by an incompetent detective.
(B)	Writers of detective fiction use the contrast of an incompetent detective to mainly show how complex the investigation is.
(C)	Writers of detective fiction never write stories where the incompetent detective solves the case.
(D)	Writers of detective fiction use two investigative accounts to make it difficult for the reader to figure out the outcome.

Q.5	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled (L,M,N,O). Reorder these parts so that the sentence can be read through correctly and select one of the options given.** *P1: Studies of several Sahitya Akademi award winners show that…* L: or encounter professional M: and invariably develop a strained relationship with other literary figures N: they often publish very little O: after winning the prize *P6: …envy and rivalry.* **The correct order is:**
(A)	NOLM
(B)	MLON
(C)	ONML
(D)	MOLN

Q.6 – Q.10 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 6	**Gerrymandering refers to the targeted redrawing of election constituencies so as to benefit a particular party. This is especially important where the electoral system is "first past the post" in each constituency (i.e. one winner is selected in each constituency based on a majority of votes won) and where there is no other provision for proportional representation (as for example in the German system). For a simple illustration of gerrymandering, if a region consists of districts 1, 2, 3, …, 9 with districts 1, 2, 3, 4, 5, 6 favouring party P and 7, 8, 9 favouring party Q, then grouping of districts to constituencies as {1,2,3}, {4,5,6}, {7,8,9} will give two seats to party P and one seat to party Q, whereas the grouping {1,2,7}, {3,4,8}, {5,6,9} will give all three seats to party P, as they will secure a majority in each constituency.** **Which of these statements can be deduced from the above?**
(A)	Gerrymandering implies that constituency boundaries can sometimes be drawn to favour one party over the other.
(B)	Gerrymandering implies that proportional representation is impossible when districts are grouped to form constituencies.
(C)	To counteract gerrymandering political parties should concentrate on districts where they are favoured.
(D)	The grouping of districts to constituencies has very little impact on proportional representation.

Q. 7	**X-ray examination of a recently discovered painting that some authorities judge to be a self-portrait by Michelangelo revealed an under-image of a woman's face. Either Michelangelo or some other artist must have repainted over the first painting that had now been seen on the canvas. Because the woman's face also appears on other paintings by Michelangelo, this painting is determined to indeed be an authentic painting by Michelangelo.** **Which of the following assumptions must be made in reaching the conclusion above?**
(A)	When an already painted canvas of an artist is used, the second artist using that canvas for a new painting is usually influenced by the artistic style of the first.
(B)	Several painted canvases that art historians attribute to Michelangelo contain under-images that appear on at least one other of Michelangelo's paintings.
(C)	Subject or subjects that appear in authenticated paintings of Michelangelo are rather unlikely to show up as under-images on painted canvases not attributed to Michelangelo.
(D)	No painted canvas can be attributed to a particular artist with certainty without an X-ray analysis.

Q. 8	**This season _____ tourists visited Ladakh than last season; however, _____ to be the biggest tourist destination in India. The tourism department explains that the number of tourists to India has _____ relative to previous years, _____ have chosen to visit Ladakh.** **Select the correct sequence of phrases to fill in the blanks to complete the passage above.**
(A)	more / for the first time in many seasons it does not appear / increased / and it seems that most
(B)	fewer / as in the past, it appears / in fact decreased / but it seems that only a small proportion
(C)	fewer / for the first time in many seasons it appears / in fact decreased / but it seems that most
(D)	more / this season as well, it appears / in fact decreased / but it seems that a large proportion

Q. 9	**Reorder the sentences in (1) – (5) such that they form a coherent paragraph.** **(1) In fact, dozens of languages today have only one native speaker still living, and that person's death will mean the extinction of the language: It will no longer be spoken, or known, by anyone on earth.** **(2) Many languages are falling out of use and are being replaced by others that are more widely used in the region or nation, such as English in Australia or Portuguese in Brazil.** **(3) Many other languages are no longer being learned by new generations of children or by new adult speakers.** **(4) An endangered language is one that is likely to become extinct in the near future.** **(5) Unless the trends are reversed, these endangered languages will become extinct by the end of the century.** **(Adapted from *What is an Endangered Language* by A. Woodbury.)**
(A)	2 3 1 4 5
(B)	2 3 5 4 1
(C)	4 1 5 2 3
(D)	4 2 3 1 5

Q. 10	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled L,M,N,O. Reorder these parts so that the sentence can be read correctly and select one of the sequences below.** ***P1: For a little while…*** **L: it was a common belief** **M: right after the treaty of Versailles** **N: that Germany had caused World War I not just by her actions** **O: held by analysts and politicians alike** ***P6: … but by also encouraging Italy in her own aggressions.***
(A)	LMNO
(B)	MLON
(C)	LNMO
(D)	MOLN

Q.11 – Q.15 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 11	**After Florentino Ariza saw her for the first time, his mother knew before he told her because he lost his voice and his appetite and spent the entire night tossing and turning in his bed. But when he began to wait for the answer to his first letter, his anguish was complicated by diaorrhea and green vomit, he became disoriented and suffered from sudden fainting spells, and his mother was terrified because his condition did not resemble the turmoil of love so much as the devastation of cholera. Florentino Ariza's godfather, an old homeopathic practitioner who had been Tránsito Ariza's confidant ever since her days as a secret mistress, was also alarmed at first by the patient's condition, because he had the weak pulse, the hoarse breathing, and the pale perspiration of a dying man. But his examination revealed that he had no fever, no pain anywhere, and that his only concrete feeling was an urgent desire to die. All that was needed was shrewd questioning, first of the patient and then of his mother, to conclude once again that the symptoms of love were the same as those of cholera. He prescribed infusions of linden blossoms to calm the nerves and suggested a change of air so he could find consolation in distance, but Florentino Ariza longed for just the opposite: to enjoy his martyrdom.** **(Adapted from *Love in a Time of Cholera* by Gabriel García Márquez.)** **The author of the passage is implying that:**
(A)	Homeopathy cures love.
(B)	The doctor could not distinguish between love and cholera.
(C)	The doctor could distinguish between love and cholera.
(D)	The symptoms of love and cholera are similar.

Q. 12	**Now, it is clear that the decline of a language must ultimately have political and economic causes: it is not due simply to the bad influence of this or that individual writer. But an effect can become a cause, reinforcing the original cause and producing the same effect in an intensified form, and so on indefinitely. A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the slovenliness of our language makes it easier for us to have foolish thoughts.** **(Adapted from *Politics and the English Language* by George Orwell.)** **The illustration of the man who takes to drink is used to underscore which of the following ideas in the passage above?**
(A)	Political and economic causes control deterioration of language.
(B)	Foolish thoughts are enabled by inaccurate language.
(C)	Effect of an action becomes the cause in a cyclic pattern.
(D)	Drinking enables people to have foolish thoughts and slovenly language.

Q. 13	**It is a pity that Caste even today has its defenders. The defences are many. It is defended on the grounds that the Caste System is but another name for division of labour, and if division of labour is a necessary feature of every civilised society, then it is argued that there is nothing wrong in the Caste System. Now the first thing to be urged against this view is that Caste System is not merely division of labour. It is also a division of labourers. Civilised society undoubtedly needs division of labour but nowhere is division of labour accompanied by this unnatural division of labourers into watertight compartments, grading them one above the other. This division of labour is not spontaneous or based on natural aptitudes. Social and individual efficiency requires us to develop the individual capacity and competency to choose and to make his own career. This principle is violated in so far as it involves an attempt to appoint tasks to individuals in advance, not on the basis of trained original capacities, but on that of birth. Industry undergoes rapid and abrupt changes and an individual must be free to change his occupation and adjust himself to changing circumstances, to gain his livelihood. (Adapted from *Annihilation of Caste* by Dr. B.R. Ambedkar.)** **Which of the following observations substantiate the arguments found in the passage above?**
(A)	Newer generations are unable to change and move away from low-paying family professions, even with changed economic circumstances.
(B)	Sedentary desk jobs are considered to have more value and are in greater demand than those involving manual labour.
(C)	The government's jobs guarantee programme makes low-level management jobs available across all industries to all graduates in the nation.
(D)	A bus driver becomes an app creator and, in the course of one month, reaches one million downloads on Playstore with a four-star rating.

Q. 14	**Imagine that you're in a game show and your host shows you three doors. Behind one of them is a shiny car and behind the others are goats. You pick one of the doors and get what lies within. After making your choice, your host chooses to open one of the other two doors, which inevitably reveals a goat. He then asks you if you want to stick with your original pick, or switch to the other remaining door. What do you do? Most people think that it doesn't make a difference and they tend to stick with their first pick. With two doors left, you should have a 50% chance of selecting the one with the car. If you agree, then you have just fallen afoul of one of the most infamous mathematical problems – the Monty Hall Problem. In reality, you should switch every time which doubles your odds of getting the car. Over the years, the problem has ensnared countless people, but not, it seems, pigeons. The humble pigeon can learn with practice the best tactic for the Monty Hall Problem, switching from their initial choice almost every time. Amazingly, humans do not!** **(Adapted from an article by Ed Yong in *Discover Magazine*.)** **Which of the following conclusions follow from the passage above?**
(A)	Humans calculate the probability of independent, random events such as the opening of a door by dividing the specific outcomes by the total number of possible outcomes.
(B)	Humans find it very difficult to learn to account for the host's hand in making the event non-random and, thereby, changing the outcome of the event.
(C)	Calculating probabilities is difficult for humans but easy for pigeons; which is why the pigeons succeed where the humans fail.
(D)	Humans are governed by reason, but pigeons are irrational and only interested in the outcome and will do whatever it takes to get food.

Q. 15	**The truth is that, despite the recent success of car-makers P and Q, India's automobile industry is in a state not that different from the bad old days of the license-permit quota raj when two carmakers dominated a captive domestic market with substandard vehicles and with very little, if any, research and development, and low to negligible productivity growth. High tariff barriers have certainly induced foreign automobile makers to enter the Indian market by setting up local operations, but this so-called "tariff jumping" foreign investment has produced an industry that is inefficient, operating generally at a low scale, and whose products are not globally competitive either in terms of cost or of innovation. It is noteworthy that the automobile parts industry, which has faced low tariffs (as low as 12.5%) and has been largely deregulated, has been characterised by higher productivity and much better export performance than the completely-built units' sector in the years since liberalisation.** **(Adapted from an Op-Ed in *The Mint*.)** **Which of the following statements can be inferred from the above?**
(A)	Low tariff barriers increase productivity.
(B)	Tariff jumping leads to increases in productivity.
(C)	Deregulation has worked for the automotive parts industry and therefore should be applied to completely-built units.
(D)	P and Q do not invest enough in research and development.

English (XH-C2)

Q.1 – Q.12 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Which of the following texts is a collection of stories that a group of pilgrims tell each other?**
(A)	*The Shepheardes Calender*
(B)	*The Pilgrim's Progress*
(C)	*The Canterbury Tales*
(D)	*Parliament of Fowls*

Q.2	**Which of these is NOT an autobiography?**
(A)	Baby Kamble, *The Prisons We Broke*
(B)	Bama, *Karukku*
(C)	Mulk Raj Anand, *Untouchable*
(D)	Om Prakash Valmiki, *Joothan*

Q.3	**Writers Workshop and Blaft are _____.**
(A)	niche publishing houses in India that focus on particular genres
(B)	little magazines that were set up by small collectives of writers
(C)	digital archives of performance poetry
(D)	well-known reading circles in 1950s' Lucknow

Q.4	**The following lines capture the central trope of a well-known 18th century satirical tract.** **"I have been assured by a very knowing American of my acquaintance in London, that a young healthy child, well nursed, is, at a year old, a most delicious, nourishing, and wholesome food..."** **Identify the tract from the options below.**
(A)	John Stuart Mill, "On Liberty"
(B)	Francis Bacon, "On Death"
(C)	Jonathan Swift, "A Modest Proposal"
(D)	Robert Graves, "Warning to Children"

Q.5	**Whose poem does Cleanth Brooks close-read to arrive at his concept of "the well-wrought urn"?**
(A)	William Wordsworth
(B)	John Keats
(C)	William Blake
(D)	Alfred Tennyson

Q.6	**What is common among Charles Dickens' *A Tale of Two Cities,* Mahasweta Devi's *Mother of 1084,* Shobha Shakti's *Gorilla,* and Chimamanda Ngozi Adichie's *Half of A Yellow Sun*?**
(A)	These novels are set during times of political uprisings.
(B)	These novels are feminist narratives.
(C)	These novels have animals as central characters.
(D)	These novels are picaresque novels.

Q.7	**Henry James' essay "The Art of Fiction", one of the earliest literary critical engagements with the form of the novel, was preceded by his book-length study of _____.**
(A)	William Faulkner
(B)	Nathaniel Hawthorne
(C)	Aphra Behn
(D)	Oscar Wilde

Q.8	**Which of the following is NOT true of Bram Stoker's *Dracula*?**
(A)	It is considered to be a gothic novel.
(B)	It is narrated mostly through letters.
(C)	Transylvania is an important setting in the novel.
(D)	It is a bildungsroman.

Q.9	**"The name is H. Hatterr, and I am continuing . . .** **Biologically, I am fifty-five of the species."** **The lines above are from an early Indian English novel. Who is the author of this novel?**
(A)	G. V. Desani
(B)	Allan Sealy
(C)	Toru Dutt
(D)	Ruth Prawer Jhabvala

Q.10	**In *Areopagitica*, John Milton made an impassioned appeal _____.**
(A)	against censorship and for freedom of expression
(B)	for legal reform allowing divorce based on spousal incompatibility
(C)	for freedom of the church from royal control
(D)	against slavery in the New World

Q.11	**The first institution to teach English Literature in the world is - _____.**
(A)	The University of Oxford, Oxford
(B)	Royal Polytechnic Institution, London
(C)	The College of William and Mary, Williamsburg, Virginia
(D)	Fort William College, Calcutta

Q.12	**Which one of the following texts propounds the aesthetic theory of 'rasa'?**
(A)	*Natya Shastra*
(B)	*Abhigyana Shakuntalam*
(C)	*Manu Smriti*
(D)	*Charaka Samhita*

Q.13 – Q.20 Multiple Select Question (MSQ), carry ONE mark each (no negative marks).

Q.13	**Which of the following novels is/are predominantly set in Bombay?**
(A)	Kiran Nagarkar, *Ravan and Eddie*
(B)	Rohinton Mistry, *A Fine Balance*
(C)	Salman Rushdie, *Midnight's Children*
(D)	Aravind Adiga, *The White Tiger*

Q.14	**Which of the following critically rewrite/s canonical English novels?**
(A)	J. M. Coetzee, *Foe*
(B)	Jean Rhys, *Wide Sargasso Sea*
(C)	Bapsi Sidhwa, *Ice-Candy-Man*
(D)	Ben Okri, *The Famished Road*

Q.15	**Of the following, which novelist/s combine/s feminist concerns with magic realism?**
(A)	Virginia Woolf
(B)	Toni Morrison
(C)	Kamala Markandaya
(D)	Svetlana Alexievich

Q.16	**In which of these Shakespearean plays do important female characters disguise themselves as men?**
(A)	*A Midsummer Night's Dream*
(B)	*The Merchant of Venice*
(C)	*As You Like It*
(D)	*Twelfth Night*

Q.17	**The following words in English are clustered according to their origin. Choose the cluster/s that contain/s words drawn from languages of the Indian subcontinent.**
(A)	Kedgeree, Punch, Mulligatawny, Candy
(B)	Shampoo, Chintz, Calico, Juggernaut
(C)	Philistine, Echo, Panic, Galaxy
(D)	Anaconda, Cheroot, Bungalow, Dungaree

Q. 18	**Which of the following is/are true of Charlotte Brontë's *Jane Eyre*?**
(A)	It was published under the pen-name Currer Bell.
(B)	It was published originally in three volumes.
(C)	It has been read as a critique of heterosexual romance, marriage, and domesticity.
(D)	The story is told from the point of view of a "madwoman in the attic".

Q. 19	**Which of the following is an example/are examples of noir, popular both as fiction and film?**
(A)	*The Big Sleep*
(B)	*Murder on the Orient Express*
(C)	*The Maltese Falcon*
(D)	*Fargo*

Q. 20	**Which of the following use/s the device of a 'story within a story' with multiple narrators?**
(A)	*A Portrait of an Artist as a Young Man*
(B)	*Wuthering Heights*
(C)	*Emma*
(D)	*Heart of Darkness*

Q.21 – Q.30 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

<table>
<tr><td>Q. 21</td><td>Match the following plays with genre or style:
<table>
<tr><td>i</td><td>Hayavadana</td><td>a</td><td>Political satire</td></tr>
<tr><td>ii</td><td>Harvest</td><td>b</td><td>Modernist play reworking the folk</td></tr>
<tr><td>iii</td><td>Ghashiram Kotwal</td><td>c</td><td>Theatre of the absurd</td></tr>
<tr><td>iv</td><td>Evam Indrajit</td><td>d</td><td>Futuristic dystopia</td></tr>
</table></td></tr>
<tr><td>(A)</td><td>i-b, ii-d, iii-a, iv-c</td></tr>
<tr><td>(B)</td><td>i-a, ii-c, iii-b, iv-d</td></tr>
<tr><td>(C)</td><td>i-d, ii-b, iii-c, iv-a</td></tr>
<tr><td>(D)</td><td>i-c, ii-d, iii-a, iv-b</td></tr>
</table>

Q. 22	*Study the three examples below:* **i) In George Orwell's novel *1984*, the interior ministry of the totalitarian state is called the 'Ministry of Love'.** ***ii) In the genre of horror fiction, the reader knows that the killer is hiding in the closet, but the protagonist does not.*** ***iii) "But Brutus says he was ambitious; And Brutus is an honourable man." (William Shakespeare, Julius Caesar)*** ***These are instances of _____.***
(A)	metaphor
(B)	irony
(C)	parody
(D)	synecdoche

Q. 23	**An "implied reader" is a _____.**
(A)	reader who participates in creating the meaning of a text
(B)	reader who anticipates authorial intention
(C)	hypothetical reader, not the actual reader, that the text addresses
(D)	reader who reads critically against the grain of the text

Q. 24	**Read the following:** **"[…] a text is made of multiple writings, drawn from many cultures and entering into mutual relations of dialogue, parody, contestation, but there is one place where this multiplicity is focused and that place is the reader, not, as was hitherto said, the author. […] the birth of the reader must be at the cost of the death of the Author."** **Which theoretical school does the excerpt best represent?**
(A)	Reader-response criticism
(B)	Formalism
(C)	Post-structuralism
(D)	New Criticism

Q. 25	**Literary criticism considers which one of the following texts as offering the strongest support for mimetic theories of art?**
(A)	Plato, *Republic*
(B)	Longinus, *On Sublimity*
(C)	Horace, *The Art of Poetry*
(D)	Aristotle, *Poetics*

Q. 26	**The following is a passage about O. V. Vijayan's *The Legends of Khasak*:** **The novel is set in a remote village, in the middle of the 20th century. The narrative is replete with images of the vast ecosystem of the living and the non-living, a land potent with dreams and legends.** **The analysis presented in this description is congruent with which one of the following concepts proposed by Mikhail Bakhtin?**
(A)	Chronotope
(B)	Dialogism
(C)	Carnivalesque
(D)	Polyphony

Q. 27	**Which one of the following did NOT happen in 1919, the year the First World War ended?**
(A)	The Progressive Writers' Association was formed in India.
(B)	The radical political activist and philosopher Rosa Luxemborg was murdered.
(C)	Rabindranath Tagore renounced his knighthood.
(D)	James Joyce's *Ulysses* was being serialised.

Q. 28	
	Assertion P: Dalit narratives tend to be read single-dimensionally as evoking the reader's pity at the protagonist's caste humiliation, **or** as telling the story of heroic protest against discrimination, or as a description of the protagonist's rise from misery to triumph. **Assertion Q**: There is a tendency to keep the Other in the space of difference, as perpetually exotic. **In the context of the assertions above, which one of the following statements is true?**
(A)	P and Q are contradictory assertions.
(B)	P and Q are compatible assertions.
(C)	P and Q cannot be read in relation to each other.
(D)	Q is the only explanation for P.

Q. 29	
	Some of the recent novels of the Brazilian writer Paulo Coelho were published in multiple languages simultaneously, or immediately after the Portuguese edition. **Which of the following is this phenomenon NOT an evidence of?**
(A)	Rebecca Walkowitz's argument that novels are often 'born translated'
(B)	The globality of marketplace for books
(C)	Paulo Coelho's expanding popularity
(D)	The 'nation' as the sole frame for understanding literature

Q. 30

Match the authors in the first column with their respective translators in the second column.

i	**Madhavikutty**	**a**	**A. K. Ramanujan**
ii	**U. R. Ananthamurthy**	**b**	**Dilip Chitre**
iii	**Indira Goswami**	**c**	**Kamala Das**
iv	**Namdeo Dhasal**	**d**	**Aruni Kashyap**

(A) i-d, ii-c, iii-b, iv-a

(B) i-c, ii-b, iii-d, iv-a

(C) i-c, ii-a, iii-d, iv-b

(D) i-b, ii-a, iii-d, iv-c

Q.31 – Q.40 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 31	**Which of the following is/are true about Gilles Deleuze and Felix Guattari's conception of 'minor literature'?**
(A)	The discussion focuses on the writing of Franz Kafka.
(B)	Minor literature is literature that a minority produces in a major language.
(C)	Minor literature is a form of popular literature.
(D)	Minor literature is literature in a minor language.

Q. 32	**Quote P:** **"O wild West Wind, thou breath of Autumn's being,** **Thou, from whose unseen presence the leaves dead** **Are driven, like ghosts from an enchanter fleeing,** **Yellow, and black, and pale, and hectic red,** **Pestilence-stricken multitudes: O thou,** **Who chariotest to their dark wintry bed** **[…]"** **Quote Q:** **"O golden-tongued Romance with serene lute!** **Fair plumed Siren! Queen of far away!"** **Which of the following is/are correct?**
(A)	Both quotes are examples of apostrophe.
(B)	Both quotes use alliteration.
(C)	Both quotes are examples of aporia.
(D)	Both quotes are examples of personification.

Q. 33	**Prolepsis is the representation or assumption in the present, of a future act or development.** **Which of the following is/are instance/s of prolepsis?**
(A)	"Six decades later she would describe how at the age of thirteen she had written her way through a whole history of literature." Ian McEwan, *Atonement*.
(B)	"Horatio, I am dead." William Shakespeare, *Hamlet*.
(C)	"In my younger and more vulnerable years my father gave me some advice that I've been turning over in my head ever since." F. Scott Fitzgerald, *The Great Gatsby*.
(D)	"Many years later, as he faced the firing squad, Colonel Aureliano Buendía was to remember that distant afternoon when his father took him to discover ice." Gabriel García Márquez, *One Hundred Years of Solitude*.

Q. 34	**Gayatri Chakravorty Spivak's essay "Can the Subaltern Speak?" proposes which of the following?**
(A)	The voice of the subaltern is appropriated by 'intellectuals' desiring to speak for the subaltern.
(B)	It is easy to confuse writing about the subaltern with the subaltern speaking for herself.
(C)	All women are subaltern and therefore cannot truly speak.
(D)	The 'intellectuals' speaking for the subaltern and the subaltern speaking for herself can be equivalent.

Q. 35	**Which of the following is/are example/s of 'metafiction'?**
(A)	Each chapter in a novel is narrated by a different character.
(B)	The reader is a character in the novel who interrupts the story because he realises that he is reading an incomplete text.
(C)	The narrator of the novel travels into the wild and encounters a man who embodies the horrors of colonial power. The latter then proceeds to tell his story.
(D)	A character in a novel encounters a shabbily dressed man. Soon, this man lets us, the readers, know that he is the author of the novel and is contemplating the future of this character.

Q. 36	**Choose one or more options from below.** **In contrast to traditional Historicism, New Historicism _____.**
(A)	rejects the idea that history is an objective narrative of events unfolding in linear time
(B)	does not make strict distinctions between literary and non-literary texts
(C)	takes a particular interest in the textualisation of the material world
(D)	takes history only to be a background and context for understanding literary texts

Q. 37	**"The feminist insistence that 'the personal is political' has had profound effects on other genres. Feminist academics in several disciplines now insist that the subjective element must not be left out of the practice of research methods, such as the interview, or of theories of knowledge production (Skeggs 1995; Maynard and Purvis 1994; Reinharz 1992)."** **From the passage above, which of the following can be correctly concluded?**
(A)	The passage argues that interviews and theories of knowledge production are not examples of research methods.
(B)	'The personal is political' is a feminist argument.
(C)	Skeggs, Maynard, Purvis, and Reinharz are names of feminist scholars.
(D)	The passage argues that the subjective can legitimately be part of research methods.

Q. 38	**"ARE YOU DARK? OR VERY LIGHT?" Revelation came.** **"You mean—like plain or milk chocolate?"** **Her assent was clinical, crushing in its light** **Impersonality. Rapidly, wave-length adjusted,** **I chose. "West African sepia"—and as afterthought,** **"Down in my passport." Silence for spectroscopic** **Flight of fancy, till truthfulness clanged her accent** **Hard on the mouthpiece. "WHAT'S THAT?" conceding** **"DON'T KNOW WHAT THAT IS." "Like brunette."** **"THAT'S DARK, ISN'T IT?" "Not altogether.** **Facially, I am brunette, but, madam, you should see** **The rest of me. Palm of my hand, soles of my feet** **Are a peroxide blond. Friction, caused—** **Foolishly, madam—by sitting down, has turned** **My bottom raven black—One moment, madam!"—sensing** **Her receiver rearing on the thunderclap** **About my ears—"Madam," I pleaded, "wouldn't you rather** **See for yourself?"** **In Wole Soyinka's "Telephone Conversation", the man seeking to rent a room responds to the white landlady's racism by _____.**
(A)	describing black as a spectrum as opposed to a single colour
(B)	being the subservient Black man, who concedes to her definition of race
(C)	locating race squarely in her ways of seeing
(D)	fragmenting the racialised body

Q. 39	**In Arthur Conan Doyle's writings featuring Sherlock Holmes, as is the case with much of 19th century British fiction, colonialism appears as objects, events, animals, places, fears and desires. Which of the following support/s this claim?**
(A)	Opium dens in London, frequented by Holmes
(B)	The war in which Watson served as a doctor
(C)	The hound in *The Hound of the Baskervilles*
(D)	The pet animals in "The Adventure of the Speckled Band"

Q. 40	**"My Papa's Waltz" by Theodore Roethke** **The whiskey on your breath** **Could make a small boy dizzy;** **But I hung on like death:** **Such waltzing was not easy.** **We romped until the pans** **Slid from the kitchen shelf;** **My mother's countenance** **Could not unfrown itself.** **The hand that held my wrist** **Was battered on one knuckle;** **At every step you missed** **My right ear scraped a buckle.** **You beat time on my head** **With a palm caked hard by dirt,** **Then waltzed me off to bed** **Still clinging to your shirt.** **Which of the following can be observed about this poem?**
(A)	The form of the poem is that of the Petrarchan sonnet.
(B)	There is a simile in the first stanza.
(C)	Images in the last two stanzas suggest that the father is a working-class man.
(D)	The poem is in rhyming couplets.

END OF THE QUESTION PAPER

Graduate Aptitude Test in Engineering (GATE 2021)

Subject/Paper: Humanities and Social Sciences (XH) / English (XH-C2)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
1	7	MCQ	GA	D	1	1/3
2	7	MCQ	GA	D	1	1/3
3	7	MCQ	GA	D	1	1/3
4	7	MCQ	GA	D	1	1/3
5	7	MCQ	GA	C	1	1/3
6	7	MCQ	GA	C	2	2/3
7	7	MCQ	GA	A	2	2/3
8	7	MCQ	GA	C	2	2/3
9	7	MCQ	GA	C	2	2/3
10	7	MCQ	GA	D	2	2/3
1	7	MCQ	XH-B1	C	1	1/3
2	7	MCQ	XH-B1	C	1	1/3
3	7	MCQ	XH-B1	C	1	1/3
4	7	MCQ	XH-B1	D	1	1/3
5	7	MCQ	XH-B1	C	1	1/3
6	7	MCQ	XH-B1	A	2	2/3
7	7	MCQ	XH-B1	C	2	2/3
8	7	MCQ	XH-B1	C	2	2/3
9	7	MCQ	XH-B1	D	2	2/3
10	7	MCQ	XH-B1	B	2	2/3
11	7	MSQ	XH-B1	C; D	2	0
12	7	MSQ	XH-B1	B; C	2	0

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / English (XH-C2)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
13	7	MSQ	XH-B1	A; B	2	0
14	7	MSQ	XH-B1	A; B	2	0
15	7	MSQ	XH-B1	A; C; D	2	0
1	7	MCQ	XH-C2	C	1	1/3
2	7	MCQ	XH-C2	C	1	1/3
3	7	MCQ	XH-C2	A	1	1/3
4	7	MCQ	XH-C2	C	1	1/3
5	7	MCQ	XH-C2	B	1	1/3
6	7	MCQ	XH-C2	A	1	1/3
7	7	MCQ	XH-C2	B	1	1/3
8	7	MCQ	XH-C2	D	1	1/3
9	7	MCQ	XH-C2	A	1	1/3
10	7	MCQ	XH-C2	A	1	1/3
11	7	MCQ	XH-C2	MTA	1	1/3
12	7	MCQ	XH-C2	A	1	1/3
13	7	MSQ	XH-C2	A; B; C	1	0
14	7	MSQ	XH-C2	A; B	1	0
15	7	MSQ	XH-C2	B	1	0
16	7	MSQ	XH-C2	B; C; D	1	0
17	7	MSQ	XH-C2	A; B; D	1	0
18	7	MSQ	XH-C2	A; B; C	1	0
19	7	MSQ	XH-C2	A; C	1	0
20	7	MSQ	XH-C2	B; D	1	0
21	7	MCQ	XH-C2	A	2	2/3
22	7	MCQ	XH-C2	B	2	2/3
23	7	MCQ	XH-C2	C	2	2/3
24	7	MCQ	XH-C2	C	2	2/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / English (XH-C2)

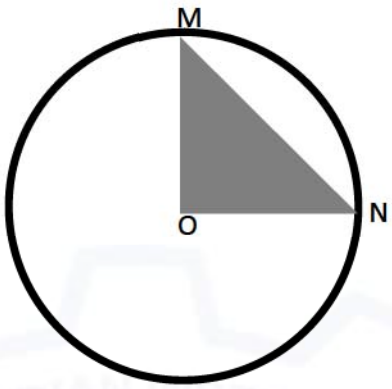
Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
25	7	MCQ	XH-C2	D	2	2/3
26	7	MCQ	XH-C2	A	2	2/3
27	7	MCQ	XH-C2	A	2	2/3
28	7	MCQ	XH-C2	B	2	2/3
29	7	MCQ	XH-C2	D	2	2/3
30	7	MCQ	XH-C2	C	2	2/3
31	7	MSQ	XH-C2	A; B	2	0
32	7	MSQ	XH-C2	A; D	2	0
33	7	MSQ	XH-C2	A; B; D	2	0
34	7	MSQ	XH-C2	A; B	2	0
35	7	MSQ	XH-C2	B; D	2	0
36	7	MSQ	XH-C2	A; B; C	2	0
37	7	MSQ	XH-C2	B; C; D	2	0
38	7	MSQ	XH-C2	A; C; D	2	0
39	7	MSQ	XH-C2	A; B; D	2	0
40	7	MSQ	XH-C2	B; C	2	0
MTA means Marks to All						

General Aptitude (GA)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Consider the following sentences:** **(i) After his surgery, Raja hardly could walk.** **(ii) After his surgery, Raja could barely walk.** **(iii) After his surgery, Raja barely could walk.** **(iv) After his surgery, Raja could hardly walk.** **Which of the above sentences are grammatically CORRECT?**
(A)	(i) and (ii)
(B)	(i) and (iii)
(C)	(iii) and (iv)
(D)	(ii) and (iv)

Q.2	**Ms. X came out of a building through its front door to find her shadow due to the morning sun falling to her right side with the building to her back. From this, it can be inferred that building is facing _____**
(A)	North
(B)	East
(C)	West
(D)	South

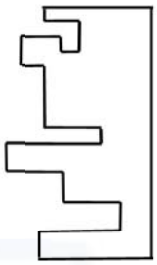
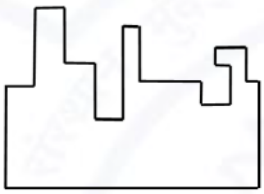
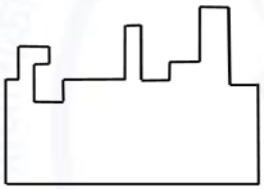
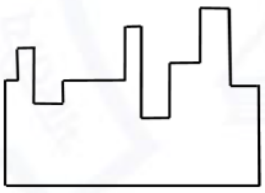
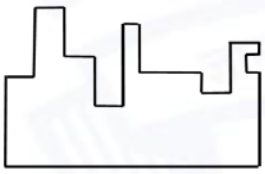
Q.3	 **In the above figure, O is the center of the circle and, M and N lie on the circle.** **The area of the right triangle MON is 50 cm^2.** **What is the area of the circle in cm^2 ?**
(A)	2π
(B)	50π
(C)	75π
(D)	100π

Q.4	**If** $\begin{cases} "\oplus" \text{ means } "-", \\ "\otimes" \text{ means } "\div", \\ "\Delta" \text{ means } "+", \\ "\nabla" \text{ means } "\times", \end{cases}$ **then, the value of the expression** $\Delta\, 2 \oplus 3\, \Delta \left((4 \otimes 2) \nabla\, 4 \right) =$
(A)	-1
(B)	-0.5
(C)	6
(D)	7

Q.5	**"The increased consumption of leafy vegetables in the recent months is a clear indication that the people in the state have begun to lead a healthy lifestyle"** **Which of the following can be logically inferred from the information presented in the above statement?**
(A)	The people in the state did not consume leafy vegetables earlier.
(B)	Consumption of leafy vegetables may not be the only indicator of healthy lifestyle.
(C)	Leading a healthy lifestyle is related to a diet with leafy vegetables.
(D)	The people in the state have increased awareness of health hazards causing by consumption of junk foods.

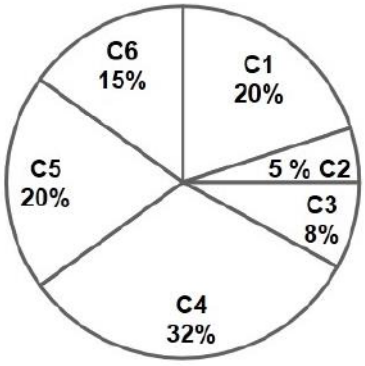
Q. 6 – Q. 10 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: – 2/3).

Q.6	**Oxpeckers and rhinos manifest a symbiotic relationship in the wild. The oxpeckers warn the rhinos about approaching poachers, thus possibly saving the lives of the rhinos. Oxpeckers also feed on the parasitic ticks found on rhinos.** **In the symbiotic relationship described above, the primary benefits for oxpeckers and rhinos respectively are,**
(A)	Oxpeckers get a food source, rhinos have no benefit.
(B)	Oxpeckers save their habitat from poachers while the rhinos have no benefit.
(C)	Oxpeckers get a food source, rhinos may be saved from the poachers.
(D)	Oxpeckers save the lives of poachers, rhinos save their own lives.

Q.7	 **A jigsaw puzzle has 2 pieces. One of the pieces is shown above. Which one of the given options for the missing piece when assembled will form a rectangle? The piece can be moved, rotated or flipped to assemble with the above piece.**
(A)	
(B)	
(C)	
(D)	

Q.8	**The number of hens, ducks and goats in farm P are 65, 91 and 169, respectively. The total number of hens, ducks and goats in a nearby farm Q is 416. The ratio of hens:ducks:goats in farm Q is 5:14:13. All the hens, ducks and goats are sent from farm Q to farm P.** **The new ratio of hens:ducks:goats in farm P is_____**
(A)	5:7:13
(B)	5:14:13
(C)	10:21:26
(D)	21:10:26

Q.9



Company	Ratio
C1	3:2
C2	1:4
C3	5:3
C4	2:3
C5	9:1
C6	3:4

The distribution of employees at the rank of executives, across different companies C1, C2, ..., C6 is presented in the chart given above. The ratio of executives with a management degree to those without a management degree in each of these companies is provided in the table above. The total number of executives across all companies is 10,000.

The total number of management degree holders among the executives in companies C2 and C5 together is_____.

(A)	225
(B)	600
(C)	1900
(D)	2500

Q. 10	**Five persons P, Q, R, S and T are sitting in a row not necessarily in the same order. Q and R are separated by one person, and S should not be seated adjacent to Q.** **The number of distinct seating arrangements possible is:**
(A)	4
(B)	8
(C)	10
(D)	16

Reasoning and Comprehension (XH-B1)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**According to a recent article in a medical journal, consuming curcumin (from turmeric) significantly lowers the risk of COVID-19. The researchers draw this conclusion from a study that found that people who consumed one or more teaspoons of curcumin extract everyday were half as likely to be diagnosed with the disease as people who did not consume curcumin.** **Which of the following, if true, most weakens the argument in the article?**
(A)	In another study, people who were given a zinc supplement everyday were more than four times less likely to be diagnosed with COVID-19 as those who did not.
(B)	All the participants in this study were from the same state where no other spices or herbs are consumed.
(C)	The participants who consumed curcumin were also more likely to exercise than those who did not.
(D)	In another study, COVID-19 patients who were given curcumin were no more likely to recover than others.

Q.2	**Froot Inc. carried out an internet advertisement campaign for its new beverage CocoLoco. After the campaign, the director of the advertising company conducted a survey and found that the CocoLoco sales were higher than that of TenderJoos a competing product from Joos Inc. The agency concluded that the internet advertising campaign is more effective than advertising through other media.** **Which of the following statements could strengthen the conclusion above by the agency?**
(A)	A ₹2 discount was offered on CocoLoco during the campaign period.
(B)	CocoLoco sales were higher than those of TenderJoos before the internet campaign.
(C)	A newspaper advertisement campaign the previous year did not increase CocoLoco sales.
(D)	During the campaign for CocoLoco, Joos Inc. did not advertise TenderJoos at all.

Q.3	**An e-commerce site offered a deal last month conditional on the customer spending a minimum of ₹500. Any customer who buys 2 kg of fresh fruit will receive a hand mixer and any customer who buys 2 kg of fresh vegetables will receive a vegetable chopper.** **Which of the following is NOT a possible outcome of the above?**
(A)	A customer purchased 3 kg of fresh fruit and did not receive a vegetable chopper.
(B)	A customer purchased items for ₹500 which included 1 kg of vegetables and received a hand mixer.
(C)	A customer purchased items for ₹500 which included 2 kg of vegetables and 1 kg of fruit and received a hand mixer.
(D)	A customer purchased items for ₹300 which included 2 kg of fruit and received neither a hand mixer nor a vegetable chopper.

Q.4	**Writers of detective fiction often include an incompetent detective as a foil for the brilliant investigator-protagonist as they follow different paths in trying to solve the crime. In the individual accounts, the incompetent detective is frequently distracted by the culprit's careful plans, while the competent investigator solves the case after a final confrontation. Analysts of such fiction believe that the authors select this story-telling technique to provide readers with more complexities in the form of misleading clues, while figuring out the crime.** **Which of the following statements most logically follows from the passage above?**
(A)	A detective story is considered well-written if the brilliant investigator is accompanied by an incompetent detective.
(B)	Writers of detective fiction use the contrast of an incompetent detective to mainly show how complex the investigation is.
(C)	Writers of detective fiction never write stories where the incompetent detective solves the case.
(D)	Writers of detective fiction use two investigative accounts to make it difficult for the reader to figure out the outcome.

Q.5	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled (L,M,N,O). Reorder these parts so that the sentence can be read through correctly and select one of the options given.** *P1: Studies of several Sahitya Akademi award winners show that…* L: or encounter professional M: and invariably develop a strained relationship with other literary figures N: they often publish very little O: after winning the prize *P6: …envy and rivalry.* **The correct order is:**
(A)	NOLM
(B)	MLON
(C)	ONML
(D)	MOLN

Q.6 – Q.10 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 6	**Gerrymandering refers to the targeted redrawing of election constituencies so as to benefit a particular party. This is especially important where the electoral system is "first past the post" in each constituency (i.e. one winner is selected in each constituency based on a majority of votes won) and where there is no other provision for proportional representation (as for example in the German system). For a simple illustration of gerrymandering, if a region consists of districts 1, 2, 3, …, 9 with districts 1, 2, 3, 4, 5, 6 favouring party P and 7, 8, 9 favouring party Q, then grouping of districts to constituencies as {1,2,3}, {4,5,6}, {7,8,9} will give two seats to party P and one seat to party Q, whereas the grouping {1,2,7}, {3,4,8}, {5,6,9} will give all three seats to party P, as they will secure a majority in each constituency.** **Which of these statements can be deduced from the above?**
(A)	Gerrymandering implies that constituency boundaries can sometimes be drawn to favour one party over the other.
(B)	Gerrymandering implies that proportional representation is impossible when districts are grouped to form constituencies.
(C)	To counteract gerrymandering political parties should concentrate on districts where they are favoured.
(D)	The grouping of districts to constituencies has very little impact on proportional representation.

Q. 7	**X-ray examination of a recently discovered painting that some authorities judge to be a self-portrait by Michelangelo revealed an under-image of a woman's face. Either Michelangelo or some other artist must have repainted over the first painting that had now been seen on the canvas. Because the woman's face also appears on other paintings by Michelangelo, this painting is determined to indeed be an authentic painting by Michelangelo.** **Which of the following assumptions must be made in reaching the conclusion above?**
(A)	When an already painted canvas of an artist is used, the second artist using that canvas for a new painting is usually influenced by the artistic style of the first.
(B)	Several painted canvases that art historians attribute to Michelangelo contain under-images that appear on at least one other of Michelangelo's paintings.
(C)	Subject or subjects that appear in authenticated paintings of Michelangelo are rather unlikely to show up as under-images on painted canvases not attributed to Michelangelo.
(D)	No painted canvas can be attributed to a particular artist with certainty without an X-ray analysis.

Q. 8	**This season _____ tourists visited Ladakh than last season; however, _____ to be the biggest tourist destination in India. The tourism department explains that the number of tourists to India has _____ relative to previous years, _____ have chosen to visit Ladakh.** **Select the correct sequence of phrases to fill in the blanks to complete the passage above.**
(A)	more / for the first time in many seasons it does not appear / increased / and it seems that most
(B)	fewer / as in the past, it appears / in fact decreased / but it seems that only a small proportion
(C)	fewer / for the first time in many seasons it appears / in fact decreased / but it seems that most
(D)	more / this season as well, it appears / in fact decreased / but it seems that a large proportion

Q. 9	**Reorder the sentences in (1) – (5) such that they form a coherent paragraph.** **(1) In fact, dozens of languages today have only one native speaker still living, and that person's death will mean the extinction of the language: It will no longer be spoken, or known, by anyone on earth.** **(2) Many languages are falling out of use and are being replaced by others that are more widely used in the region or nation, such as English in Australia or Portuguese in Brazil.** **(3) Many other languages are no longer being learned by new generations of children or by new adult speakers.** **(4) An endangered language is one that is likely to become extinct in the near future.** **(5) Unless the trends are reversed, these endangered languages will become extinct by the end of the century.** **(Adapted from *What is an Endangered Language* by A. Woodbury.)**
(A)	2 3 1 4 5
(B)	2 3 5 4 1
(C)	4 1 5 2 3
(D)	4 2 3 1 5

Q. 10	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled L,M,N,O. Reorder these parts so that the sentence can be read correctly and select one of the sequences below.** ***P1: For a little while…*** **L: it was a common belief** **M: right after the treaty of Versailles** **N: that Germany had caused World War I not just by her actions** **O: held by analysts and politicians alike** ***P6: … but by also encouraging Italy in her own aggressions.***
(A)	LMNO
(B)	MLON
(C)	LNMO
(D)	MOLN

Q.11 – Q.15 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 11	**After Florentino Ariza saw her for the first time, his mother knew before he told her because he lost his voice and his appetite and spent the entire night tossing and turning in his bed. But when he began to wait for the answer to his first letter, his anguish was complicated by diaorrhea and green vomit, he became disoriented and suffered from sudden fainting spells, and his mother was terrified because his condition did not resemble the turmoil of love so much as the devastation of cholera. Florentino Ariza's godfather, an old homeopathic practitioner who had been Tránsito Ariza's confidant ever since her days as a secret mistress, was also alarmed at first by the patient's condition, because he had the weak pulse, the hoarse breathing, and the pale perspiration of a dying man. But his examination revealed that he had no fever, no pain anywhere, and that his only concrete feeling was an urgent desire to die. All that was needed was shrewd questioning, first of the patient and then of his mother, to conclude once again that the symptoms of love were the same as those of cholera. He prescribed infusions of linden blossoms to calm the nerves and suggested a change of air so he could find consolation in distance, but Florentino Ariza longed for just the opposite: to enjoy his martyrdom.** **(Adapted from *Love in a Time of Cholera* by Gabriel García Márquez.)** **The author of the passage is implying that:**
(A)	Homeopathy cures love.
(B)	The doctor could not distinguish between love and cholera.
(C)	The doctor could distinguish between love and cholera.
(D)	The symptoms of love and cholera are similar.

Q. 12	**Now, it is clear that the decline of a language must ultimately have political and economic causes: it is not due simply to the bad influence of this or that individual writer. But an effect can become a cause, reinforcing the original cause and producing the same effect in an intensified form, and so on indefinitely. A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the slovenliness of our language makes it easier for us to have foolish thoughts.** **(Adapted from *Politics and the English Language* by George Orwell.)** **The illustration of the man who takes to drink is used to underscore which of the following ideas in the passage above?**
(A)	Political and economic causes control deterioration of language.
(B)	Foolish thoughts are enabled by inaccurate language.
(C)	Effect of an action becomes the cause in a cyclic pattern.
(D)	Drinking enables people to have foolish thoughts and slovenly language.

Q. 13	**It is a pity that Caste even today has its defenders. The defences are many. It is defended on the grounds that the Caste System is but another name for division of labour, and if division of labour is a necessary feature of every civilised society, then it is argued that there is nothing wrong in the Caste System. Now the first thing to be urged against this view is that Caste System is not merely division of labour. It is also a division of labourers. Civilised society undoubtedly needs division of labour but nowhere is division of labour accompanied by this unnatural division of labourers into watertight compartments, grading them one above the other. This division of labour is not spontaneous or based on natural aptitudes. Social and individual efficiency requires us to develop the individual capacity and competency to choose and to make his own career. This principle is violated in so far as it involves an attempt to appoint tasks to individuals in advance, not on the basis of trained original capacities, but on that of birth. Industry undergoes rapid and abrupt changes and an individual must be free to change his occupation and adjust himself to changing circumstances, to gain his livelihood. (Adapted from *Annihilation of Caste* by Dr. B.R. Ambedkar.)** **Which of the following observations substantiate the arguments found in the passage above?**
(A)	Newer generations are unable to change and move away from low-paying family professions, even with changed economic circumstances.
(B)	Sedentary desk jobs are considered to have more value and are in greater demand than those involving manual labour.
(C)	The government's jobs guarantee programme makes low-level management jobs available across all industries to all graduates in the nation.
(D)	A bus driver becomes an app creator and, in the course of one month, reaches one million downloads on Playstore with a four-star rating.

Q. 14	**Imagine that you're in a game show and your host shows you three doors. Behind one of them is a shiny car and behind the others are goats. You pick one of the doors and get what lies within. After making your choice, your host chooses to open one of the other two doors, which inevitably reveals a goat. He then asks you if you want to stick with your original pick, or switch to the other remaining door. What do you do? Most people think that it doesn't make a difference and they tend to stick with their first pick. With two doors left, you should have a 50% chance of selecting the one with the car. If you agree, then you have just fallen afoul of one of the most infamous mathematical problems – the Monty Hall Problem. In reality, you should switch every time which doubles your odds of getting the car. Over the years, the problem has ensnared countless people, but not, it seems, pigeons. The humble pigeon can learn with practice the best tactic for the Monty Hall Problem, switching from their initial choice almost every time. Amazingly, humans do not!** **(Adapted from an article by Ed Yong in *Discover Magazine*.)** **Which of the following conclusions follow from the passage above?**
(A)	Humans calculate the probability of independent, random events such as the opening of a door by dividing the specific outcomes by the total number of possible outcomes.
(B)	Humans find it very difficult to learn to account for the host's hand in making the event non-random and, thereby, changing the outcome of the event.
(C)	Calculating probabilities is difficult for humans but easy for pigeons; which is why the pigeons succeed where the humans fail.
(D)	Humans are governed by reason, but pigeons are irrational and only interested in the outcome and will do whatever it takes to get food.

Q. 15	**The truth is that, despite the recent success of car-makers P and Q, India's automobile industry is in a state not that different from the bad old days of the license-permit quota raj when two carmakers dominated a captive domestic market with substandard vehicles and with very little, if any, research and development, and low to negligible productivity growth. High tariff barriers have certainly induced foreign automobile makers to enter the Indian market by setting up local operations, but this so-called "tariff jumping" foreign investment has produced an industry that is inefficient, operating generally at a low scale, and whose products are not globally competitive either in terms of cost or of innovation. It is noteworthy that the automobile parts industry, which has faced low tariffs (as low as 12.5%) and has been largely deregulated, has been characterised by higher productivity and much better export performance than the completely-built units' sector in the years since liberalisation.** **(Adapted from an Op-Ed in *The Mint*.)** **Which of the following statements can be inferred from the above?**
(A)	Low tariff barriers increase productivity.
(B)	Tariff jumping leads to increases in productivity.
(C)	Deregulation has worked for the automotive parts industry and therefore should be applied to completely-built units.
(D)	P and Q do not invest enough in research and development.

Linguistics (XH-C3)

Q.1 – Q.14 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Which of the following is NOT demonstrated by studies with Great Apes like *Koko* and *Washoe* and *Sarah*?**
(A)	The capacity to produce rule-governed, novel messages.
(B)	The capacity for symbolic communication.
(C)	The manual dexterity for signing.
(D)	The ability to teach other members of the species.

Q.2	**The meaning *relax* or *calm down* for the word 'chill' is an example of what kind of semantic change?**
(A)	Metaphor
(B)	Metonymy
(C)	Synecdoche
(D)	Pejoration

Q.3 **Match the following communication systems (P-T) to their type (i-vi) and select the correct sequence:**

P	**Bird song**	**(i)**	**Indexical and discrete**
Q	☺☼♂ ;-) ♥ ♫ ☹	**(ii)**	**Symbolic and continuous**
R	**Footprints on the beach**	**(iii)**	**Symbolic and discrete**
S	**Direction indication in bee dance**	**(iv)**	**Indexical and continuous**
T	**Bird calls**	**(v)**	**Iconic and discrete**
		(vi)	**Iconic and continuous**

(A) P-(iii), Q-(v), R-(i), S-(ii), T-(iv)

(B) P-(v), Q-(vi), R-(ii), S-(iv), T-(iii)

(C) P-(iv), Q-(v), R-(iii), S-(ii), T-(vi)

(D) P-(ii), Q-(vi), R-(v), S-(iii), T-(i)

Q.4 **Statistical learning in language development in infants refers to _____.**

(A) calculating regularities in speech to isolate words

(B) early mathematical knowledge that infants can demonstrate

(C) infant data that researchers use to understand language growth

(D) learning to differentiate phonemes as they are used in spoken words

Q.5	If 'Aam Aadmi' is translated as 'Mango Man', which type of ambiguity does the translation demonstrate?
(A)	Lexical
(B)	Syntactic
(C)	Morphological
(D)	Morphosyntactic

Q.6	While most of the historically known writing systems in India tend to write from left to right, identify the one which writes from right to left.
(A)	Kharoṣṭhī
(B)	Brāhmī
(C)	Śāradā
(D)	Grantha

Q.7	Identify the pair of words with a *circumfix* from the list below.
(A)	enlighten, embolden
(B)	enquiring, inquiring
(C)	transformation, transportation
(D)	reduced, repeated

Q.8	Which of the following sets illustrates sound symbolism in English?
(A)	mash, splash, bash, crash
(B)	flash, shine, sear, glimmer
(C)	duck, suck, luck, tuck
(D)	forte, piano, allegro, crescendo

Q.9	Voice Onset Time (VOT) is an acoustic cue used by our auditory-perceptual systems. Which of the following sounds can be identified using VOT? **(i) Voiced Stops** **(ii) Unvoiced Stops** **(iii) Prenasalised Stops** **(iv) Aspirated Stops** **(v) Ejective Stops**
(A)	(i), (ii), (iv) but NOT (iii) and (v)
(B)	(i), (ii), (iii), (iv) but NOT (v)
(C)	(iv), (v) but NOT (i), (ii) and (iii)
(D)	(i), (iii), (v) but NOT (ii) and (iv)

Q.10	In syntactic terms, which of the following is the odd one out?
(A)	Belle struck the Beast as incompetent.
(B)	Belle regarded the Beast as incompetent.
(C)	Belle identified the Beast as incompetent.
(D)	Belle viewed the Beast as incompetent.

Q.11	**Which of the following speech errors is NOT expected in natural languages? The items that are swapped are indicated in capitals. The intended phrase is *tight-ly pack-ed*.**
(A)	tighKly paTed
(B)	Pightly Tacked
(C)	PACKly TIGHTed
(D)	tightED packLY

Q.12	**Language *isolates* are languages that _____.**
(A)	are not known to be related to any other languages
(B)	are spoken in isolated parts of the world
(C)	have no dialectal or sociolectal varieties
(D)	are separated geographically from other members of their family

Q.13	**On the new ₹2000 note, how many languages can be found in the language panel displaying the denomination of the note?**
(A)	Fifteen
(B)	Sixteen
(C)	Seventeen
(D)	Eighteen

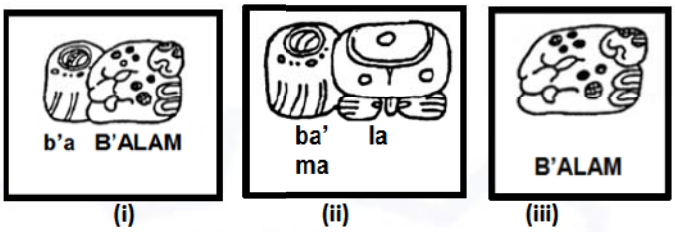
Q.14	How many unique morphemes can be isolated in *this* sentence?
(A)	Twelve
(B)	Ten
(C)	Sixteen
(D)	Eleven

Q.15 – Q.20 Multiple Select Question (MSQ), carry ONE mark each (no negative marks).

Q.15	**"I look forward to visiting teachers". What does this sentence demonstrate?**
(A)	Syntactic ambiguity
(B)	Semantic role ambiguity
(C)	Lexical ambiguity
(D)	No ambiguity

Q.16	**Which of the following pairs of words do NOT stand in *troponymous* relationship?**
(A)	lisp-talk
(B)	limp-walk
(C)	dream-sleep
(D)	wait-fidget

Q.17	**Which of the following areal/typological feature(s) may be seen in a vast majority of the languages of South Asia?**
(A)	Compound Verbs
(B)	Retroflexed Sounds
(C)	Non-nominative Subject Case
(D)	Agglutinative Morphology

Q.18	**Three different ways of writing a single word in the Mayan script are given below. The glyphs (i-iii) are of a single word [ba'lam] meaning 'jaguar'. What can we conclude about the Mayan writing system from the examples provided?** 
(A)	The glyphs can be logograms, mean whole words.
(B)	The glyphs can be syllabic.
(C)	The glyphs use the *rebus* principle, part sound part meaning.
(D)	The glyphs can be alphabetic, spelling out sounds.

Q.19	**Identify symptom(s) of phonological dyslexia.**
(A)	The inability to map letters to sounds.
(B)	The inability to pronounce made-up or nonsense words.
(C)	The inability to tell homographs apart.
(D)	The inability to recognise semantic mismatches.

Q.20	**Creolisation and creoles are characterised by which of the following?**
(A)	Creolisation is the process of elaborating Pidgin languages.
(B)	Creolisation happens when a Pidgin is learned by young children as a first language.
(C)	Creoles have elaborated grammars but somewhat limited vocabulary.
(D)	Creole vocabulary is expansive but the grammar is limited and variable.

Q.21 – Q.25 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 21	**In the following sentence, you are required to identify the type of aphasia and select the correct sequence from the options given below.** **Use of jargon and words that have no meaning are typical of _____ aphasia, while the inability to differentiate between actives and passives is seen in _____ aphasia; some patients use circumlocutions for simple words and this is known as _____ aphasia; in patients with _____ aphasia, production and comprehension may be reasonably preserved, but the ability to repeat an utterance is disrupted.**
(A)	Wernicke's, Broca's, Anomic, Conduction
(B)	Broca's, Wernicke's, Conduction, Dysphonia
(C)	Anomic, Conduction, Broca's, Wernicke's
(D)	Dysphonia, Anomic, Wernicke's, Broca's

Q. 22 **Match the dialogues in (P-S) to the Gricean Maxim (i-v) that has been flouted to create humour.**

P.	**- Excuse me, do you know what time it is? - Yes.**	**(i)**	**Maxim of Relation**
Q.	**- How many surrealists does it take to screw in a light bulb? - Fish.**	**(ii)**	**Maxim of Manner**
R.	**- Do you believe in clubs for young men? - Only when kindness fails.**	**(iii)**	**Maxim of Quantity**
S.	**- Why did the General fly to Panama? - Because the fighting is over.**	**(iv)**	**Maxim of Quality**
		(v)	**Maxim of co-operation**

(Adapted from Attardo, 1990)

(A) P-(iii), Q-(i), R-(ii), S-(iv)

(B) P-(i), Q-(v), R-(ii), S-(iii)

(C) P-(i), Q-(iii), R-(iv), S-(v)

(D) P-(iv), Q-(ii), R-(iii), S-(i)

Q. 23 **Sign languages have long been used by the deaf communities to communicate amongst themselves. Which of the following is correct?**

(A) Sign language shows duality of patterning with meaningless gestures combining to create single signs.

(B) Signs in sign languages are dominantly iconic and transparent with respect to the meaning they encode.

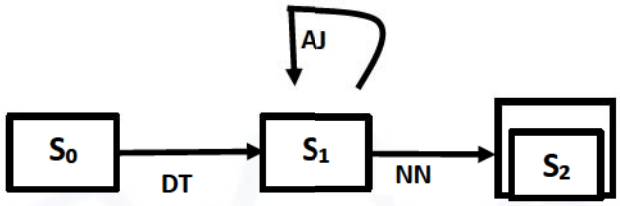
(C) Children who are hearing-impaired do not converge on a language without instruction in signing and/or speaking.

(D) Sign languages are pidgin like, rudimentary communication systems.

Q. 24	**In the sentence "The gunman sprayed the building with bullets", the preposition phrase (PP) 'with bullets' is attached to _____ .**
(A)	'sprayed', because it meets the selectional restriction of 'sprayed'
(B)	'sprayed', because it serves as the adjunct of the verb 'sprayed'
(C)	'the gunman', because the gunman has the gun
(D)	'the building', because of proximity

Q. 25	**Consider the sentence "Little children marched past the church sang". Assume the starting rule of the context free grammar describing the language to be S→NP VP, where S is the start symbol, NP is the noun phrase and VP is the verb phrase. For the given sentence, how many words does VP contain?**
(A)	One
(B)	Two
(C)	Three
(D)	Four

Q.26 – Q.40 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q.26	 **The above figure shows what is called a finite state machine. The machine reads one word at a time and transitions to a new state. The states are indicated by boxes and the transitions by arrows. There are three states S_0, S_1 and S_2 and the last is the final state (indicated by two coincident boxes). The text beside each arrow means the following: DT = determiner (a, an, the), AJ = adjective, NN = noun. The machine starts at S_0 and on seeing a determiner (DT) enters the state S_1. Then if it sees an adjective (AJ), it remains in the same state. But at state S_1 if it sees a noun (NN), it enters the final state. The final state is also called the "accept" state. No other states or state transitions are defined or permitted.** **Which of the following will cause the machine to enter S_2, the *accept* state?**
(A)	The blue sky
(B)	A vast blue sky
(C)	The sky
(D)	A very blue sky

Q. 27	**Which of the following has/have been observed in speech perception experiments?**
(A)	Speech perception experiments with infants show that they are sensitive at birth to the rhythmic properties of their language, as well as the difference between stress-timed and syllable-timed languages.
(B)	Infants and adults show categorical perception of consonant sounds, that is, the ability to treat what is a continuous acoustic feature as discrete.
(C)	Infants are sensitive to sounds that are not part of the phonemic inventory of the language(s) to which they are exposed, but older children and adults are not.
(D)	The Phoneme Restoration effect seen in speech perception experiments (where people hear phonemes that have been replaced by noise or a cough) shows that speech is perceived as linear.

Q. 28 **Language games are a way to manipulate spoken words as the following examples from three languages show. Identify the correct statement(s) below about language games.**

LANGUAGE	USUAL WORD FORM	GAME WORD FORM	GLOSS
Bakwiri	**kóndì** **mɔ̀kɔ́**	**ndíkò** **kɔ̀mɔ́**	***rice*** ***one person***
English	**pɪg lætɪn** **kʌntri**	**ɪgpe ætɪnle** **ʌntrike**	***Pig Latin*** ***country***
Marathi	**kāi chāl-lai** **mərāʈʰi**	**kāpmāi chāpmāl-lai** **məpmərāʈʰi**	***What's up?*** ***Marathi***

(A)	The intent is to disguise or conceal conversation.
(B)	Words are manipulated systematically using defined rules.
(C)	The game manipulation targets varying units of the phonological form.
(D)	Only children use language games.

Q. 29	**What can be said about the intent and nature of prescriptive rules for languages?**
(A)	Provide criteria for written language.
(B)	Characterise the universal grammar of languages.
(C)	Characterise inter-dialectal differences.
(D)	Encode changes to spoken language.

Q. 30	**The use of singular *they* was voted 'the word of the decade' by linguists. Which of the following motivates the singular use?**
(A)	The use of *they* in the singular replaces the sex specific *he* and *she* pronouns.
(B)	Using gendered pronouns can lead to gendered interpretations of the messages.
(C)	Sometimes the gender information is not known and it is easier to use *they* than *he/she*.
(D)	English is a sexist language.

Q. 31 **Tok Pisin (Papua New Guinea) is an extended Pidgin/Creole language. Words borrowed from English are modified in various ways. Given the word list below, study the phonological modifications and choose the correct generalisation(s).**

ENGLISH	TOK PISIN	GLOSS
da:ns	da:nis	*dance*
kæpsaɪz	kapsait	*capsize*
stændbaɪ	sambaɪ	*standby*
spiə	supia	*spear*
bəli:v	bilip	*believe*
aʊtsaɪd	aʊtsaɪd	*outside*

(A) Only single onsets permitted.

(B) Vowel epenthesis to create syllable nuclei.

(C) Fortition of fricatives to stops.

(D) Obligatory null codas.

Q. 32	**Consider the following set of Phrase Structure Rules in a toy grammar:** **[Note: T is tense, P is preposition, V is verb and N is noun; they project their respective phrasal units TP, PP, VP and NP]** **TP → NP T VP** **VP → (Adverb) V (TP) (PP)** **PP → P NP** **NP → (Determiner) (Adjective) N** **Which of the following sentences can be generated by these rules?**
(A)	The golden bells are probably ringing in the church.
(B)	Bells ring to let believers know that mass will begin.
(C)	The golden bells in the church always ring for prayers.
(D)	The silent bells say that the pastor has not visited the bell tower.

Q. 33	**Evaluate the following according to the *three principles* of the Binding Theory and choose the correct statement(s).** **(Note: the subscripted <*i*> indicates co-reference between the arguments that bear them.)**
(A)	The sentence *Everyone who meets Tagore$_i$ admires him$_i$* is permitted by the principles of the Binding Theory.
(B)	The sentence *Every one of his followers says that he$_i$ likes Tagore$_i$* is ruled out by the Binding Theory.
(C)	The sentence *Tagore$_i$ seems to ask himself$_i$ about effects of education* is permitted by the Binding Theory.
(D)	The sentence *Everyone who meets him$_i$ admires Tagore$_i$* is ruled out by the Binding Theory.

Q. 34	**Given the facts (i-iv) about the World Cup, evaluate the statements using truth conditions and the truth tables of connectors to find the 'false' statement(s).** **(i) Argentina has won the World Cup twice: 1978, 1986** **(ii) Germany has won it four times: 1954, 1974, 1990, 2014** **(iii) France has won it twice: 1998, 2018** **(iv) Japan has never won it**
(A)	If [Argentina won the World Cup in 1986] then [Germany won it in 1998].
(B)	[Germany didn't win the World Cup in 1986] and [France won it in 1990].
(C)	[Argentina didn't win the World Cup in 1986] or [Japan has never won the World Cup].
(D)	If [Argentina didn't win the World Cup in 1978] then [France won it in 1990].

Q. 35	**For which of the following sentence(s) can the assigned *presupposition* (P) hold?**
(A)	Who discovered the Silverback Slug in 1960? P: Someone discovered the Silverback Slug in 1960.
(B)	If she had drunk coffee this morning, she would have been more alert. P: She had not drunk coffee.
(C)	Ruchi's parents returned to Alaska over the summer. P: Ruchi's parents had been to Alaska sometime before the summer.
(D)	The police ordered the students to stop drinking. P: The students were drunk.

Q. 36 **Consider carefully the following data from four languages. Which deduction(s) can plausibly be made using the methods of comparative reconstruction?**

LANGUAGE A	LANGUAGE B	LANGUAGE C	LANGUAGE D	GLOSS
due	bi	dó	doi	*two*
naso	nosa	srón	nas	*nose*
fratello	anaia	bráthair	frate	*brother*
padre	aita	pathair	pata	*father*
sette	zazpi	seacht	sapte	*seven*
orecchio	elarri	cluas	ureche	*ear*
dieci	hamar	deich	zece	*ten*

(A) Languages A and D are closely related.

(B) Language A is distantly related to Language C.

(C) Language D is distantly related to Language B.

(D) Languages A,B,C and D are all unrelated languages.

Q. 37

Analyse the following Shakespearean sentences, and observe the differences between Early Modern English and Modern English – that is, how you would say these sentences today. What can we say in *precise, grammatical terms* about the syntactic changes that have occurred?

Thou marvell'st at my words	**Macbeth, *Macbeth*, III.ii**
Macbeth doth come.	**Third Witch, *Macbeth*, I.iii**
Wilt thou use thy wit?	**Claudio, *Much Ado About Nothing*, V.i**
Do you fear it?	**Cassius, *Julius Caesar*, I.ii**
Knows he not thy voice?	**First Lord, *All's Well That Ends Well*, IV.i**
Didst thou not say he comes?	**Baptista, *Taming of the Shrew*, III.ii**
Can'st not rule her?	**Leontes, *Winter's Tale*, II.iii**
What sayst thou?	**Olivia, *Twelfth Night*, III.iv**
What dost thou say?	**Othello, *Othello*, III.iii**
Whom overcame he?	**Boyet, *Love's Labour's Lost*, IV.i**

(A) The agreement forms of Early Modern English included a different form for 2nd person, singular subjects.

(B) In wh- and yes-no questions the main verb can raise to Head, CP [Complementizer Phrase].

(C) Pronominal forms are unchanged from Early Modern into Modern English.

(D) Auxiliary verbs could raise to T [Tense] in Early Modern English but not main verbs.

Q. 38	**The following utterances were produced by a child aged 3 years.** (i) **Put him in the bathtub.** (ii) **We eated gummy bears.** (iii) **Thank you for giving us these books.** (iv) **I don't know … I knowed her!** (v) **He bited my finger. (After correction: He bitted my finger.)** (vi) **I runned in the water.** (vii) **I rided on an elephant.** **Which of the following statement(s) can be deduced from the data?**
(A)	The child differentiates between lexical and non-lexical categories of English.
(B)	The child has acquired the Spec-Head and Complement-Head orders of English.
(C)	The child has acquired case marking in English.
(D)	The child has not yet acquired the rule of past tense formation in English.

Q. 39	**The human speech production system is characterised by which of the following?**
(A)	A laryngeal source
(B)	A vocal tract that acts as a filter
(C)	A vocal tract that acts as a resonator
(D)	A laryngeal resonator

Q. 40	**Which of the following kinds of evidence are offered in support of an *innateness* view of the human language ability?**
(A)	All humans, no matter how primitive their societies, have the capacity for language.
(B)	Children learn the language(s) in their environment without explicit instruction.
(C)	Speakers of all languages are capable of producing and understanding an infinite number of sentences.
(D)	All languages and their grammars change through time.

END OF THE QUESTION PAPER

Graduate Aptitude Test in Engineering (GATE 2021)

Subject/Paper: Humanities and Social Sciences (XH) / Linguistics (XH-C3)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
1	7	MCQ	GA	D	1	1/3
2	7	MCQ	GA	D	1	1/3
3	7	MCQ	GA	D	1	1/3
4	7	MCQ	GA	D	1	1/3
5	7	MCQ	GA	C	1	1/3
6	7	MCQ	GA	C	2	2/3
7	7	MCQ	GA	A	2	2/3
8	7	MCQ	GA	C	2	2/3
9	7	MCQ	GA	C	2	2/3
10	7	MCQ	GA	D	2	2/3
1	7	MCQ	XH-B1	C	1	1/3
2	7	MCQ	XH-B1	C	1	1/3
3	7	MCQ	XH-B1	C	1	1/3
4	7	MCQ	XH-B1	D	1	1/3
5	7	MCQ	XH-B1	C	1	1/3
6	7	MCQ	XH-B1	A	2	2/3
7	7	MCQ	XH-B1	C	2	2/3
8	7	MCQ	XH-B1	C	2	2/3
9	7	MCQ	XH-B1	D	2	2/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Linguistics (XH-C3)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
10	7	MCQ	XH-B1	B	2	2/3
11	7	MSQ	XH-B1	C; D	2	0
12	7	MSQ	XH-B1	B; C	2	0
13	7	MSQ	XH-B1	A; B	2	0
14	7	MSQ	XH-B1	A; B	2	0
15	7	MSQ	XH-B1	A; C; D	2	0
1	7	MCQ	XH-C3	A	1	1/3
2	7	MCQ	XH-C3	A	1	1/3
3	7	MCQ	XH-C3	A	1	1/3
4	7	MCQ	XH-C3	A	1	1/3
5	7	MCQ	XH-C3	A	1	1/3
6	7	MCQ	XH-C3	A	1	1/3
7	7	MCQ	XH-C3	A	1	1/3
8	7	MCQ	XH-C3	A	1	1/3
9	7	MCQ	XH-C3	A	1	1/3
10	7	MCQ	XH-C3	A	1	1/3
11	7	MCQ	XH-C3	A	1	1/3
12	7	MCQ	XH-C3	A	1	1/3
13	7	MCQ	XH-C3	A	1	1/3
14	7	MCQ	XH-C3	A	1	1/3
15	7	MSQ	XH-C3	A; B	1	0
16	7	MSQ	XH-C3	A; B	1	0
17	7	MSQ	XH-C3	A; B; C	1	0

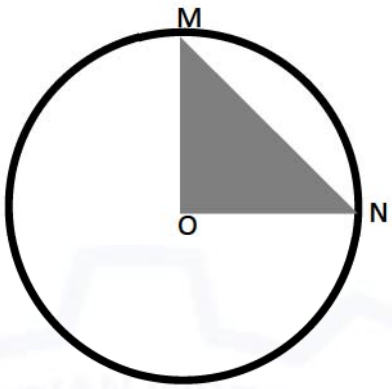
Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
18	7	MSQ	XH-C3	A; B; C	1	0
19	7	MSQ	XH-C3	A; B	1	0
20	7	MSQ	XH-C3	A; B; C	1	0
21	7	MCQ	XH-C3	A	2	2/3
22	7	MCQ	XH-C3	A	2	2/3
23	7	MCQ	XH-C3	A	2	2/3
24	7	MCQ	XH-C3	A	2	2/3
25	7	MCQ	XH-C3	A	2	2/3
26	7	MSQ	XH-C3	A; B; C	2	0
27	7	MSQ	XH-C3	A; B; C	2	0
28	7	MSQ	XH-C3	A; B; C	2	0
29	7	MSQ	XH-C3	A	2	0
30	7	MSQ	XH-C3	A; B	2	0
31	7	MSQ	XH-C3	A; B; C	2	0
32	7	MSQ	XH-C3	A; B	2	0
33	7	MSQ	XH-C3	A; B; C	2	0
34	7	MSQ	XH-C3	A; B	2	0
35	7	MSQ	XH-C3	A; B; C	2	0
36	7	MSQ	XH-C3	A; B	2	0
37	7	MSQ	XH-C3	A; B	2	0
38	7	MSQ	XH-C3	A; B; C	2	0
39	7	MSQ	XH-C3	A; B; C	2	0
40	7	MSQ	XH-C3	A; B; C	2	0

General Aptitude (GA)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Consider the following sentences:** **(i) After his surgery, Raja hardly could walk.** **(ii) After his surgery, Raja could barely walk.** **(iii) After his surgery, Raja barely could walk.** **(iv) After his surgery, Raja could hardly walk.** **Which of the above sentences are grammatically CORRECT?**
(A)	(i) and (ii)
(B)	(i) and (iii)
(C)	(iii) and (iv)
(D)	(ii) and (iv)

Q.2	**Ms. X came out of a building through its front door to find her shadow due to the morning sun falling to her right side with the building to her back. From this, it can be inferred that building is facing _____**
(A)	North
(B)	East
(C)	West
(D)	South

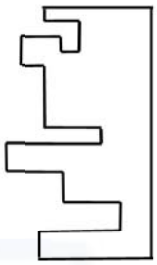
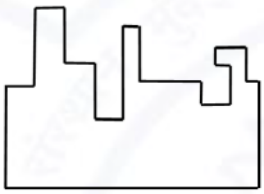
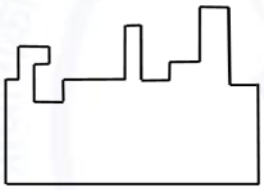
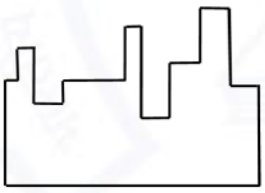
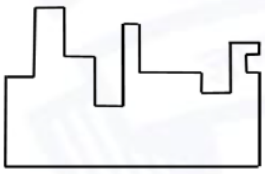
Q.3	 **In the above figure, O is the center of the circle and, M and N lie on the circle.** **The area of the right triangle MON is 50 cm^2.** **What is the area of the circle in cm^2 ?**
(A)	2π
(B)	50π
(C)	75π
(D)	100π

Q.4	**If** $\begin{cases} "\oplus" \text{ means } "-", \\ "\otimes" \text{ means } "\div", \\ "\Delta" \text{ means } "+", \\ "\nabla" \text{ means } "\times", \end{cases}$ **then, the value of the expression** $\Delta\, 2 \oplus 3\, \Delta \left((4 \otimes 2) \nabla\, 4 \right) =$
(A)	-1
(B)	-0.5
(C)	6
(D)	7

Q.5	**"The increased consumption of leafy vegetables in the recent months is a clear indication that the people in the state have begun to lead a healthy lifestyle"** **Which of the following can be logically inferred from the information presented in the above statement?**
(A)	The people in the state did not consume leafy vegetables earlier.
(B)	Consumption of leafy vegetables may not be the only indicator of healthy lifestyle.
(C)	Leading a healthy lifestyle is related to a diet with leafy vegetables.
(D)	The people in the state have increased awareness of health hazards causing by consumption of junk foods.

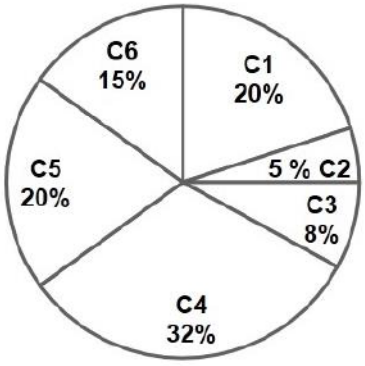
Q. 6 – Q. 10 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: – 2/3).

Q.6	**Oxpeckers and rhinos manifest a symbiotic relationship in the wild. The oxpeckers warn the rhinos about approaching poachers, thus possibly saving the lives of the rhinos. Oxpeckers also feed on the parasitic ticks found on rhinos.** **In the symbiotic relationship described above, the primary benefits for oxpeckers and rhinos respectively are,**
(A)	Oxpeckers get a food source, rhinos have no benefit.
(B)	Oxpeckers save their habitat from poachers while the rhinos have no benefit.
(C)	Oxpeckers get a food source, rhinos may be saved from the poachers.
(D)	Oxpeckers save the lives of poachers, rhinos save their own lives.

Q.7	 **A jigsaw puzzle has 2 pieces. One of the pieces is shown above. Which one of the given options for the missing piece when assembled will form a rectangle? The piece can be moved, rotated or flipped to assemble with the above piece.**
(A)	
(B)	
(C)	
(D)	

Q.8	**The number of hens, ducks and goats in farm P are 65, 91 and 169, respectively. The total number of hens, ducks and goats in a nearby farm Q is 416. The ratio of hens:ducks:goats in farm Q is 5:14:13. All the hens, ducks and goats are sent from farm Q to farm P.** **The new ratio of hens:ducks:goats in farm P is_____**
(A)	5:7:13
(B)	5:14:13
(C)	10:21:26
(D)	21:10:26

Q.9



Company	Ratio
C1	3:2
C2	1:4
C3	5:3
C4	2:3
C5	9:1
C6	3:4

The distribution of employees at the rank of executives, across different companies C1, C2, …, C6 is presented in the chart given above. The ratio of executives with a management degree to those without a management degree in each of these companies is provided in the table above. The total number of executives across all companies is 10,000.

The total number of management degree holders among the executives in companies C2 and C5 together is_____.

(A)	225
(B)	600
(C)	1900
(D)	2500

Q. 10	**Five persons P, Q, R, S and T are sitting in a row not necessarily in the same order. Q and R are separated by one person, and S should not be seated adjacent to Q.** **The number of distinct seating arrangements possible is:**
(A)	4
(B)	8
(C)	10
(D)	16

Reasoning and Comprehension (XH-B1)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**According to a recent article in a medical journal, consuming curcumin (from turmeric) significantly lowers the risk of COVID-19. The researchers draw this conclusion from a study that found that people who consumed one or more teaspoons of curcumin extract everyday were half as likely to be diagnosed with the disease as people who did not consume curcumin.** **Which of the following, if true, most weakens the argument in the article?**
(A)	In another study, people who were given a zinc supplement everyday were more than four times less likely to be diagnosed with COVID-19 as those who did not.
(B)	All the participants in this study were from the same state where no other spices or herbs are consumed.
(C)	The participants who consumed curcumin were also more likely to exercise than those who did not.
(D)	In another study, COVID-19 patients who were given curcumin were no more likely to recover than others.

Q.2	**Froot Inc. carried out an internet advertisement campaign for its new beverage CocoLoco. After the campaign, the director of the advertising company conducted a survey and found that the CocoLoco sales were higher than that of TenderJoos a competing product from Joos Inc. The agency concluded that the internet advertising campaign is more effective than advertising through other media.** **Which of the following statements could strengthen the conclusion above by the agency?**
(A)	A ₹2 discount was offered on CocoLoco during the campaign period.
(B)	CocoLoco sales were higher than those of TenderJoos before the internet campaign.
(C)	A newspaper advertisement campaign the previous year did not increase CocoLoco sales.
(D)	During the campaign for CocoLoco, Joos Inc. did not advertise TenderJoos at all.

Q.3	**An e-commerce site offered a deal last month conditional on the customer spending a minimum of ₹500. Any customer who buys 2 kg of fresh fruit will receive a hand mixer and any customer who buys 2 kg of fresh vegetables will receive a vegetable chopper.** **Which of the following is NOT a possible outcome of the above?**
(A)	A customer purchased 3 kg of fresh fruit and did not receive a vegetable chopper.
(B)	A customer purchased items for ₹500 which included 1 kg of vegetables and received a hand mixer.
(C)	A customer purchased items for ₹500 which included 2 kg of vegetables and 1 kg of fruit and received a hand mixer.
(D)	A customer purchased items for ₹300 which included 2 kg of fruit and received neither a hand mixer nor a vegetable chopper.

Q.4	**Writers of detective fiction often include an incompetent detective as a foil for the brilliant investigator-protagonist as they follow different paths in trying to solve the crime. In the individual accounts, the incompetent detective is frequently distracted by the culprit's careful plans, while the competent investigator solves the case after a final confrontation. Analysts of such fiction believe that the authors select this story-telling technique to provide readers with more complexities in the form of misleading clues, while figuring out the crime.** **Which of the following statements most logically follows from the passage above?**
(A)	A detective story is considered well-written if the brilliant investigator is accompanied by an incompetent detective.
(B)	Writers of detective fiction use the contrast of an incompetent detective to mainly show how complex the investigation is.
(C)	Writers of detective fiction never write stories where the incompetent detective solves the case.
(D)	Writers of detective fiction use two investigative accounts to make it difficult for the reader to figure out the outcome.

Q.5	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled (L,M,N,O). Reorder these parts so that the sentence can be read through correctly and select one of the options given.** *P1: Studies of several Sahitya Akademi award winners show that…* L: or encounter professional M: and invariably develop a strained relationship with other literary figures N: they often publish very little O: after winning the prize *P6: …envy and rivalry.* **The correct order is:**
(A)	NOLM
(B)	MLON
(C)	ONML
(D)	MOLN

Q.6 – Q.10 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 6	**Gerrymandering refers to the targeted redrawing of election constituencies so as to benefit a particular party. This is especially important where the electoral system is "first past the post" in each constituency (i.e. one winner is selected in each constituency based on a majority of votes won) and where there is no other provision for proportional representation (as for example in the German system). For a simple illustration of gerrymandering, if a region consists of districts 1, 2, 3, …, 9 with districts 1, 2, 3, 4, 5, 6 favouring party P and 7, 8, 9 favouring party Q, then grouping of districts to constituencies as {1,2,3}, {4,5,6}, {7,8,9} will give two seats to party P and one seat to party Q, whereas the grouping {1,2,7}, {3,4,8}, {5,6,9} will give all three seats to party P, as they will secure a majority in each constituency.** **Which of these statements can be deduced from the above?**
(A)	Gerrymandering implies that constituency boundaries can sometimes be drawn to favour one party over the other.
(B)	Gerrymandering implies that proportional representation is impossible when districts are grouped to form constituencies.
(C)	To counteract gerrymandering political parties should concentrate on districts where they are favoured.
(D)	The grouping of districts to constituencies has very little impact on proportional representation.

Q. 7	**X-ray examination of a recently discovered painting that some authorities judge to be a self-portrait by Michelangelo revealed an under-image of a woman's face. Either Michelangelo or some other artist must have repainted over the first painting that had now been seen on the canvas. Because the woman's face also appears on other paintings by Michelangelo, this painting is determined to indeed be an authentic painting by Michelangelo.** **Which of the following assumptions must be made in reaching the conclusion above?**
(A)	When an already painted canvas of an artist is used, the second artist using that canvas for a new painting is usually influenced by the artistic style of the first.
(B)	Several painted canvases that art historians attribute to Michelangelo contain under-images that appear on at least one other of Michelangelo's paintings.
(C)	Subject or subjects that appear in authenticated paintings of Michelangelo are rather unlikely to show up as under-images on painted canvases not attributed to Michelangelo.
(D)	No painted canvas can be attributed to a particular artist with certainty without an X-ray analysis.

Q. 8	**This season _____ tourists visited Ladakh than last season; however, _____ to be the biggest tourist destination in India. The tourism department explains that the number of tourists to India has _____ relative to previous years, _____ have chosen to visit Ladakh.** **Select the correct sequence of phrases to fill in the blanks to complete the passage above.**
(A)	more / for the first time in many seasons it does not appear / increased / and it seems that most
(B)	fewer / as in the past, it appears / in fact decreased / but it seems that only a small proportion
(C)	fewer / for the first time in many seasons it appears / in fact decreased / but it seems that most
(D)	more / this season as well, it appears / in fact decreased / but it seems that a large proportion

Q. 9	**Reorder the sentences in (1) – (5) such that they form a coherent paragraph.** **(1) In fact, dozens of languages today have only one native speaker still living, and that person's death will mean the extinction of the language: It will no longer be spoken, or known, by anyone on earth.** **(2) Many languages are falling out of use and are being replaced by others that are more widely used in the region or nation, such as English in Australia or Portuguese in Brazil.** **(3) Many other languages are no longer being learned by new generations of children or by new adult speakers.** **(4) An endangered language is one that is likely to become extinct in the near future.** **(5) Unless the trends are reversed, these endangered languages will become extinct by the end of the century.** **(Adapted from *What is an Endangered Language* by A. Woodbury.)**
(A)	2 3 1 4 5
(B)	2 3 5 4 1
(C)	4 1 5 2 3
(D)	4 2 3 1 5

Q. 10	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled L,M,N,O. Reorder these parts so that the sentence can be read correctly and select one of the sequences below.** ***P1: For a little while…*** **L: it was a common belief** **M: right after the treaty of Versailles** **N: that Germany had caused World War I not just by her actions** **O: held by analysts and politicians alike** ***P6: … but by also encouraging Italy in her own aggressions.***
(A)	LMNO
(B)	MLON
(C)	LNMO
(D)	MOLN

Q.11 – Q.15 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 11	**After Florentino Ariza saw her for the first time, his mother knew before he told her because he lost his voice and his appetite and spent the entire night tossing and turning in his bed. But when he began to wait for the answer to his first letter, his anguish was complicated by diaorrhea and green vomit, he became disoriented and suffered from sudden fainting spells, and his mother was terrified because his condition did not resemble the turmoil of love so much as the devastation of cholera. Florentino Ariza's godfather, an old homeopathic practitioner who had been Tránsito Ariza's confidant ever since her days as a secret mistress, was also alarmed at first by the patient's condition, because he had the weak pulse, the hoarse breathing, and the pale perspiration of a dying man. But his examination revealed that he had no fever, no pain anywhere, and that his only concrete feeling was an urgent desire to die. All that was needed was shrewd questioning, first of the patient and then of his mother, to conclude once again that the symptoms of love were the same as those of cholera. He prescribed infusions of linden blossoms to calm the nerves and suggested a change of air so he could find consolation in distance, but Florentino Ariza longed for just the opposite: to enjoy his martyrdom.** **(Adapted from *Love in a Time of Cholera* by Gabriel García Márquez.)** **The author of the passage is implying that:**
(A)	Homeopathy cures love.
(B)	The doctor could not distinguish between love and cholera.
(C)	The doctor could distinguish between love and cholera.
(D)	The symptoms of love and cholera are similar.

Q. 12	**Now, it is clear that the decline of a language must ultimately have political and economic causes: it is not due simply to the bad influence of this or that individual writer. But an effect can become a cause, reinforcing the original cause and producing the same effect in an intensified form, and so on indefinitely. A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the slovenliness of our language makes it easier for us to have foolish thoughts.** **(Adapted from *Politics and the English Language* by George Orwell.)** **The illustration of the man who takes to drink is used to underscore which of the following ideas in the passage above?**
(A)	Political and economic causes control deterioration of language.
(B)	Foolish thoughts are enabled by inaccurate language.
(C)	Effect of an action becomes the cause in a cyclic pattern.
(D)	Drinking enables people to have foolish thoughts and slovenly language.

Q. 13	**It is a pity that Caste even today has its defenders. The defences are many. It is defended on the grounds that the Caste System is but another name for division of labour, and if division of labour is a necessary feature of every civilised society, then it is argued that there is nothing wrong in the Caste System. Now the first thing to be urged against this view is that Caste System is not merely division of labour. It is also a division of labourers. Civilised society undoubtedly needs division of labour but nowhere is division of labour accompanied by this unnatural division of labourers into watertight compartments, grading them one above the other. This division of labour is not spontaneous or based on natural aptitudes. Social and individual efficiency requires us to develop the individual capacity and competency to choose and to make his own career. This principle is violated in so far as it involves an attempt to appoint tasks to individuals in advance, not on the basis of trained original capacities, but on that of birth. Industry undergoes rapid and abrupt changes and an individual must be free to change his occupation and adjust himself to changing circumstances, to gain his livelihood. (Adapted from *Annihilation of Caste* by Dr. B.R. Ambedkar.)** **Which of the following observations substantiate the arguments found in the passage above?**
(A)	Newer generations are unable to change and move away from low-paying family professions, even with changed economic circumstances.
(B)	Sedentary desk jobs are considered to have more value and are in greater demand than those involving manual labour.
(C)	The government's jobs guarantee programme makes low-level management jobs available across all industries to all graduates in the nation.
(D)	A bus driver becomes an app creator and, in the course of one month, reaches one million downloads on Playstore with a four-star rating.

Q. 14	**Imagine that you're in a game show and your host shows you three doors. Behind one of them is a shiny car and behind the others are goats. You pick one of the doors and get what lies within. After making your choice, your host chooses to open one of the other two doors, which inevitably reveals a goat. He then asks you if you want to stick with your original pick, or switch to the other remaining door. What do you do? Most people think that it doesn't make a difference and they tend to stick with their first pick. With two doors left, you should have a 50% chance of selecting the one with the car. If you agree, then you have just fallen afoul of one of the most infamous mathematical problems – the Monty Hall Problem. In reality, you should switch every time which doubles your odds of getting the car. Over the years, the problem has ensnared countless people, but not, it seems, pigeons. The humble pigeon can learn with practice the best tactic for the Monty Hall Problem, switching from their initial choice almost every time. Amazingly, humans do not!** **(Adapted from an article by Ed Yong in *Discover Magazine*.)** **Which of the following conclusions follow from the passage above?**
(A)	Humans calculate the probability of independent, random events such as the opening of a door by dividing the specific outcomes by the total number of possible outcomes.
(B)	Humans find it very difficult to learn to account for the host's hand in making the event non-random and, thereby, changing the outcome of the event.
(C)	Calculating probabilities is difficult for humans but easy for pigeons; which is why the pigeons succeed where the humans fail.
(D)	Humans are governed by reason, but pigeons are irrational and only interested in the outcome and will do whatever it takes to get food.

Q. 15	**The truth is that, despite the recent success of car-makers P and Q, India's automobile industry is in a state not that different from the bad old days of the license-permit quota raj when two carmakers dominated a captive domestic market with substandard vehicles and with very little, if any, research and development, and low to negligible productivity growth. High tariff barriers have certainly induced foreign automobile makers to enter the Indian market by setting up local operations, but this so-called "tariff jumping" foreign investment has produced an industry that is inefficient, operating generally at a low scale, and whose products are not globally competitive either in terms of cost or of innovation. It is noteworthy that the automobile parts industry, which has faced low tariffs (as low as 12.5%) and has been largely deregulated, has been characterised by higher productivity and much better export performance than the completely-built units' sector in the years since liberalisation.** **(Adapted from an Op-Ed in *The Mint*.)** **Which of the following statements can be inferred from the above?**
(A)	Low tariff barriers increase productivity.
(B)	Tariff jumping leads to increases in productivity.
(C)	Deregulation has worked for the automotive parts industry and therefore should be applied to completely-built units.
(D)	P and Q do not invest enough in research and development.

Philosophy (XH-C4)

Q.1 – Q.20 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**What is the *mood* of the following syllogistic argument?** **All Professors are Academicians.** **Some Academicians are Activists.** **Therefore, Some Activists are Professors.**
(A)	A I I
(B)	I I I
(C)	I A I
(D)	A I A

Q.2	**What is the *formal fallacy* committed in the following syllogistic argument?** **No Students are tested Covid-positive.** **Some Covid-positive cases are not Professors.** **Therefore, Some Professors are not Students.**
(A)	Fallacy of Exclusive Premises
(B)	Fallacy of Illicit Major
(C)	Fallacy of Illicit Minor
(D)	Fallacy of Excluded Middle

Q.3	The Philosophy of Aurobindo may aptly be identified as
(A)	Integral Non-dualism.
(B)	Non-dualism.
(C)	Integral Dualism.
(D)	Dualism.

Q.4	**Scientists in the Institute of Virology tested Influenza-affected patients in Wuhan for all known acute respiratory diseases but could not establish the cause for their influenza from the set of known causes. Hence, they inferred for the first time that a Novel Corona Virus is the cause of their disease. Determine which of Mill's methods matches with the above description?**
(A)	Method of Residues
(B)	Method of Difference
(C)	Method of Agreement
(D)	Joint method of Agreement and Difference

Q.5	**In his *Republic*, Plato makes four-fold classification of the possible objects of knowledge. Where does he place Mathematical Objects?**
(A)	*Dianoia* [Thought]
(B)	*Noesis* [Understanding]
(C)	*Pistis* [Belief]
(D)	*Eikasia* [Imagination]

Q.6	**According to Plato, which among the following is NOT a *cardinal virtue*?**
(A)	Autonomy
(B)	Courage
(C)	Justice
(D)	Wisdom

Q.7	**In Plato's *Republic*, the guardians of the ideal state reserve the right to govern because**
(A)	it is their duty.
(B)	it is their birth-right.
(C)	they are democratically elected.
(D)	they have exclusive command over military power.

Q.8	**What is true of Rāmānuja's Viśiṣṭādvaita?**
(A)	It accepts the conception of qualified Brahman.
(B)	It accepts the conception of formless and non-qualified Brahman.
(C)	It considers the individual soul/self (*cit*) as unreal.
(D)	It considers the world (*acit*) as unreal.

Q.9	**In the Mīmāmsā system, *apūrva* stands for a link/relation between**
(A)	an act (action) and its fruit.
(B)	the past and the present.
(C)	Perception and Inference.
(D)	Creator and Creation.

Q.10	**The conception of *jīva* in Advaita stands for:**
(A)	Individual self
(B)	Universal Self
(C)	Liberated self
(D)	Living beings

Q.11	**What among the following is in conformity with Leibniz's metaphysical assertion of *Pre-established Harmony*?**
(A)	There is a mutual coordination of mind and body.
(B)	Mind and body are different kinds of substances.
(C)	The mind can causally influence the body.
(D)	Cause of a mental state cannot be any previous state of that mind.

Q.12	**In Edmund Husserl's phenomenology, *eidetic reduction* is meant to provide access to the sphere of**
(A)	essential structures of pure psychic processes.
(B)	accidental structures of psychic processes.
(C)	inner experience as such.
(D)	transcendental phenomena.

Q.13	**In Jaina classification of knowledge, *Mati* includes**
(A)	both Perception and Inference.
(B)	only Perception.
(C)	only Inference.
(D)	Inference and Authority (*śruta*).

Q.14	**Among the four *Brahmavihāras* of Buddhism, _____ evokes happiness at the joy and success of others.**
(A)	*Muditā*
(B)	*Maitrī*
(C)	*Karuṇā*
(D)	*Upekṣā*

Q.15	**Read the following verse from *Bhagavadgītā* carefully.** ***Karmaṇyevādhikāraste mā phaleṣu kadācana;*** ***Mā karmaphalaheturbhūrmā te sango'stvakarmaṇi.*** **[Your right is for action alone, never for the results. Do not become the agent of the results of action. May you not have any inclination for inaction.] (*Bhagavadgītā* 2: 47)** **This above quoted verse is a standard reference to:**
(A)	Karma-yoga
(B)	Bhakti-yoga
(C)	Jñāna-yoga
(D)	Rāja-yoga

Q.16	**Which among the following is predominantly a non-dualistic philosophical system?**
(A)	Kāṣmir Śaivism
(B)	Śaiva-siddhānta
(C)	Vīra-śaivism
(D)	Vaiṣṇavism

Q.17	**Gandhi's doctrine of *Trusteeship* establishes a normative relationship between labour and capital. Indicate which of the following is NOT in agreement with this doctrine?**
(A)	Class struggle is the key to social development and economic equality.
(B)	The capitalists would function only as trustees for the poor and working class.
(C)	The capitalist would keep the surplus wealth in *trust* in order to have economic equality and solidarity.
(D)	The capitalists would be made to realise the wealth in their hands is the fruit of the labour of the workers.

Q.18	**Which of the following is NOT a *pramāṇa* in the Nyāya system?**
(A)	*Anupalabdhi* (Non-apprehension)
(B)	*Upamāna* (Comparison)
(C)	*Anumāna* (Inference)
(D)	*Pratyakṣa* (Perception)

Q.19	**In the Vaiśeṣika system, which of the following is a *padārtha* (category)?**
(A)	*Guṇa* (Quality)
(B)	*Ātman* (Spirit/Soul)
(C)	*Tejas* (Fire)
(D)	*Vāyu* (Air)

Q.20	**Identify which among the following is NOT a characteristic of a *simple idea* according to John Locke.**
(A)	Varying in its appearance or conception
(B)	Cannot be further divided into other simple ideas
(C)	Distinctly clear
(D)	Unambiguous

Q.21 – Q.40 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q.21	**Which of the following are in accordance to Democritus' cosmology?**
(A)	The cosmos has an underlying order.
(B)	Fundamental units of the reality are atoms.
(C)	Atoms are extended but indivisible and indestructible.
(D)	Atoms are weightless, shapeless and always in a state of rest.

Q.22	**For Immanuel Kant, which of the following statements are appropriate examples of *synthetic a priori* judgment?**
(A)	2 + 2 = 4
(B)	The shortest distance between two points is a straight line.
(C)	For every action there is an equal and opposite reaction.
(D)	God is a perfect being.

Q.23	**In the Sānkhya system, which among the following are *antaḥkaraṇas*?**
(A)	*Buddhi* (Intellect)
(B)	*Ahamkāra* (Ego)
(C)	*Jñānedriyas* (Sensory Organs)
(D)	*Karmendriyas* (Motor Organs)

Q.24	**Which of the following are meant by Kant's notion of *autonomy of will*?**
(A)	A recognition of the will as duty-bound.
(B)	The will is not bound by empirical laws.
(C)	The will is not bound by material objects of desire.
(D)	The will is only determined by the material principle of self-love.

Q.25	**On which of the following, Plato and Aristotle DISAGREE concerning the realm of the political?**
(A)	Women, in principle, are barred from participation in the political realm.
(B)	The best form of government entails the concentration of power in a limited few.
(C)	Manual labourers, traders, and businessmen are not fit for political powers.
(D)	The ethical and the political are intricately connected.

Q.26	**Which among the following are part of *yama* in Patanjali's Aṣṭānga-Yoga?**
(A)	*Ahimsā* (Non-violence)
(B)	*Satya* (Truthfulness)
(C)	*Aparigraha* (Detachment)
(D)	*Iśvara-praṇidhāna* (Devotion to God)

Q.27	**Progress of the modern sciences and reflection on method have led to the development of new fields of analysis in Renaissance Philosophy. Which among the following correctly trace the influence of a particular science on a particular philosopher's thought?**
(A)	Mathematics on Rene Descartes
(B)	Mechanics on Thomas Hobbes
(C)	Historical science on G.W.F. Hegel
(D)	Biology and the evolutionary hypothesis on Francis Bacon

Q.28	**Gottlob Frege, in his *Sense and Reference,* discusses the identity relation between the statements "a=a" and "a=b". Which of the following are his conclusions?**
(A)	Identity relation is between names or signs of objects.
(B)	They are statements of differing cognitive value.
(C)	The two ensuing judgments of the statements are different.
(D)	Sense expressed in the two statements are the same.

Q.29	**If Descartes' *Meditations* is credited for a modern version of mind-body dualism, which statements among the following hold true in accordance with it?**
(A)	Descartes is a substance dualist.
(B)	Mind is essentially a *thinking thing*.
(C)	Essential property of matter is determined by the *form*.
(D)	Both, mind and body are indivisible.

Q.30	**John Stuart Mill, in his *Utilitarianism,* proposes the conception of Utility or Happiness as the directive rule of human conduct. Which of the following are drawn from his conception of Happiness to form the utilitarian standard?**
(A)	Happiness of all concerned is overriding.
(B)	The agent acts as a disinterested spectator.
(C)	The agent's own happiness is paramount.
(D)	Impartiality cannot be maintained in action.

Q. 31	**Which among the following statements does W.V.O. Quine REJECT in his work, *Two Dogmas of Empiricism?***
(A)	The distinction between analytic and synthetic truths.
(B)	Every meaningful statement can be reduced to a statement about immediate experience.
(C)	Truths which are grounded in meanings are dependent on truths which are grounded in fact.
(D)	The verification theory of meaning is not a possible key to resolve the problem of meaning.

Q. 32	**Read the following statements carefully and answer the following question.** **i. Greater welfare of others is to be valued more than the individual freedom.** **ii. Only when the conception of justice is on hand, the ideas of respect and human dignity can be given a more definite meaning.** **iii. Principles of justice are derived from the ideas of respect and human dignity.** **iv. The loss of freedom for some is not made right by a greater welfare of others.** **In light of the theory of *justice as fairness*, as proposed by John Rawls, which of following pairs of statement DO NOT agree with Rawl's position?**
(A)	i and iii
(B)	iii and iv
(C)	ii and iv
(D)	i and ii

Q. 33	**George Berkeley, in his *Principles of Human Knowledge,* reflects on the nature of thought and attacks *abstract ideas*. Which among the following hold true to his view?**
(A)	There cannot be an idea of anything essentially independent of mind.
(B)	One cannot conceive of the unperceived.
(C)	Any idea is essentially independent of mind.
(D)	One can conceive of the unperceived.

Q.34	**In his *An Enquiry Concerning Human Understanding*, Hume relies on a basic distinction between two forms of perception. Which among the following are true about it?**
(A)	Perceptions are understood as the items of our mental world.
(B)	*Impressions* and *ideas* are two categories of perceptions.
(C)	*Ideas* are derived from *impressions*.
(D)	*Impressions* include sensations, desires, and passions.

Q.35	**In Martin Heidegger's *Being and Time*, which among the following correctly describe *Dasein*?**
(A)	Inquiring is one of the possibilities of *Dasein's Being*.
(B)	Understanding of *Being* is a definite characteristic of *Dasein's Being*.
(C)	*Dasein* always understands itself in terms of its existence.
(D)	*Dasein* is closest to us but it is not we ourselves.

Q. 36	**Read the passage carefully and answer the question.** **"There is … a subtler domination exercised in the sphere of ideas by one culture on another, a domination all the more serious in the consequence, because it is not ordinarily felt… Slavery begins when one ceases to feel the evil and it deepens when the evil is accepted as a good. Cultural subjection is ordinarily of an unconscious character and it implies slavery from the very start. When I speak of cultural subjection, I do not mean the assimilation of an alien culture. That assimilation need not be an evil; it may be positively necessary for healthy progress and in any case it does not mean a lapse of freedom. There is cultural subjection only when one's traditional cast of ideas and sentiments is superseded without comparison or competition by a new cast representing an alien culture which possesses one like a ghost." (K.C. Bhattacharyya, *Swaraj in Ideas*, p.13)** **In the light of the passage above, *cultural subjection* amounts to**
(A)	an uncritical assimilation of foreign culture.
(B)	an inability to accurately distinguish the good from the evil.
(C)	an uncritical discarding of one's tradition.
(D)	a complete rejection of foreign ideas.

Q.37	**Read the following statements carefully and answer the following question.** **i. Rahul *is not* what he *is* and *is* what he *is not.*** **ii. The book *is* a book and can *be* nothing more.** **iii. Of course, a book *is* a book, but *it* can always *be* something more.** **iv. Rahul *is* what he *is* and must always *be* so.** **Which of the following pairs of statements given below is NOT compatible with Jean-Paul Sartre's Existential Philosophy?**
(A)	iii and iv
(B)	i and iii
(C)	ii and iv
(D)	i and ii

Q.38	**Which of the following philosophical tenets are admissible in Cārvāka philosophy?**
(A)	The soul is nothing but the conscious body.
(B)	Consciousness arises from matter.
(C)	Death alone is liberation.
(D)	Earth, water, fire, air, and ether are elements.

Q.39	**Read the passage carefully and answer the following question.** **'While I condemn a religion of rules, I must not be understood to hold the opinion that there is no necessity for a religion. On the contrary, I agree with Burke when he says that "True religion is the foundation of society, the basis on which all true Civil Government rests, and both their sanction." Consequently, when I urge that these ancient rules of life be annulled, I am anxious that their place shall be taken by a religion of principles, which alone can lay claim to being a true religion.' (B. R. Ambedkar, *Annihilation of Caste*, 24.1)** **From the above passage, which among the following accurately represents Ambedkar's view on foundation of society?**
(A)	Religion of principles should provide the foundation of society.
(B)	Traditional religion should provide the foundation of society.
(C)	Religion of rules should provide a foundation of society.
(D)	Religion is not necessary at all for the foundation of society.

Q.40	**Which among the following statements are justifiably held from Thomas Hobbes' political theory on the social contract, in his book *Leviathan*?**
(A)	It is founded on the hypothetical State of Nature.
(B)	All men are made by nature to be equals, therefore, no one has a natural right to govern others.
(C)	All are to submit to the authority of an absolute sovereign power.
(D)	People can live together only by submitting their individual, particular wills to the collective will.

END OF THE QUESTION PAPER

Graduate Aptitude Test in Engineering (GATE 2021)

Subject/Paper: Humanities and Social Sciences (XH) / Philosophy (XH-C4)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
1	7	MCQ	GA	D	1	1/3
2	7	MCQ	GA	D	1	1/3
3	7	MCQ	GA	D	1	1/3
4	7	MCQ	GA	D	1	1/3
5	7	MCQ	GA	C	1	1/3
6	7	MCQ	GA	C	2	2/3
7	7	MCQ	GA	A	2	2/3
8	7	MCQ	GA	C	2	2/3
9	7	MCQ	GA	C	2	2/3
10	7	MCQ	GA	D	2	2/3
1	7	MCQ	XH-B1	C	1	1/3
2	7	MCQ	XH-B1	C	1	1/3
3	7	MCQ	XH-B1	C	1	1/3
4	7	MCQ	XH-B1	D	1	1/3
5	7	MCQ	XH-B1	C	1	1/3
6	7	MCQ	XH-B1	A	2	2/3
7	7	MCQ	XH-B1	C	2	2/3
8	7	MCQ	XH-B1	C	2	2/3
9	7	MCQ	XH-B1	D	2	2/3
10	7	MCQ	XH-B1	B	2	2/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Philosophy (XH-C4)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
11	7	MSQ	XH-B1	C; D	2	0
12	7	MSQ	XH-B1	B; C	2	0
13	7	MSQ	XH-B1	A; B	2	0
14	7	MSQ	XH-B1	A; B	2	0
15	7	MSQ	XH-B1	A; C; D	2	0
1	7	MCQ	XH-C4	A	1	1/3
2	7	MCQ	XH-C4	A	1	1/3
3	7	MCQ	XH-C4	A	1	1/3
4	7	MCQ	XH-C4	A	1	1/3
5	7	MCQ	XH-C4	A	1	1/3
6	7	MCQ	XH-C4	A	1	1/3
7	7	MCQ	XH-C4	A	1	1/3
8	7	MCQ	XH-C4	A	1	1/3
9	7	MCQ	XH-C4	A	1	1/3
10	7	MCQ	XH-C4	A	1	1/3
11	7	MCQ	XH-C4	A	1	1/3
12	7	MCQ	XH-C4	A	1	1/3
13	7	MCQ	XH-C4	A	1	1/3
14	7	MCQ	XH-C4	A	1	1/3
15	7	MCQ	XH-C4	A	1	1/3
16	7	MCQ	XH-C4	A	1	1/3
17	7	MCQ	XH-C4	A	1	1/3
18	7	MCQ	XH-C4	A	1	1/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Philosophy (XH-C4)

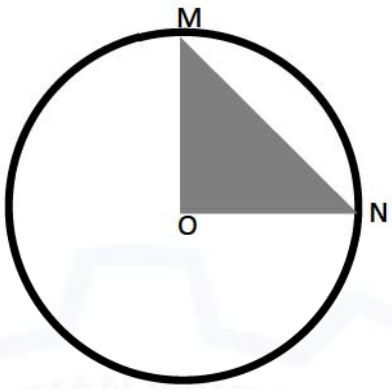
Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
19	7	MCQ	XH-C4	A	1	1/3
20	7	MCQ	XH-C4	A	1	1/3
21	7	MSQ	XH-C4	A; B; C	2	0
22	7	MSQ	XH-C4	A; B; C	2	0
23	7	MSQ	XH-C4	A; B	2	0
24	7	MSQ	XH-C4	A; B; C	2	0
25	7	MSQ	XH-C4	A; B; C	2	0
26	7	MSQ	XH-C4	A; B; C	2	0
27	7	MSQ	XH-C4	A; B; C	2	0
28	7	MSQ	XH-C4	A; B; C	2	0
29	7	MSQ	XH-C4	A; B	2	0
30	7	MSQ	XH-C4	A; B	2	0
31	7	MSQ	XH-C4	A; B; C	2	0
32	7	MSQ	XH-C4	A; B; C	2	0
33	7	MSQ	XH-C4	A; B	2	0
34	7	MSQ	XH-C4	A; B; C	2	0
35	7	MSQ	XH-C4	A; B; C	2	0
36	7	MSQ	XH-C4	A; B; C	2	0
37	7	MSQ	XH-C4	A OR A; B; C	2	0
38	7	MSQ	XH-C4	A; B; C	2	0
39	7	MSQ	XH-C4	A	2	0
40	7	MSQ	XH-C4	A; B; C	2	0

General Aptitude (GA)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Consider the following sentences:** **(i) After his surgery, Raja hardly could walk.** **(ii) After his surgery, Raja could barely walk.** **(iii) After his surgery, Raja barely could walk.** **(iv) After his surgery, Raja could hardly walk.** **Which of the above sentences are grammatically CORRECT?**
(A)	(i) and (ii)
(B)	(i) and (iii)
(C)	(iii) and (iv)
(D)	(ii) and (iv)

Q.2	**Ms. X came out of a building through its front door to find her shadow due to the morning sun falling to her right side with the building to her back. From this, it can be inferred that building is facing _____**
(A)	North
(B)	East
(C)	West
(D)	South

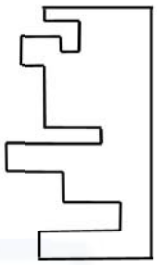
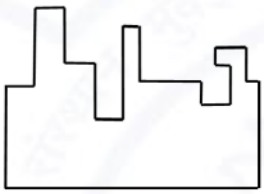
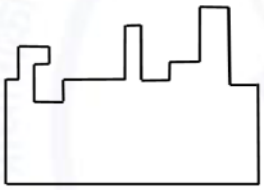
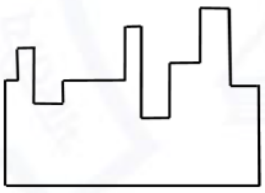
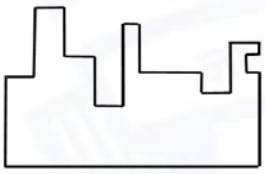
Q.3	 **In the above figure, O is the center of the circle and, M and N lie on the circle.** **The area of the right triangle MON is 50 cm^2.** **What is the area of the circle in cm^2 ?**
(A)	2π
(B)	50π
(C)	75π
(D)	100π

Q.4	**If** $\begin{cases} "\oplus" \text{ means } "-", \\ "\otimes" \text{ means } "\div", \\ "\Delta" \text{ means } "+", \\ "\nabla" \text{ means } "\times", \end{cases}$ **then, the value of the expression** $\Delta\, 2 \oplus 3\, \Delta \left((4 \otimes 2) \nabla\, 4 \right) =$
(A)	-1
(B)	-0.5
(C)	6
(D)	7

Q.5	**"The increased consumption of leafy vegetables in the recent months is a clear indication that the people in the state have begun to lead a healthy lifestyle"** **Which of the following can be logically inferred from the information presented in the above statement?**
(A)	The people in the state did not consume leafy vegetables earlier.
(B)	Consumption of leafy vegetables may not be the only indicator of healthy lifestyle.
(C)	Leading a healthy lifestyle is related to a diet with leafy vegetables.
(D)	The people in the state have increased awareness of health hazards causing by consumption of junk foods.

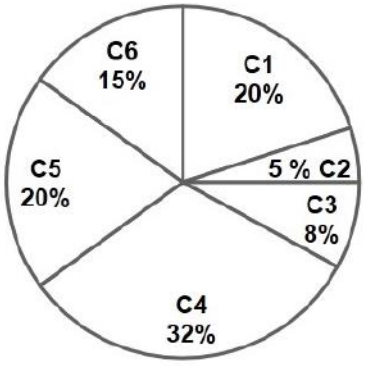
Q. 6 – Q. 10 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: – 2/3).

Q.6	**Oxpeckers and rhinos manifest a symbiotic relationship in the wild. The oxpeckers warn the rhinos about approaching poachers, thus possibly saving the lives of the rhinos. Oxpeckers also feed on the parasitic ticks found on rhinos.** **In the symbiotic relationship described above, the primary benefits for oxpeckers and rhinos respectively are,**
(A)	Oxpeckers get a food source, rhinos have no benefit.
(B)	Oxpeckers save their habitat from poachers while the rhinos have no benefit.
(C)	Oxpeckers get a food source, rhinos may be saved from the poachers.
(D)	Oxpeckers save the lives of poachers, rhinos save their own lives.

Q.7	 **A jigsaw puzzle has 2 pieces. One of the pieces is shown above. Which one of the given options for the missing piece when assembled will form a rectangle? The piece can be moved, rotated or flipped to assemble with the above piece.**
(A)	
(B)	
(C)	
(D)	

Q.8	**The number of hens, ducks and goats in farm P are 65, 91 and 169, respectively. The total number of hens, ducks and goats in a nearby farm Q is 416. The ratio of hens:ducks:goats in farm Q is 5:14:13. All the hens, ducks and goats are sent from farm Q to farm P.** **The new ratio of hens:ducks:goats in farm P is_____**
(A)	5:7:13
(B)	5:14:13
(C)	10:21:26
(D)	21:10:26

Q.9



Company	Ratio
C1	3:2
C2	1:4
C3	5:3
C4	2:3
C5	9:1
C6	3:4

The distribution of employees at the rank of executives, across different companies C1, C2, …, C6 is presented in the chart given above. The ratio of executives with a management degree to those without a management degree in each of these companies is provided in the table above. The total number of executives across all companies is 10,000.

The total number of management degree holders among the executives in companies C2 and C5 together is_____.

(A)	225
(B)	600
(C)	1900
(D)	2500

Q. 10	**Five persons P, Q, R, S and T are sitting in a row not necessarily in the same order. Q and R are separated by one person, and S should not be seated adjacent to Q.** **The number of distinct seating arrangements possible is:**
(A)	4
(B)	8
(C)	10
(D)	16

Reasoning and Comprehension (XH-B1)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**According to a recent article in a medical journal, consuming curcumin (from turmeric) significantly lowers the risk of COVID-19. The researchers draw this conclusion from a study that found that people who consumed one or more teaspoons of curcumin extract everyday were half as likely to be diagnosed with the disease as people who did not consume curcumin.** **Which of the following, if true, most weakens the argument in the article?**
(A)	In another study, people who were given a zinc supplement everyday were more than four times less likely to be diagnosed with COVID-19 as those who did not.
(B)	All the participants in this study were from the same state where no other spices or herbs are consumed.
(C)	The participants who consumed curcumin were also more likely to exercise than those who did not.
(D)	In another study, COVID-19 patients who were given curcumin were no more likely to recover than others.

Q.2	**Froot Inc. carried out an internet advertisement campaign for its new beverage CocoLoco. After the campaign, the director of the advertising company conducted a survey and found that the CocoLoco sales were higher than that of TenderJoos a competing product from Joos Inc. The agency concluded that the internet advertising campaign is more effective than advertising through other media.** **Which of the following statements could strengthen the conclusion above by the agency?**
(A)	A ₹2 discount was offered on CocoLoco during the campaign period.
(B)	CocoLoco sales were higher than those of TenderJoos before the internet campaign.
(C)	A newspaper advertisement campaign the previous year did not increase CocoLoco sales.
(D)	During the campaign for CocoLoco, Joos Inc. did not advertise TenderJoos at all.

Q.3	**An e-commerce site offered a deal last month conditional on the customer spending a minimum of ₹500. Any customer who buys 2 kg of fresh fruit will receive a hand mixer and any customer who buys 2 kg of fresh vegetables will receive a vegetable chopper.** **Which of the following is NOT a possible outcome of the above?**
(A)	A customer purchased 3 kg of fresh fruit and did not receive a vegetable chopper.
(B)	A customer purchased items for ₹500 which included 1 kg of vegetables and received a hand mixer.
(C)	A customer purchased items for ₹500 which included 2 kg of vegetables and 1 kg of fruit and received a hand mixer.
(D)	A customer purchased items for ₹300 which included 2 kg of fruit and received neither a hand mixer nor a vegetable chopper.

Q.4	**Writers of detective fiction often include an incompetent detective as a foil for the brilliant investigator-protagonist as they follow different paths in trying to solve the crime. In the individual accounts, the incompetent detective is frequently distracted by the culprit's careful plans, while the competent investigator solves the case after a final confrontation. Analysts of such fiction believe that the authors select this story-telling technique to provide readers with more complexities in the form of misleading clues, while figuring out the crime.** **Which of the following statements most logically follows from the passage above?**
(A)	A detective story is considered well-written if the brilliant investigator is accompanied by an incompetent detective.
(B)	Writers of detective fiction use the contrast of an incompetent detective to mainly show how complex the investigation is.
(C)	Writers of detective fiction never write stories where the incompetent detective solves the case.
(D)	Writers of detective fiction use two investigative accounts to make it difficult for the reader to figure out the outcome.

Q.5	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled (L,M,N,O). Reorder these parts so that the sentence can be read through correctly and select one of the options given.** *P1: Studies of several Sahitya Akademi award winners show that…* L: or encounter professional M: and invariably develop a strained relationship with other literary figures N: they often publish very little O: after winning the prize *P6: …envy and rivalry.* **The correct order is:**
(A)	NOLM
(B)	MLON
(C)	ONML
(D)	MOLN

Q.6 – Q.10 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 6	**Gerrymandering refers to the targeted redrawing of election constituencies so as to benefit a particular party. This is especially important where the electoral system is "first past the post" in each constituency (i.e. one winner is selected in each constituency based on a majority of votes won) and where there is no other provision for proportional representation (as for example in the German system). For a simple illustration of gerrymandering, if a region consists of districts 1, 2, 3, …, 9 with districts 1, 2, 3, 4, 5, 6 favouring party P and 7, 8, 9 favouring party Q, then grouping of districts to constituencies as {1,2,3}, {4,5,6}, {7,8,9} will give two seats to party P and one seat to party Q, whereas the grouping {1,2,7}, {3,4,8}, {5,6,9} will give all three seats to party P, as they will secure a majority in each constituency.** **Which of these statements can be deduced from the above?**
(A)	Gerrymandering implies that constituency boundaries can sometimes be drawn to favour one party over the other.
(B)	Gerrymandering implies that proportional representation is impossible when districts are grouped to form constituencies.
(C)	To counteract gerrymandering political parties should concentrate on districts where they are favoured.
(D)	The grouping of districts to constituencies has very little impact on proportional representation.

Q. 7	**X-ray examination of a recently discovered painting that some authorities judge to be a self-portrait by Michelangelo revealed an under-image of a woman's face. Either Michelangelo or some other artist must have repainted over the first painting that had now been seen on the canvas. Because the woman's face also appears on other paintings by Michelangelo, this painting is determined to indeed be an authentic painting by Michelangelo.** **Which of the following assumptions must be made in reaching the conclusion above?**
(A)	When an already painted canvas of an artist is used, the second artist using that canvas for a new painting is usually influenced by the artistic style of the first.
(B)	Several painted canvases that art historians attribute to Michelangelo contain under-images that appear on at least one other of Michelangelo's paintings.
(C)	Subject or subjects that appear in authenticated paintings of Michelangelo are rather unlikely to show up as under-images on painted canvases not attributed to Michelangelo.
(D)	No painted canvas can be attributed to a particular artist with certainty without an X-ray analysis.

Q. 8	**This season _____ tourists visited Ladakh than last season; however, _____ to be the biggest tourist destination in India. The tourism department explains that the number of tourists to India has _____ relative to previous years, _____ have chosen to visit Ladakh.** **Select the correct sequence of phrases to fill in the blanks to complete the passage above.**
(A)	more / for the first time in many seasons it does not appear / increased / and it seems that most
(B)	fewer / as in the past, it appears / in fact decreased / but it seems that only a small proportion
(C)	fewer / for the first time in many seasons it appears / in fact decreased / but it seems that most
(D)	more / this season as well, it appears / in fact decreased / but it seems that a large proportion

Q. 9	**Reorder the sentences in (1) – (5) such that they form a coherent paragraph.** **(1) In fact, dozens of languages today have only one native speaker still living, and that person's death will mean the extinction of the language: It will no longer be spoken, or known, by anyone on earth.** **(2) Many languages are falling out of use and are being replaced by others that are more widely used in the region or nation, such as English in Australia or Portuguese in Brazil.** **(3) Many other languages are no longer being learned by new generations of children or by new adult speakers.** **(4) An endangered language is one that is likely to become extinct in the near future.** **(5) Unless the trends are reversed, these endangered languages will become extinct by the end of the century.** **(Adapted from *What is an Endangered Language* by A. Woodbury.)**
(A)	2 3 1 4 5
(B)	2 3 5 4 1
(C)	4 1 5 2 3
(D)	4 2 3 1 5

Q. 10	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled L,M,N,O. Reorder these parts so that the sentence can be read correctly and select one of the sequences below.** ***P1: For a little while…*** **L: it was a common belief** **M: right after the treaty of Versailles** **N: that Germany had caused World War I not just by her actions** **O: held by analysts and politicians alike** ***P6: … but by also encouraging Italy in her own aggressions.***
(A)	LMNO
(B)	MLON
(C)	LNMO
(D)	MOLN

Q.11 – Q.15 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 11	**After Florentino Ariza saw her for the first time, his mother knew before he told her because he lost his voice and his appetite and spent the entire night tossing and turning in his bed. But when he began to wait for the answer to his first letter, his anguish was complicated by diaorrhea and green vomit, he became disoriented and suffered from sudden fainting spells, and his mother was terrified because his condition did not resemble the turmoil of love so much as the devastation of cholera. Florentino Ariza's godfather, an old homeopathic practitioner who had been Tránsito Ariza's confidant ever since her days as a secret mistress, was also alarmed at first by the patient's condition, because he had the weak pulse, the hoarse breathing, and the pale perspiration of a dying man. But his examination revealed that he had no fever, no pain anywhere, and that his only concrete feeling was an urgent desire to die. All that was needed was shrewd questioning, first of the patient and then of his mother, to conclude once again that the symptoms of love were the same as those of cholera. He prescribed infusions of linden blossoms to calm the nerves and suggested a change of air so he could find consolation in distance, but Florentino Ariza longed for just the opposite: to enjoy his martyrdom.** **(Adapted from *Love in a Time of Cholera* by Gabriel García Márquez.)** **The author of the passage is implying that:**
(A)	Homeopathy cures love.
(B)	The doctor could not distinguish between love and cholera.
(C)	The doctor could distinguish between love and cholera.
(D)	The symptoms of love and cholera are similar.

Q. 12	**Now, it is clear that the decline of a language must ultimately have political and economic causes: it is not due simply to the bad influence of this or that individual writer. But an effect can become a cause, reinforcing the original cause and producing the same effect in an intensified form, and so on indefinitely. A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the slovenliness of our language makes it easier for us to have foolish thoughts.** **(Adapted from *Politics and the English Language* by George Orwell.)** **The illustration of the man who takes to drink is used to underscore which of the following ideas in the passage above?**
(A)	Political and economic causes control deterioration of language.
(B)	Foolish thoughts are enabled by inaccurate language.
(C)	Effect of an action becomes the cause in a cyclic pattern.
(D)	Drinking enables people to have foolish thoughts and slovenly language.

Q. 13	**It is a pity that Caste even today has its defenders. The defences are many. It is defended on the grounds that the Caste System is but another name for division of labour, and if division of labour is a necessary feature of every civilised society, then it is argued that there is nothing wrong in the Caste System. Now the first thing to be urged against this view is that Caste System is not merely division of labour. It is also a division of labourers. Civilised society undoubtedly needs division of labour but nowhere is division of labour accompanied by this unnatural division of labourers into watertight compartments, grading them one above the other. This division of labour is not spontaneous or based on natural aptitudes. Social and individual efficiency requires us to develop the individual capacity and competency to choose and to make his own career. This principle is violated in so far as it involves an attempt to appoint tasks to individuals in advance, not on the basis of trained original capacities, but on that of birth. Industry undergoes rapid and abrupt changes and an individual must be free to change his occupation and adjust himself to changing circumstances, to gain his livelihood. (Adapted from *Annihilation of Caste* by Dr. B.R. Ambedkar.)** **Which of the following observations substantiate the arguments found in the passage above?**
(A)	Newer generations are unable to change and move away from low-paying family professions, even with changed economic circumstances.
(B)	Sedentary desk jobs are considered to have more value and are in greater demand than those involving manual labour.
(C)	The government's jobs guarantee programme makes low-level management jobs available across all industries to all graduates in the nation.
(D)	A bus driver becomes an app creator and, in the course of one month, reaches one million downloads on Playstore with a four-star rating.

Q. 14	**Imagine that you're in a game show and your host shows you three doors. Behind one of them is a shiny car and behind the others are goats. You pick one of the doors and get what lies within. After making your choice, your host chooses to open one of the other two doors, which inevitably reveals a goat. He then asks you if you want to stick with your original pick, or switch to the other remaining door. What do you do? Most people think that it doesn't make a difference and they tend to stick with their first pick. With two doors left, you should have a 50% chance of selecting the one with the car. If you agree, then you have just fallen afoul of one of the most infamous mathematical problems – the Monty Hall Problem. In reality, you should switch every time which doubles your odds of getting the car. Over the years, the problem has ensnared countless people, but not, it seems, pigeons. The humble pigeon can learn with practice the best tactic for the Monty Hall Problem, switching from their initial choice almost every time. Amazingly, humans do not!** **(Adapted from an article by Ed Yong in *Discover Magazine*.)** **Which of the following conclusions follow from the passage above?**
(A)	Humans calculate the probability of independent, random events such as the opening of a door by dividing the specific outcomes by the total number of possible outcomes.
(B)	Humans find it very difficult to learn to account for the host's hand in making the event non-random and, thereby, changing the outcome of the event.
(C)	Calculating probabilities is difficult for humans but easy for pigeons; which is why the pigeons succeed where the humans fail.
(D)	Humans are governed by reason, but pigeons are irrational and only interested in the outcome and will do whatever it takes to get food.

Q. 15	**The truth is that, despite the recent success of car-makers P and Q, India's automobile industry is in a state not that different from the bad old days of the license-permit quota raj when two carmakers dominated a captive domestic market with substandard vehicles and with very little, if any, research and development, and low to negligible productivity growth. High tariff barriers have certainly induced foreign automobile makers to enter the Indian market by setting up local operations, but this so-called "tariff jumping" foreign investment has produced an industry that is inefficient, operating generally at a low scale, and whose products are not globally competitive either in terms of cost or of innovation. It is noteworthy that the automobile parts industry, which has faced low tariffs (as low as 12.5%) and has been largely deregulated, has been characterised by higher productivity and much better export performance than the completely-built units' sector in the years since liberalisation.** **(Adapted from an Op-Ed in *The Mint*.)** **Which of the following statements can be inferred from the above?**
(A)	Low tariff barriers increase productivity.
(B)	Tariff jumping leads to increases in productivity.
(C)	Deregulation has worked for the automotive parts industry and therefore should be applied to completely-built units.
(D)	P and Q do not invest enough in research and development.

Psychology (XH-C5)

Q.1 – Q.19 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**According to the Path-Goal theory of leadership, a style of leadership in which the leader consults with subordinates, involving them in the decision making process is _____.**
(A)	participative
(B)	directive
(C)	supportive
(D)	achievement oriented

Q.2	**A process to test reliability that involves creating a large 'bank' of items and then dividing it into different versions or creating two tests with items of similar difficulty is called _____.**
(A)	alternate and parallel form reliability
(B)	measure of test homogeneity
(C)	test-retest
(D)	inter-rater reliability

Q.3	**Delusion of 'reference' is a symptom of schizophrenia in which people _____.**
(A)	believe that random events or comments are directed at them
(B)	believe that their thoughts are being broadcasted
(C)	believe they have special powers
(D)	have sensory experiences in the absence of stimulus

Q.4	**A student who has prepared inadequately for an exam attributes his failing grade to an unfair test, cheating by other students or a professor who taught badly, is expressing _____.**
(A)	projection
(B)	reaction formation
(C)	repression
(D)	rationalization

Q.5	**Which of the following theories of emotion best fits with the statement that perception of an environmental situation results in emotions and both, felt emotion and bodily reactions in emotions are independent of each other, but triggered simultaneously?**
(A)	Cannon-Bard Theory
(B)	Lazarus's Cognitive Appraisal Theory
(C)	Schachter-Singer Theory
(D)	James-Lange Theory

Q.6	**The perceived fairness of the distribution of resources and rewards is described as _____.**
(A)	distributive justice
(B)	procedural justice
(C)	interactional justice
(D)	informational justice

Q.7	**According to Bandura's theory of personality, which one of the following is the most important *person variables* in determining personality?**
(A)	Self-efficacy
(B)	Self-concept
(C)	Self-esteem
(D)	Self-determination

Q.8 **Match the events in the first column with the different categories of stress in the second column.**

Events		Stress	
P	**A young child who loses his water bottle on the school bus**	**(i)**	**Traumatic event**
Q	**A person who escaped from the Taj hotel on 26th November, 2008 around midnight and has nightmares about the same incident**	**(ii)**	**Chronic stressor**
R	**Someone fearing the loss of one's job**	**(iii)**	**Major life event**
S	**A woman who has her first baby**	**(iv)**	**Daily Hassle**

(A)	P-(iv), Q-(i), R-(ii), S-(iii)
(B)	P-(iv), Q-(iii), R-(i), S-(ii)
(C)	P-(ii), Q-(i), R-(iii), S-(iv)
(D)	P-(i), Q-(iv), R-(ii), S-(iii)

Q.9	**Which of the following types of colour blindness denotes *blue-yellow* colour deficiency?**
(A)	Tritanopia
(B)	Protanopia
(C)	Dueteranopia
(D)	Ritalin

Q.10	**Which of the following properties of sound is similar to the hue of light?**
(A)	Pitch
(B)	Timbre
(C)	Loudness
(D)	Purity

Q.11	**_____ is a reinforcement schedule, where a person or animal receives the reinforcement based on varying amount of time.**
(A)	Variable-interval
(B)	Fixed-ratio
(C)	Fixed-interval
(D)	Variable-ratio

Q.12	**_____ is a loss of memory of events that occurred prior to the trauma.**
(A)	Retrograde amnesia
(B)	Anterograde amnesia
(C)	Infantile amnesia
(D)	Posthypnotic amnesia

Q.13	**Phobias and Obsessive Compulsive Disorder fall in the category of _____.**
(A)	anxiety disorders
(B)	mood disorders
(C)	somatoform disorders
(D)	psychotic disorders

Q.14	**The smallest unit of speech perception that has meaning is _____.**
(A)	morpheme
(B)	syntax
(C)	semantics
(D)	phoneme

Q.15	**In adolescence, with the development of the stage of 'formal operations', we are likely to see the development of _____.**
(A)	post-conventional morality
(B)	pre-conventional morality
(C)	bodily-kinesthetic intelligence
(D)	transference

Q.16	**Which technique allows researchers to conduct an integrative statistical analysis of multiple independent studies addressing the same question?**
(A)	Meta-analysis
(B)	Correlational analysis
(C)	Regression analysis
(D)	Bootstrapping

Q.17	**The role of culture and 'scaffolding' are emphasized in _____.**
(A)	Vygotsky's theory of cognitive development
(B)	Piaget's theory of cognitive development
(C)	Atkinson-Shiffrin's information-processing model
(D)	Kamiloff-Smith's theory of cognitive development

Q.18	**Most people tend NOT to consider situational factors while judging others' behaviour because _____.**
(A)	people are inclined to commit the fundamental attribution error
(B)	of the frustration-aggression relationship
(C)	people are influenced by the laws of reinforcement
(D)	of the overjustification effect

Q.19	**Using archival analysis, scientists describe a culture by _____.**
(A)	examining documents like magazines, diaries and newspapers
(B)	surveying a representative sample of members of the society
(C)	observing the behaviour of members of the society
(D)	comparing the direct observations of behaviour from different cultures

Q.20 Multiple Select Question (MSQ), carry ONE mark each (no negative marks).

Q.20	Which is/are the component(s) of Gardner's theory of multiple intelligences?
(A)	Logical-Mathematical intelligence
(B)	Linguistic intelligence
(C)	Spatial intelligence
(D)	Insight

Q.21 – Q.23 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q.21 **Match the neurotransmitter in the first column with its effect in the second column.**

Neurotransmitter		Effect	
P	**Acetylcholine**	**(i)**	**Primarily involved in control or alertness and wakefulness.**
Q	**Norepinephrine**	**(ii)**	**Plays a role in the regulation of mood, eating, sleeping and arousal.**
R	**Serotonin**	**(iii)**	**Major inhibitory neurotransmitter in the brain.**
S	**Gamma-aminobutyric acid (GABA)**	**(iv)**	**Involved in muscle action, learning and memory.**
		(v)	**Involved in Parkinson's disease.**

(A) P-(iv), Q-(i), R-(ii), S-(iii)

(B) P-(iii), Q-(i), R-(ii), S-(v)

(C) P-(i), Q-(ii), R-(iv), S-(iii)

(D) P-(iv), Q-(i), R-(v), S-(iii)

Q.22 **Match the depth cues in the first column with their description in the second column.**

Cues		Description	
P	**Aerial perspective**	**(i)**	**The inward turning of the eyes that occurs when you look at an object that is closer to you.**
Q	**Motion Parallax**	**(ii)**	**The distant mountain appears fuzzy.**
R	**Convergence**	**(iii)**	**Parallel lines appear to converge at the horizon.**
S	**Linear perspective**	**(iv)**	**When we travel in a vehicle, objects that are close appear to move in the opposite direction.**

(A)	P-(ii), Q-(iv), R-(i), S-(iii)
(B)	P-(ii), Q-(iii), R-(iv), S-(i)
(C)	P-(iv), Q-(i), R-(ii), S-(iii)
(D)	P-(iii), Q-(iv), R-(i), S-(ii)

Q.23 **Match the concepts in the first column with the description in the second column.**

Concept		Description	
P	**Transience**	**(i)**	**Source of memory is confused**
Q	**Misattribution**	**(ii)**	**Inability to forget undesirable memories**
R	**Absentmindedness**	**(iii)**	**Accessibility of memory decreases over time**
S	**Persistence**	**(iv)**	**Forgetting caused by lapses in attention**

(A) P-(iii), Q-(i), R-(iv), S-(ii)

(B) P-(i), Q-(ii), R-(iii), S-(iv)

(C) P-(ii), Q-(i), R-(iv), S-(iii)

(D) P-(iii), Q-(iv), R-(i), S-(ii)

Q.24 – Q.40 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q.24	**Which of the following will hold true for a learning acquisition curve drawn for a classical conditioning experiment on eye blinking as conditioned response that plots the learning over a number of trials?**
(A)	The rate of learning on earlier trials is more than that on later trials.
(B)	The learning curve is negatively accelerated.
(C)	The rate of learning in later trials will be more than that on earlier trials.
(D)	The rate of learning is proportionally increasing with increasing number of trials.

Q.25	**In the situation where '*A teenager who hates studying science but is also not able to tell his parents fearing their reaction*', what is the conflict he is facing and which of these may be his way of dealing with this situation?**
(A)	Avoidance-Avoidance conflict, he will keep vacillating between telling his parents and continuing to study science.
(B)	Avoidance-Avoidance conflict, he may contemplate running away from his home.
(C)	Approach-Avoidance conflict, he will experience some emotional turmoil.
(D)	Multiple Approach-Avoidance conflict, he will be guided by internal values.

Q.26	**Which of these is true about individuals high on *n-achievement* motivation?**
(A)	High *n-achievement* individuals like to work on situations where they have control and can get feedback.
(B)	High *n-achievement* individuals persistently work on tasks they perceive as, either reflecting their personal characteristics like intelligence or are career-related.
(C)	High *n-achievement* individuals prefer working on extremely challenging tasks for bigger gains.
(D)	High *n-achievement* individuals avoid changing their aspiration levels.

Q.27	**Which of the following is/are Allport's basic assumption(s) concerning human nature?**
(A)	Human growth as an active process of "becoming".
(B)	Personality cannot be fully understood by examining each trait separately, though some system of conceptual schemata are essential for personality study and a trait must be related to the total pattern of personality.
(C)	Personality is organized in a *topographical model*.
(D)	All human events are determined by powerful instinctual forces.

Q.28	**Which of the following aspects are characteristics of the group structure in an organizational context?**
(A)	Task-oriented role (the activities of an individual that involve helping the group reach the goal).
(B)	Socio-emotional role (the activities of an individual that involve being supportive and nurturing of other group members).
(C)	Prescriptive norms (expectations within groups regarding what has to be done).
(D)	Monitoring (observing work performance).

Q.29	Which of the following needs/motives are proposed by Abraham Maslow?
(A)	Deficit needs.
(B)	Metaneeds.
(C)	Self-actualization needs.
(D)	Need-achievement.

Q.30	A researcher is conducting a study involving two independent variables. Which of the following Analysis of Variance (ANOVA) is/are available to him/her?
(A)	2×2 ANOVA.
(B)	4×3 ANOVA.
(C)	$3 \times 2 \times 2$ ANOVA.
(D)	One-way ANOVA.

Q.31	Which of the following statements is true about personal space?
(A)	It is silent and invisible.
(B)	It is a geographic component of interpersonal relations.
(C)	Invasions of personal space are a matter of degree.
(D)	There are no across culture variations.

Q.32	**If a person got a score of 75 on a test, which of the following distributions allow(s) for the most favourable interpretation of that score? (assuming higher values are more favourable)**
(A)	Mean = 55, Standard Deviation = 4
(B)	Mean = 60, Standard Deviation = 3
(C)	Mean = 65, Standard Deviation = 5
(D)	Mean = 50, Standard Deviation = 10

Q.33	**A man's wife is dying. She is in dire need of a drug. The only place to get the drug is at the store of a pharmacist who is known to overcharge people for drugs. The man can only pay ₹20000 but the pharmacist wants ₹50000, and refuses to sell it to him for less, or to let him pay later. What will the man do if he is at the conventional stage of morality as per Kohlberg's theory of moral reasoning?**
(A)	He would not steal the drug, as everyone will see him as a thief, and his wife would not approve of his stealing or accept the stolen drug.
(B)	No matter what, he would obey the law because stealing is a crime.
(C)	The man would not steal the drug, as he may get caught and go to jail.
(D)	The man would steal the drug to cure his wife and then tell the authorities what he has done. He may have to pay a penalty, but at least he would have saved a human life.

Q.34	**According to Erik Erikson, identity versus role confusion is the fifth stage of life span development. Which of the following outcomes may emerge as a result of identity crisis?**
(A)	Identity diffusion
(B)	Identity moratorium
(C)	Identity foreclosure
(D)	Identity perception

Q.35	**Life span experts argue that biological aging begins at birth. Which of the following is/are explanation/s of aging?**
(A)	Cells can divide to a maximum of about 75 to 80 times and that as people age, cells become less capable of dividing.
(B)	People age because when cells metabolize energy, the by-products include unstable oxygen molecules known as free radicals.
(C)	Aging is due to the decay of mitochondria.
(D)	Cell division increases as people age.

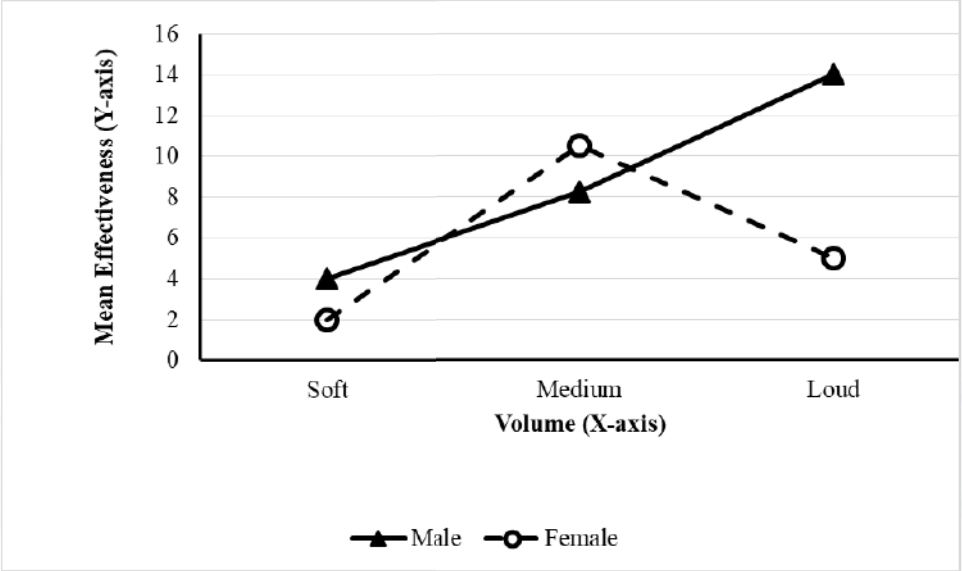
Q.36	**Which of the following are involved in sympathetic nervous system activation?**
(A)	Inhibited salivation
(B)	Increased heart rate
(C)	Inhibited digestion
(D)	Constricted pupils

Q.37	**How is/are genetic theories of psychopathology tested?**
(A)	Using twin studies
(B)	Using family history studies
(C)	Using adoption studies
(D)	Using psychodynamic studies

Q.38	**An investigator approached college students who initially believed that water should be purified and asked them to compose and recite a videotaped speech against the use of water purifiers. To do this, some were offered large incentives and others were offered small incentives. Later their attitudes towards water purifiers were tested. Which of the following will be the expected finding(s)?**
(A)	The smaller the incentive, the greater will be the attitude change.
(B)	All the students will change their attitudes towards water purifiers.
(C)	All the students will continue to feel favourably about water purifiers.
(D)	The larger the incentive, the greater will be the attitude change.

Q.39	**In which attachment style(s), do children tend to show clingy behaviour but then reject the attachment figure's attempt to interact with them?**
(A)	Resistant attachment
(B)	Avoidant attachment
(C)	Secure attachment
(D)	Disorganized attachment

Q.40	**A study is conducted to see the effectiveness of volume levels of commercials. In the graph given below, values of mean effectiveness (dependent variable) are presented on the *Y* axis, and three levels of volume, namely, soft, medium and loud are presented on the *X* axis. The graph shows the relationship between volume and mean effectiveness for males in the continuous line and for females in the dashed line. Which of the following interpretation(s) is/are correct from the graph?**



(A)	A linear relationship exists for males and a nonlinear relationship for females.
(B)	The effect of increasing volume on effectiveness depends on whether the participant is a male or a female.
(C)	No interaction effect is seen.
(D)	A linear relationship exists for both males and females.

END OF THE QUESTION PAPER

Graduate Aptitude Test in Engineering (GATE 2021)

Subject/Paper: Humanities and Social Sciences (XH) / Psychology (XH-C5)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
1	7	MCQ	GA	D	1	1/3
2	7	MCQ	GA	D	1	1/3
3	7	MCQ	GA	D	1	1/3
4	7	MCQ	GA	D	1	1/3
5	7	MCQ	GA	C	1	1/3
6	7	MCQ	GA	C	2	2/3
7	7	MCQ	GA	A	2	2/3
8	7	MCQ	GA	C	2	2/3
9	7	MCQ	GA	C	2	2/3
10	7	MCQ	GA	D	2	2/3
1	7	MCQ	XH-B1	C	1	1/3
2	7	MCQ	XH-B1	C	1	1/3
3	7	MCQ	XH-B1	C	1	1/3
4	7	MCQ	XH-B1	D	1	1/3
5	7	MCQ	XH-B1	C	1	1/3
6	7	MCQ	XH-B1	A	2	2/3
7	7	MCQ	XH-B1	C	2	2/3
8	7	MCQ	XH-B1	C	2	2/3
9	7	MCQ	XH-B1	D	2	2/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Psychology (XH-C5)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
10	7	MCQ	XH-B1	B	2	2/3
11	7	MSQ	XH-B1	C; D	2	0
12	7	MSQ	XH-B1	B; C	2	0
13	7	MSQ	XH-B1	A; B	2	0
14	7	MSQ	XH-B1	A; B	2	0
15	7	MSQ	XH-B1	A; C; D	2	0
1	7	MCQ	XH-C5	A	1	1/3
2	7	MCQ	XH-C5	A	1	1/3
3	7	MCQ	XH-C5	A	1	1/3
4	7	MCQ	XH-C5	A	1	1/3
5	7	MCQ	XH-C5	A	1	1/3
6	7	MCQ	XH-C5	A	1	1/3
7	7	MCQ	XH-C5	A	1	1/3
8	7	MCQ	XH-C5	A	1	1/3
9	7	MCQ	XH-C5	A	1	1/3
10	7	MCQ	XH-C5	A	1	1/3
11	7	MCQ	XH-C5	A	1	1/3
12	7	MCQ	XH-C5	A	1	1/3
13	7	MCQ	XH-C5	A	1	1/3
14	7	MCQ	XH-C5	A	1	1/3
15	7	MCQ	XH-C5	A	1	1/3
16	7	MCQ	XH-C5	A	1	1/3
17	7	MCQ	XH-C5	A	1	1/3
18	7	MCQ	XH-C5	A	1	1/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Psychology (XH-C5)

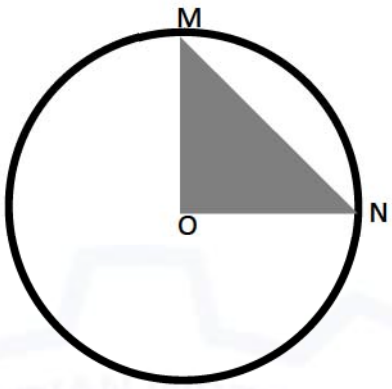
Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
19	7	MCQ	XH-C5	A	1	1/3
20	7	MSQ	XH-C5	A; B; C	1	0
21	7	MCQ	XH-C5	A	2	2/3
22	7	MCQ	XH-C5	A	2	2/3
23	7	MCQ	XH-C5	A	2	2/3
24	7	MSQ	XH-C5	A; B	2	0
25	7	MSQ	XH-C5	A; B	2	0
26	7	MSQ	XH-C5	A; B	2	0
27	7	MSQ	XH-C5	A; B	2	0
28	7	MSQ	XH-C5	A; B; C	2	0
29	7	MSQ	XH-C5	A; B; C	2	0
30	7	MSQ	XH-C5	A; B	2	0
31	7	MSQ	XH-C5	A; B; C	2	0
32	7	MSQ	XH-C5	A; B	2	0
33	7	MSQ	XH-C5	A; B	2	0
34	7	MSQ	XH-C5	A; B	2	0
35	7	MSQ	XH-C5	A; B; C	2	0
36	7	MSQ	XH-C5	A; B; C	2	0
37	7	MSQ	XH-C5	A; B; C	2	0
38	7	MSQ	XH-C5	A	2	0
39	7	MSQ	XH-C5	A	2	0
40	7	MSQ	XH-C5	A; B	2	0

General Aptitude (GA)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**Consider the following sentences:** **(i) After his surgery, Raja hardly could walk.** **(ii) After his surgery, Raja could barely walk.** **(iii) After his surgery, Raja barely could walk.** **(iv) After his surgery, Raja could hardly walk.** **Which of the above sentences are grammatically CORRECT?**
(A)	(i) and (ii)
(B)	(i) and (iii)
(C)	(iii) and (iv)
(D)	(ii) and (iv)

Q.2	**Ms. X came out of a building through its front door to find her shadow due to the morning sun falling to her right side with the building to her back. From this, it can be inferred that building is facing _____**
(A)	North
(B)	East
(C)	West
(D)	South

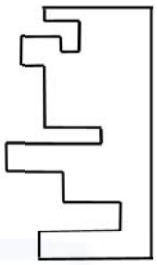
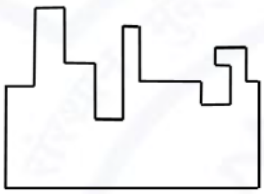
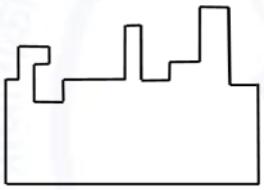
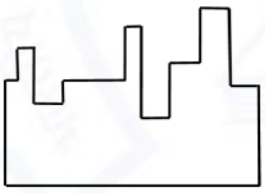
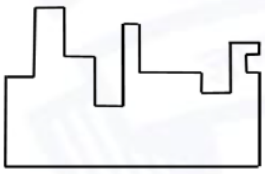
Q.3	 **In the above figure, O is the center of the circle and, M and N lie on the circle.** **The area of the right triangle MON is 50 cm^2.** **What is the area of the circle in cm^2 ?**
(A)	2π
(B)	50π
(C)	75π
(D)	100π

Q.4	**If** $\begin{cases} "\oplus" \text{ means } "-", \\ "\otimes" \text{ means } "\div", \\ "\Delta" \text{ means } "+", \\ "\nabla" \text{ means } "\times", \end{cases}$ **then, the value of the expression** $\Delta\, 2 \oplus 3\, \Delta \left((4 \otimes 2) \nabla\, 4 \right) =$
(A)	-1
(B)	-0.5
(C)	6
(D)	7

Q.5	**"The increased consumption of leafy vegetables in the recent months is a clear indication that the people in the state have begun to lead a healthy lifestyle"** **Which of the following can be logically inferred from the information presented in the above statement?**
(A)	The people in the state did not consume leafy vegetables earlier.
(B)	Consumption of leafy vegetables may not be the only indicator of healthy lifestyle.
(C)	Leading a healthy lifestyle is related to a diet with leafy vegetables.
(D)	The people in the state have increased awareness of health hazards causing by consumption of junk foods.

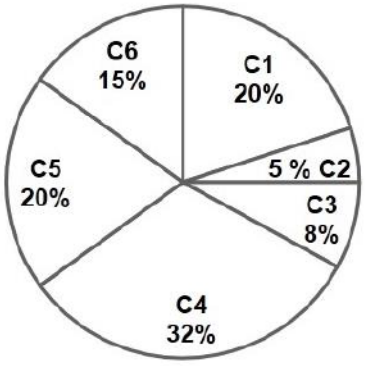
Q. 6 – Q. 10 Multiple Choice Question (MCQ), carry TWO marks each (for each wrong answer: – 2/3).

Q.6	**Oxpeckers and rhinos manifest a symbiotic relationship in the wild. The oxpeckers warn the rhinos about approaching poachers, thus possibly saving the lives of the rhinos. Oxpeckers also feed on the parasitic ticks found on rhinos.** **In the symbiotic relationship described above, the primary benefits for oxpeckers and rhinos respectively are,**
(A)	Oxpeckers get a food source, rhinos have no benefit.
(B)	Oxpeckers save their habitat from poachers while the rhinos have no benefit.
(C)	Oxpeckers get a food source, rhinos may be saved from the poachers.
(D)	Oxpeckers save the lives of poachers, rhinos save their own lives.

Q.7	 **A jigsaw puzzle has 2 pieces. One of the pieces is shown above. Which one of the given options for the missing piece when assembled will form a rectangle? The piece can be moved, rotated or flipped to assemble with the above piece.**
(A)	
(B)	
(C)	
(D)	

Q.8	**The number of hens, ducks and goats in farm P are 65, 91 and 169, respectively. The total number of hens, ducks and goats in a nearby farm Q is 416. The ratio of hens:ducks:goats in farm Q is 5:14:13. All the hens, ducks and goats are sent from farm Q to farm P.** **The new ratio of hens:ducks:goats in farm P is_____**
(A)	5:7:13
(B)	5:14:13
(C)	10:21:26
(D)	21:10:26

Q.9



Company	Ratio
C1	3:2
C2	1:4
C3	5:3
C4	2:3
C5	9:1
C6	3:4

The distribution of employees at the rank of executives, across different companies C1, C2, ..., C6 is presented in the chart given above. The ratio of executives with a management degree to those without a management degree in each of these companies is provided in the table above. The total number of executives across all companies is 10,000.

The total number of management degree holders among the executives in companies C2 and C5 together is_____.

(A)	225
(B)	600
(C)	1900
(D)	2500

Q. 10	**Five persons P, Q, R, S and T are sitting in a row not necessarily in the same order. Q and R are separated by one person, and S should not be seated adjacent to Q.** **The number of distinct seating arrangements possible is:**
(A)	4
(B)	8
(C)	10
(D)	16

Reasoning and Comprehension (XH-B1)

Q.1 – Q.5 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**According to a recent article in a medical journal, consuming curcumin (from turmeric) significantly lowers the risk of COVID-19. The researchers draw this conclusion from a study that found that people who consumed one or more teaspoons of curcumin extract everyday were half as likely to be diagnosed with the disease as people who did not consume curcumin.** **Which of the following, if true, most weakens the argument in the article?**
(A)	In another study, people who were given a zinc supplement everyday were more than four times less likely to be diagnosed with COVID-19 as those who did not.
(B)	All the participants in this study were from the same state where no other spices or herbs are consumed.
(C)	The participants who consumed curcumin were also more likely to exercise than those who did not.
(D)	In another study, COVID-19 patients who were given curcumin were no more likely to recover than others.

Q.2	**Froot Inc. carried out an internet advertisement campaign for its new beverage CocoLoco. After the campaign, the director of the advertising company conducted a survey and found that the CocoLoco sales were higher than that of TenderJoos a competing product from Joos Inc. The agency concluded that the internet advertising campaign is more effective than advertising through other media.** **Which of the following statements could strengthen the conclusion above by the agency?**
(A)	A ₹2 discount was offered on CocoLoco during the campaign period.
(B)	CocoLoco sales were higher than those of TenderJoos before the internet campaign.
(C)	A newspaper advertisement campaign the previous year did not increase CocoLoco sales.
(D)	During the campaign for CocoLoco, Joos Inc. did not advertise TenderJoos at all.

Q.3	**An e-commerce site offered a deal last month conditional on the customer spending a minimum of ₹500. Any customer who buys 2 kg of fresh fruit will receive a hand mixer and any customer who buys 2 kg of fresh vegetables will receive a vegetable chopper.** **Which of the following is NOT a possible outcome of the above?**
(A)	A customer purchased 3 kg of fresh fruit and did not receive a vegetable chopper.
(B)	A customer purchased items for ₹500 which included 1 kg of vegetables and received a hand mixer.
(C)	A customer purchased items for ₹500 which included 2 kg of vegetables and 1 kg of fruit and received a hand mixer.
(D)	A customer purchased items for ₹300 which included 2 kg of fruit and received neither a hand mixer nor a vegetable chopper.

Q.4	**Writers of detective fiction often include an incompetent detective as a foil for the brilliant investigator-protagonist as they follow different paths in trying to solve the crime. In the individual accounts, the incompetent detective is frequently distracted by the culprit's careful plans, while the competent investigator solves the case after a final confrontation. Analysts of such fiction believe that the authors select this story-telling technique to provide readers with more complexities in the form of misleading clues, while figuring out the crime.** **Which of the following statements most logically follows from the passage above?**
(A)	A detective story is considered well-written if the brilliant investigator is accompanied by an incompetent detective.
(B)	Writers of detective fiction use the contrast of an incompetent detective to mainly show how complex the investigation is.
(C)	Writers of detective fiction never write stories where the incompetent detective solves the case.
(D)	Writers of detective fiction use two investigative accounts to make it difficult for the reader to figure out the outcome.

Q.5	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled (L,M,N,O). Reorder these parts so that the sentence can be read through correctly and select one of the options given.** *P1: Studies of several Sahitya Akademi award winners show that…* L: or encounter professional M: and invariably develop a strained relationship with other literary figures N: they often publish very little O: after winning the prize *P6: …envy and rivalry.* **The correct order is:**
(A)	NOLM
(B)	MLON
(C)	ONML
(D)	MOLN

Q.6 – Q.10 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 6	**Gerrymandering refers to the targeted redrawing of election constituencies so as to benefit a particular party. This is especially important where the electoral system is "first past the post" in each constituency (i.e. one winner is selected in each constituency based on a majority of votes won) and where there is no other provision for proportional representation (as for example in the German system). For a simple illustration of gerrymandering, if a region consists of districts 1, 2, 3, …, 9 with districts 1, 2, 3, 4, 5, 6 favouring party P and 7, 8, 9 favouring party Q, then grouping of districts to constituencies as {1,2,3}, {4,5,6}, {7,8,9} will give two seats to party P and one seat to party Q, whereas the grouping {1,2,7}, {3,4,8}, {5,6,9} will give all three seats to party P, as they will secure a majority in each constituency.** **Which of these statements can be deduced from the above?**
(A)	Gerrymandering implies that constituency boundaries can sometimes be drawn to favour one party over the other.
(B)	Gerrymandering implies that proportional representation is impossible when districts are grouped to form constituencies.
(C)	To counteract gerrymandering political parties should concentrate on districts where they are favoured.
(D)	The grouping of districts to constituencies has very little impact on proportional representation.

Q. 7	**X-ray examination of a recently discovered painting that some authorities judge to be a self-portrait by Michelangelo revealed an under-image of a woman's face. Either Michelangelo or some other artist must have repainted over the first painting that had now been seen on the canvas. Because the woman's face also appears on other paintings by Michelangelo, this painting is determined to indeed be an authentic painting by Michelangelo.** **Which of the following assumptions must be made in reaching the conclusion above?**
(A)	When an already painted canvas of an artist is used, the second artist using that canvas for a new painting is usually influenced by the artistic style of the first.
(B)	Several painted canvases that art historians attribute to Michelangelo contain under-images that appear on at least one other of Michelangelo's paintings.
(C)	Subject or subjects that appear in authenticated paintings of Michelangelo are rather unlikely to show up as under-images on painted canvases not attributed to Michelangelo.
(D)	No painted canvas can be attributed to a particular artist with certainty without an X-ray analysis.

Q. 8	**This season _____ tourists visited Ladakh than last season; however, _____ to be the biggest tourist destination in India. The tourism department explains that the number of tourists to India has _____ relative to previous years, _____ have chosen to visit Ladakh.** **Select the correct sequence of phrases to fill in the blanks to complete the passage above.**
(A)	more / for the first time in many seasons it does not appear / increased / and it seems that most
(B)	fewer / as in the past, it appears / in fact decreased / but it seems that only a small proportion
(C)	fewer / for the first time in many seasons it appears / in fact decreased / but it seems that most
(D)	more / this season as well, it appears / in fact decreased / but it seems that a large proportion

Q. 9	**Reorder the sentences in (1) – (5) such that they form a coherent paragraph.** **(1) In fact, dozens of languages today have only one native speaker still living, and that person's death will mean the extinction of the language: It will no longer be spoken, or known, by anyone on earth.** **(2) Many languages are falling out of use and are being replaced by others that are more widely used in the region or nation, such as English in Australia or Portuguese in Brazil.** **(3) Many other languages are no longer being learned by new generations of children or by new adult speakers.** **(4) An endangered language is one that is likely to become extinct in the near future.** **(5) Unless the trends are reversed, these endangered languages will become extinct by the end of the century.** **(Adapted from *What is an Endangered Language* by A. Woodbury.)**
(A)	2 3 1 4 5
(B)	2 3 5 4 1
(C)	4 1 5 2 3
(D)	4 2 3 1 5

Q. 10	**The first (P1) and the last (P6) parts of a single sentence are given to you. The rest of the sentence is divided into four parts and labelled L,M,N,O. Reorder these parts so that the sentence can be read correctly and select one of the sequences below.** ***P1: For a little while…*** **L: it was a common belief** **M: right after the treaty of Versailles** **N: that Germany had caused World War I not just by her actions** **O: held by analysts and politicians alike** ***P6: … but by also encouraging Italy in her own aggressions.***
(A)	LMNO
(B)	MLON
(C)	LNMO
(D)	MOLN

Q.11 – Q.15 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 11	**After Florentino Ariza saw her for the first time, his mother knew before he told her because he lost his voice and his appetite and spent the entire night tossing and turning in his bed. But when he began to wait for the answer to his first letter, his anguish was complicated by diaorrhea and green vomit, he became disoriented and suffered from sudden fainting spells, and his mother was terrified because his condition did not resemble the turmoil of love so much as the devastation of cholera. Florentino Ariza's godfather, an old homeopathic practitioner who had been Tránsito Ariza's confidant ever since her days as a secret mistress, was also alarmed at first by the patient's condition, because he had the weak pulse, the hoarse breathing, and the pale perspiration of a dying man. But his examination revealed that he had no fever, no pain anywhere, and that his only concrete feeling was an urgent desire to die. All that was needed was shrewd questioning, first of the patient and then of his mother, to conclude once again that the symptoms of love were the same as those of cholera. He prescribed infusions of linden blossoms to calm the nerves and suggested a change of air so he could find consolation in distance, but Florentino Ariza longed for just the opposite: to enjoy his martyrdom.** **(Adapted from *Love in a Time of Cholera* by Gabriel García Márquez.)** **The author of the passage is implying that:**
(A)	Homeopathy cures love.
(B)	The doctor could not distinguish between love and cholera.
(C)	The doctor could distinguish between love and cholera.
(D)	The symptoms of love and cholera are similar.

Q. 12	**Now, it is clear that the decline of a language must ultimately have political and economic causes: it is not due simply to the bad influence of this or that individual writer. But an effect can become a cause, reinforcing the original cause and producing the same effect in an intensified form, and so on indefinitely. A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the slovenliness of our language makes it easier for us to have foolish thoughts.** **(Adapted from *Politics and the English Language* by George Orwell.)** **The illustration of the man who takes to drink is used to underscore which of the following ideas in the passage above?**
(A)	Political and economic causes control deterioration of language.
(B)	Foolish thoughts are enabled by inaccurate language.
(C)	Effect of an action becomes the cause in a cyclic pattern.
(D)	Drinking enables people to have foolish thoughts and slovenly language.

Q. 13	**It is a pity that Caste even today has its defenders. The defences are many. It is defended on the grounds that the Caste System is but another name for division of labour, and if division of labour is a necessary feature of every civilised society, then it is argued that there is nothing wrong in the Caste System. Now the first thing to be urged against this view is that Caste System is not merely division of labour. It is also a division of labourers. Civilised society undoubtedly needs division of labour but nowhere is division of labour accompanied by this unnatural division of labourers into watertight compartments, grading them one above the other. This division of labour is not spontaneous or based on natural aptitudes. Social and individual efficiency requires us to develop the individual capacity and competency to choose and to make his own career. This principle is violated in so far as it involves an attempt to appoint tasks to individuals in advance, not on the basis of trained original capacities, but on that of birth. Industry undergoes rapid and abrupt changes and an individual must be free to change his occupation and adjust himself to changing circumstances, to gain his livelihood. (Adapted from *Annihilation of Caste* by Dr. B.R. Ambedkar.)** **Which of the following observations substantiate the arguments found in the passage above?**
(A)	Newer generations are unable to change and move away from low-paying family professions, even with changed economic circumstances.
(B)	Sedentary desk jobs are considered to have more value and are in greater demand than those involving manual labour.
(C)	The government's jobs guarantee programme makes low-level management jobs available across all industries to all graduates in the nation.
(D)	A bus driver becomes an app creator and, in the course of one month, reaches one million downloads on Playstore with a four-star rating.

Q. 14	**Imagine that you're in a game show and your host shows you three doors. Behind one of them is a shiny car and behind the others are goats. You pick one of the doors and get what lies within. After making your choice, your host chooses to open one of the other two doors, which inevitably reveals a goat. He then asks you if you want to stick with your original pick, or switch to the other remaining door. What do you do? Most people think that it doesn't make a difference and they tend to stick with their first pick. With two doors left, you should have a 50% chance of selecting the one with the car. If you agree, then you have just fallen afoul of one of the most infamous mathematical problems – the Monty Hall Problem. In reality, you should switch every time which doubles your odds of getting the car. Over the years, the problem has ensnared countless people, but not, it seems, pigeons. The humble pigeon can learn with practice the best tactic for the Monty Hall Problem, switching from their initial choice almost every time. Amazingly, humans do not!** **(Adapted from an article by Ed Yong in *Discover Magazine*.)** **Which of the following conclusions follow from the passage above?**
(A)	Humans calculate the probability of independent, random events such as the opening of a door by dividing the specific outcomes by the total number of possible outcomes.
(B)	Humans find it very difficult to learn to account for the host's hand in making the event non-random and, thereby, changing the outcome of the event.
(C)	Calculating probabilities is difficult for humans but easy for pigeons; which is why the pigeons succeed where the humans fail.
(D)	Humans are governed by reason, but pigeons are irrational and only interested in the outcome and will do whatever it takes to get food.

Q. 15	**The truth is that, despite the recent success of car-makers P and Q, India's automobile industry is in a state not that different from the bad old days of the license-permit quota raj when two carmakers dominated a captive domestic market with substandard vehicles and with very little, if any, research and development, and low to negligible productivity growth. High tariff barriers have certainly induced foreign automobile makers to enter the Indian market by setting up local operations, but this so-called "tariff jumping" foreign investment has produced an industry that is inefficient, operating generally at a low scale, and whose products are not globally competitive either in terms of cost or of innovation. It is noteworthy that the automobile parts industry, which has faced low tariffs (as low as 12.5%) and has been largely deregulated, has been characterised by higher productivity and much better export performance than the completely-built units' sector in the years since liberalisation.** **(Adapted from an Op-Ed in *The Mint*.)** **Which of the following statements can be inferred from the above?**
(A)	Low tariff barriers increase productivity.
(B)	Tariff jumping leads to increases in productivity.
(C)	Deregulation has worked for the automotive parts industry and therefore should be applied to completely-built units.
(D)	P and Q do not invest enough in research and development.

SOCIOLOGY (XH-C6)

Q.1 – Q.12 Multiple Choice Question (MCQ), carry ONE mark each (for each wrong answer: – 1/3).

Q.1	**The term *kulak* refers to**
(A)	a type of hoe used in agriculture.
(B)	a form of property right over agrarian produce.
(C)	a rich farmer.
(D)	the Russian word for peasant uprising.

Q.2	**M.N. Srinivas' principal work was built around the method of**
(A)	conjectural history.
(B)	archival research.
(C)	fieldwork.
(D)	content analysis.

Q.3	**In an experimental design, the dependent variable is**
(A)	the one that is not manipulated and in which any changes are observed.
(B)	the one that is manipulated in order to observe any effects on the other.
(C)	the unknown variable that emerges from the analysis of the data.
(D)	the variable whose meaning depends on how informants perceive it.

Q.4	The avunculate refers to the relationship between
(A)	virilocal and neolocal families.
(B)	matrilateral cross cousins.
(C)	members of a matrilocal *tharavad.*
(D)	mother's brother and sister's son.

Q.5	Who among the following Indian sociologists argued against Verrier Elwin's proposal of preserving the 'tribal way of life' on the grounds that the Indian tribes are not 'aborigines' but are "imperfectly integrated classes of Hindu society" or are 'Backward Hindus'?
(A)	Irawati Karve
(B)	A.R. Desai
(C)	G.S. Ghurye
(D)	D.D. Kosambi

Q.6	M.N. Srinivas called his work on Rampura 'The Remembered Village' because
(A)	'collective memory' is the concept he used to understand Rampura.
(B)	his experience in Rampura was memorable.
(C)	the village Headman had forbidden Srinivas from taking any notes forcing him to write this account solely from memory.
(D)	he lost his field material in a fire and had to rely on his memory to write the book.

Q.7	**"An ideal society should be mobile, should be full of channels for conveying a change taking place in one part to other parts. In an ideal society there should be many interests consciously communicated and shared. There should be varied and free points of contact with other modes of association. In other words there must be social endosmosis."** **On the basis of the above statement, which one of the following can be asserted?**
(A)	This is M.K. Gandhi describing his vision of Rama Rajya in 'Hind Swaraj'.
(B)	This is V.D. Savarkar describing caste equality in 'Essentials of Hindutva'.
(C)	This is Jawaharlal Nehru describing socialist society in 'The Discovery of India'.
(D)	This is B.R. Ambedkar describing fraternity in 'The Annihilation of Caste'.

Q.8	**'The City and the Grassroots' authored by _____ is among the most important books published on urban social movements.**
(A)	Michel Foucault
(B)	Charles Tilly
(C)	Manuel Castells
(D)	Veena Das

Q.9	**A fisherman in southwest Sri Lanka has received a warning that a cyclone may hit his coastal region and he has to decide whether to evacuate or stay put. He knows that the probability of the cyclone striking is 70%. He has the means to evacuate and his property is worth three times the cost of evacuation. He calculates accurately that his best chance to protect himself and his assets lies in evacuation. At a later meeting of the whole community, the village elders decide that no one will evacuate because the village shrines cannot be left unattended indefinitely. Hence in deference to the elders, the fisherman decides to stay put.** **In Max Weber's terms, his decision is closest to**
(A)	value rational action.
(B)	instrumental rational action.
(C)	traditional action.
(D)	affective action.

Q.10	**The Jonestown massacre of 1978 in the United States saw the death of 900 persons including children. Reverend Jones, leader of an American cult, ordered his followers 'The Peoples Temple' to kill a US Congressman and several journalists and then commit mass suicide by drinking fruit punch laced with cyanide. In Durkheim's view, this would be a case of**
(A)	anomic suicide.
(B)	altruistic suicide.
(C)	egoistic suicide.
(D)	fatalistic suicide.

Q.11	**Pierre Bourdieu defined _____ as "Systems of durable dispositions, structured structures predisposed to function as structuring structures … collectively orchestrated without being the product of the orchestrating action of a conductor."** **Which of the following completes the above sentence?**
(A)	social capital
(B)	culture
(C)	habitus
(D)	field

Q.12	**Read the following statements:** **(1) Throughout the developing world, poverty rates among households headed by women are higher than those headed by men.** **(2) The greater 'investment value' associated with the survival of boys in a household in comparison with girls leads to discrimination against girl children and adult women.** **(3) The unequal allocation of resources within households results in differential allotments of nutrition and healthcare that reflect the perceived inferior short-term and long-term value of females.** **(4) In all transitional economies, an increase in prostitution and trafficking of women has been observed.** **The above statements are all examples of**
(A)	the 'feminisation of poverty' thesis.
(B)	labour market informalisation.
(C)	the 'culture of poverty' thesis.
(D)	differences in bargaining power between advanced and transitional economies.

Q.13 – Q.20 Multiple Select Question (MSQ), carry ONE mark each (no negative marks).

Q.13	**In which of the following ways did the founding scholars usually distinguish New Social Movements (NSMs) from Old Social Movements?**
(A)	NSMs are devoted to changing cultural norms concerning individual dignity rather than bringing about structural transformation.
(B)	NSMs are based in social class and not on social identities.
(C)	NSMs reject hierarchical organisational structures and prefer flexible, horizontal participation.
(D)	NSMs are all revolutionary in their mode of action.

Q.14	**Which of the following option(s) correctly applies/apply to a key informant in sociological research?**
(A)	One who intentionally restricts a researcher's access to participants.
(B)	One with in-depth knowledge of the community.
(C)	One who refers the researcher to those knowledgeable about the subject of the research.
(D)	One who because of her social position provides a deeper understanding of her society.

Q.15	**For Karl Marx, which statement(s) below define(s) absolute surplus value?**
(A)	It is value extracted by using technology in the labour process.
(B)	It is value saved by technology.
(C)	It is value created over and above worker subsistence.
(D)	It is value extracted by means of extending the working day.

Q.16	Who among the following sociologist(s) use(s) a Marxist framework to understand Indian society and history?
(A)	Yogendra Singh
(B)	A.K. Saran
(C)	Leela Dube
(D)	A. R. Desai

Q.17	Which of the following reverse(s) the process of primitive accumulation in India?
(A)	NREGA
(B)	The Land Acquisition Act of 1894
(C)	Special Economic Zones
(D)	Microfinance lending

Q.18	Which of the following applies/apply to Lévi-Strauss' fundamental unit of kinship?
(A)	It is constituted by the father and mother and their children.
(B)	It is constituted by the nuclear family and the wife's brother.
(C)	It is the basis of alliance theory.
(D)	It is based on the universal incest taboo.

Q.19	**Which statement(s) correctly explain(s) why feminists and women's rights activists are uncomfortable with the term 'honour killings'?**
(A)	It has been defined variously across disciplines from law to sociology to philosophy.
(B)	It has become associated with the 'uniqueness' of Asian societies and cultures.
(C)	The idea that women embody male honour makes violence against them and even their murder justifiable.
(D)	It has become associated with communities that retain archaic patriarchal practices and refuse to modernise.

Q.20	**Which of the following is/are Louis Dumont's formulation(s)?**
(A)	Indian sociology must lie at the confluence of Indology and anthropology.
(B)	The ideological principle that religion is always superior to power is at all times found exhibited at the empirical level in India.
(C)	Equality runs contrary to the general tendencies of societies.
(D)	Traditional Indian ideology allows only 'surreptitious' entry of economic and political power.

Q.21 – Q.28 Multiple Choice Question (MCQ), carry TWO mark each (for each wrong answer: – 2/3).

Q. 21	**The Latin American system of *compadrazgo* or 'godparenthood' is one in which, at the time of baptism of a child into the Christian church, a relationship is set up between the child's biological mother and father and possibly unrelated persons who become the child's spiritual parents. This may be understood as a form of**
(A)	fictive kinship.
(B)	cognatic kinship.
(C)	mystical kinship.
(D)	bilateral kinship.

Q. 22	**The Self-Employed Women's Association (SEWA) is**
(A)	a trade union for self-employed women workers in the informal economy.
(B)	not a trade union as its members have no employer.
(C)	an association of all home-based women workers across India.
(D)	a trade union for all self-employed women workers outside the agrarian sector.

Q. 23	**Match statements (P), (Q), (R), (S) to names (1), (2), (3), (4):** **(P) "Today, Indians no longer idealise hierarchy. What they … idealise is equality."** **(Q) "[We] do not argue that non-dalit feminists can 'speak as' or 'for the' dalit women but they can 'reinvent themselves as dalit feminists'."** **(R) "[From] the point of view of people at the lowest end of the scale, caste has functioned (and continues to function) as a very effective system of economic exploitation."** **(S) "The pure hierarchy that Louis Dumont wrote so compellingly about a few decades ago … now stands bereft of empirical support from practically every quarter of Hindu India."** **(1) Dipankar Gupta** **(2) Sharmila Rege** **(3) André Béteille** **(4) Joan P. Mencher**
(A)	(P)-(3), (Q)-(2), (R)-(4), (S)-(1)
(B)	(P)-(4), (Q)-(2), (R)-(3), (S)-(1)
(C)	(P)-(3), (Q)-(1), (R)-(4), (S)-(2)
(D)	(P)-(4), (Q)-(1), (R)-(2), (S)-(3)

Q. 24	**Match statements (P), (Q), (R), (S) to names (1), (2), (3), (4):** **(P) "The executive of the modern state is but a committee for managing the common affairs of the whole bourgeoisie."** **(Q) The state is "an institutional association of rule, which within a given territory has succeeded in gaining a monopoly of legitimate physical force as a means of ruling."** **(R) "It is only through the State that individualism is possible, although it cannot be the means of making it a reality, except in certain precise conditions. We might say that in the State we have the prime mover. It is the State that has rescued the child from patriarchal domination and from family tyranny; it is the State that has freed the citizen from feudal groups and later from communal groups; it is the State that has liberated the craftsman and his master from guild tyranny."** **(S) "The family is indeed a fiction, a social artefact, an illusion in the most ordinary sense of the word, but a 'well-founded illusion', because, being produced and reproduced with the guarantee of the state, it receives from the state at every moment the means to exist and persist."** **(1) Pierre Bourdieu** **(2) Emile Durkheim** **(3) Karl Marx and Friedrich Engels** **(4) Max Weber**
(A)	(P)-(3), (Q)-(4), (R)-(2), (S)-(1)
(B)	(P)-(3), (Q)-(4), (R)-(1), (S)-(2)
(C)	(P)-(3), (Q)-(1), (R)-(2), (S)-(4)
(D)	(P)-(4), (Q)-(2), (R)-(3), (S)-(1)

Q. 25	**Read the abstract of the article titled "'Taming' Arab social movements: Exporting neoliberal governmentality" (2013).** **"In the wake of the recent Arab revolutions, the European Union (EU) has sought to provide genuine and substantial support to a range of Arab social movements in the region's emerging polities…We argue, however, that the EU's attempts at democracy promotion in the Middle East and North Africa (MENA) region may be understood through a governmentality framework, despite the limitations of such an approach. Specifically, the EU is actively promoting neoliberal policies in the aftermath of the Arab Spring in order to foster a mode of subjectivity that is conducive to the EU's own norms and interests. What we observe are not just innocent attempts at democracy promotion, but a form of politics and economics that seeks to subject the agency on the 'Arab street' to EU standards. We conclude by going over the radical plurality of the Arab street, and show how it was in fact earlier neoliberal reforms by their former regimes that created the conditions of possibility for the recent revolutions in Tunisia and Egypt."** **On the basis of the above statement, which of the following can be asserted?** **(1) Social movements can no longer be understood as a purely intra-national phenomenon.** **(2) Local social movements for democratisation have little to do with the transnationalisation of the practices of neoliberal governmentality.**
(A)	Both the statements are correct
(B)	Both the statements are incorrect
(C)	Only (1) can be asserted
(D)	Only (2) can be asserted

Q. 26	**According to Karl Marx, the socially necessary labour time to produce a commodity will directly vary with**
(A)	the particular time period and place.
(B)	the annual rainfall.
(C)	the average productivity of agrarian workers.
(D)	the output of natural resources.

Q. 27	**Imagine there is a spiritual leader from any religion who has a huge estate, organisation, publications etc. In Weberian terms, this could be considered an example of**
(A)	patrimonial power.
(B)	bureaucratised patrimonial power.
(C)	charismatic power.
(D)	bureaucratised charismatic power.

Q. 28	**Which of the following is a proposed explanation for a group of facts or phenomena that provides the basis for empirical testing?**
(A)	An ideal type
(B)	A logical framework matrix
(C)	A hypothesis
(D)	A sampling procedure

Q.29 – Q.40 Multiple Select Question (MSQ), carry TWO mark each (no negative marks).

Q. 29	**To which of the following option(s) does C. Wright Mills' 'Grand Theory' NOT apply?**
(A)	A theory proposed by one of classical sociological theorists.
(B)	A highly abstract theory making broad generalisations about the social world.
(C)	An accurate theoretical explanation of observed empirical regularities.
(D)	An intellectually satisfying theory of social knowledge.

Q. 30	**Which statement(s) about contemporary India is/are endorsed by recent sociological research?**
(A)	The skewed sex ratio at birth is enabling cross-regional marriages that may breach caste boundaries.
(B)	The skewed sex ratio at birth means that women are valued more for their roles in reproduction, domestic and care work.
(C)	The skewed sex ratio at birth reduces the supply of women and improves their life chances throughout society.
(D)	The skewed sex ratio at birth is causing a male marriage squeeze due to the female deficit.

Q. 31	**Which of the following statements is/are representation(s) of the 'modernisation theory' of the mid-twentieth century?**
(A)	All versions of this theory could be summarised as the attempt to understand how traditional societies modernise.
(B)	This theory saw the developmental efforts of all decolonised nations through the binary of communist or capitalist.
(C)	Ashis Nandy termed this theory as a "secular theory of salvation".
(D)	The theory seeks to understand macro changes in terms of 'development' and not how to make individuals develop modern values and sensibilities.

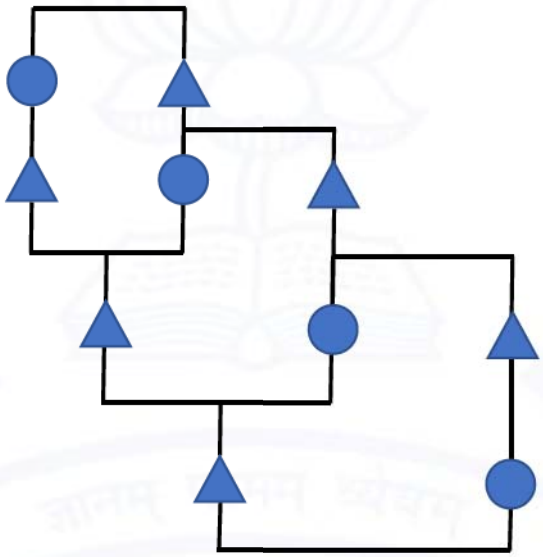
Q. 32	**"We demanded changes that would make the law more sensitive to the cultural and economic contexts of women's lives. Women's groups investigating 'dowry deaths' demonstrated how the designation of the family as the private domain restricted women's access to protection against domestic violence. They exposed the collusion of the law, police, medical system, and the family in classifying these deaths as suicides. Feminist scholars worked to salvage gender and women's issues from being subsumed by class analysis, sought to extend the Marxist understanding of labour to include domestic production, and pointed out the marginality and vulnerability of women in the workforce".** **(Susie Tharu and Tejaswini Niranjana (1996), 'Problems for a Contemporary Theory of Gender')** **Which among the following statements can be asserted from the above excerpt?**
(A)	Women's lives have contexts that are peculiar/unique.
(B)	The division of domains into public and private allows women's specific concerns to be foregrounded.
(C)	Marxist understanding of labour is not gender-sensitive.
(D)	The classification of dowry deaths as suicide lowers the institutional and social protection of women against violence.

Q. 33	**"The claim, made by structuralism and dependency theory, that subordination to the world market seals the fate of nations is wrong. Inequality, poverty, low productivity and sluggish growth in the periphery, their propensity to import luxury goods and transfer profits to the centre, and the lack of coordination of economic activity in many countries, are due primarily to the social structures prevailing in the periphery, rather than their international trade relations."** **(Alfredo Saad-Filho (2005), 'The Rise and Decline of Latin American Structuralism and Dependency Theory')** **Which among the following statements can be asserted from the above excerpt?**
(A)	Underdevelopment is mainly due to the balance of political forces within the periphery.
(B)	Trade patterns between core and periphery follow from "the social structures prevailing in the periphery".
(C)	Unequal exchange between core and periphery inhibits development of the latter.
(D)	There is a pathway to development through the world market.

Q. 34	**There is scholarly controversy over the role of the middle peasants in peasant movements in India. In this regard, which of the following statements is/are true?**
(A)	Hamza Alavi argued that the middle peasants are more likely to initiate and actively participate in peasant movements.
(B)	Dhanagare argued that the middle peasants are weaker and more heterogeneous than other agrarian classes.
(C)	Kathleen Gough argued that poor peasants and agricultural labourers have the potential for organising peasant movements.
(D)	Gail Omvedt argued that caste is the basis of peasant mobilisation, not class.

Q. 35	**In 'The Nation and its Fragments' (1993), Partha Chatterjee observes that "By the 1940s, the dominant argument of nationalism against colonial rule was that the latter was impeding the…development of India….A developmental ideology...was a constituent part of the self-definition of the postcolonial state. The state was connected to the people not simply through the procedural forms of representative government; it also acquired its representativeness by directing a program of economic development on behalf of the nation."** **In what way(s) was the connection between development and the representativeness of the Indian state achieved, for Chatterjee?**
(A)	Colonialism had demonstrated the benefits of free trade and globalisation.
(B)	Colonialism stood for economic exploitation, therefore liberty meant the reverse.
(C)	The procedural forms of government would by themselves be insufficient to drive development.
(D)	The procedural forms of government would inevitably fall to corruption.

Q. 36	**Which of the following statement(s) correctly represent(s) A.M. Shah's views in his 'The Household Dimension of the Family in India'?**
(A)	Indological conceptions of the 'Indian joint family' have become an obstacle to sociological investigation of the familial structure and transformation.
(B)	Household and family are two different, though related, categories.
(C)	The process of modernisation will break the traditional Indian joint family into nuclear families.
(D)	The classification of the households into 'simple' and 'complex' resolves the existing confusing classification of 'elementary' and 'joint' family.

Q. 37	**See the diagram and identify which option(s) below applies/apply to it** 
(A)	The diagram shows parallel cousin marriage which is a form of restricted exchange.
(B)	The diagram shows cross cousin marriage which is a form of generalised exchange.
(C)	This form of marriage creates a distinction between bride-givers and bride-takers.
(D)	This form of marriage conforms to the ideal of *kanyadana*.

Q. 38	**Which of the following statement(s) correctly applies/apply to reflexivity in sociological research?**
(A)	A researcher can take a bird's eye perspective of research subjects.
(B)	A researcher reflects on how her position impacts her research and findings.
(C)	A researcher considers how her biases and values bear on her interpretations and analyses.
(D)	A researcher reflects on how she in turn can help the community she is studying.

Q. 39	**"If we make abstraction from its use value, we make abstraction at the same time from the material elements and shapes that make the product a use value; we see in it no longer a table, a house, yarn, or any other useful thing. Its existence as a material thing is put out of sight. Neither can it any longer be regarded as the product of the labour of the joiner, the mason, the spinner, or of any other definite kind of productive labour. Along with the useful qualities of the products themselves, we put out of sight both the useful character of the various kinds of labour embodied in them, and the concrete forms of that labour; there is nothing left but what is common to them all; all are reduced to one and the same sort of labour, human labour in the abstract." (Karl Marx, 'Capital')** **Which statement(s) can be asserted from the above excerpt?**
(A)	Abstraction refers to a material process that occurs in production.
(B)	Abstraction refers to an analytical operation.
(C)	Abstraction refers to the reduction of material products to their common element.
(D)	Abstraction refers to a mathematical operation.

Q. 40	**"The capitalistic economy of the present day is an immense cosmos into which the individual is born, and which presents itself to him, at least as an individual, as an unalterable order of things in which he must live…In order that a manner of life so well adapted to the peculiarities of capitalism could be selected at all, i.e. should come to dominate others, it had to originate somewhere, and not in isolated individuals alone, but as a way of life common to whole groups of men. This origin is what really needs explanation...The question of the motive forces in the expansion of modern capitalism is not in the first instance a question of the origin of the capital sums which were available for capitalistic uses, but, above all, of the development of the spirit of capitalism. Where it appears and is able to work itself out, it produces its own capital and monetary supplies as the means to its ends, but the reverse is not true." (Max Weber, 'The Protestant Ethic and the Spirit of Capitalism')** **Which among the following is/are Weber's argument(s) in the above excerpt?**
(A)	The origins of capitalism cannot be explained by purely material factors.
(B)	Before it is mature, capitalism does not drive individual behaviour.
(C)	Before it is fully functional, capitalism needed the support of an ethic.
(D)	Capitalism requires greed to be adopted by all as "a manner of life".

END OF THE QUESTION PAPER

Graduate Aptitude Test in Engineering (GATE 2021)

Subject/Paper: Humanities and Social Sciences (XH) / Sociology (XH-C6)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
1	7	MCQ	GA	D	1	1/3
2	7	MCQ	GA	D	1	1/3
3	7	MCQ	GA	D	1	1/3
4	7	MCQ	GA	D	1	1/3
5	7	MCQ	GA	C	1	1/3
6	7	MCQ	GA	C	2	2/3
7	7	MCQ	GA	A	2	2/3
8	7	MCQ	GA	C	2	2/3
9	7	MCQ	GA	C	2	2/3
10	7	MCQ	GA	D	2	2/3
1	7	MCQ	XH-B1	C	1	1/3
2	7	MCQ	XH-B1	C	1	1/3
3	7	MCQ	XH-B1	C	1	1/3
4	7	MCQ	XH-B1	D	1	1/3
5	7	MCQ	XH-B1	C	1	1/3
6	7	MCQ	XH-B1	A	2	2/3
7	7	MCQ	XH-B1	C	2	2/3
8	7	MCQ	XH-B1	C	2	2/3
9	7	MCQ	XH-B1	D	2	2/3

GATE 2021 Answer Key- Humanities and Social Sciences (XH) / Sociology (XH-C6)

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
10	7	MCQ	XH-B1	B	2	2/3
11	7	MSQ	XH-B1	C; D	2	0
12	7	MSQ	XH-B1	B; C	2	0
13	7	MSQ	XH-B1	A; B	2	0
14	7	MSQ	XH-B1	A; B	2	0
15	7	MSQ	XH-B1	A; C; D	2	0
1	7	MCQ	XH-C6	C	1	1/3
2	7	MCQ	XH-C6	C	1	1/3
3	7	MCQ	XH-C6	A	1	1/3
4	7	MCQ	XH-C6	D	1	1/3
5	7	MCQ	XH-C6	C	1	1/3
6	7	MCQ	XH-C6	D	1	1/3
7	7	MCQ	XH-C6	D	1	1/3
8	7	MCQ	XH-C6	C	1	1/3
9	7	MCQ	XH-C6	C	1	1/3
10	7	MCQ	XH-C6	B	1	1/3
11	7	MCQ	XH-C6	C	1	1/3
12	7	MCQ	XH-C6	A	1	1/3
13	7	MSQ	XH-C6	A; C	1	0
14	7	MSQ	XH-C6	B; C; D	1	0
15	7	MSQ	XH-C6	D	1	0
16	7	MSQ	XH-C6	D	1	0
17	7	MSQ	XH-C6	A; D	1	0

Q. No.	Session	Question Type MCQ/MSQ/NAT	Section Name	Answer Key/Range	Marks	Negative Marks
18	7	MSQ	XH-C6	B; C; D	1	0
19	7	MSQ	XH-C6	B; C; D	1	0
20	7	MSQ	XH-C6	A; C; D	1	0
21	7	MCQ	XH-C6	A	2	2/3
22	7	MCQ	XH-C6	A	2	2/3
23	7	MCQ	XH-C6	A	2	2/3
24	7	MCQ	XH-C6	A	2	2/3
25	7	MCQ	XH-C6	C	2	2/3
26	7	MCQ	XH-C6	A	2	2/3
27	7	MCQ	XH-C6	D	2	2/3
28	7	MCQ	XH-C6	C	2	2/3
29	7	MSQ	XH-C6	A; C; D	2	0
30	7	MSQ	XH-C6	A; B; D	2	0
31	7	MSQ	XH-C6	A; B; C	2	0
32	7	MSQ	XH-C6	A; C; D	2	0
33	7	MSQ	XH-C6	A; B; D	2	0
34	7	MSQ	XH-C6	A; B; C	2	0
35	7	MSQ	XH-C6	B; C	2	0
36	7	MSQ	XH-C6	A; B	2	0
37	7	MSQ	XH-C6	B; C; D	2	0
38	7	MSQ	XH-C6	B; C	2	0
39	7	MSQ	XH-C6	B; C	2	0
40	7	MSQ	XH-C6	A; B; C	2	0