## General Aptitude (GA)

## Q. 1 - Q. 5 Carry ONE mark Each

| Q. 1 | Rafi told Mary, "I am thinking of watching a film this weekend." <br> The following reports the above statement in indirect speech: <br> Rafi told Mary that he__or watching a film that weekend. |
| :--- | :--- |
|  |  |
| (A) | thought |
| (B) | is thinking |
| (C) | am thinking |
| (D) | was thinking |
|  |  |


| Q.2 | Permit : ___ : : Enforce : Relax <br> (By word meaning) |
| :--- | :--- |
|  |  |
| (A) | Allow |
| (B) | Forbid |
| (C) | License |
| (D) | Reinforce |
|  |  |


| Q.3 | Given a fair six-faced dice where the faces are labelled ' 1 ', ' ' 2 ', ' 3 ', ' 4 ' ' ' 5 ', and ' 6 ', <br> what is the probability of getting a ' 1 ' on the first roll of the dice and a ' 4 ' on the <br> second roll? |
| :--- | :--- |
| (A) | $\frac{1}{36}$ |
| (B) | $\frac{1}{6}$ |
| (C) | $\frac{5}{6}$ |
| (D) | $\frac{1}{3}$ |
|  |  |


| Q.4 | A recent survey shows that 65\% of tobacco users were advised to stop consuming <br> tobacco. The survey also shows that 3 out of 10 tobacco users attempted to stop <br> using tobacco. <br> Based only on the information in the above passage, which one of the following <br> options can be logically inferred with certainty? |
| :--- | :--- |
| (A) | A majority of tobacco users who were advised to stop consuming tobacco made an <br> attempt to do so. |
| (B) | A majority of tobacco users who were advised to stop consuming tobacco did not <br> attempt to do so. |
| (C) | Approximately $30 \%$ of tobacco users successfully stopped consuming tobacco. |
| (D) | Approximately $65 \%$ of tobacco users successfully stopped consuming tobacco. |
|  |  |


| Q. 5 | How many triangles are present in the given figure? |
| :--- | :--- |
|  |  |
| (A) | 12 |
| (B) | 16 |
| (C) | 20 |
| (D) | 24 |

## Q. 6 - Q. 10 Carry TWO marks Each

| Q.6 | Students of all the departments of a college who have successfully completed the <br> registration process are eligible to vote in the upcoming college elections. However, <br> by the time the due date for registration was over, it was found that suprisingly none <br> of the students from the Department of Human Sciences had completed the <br> registration process. <br> Based only on the information provided above, which one of the following sets of <br> statement(s) can be logically inferred with certainty? <br> (i) $\quad$All those students who would not be eligible to vote in the college elections <br> would certainly belong to the Department of Human Sciences. <br> None of the students from departments other than Human Sciences failed to <br> complete the registration process within the due time. <br> All the eligible voters would certainly be students who are not from the <br> Department of Human Sciences. <br> (iii) <br> (A) <br> (i) and (ii) <br> (i) and (iii) <br> (C) <br> only (i) <br> (D) <br> only (iii) |
| :--- | :--- |


| Q. 7 | Which one of the following options represents the given graph? |
| :--- | :--- |
|  |  |
| (A) | $f(x)=x^{2} 2^{-\|x\|}$ |
| (B) | $f(x)=x 2^{-\|x\|}$ |
| (D) | $f(x)=x 2^{-x}$ |
|  | $f(x)=\mid$ |


| Q.8 | Which one of the options does NOT describe the passage below or follow from it? <br> We tend to think of cancer as a 'modern' illness because its metaphors are <br> so modern. It is a disease of overproduction, of sudden growth, a growth <br> that is unstoppable, tipped into the abyss of no control. Modern cell biology <br> encourages us to imagine the cell as a molecular machine. Cancer is that <br> machine unable to quench its intial command (to grow) and thus transform <br> into an indestructible, self-propelled automaton. <br> [Adapted from The Emperor of All Maladies by Siddhartha Mukherjee] |
| :--- | :--- |
| (A) | It is a reflection of why cancer seems so modern to most of us. |
| (B) | It tells us that modern cell biology uses and promotes metaphors of machinery. |
| (C) | Modern cell biology encourages metaphors of machinery, and cancer is often <br> imagined as a machine. |
| (D) | Modern cell biology never uses figurative language, such as metaphors, to describe <br> or explain anything. |
|  |  |


| Q.9 | The digit in the unit's place of the product $3^{999} \times 7^{1000}$ is |
| :--- | :--- |
|  |  |
| (A) | 7 |
| (B) | 1 |
| (C) | 3 |
| (D) | 9 |
|  |  |


| Q. 10 | A square with sides of length 6 cm is given. The boundary of the shaded region is defined by two semi-circles whose diameters are the sides of the square, as shown. <br> The area of the shaded region is $\qquad$ $\mathrm{cm}^{2}$. |
| :---: | :---: |
|  |  |
| (A) | $6 \pi$ |
| (B) | 18 |
| (C) | 20 |
| (D) | $9 \pi$ |

## Reasoning and Comprehension (XH-B1)

XH-B1: Q. 11 - Q. 17 Carry ONE mark Each

| Q.11 | Which word below best describes the idea of being both Spineless and Cowardly? |
| :--- | :--- |
| (A) | Pusillanimous |
| (B) | Unctuous |
| (C) | Obsequious |
| (D) | Reticent |
| Q.12 | Choose the right preposition to fill up the blank: |
| The whole family got together __ Diwali |  |
| (A) | of |
| (B) | at |
| (C) | in |
| (D) | till |


| Q. 13 | Select the correct option to fill in all the blanks to complete the passage: <br> The (i) $\qquad$ factor amid this turbulence has been the (ii) $\qquad$ of highoctane, action-oriented films such as RRR, K.G.F: Chapter 2 and Pushpa from film industries in the south of the country. Traditionally, films made in the south have done well in their own (iii) $\qquad$ . But increasingly, their dubbed versions have performed well in the Hindi heartland, with collections (iv) $\qquad$ those of their Bollywood counterparts. |
| :---: | :---: |
| (A) | (i) disheartening (ii) failure (iii) channels (iv) matching |
| (B) | (i) redeeming (ii) outperformance (iii) geographies (iv) eclipsing |
| (C) | (i) shocking (ii) underperformance (iii) cinemas (iv) below |
| (D) | (i) humbling (ii) bombing (iii) theatres (iv) falling behind |
|  |  |


| Q. 14 | The following passage consists of 6 sentences. The first and sixth sentences of the passage are at their correct positions, while the middle four sentences (represented by $2,3,4$, and 5) are jumbled up. <br> Choose the correct sequence of the sentences so that they form a coherent paragraph: <br> 1. Most obviously, mobility is taken to be a geographical as well as a social phenomenon. <br> 2. Much of the social mobility literature regarded society as a uniform surface and failed to register the geographical intersections of region, city and place, with the social categories of class, gender and ethnicity. <br> 3. The existing sociology of migration is incidentally far too limited in its concerns to be very useful here. <br> 4. Further, I am concerned with the flows of people within, but especially beyond, the territory of each society, and how these flows may relate to many different desires, for work, housing, leisure, religion, family relationships, criminal gain, asylum seeking and so on. <br> 5. Moreover, not only people are mobile but so too are many 'objects'. <br> 6. I show that sociology's recent development of a 'sociology of objects' needs to be taken further and that the diverse flows of objects across societal borders and their intersections with the multiple flows of people are hugely significant. |
| :---: | :---: |
| (A) | 3, 2, 5, 4 |
| (B) | $2,3,4,5$ |
| (C) | 5, 4, 3, 2 |
| (D) | 4, 2, 5, 3 |


| Q.15 | The population of a country increased by 5\% from 2020 to 2021. Then, the <br> population decreased by 5\% from 2021 to 2022. By what percentage did the <br> population change from 2020 to 2022? |
| :--- | :--- |
| (A) | $-0.25 \%$ |
| (B) | $0 \%$ |
| (C) | $2.5 \%$ |
| (D) | $10.25 \%$ |
| Q.16 | The words Thin: Slim: Slender are related in some way. Identify the correct <br> option(s) that reflect(s) the same relationship: |
| (A) | Fat: Plump: Voluptuous |
| (B) | Short: Small: Petite |
| (C) | Tall: Taller: Tallest |
| (D) | Fair: Dark: Wheatish |


| Q.17 | A pandemic like situation hit the country last year, resulting in loss of human life <br> and economic depression. To improve the condition of its citizens, the government <br> made a series of emergency medical interventions and increased spending to revive <br> the economy. In both these efforts, district administration authorities were actively <br> involved. <br> Which of the following action(s) are plausible? |
| :--- | :--- |
| (A) | In future, the government can make district administration authorities responsible <br> for protecting health of citizens and reviving the economy. |
| (B) | The government may set up a task force to review the post pandemic situation and <br> ascertain the effectiveness of the measures taken. |
| (C) | The government may set up a committee to formulate a pandemic management <br> program to minimize losses to life and economy in future. |
| (D) | The government may take population control measures to minimize pandemic <br> related losses in future. |

## XH-B1: Q. 18 - Q. 26 Carry TWO marks Each

| Q. 18 | Six students, Arif, Balwinder, Chintu, David, Emon and Fulmoni appeared in the GATE-XH exam in 2022. Balwinder scores less than Chintu in XH-B1, but more than Arif in XH-C1. David scores more than Balwinder in XH-C1, and more than Chintu in XH-B1. Emon scores less than David, but more than Fulmoni in XH-B1. Fulmoni scores more than David in XH-C1. Arif scores less than Emon, but more than Fulmoni in XH-B1. Who scores highest in XH-B1? |
| :---: | :---: |
| (A) | Fulmoni |
| (B) | Emon |
| (C) | David |
| (D) | Chintu |
| Q. 19 | Select the correct relation between E and F. |
|  | $\mathrm{E}=\frac{x}{1+x} \text { and } \mathrm{F}=\frac{-x}{1-x} \quad x>1$ |
| (A) | $E>F$ |
| (B) | $\mathrm{E}<\mathrm{F}$ |
| (C) | $E=F$ |
| (D) | E<-F |


| Q. 20 | A code language is formulated thus: <br> Vowels in the original word are replaced by the next vowel from the list of vowels, <br> A-E-I-O-U (For example, E is replaced by I and U is replaced by A). Consonants <br> in the original word are replaced by previous consonant (For example, T is replaced <br> by S and V is replaced by T). <br> Then how does the word, GOODMORNING appear in the coded language? |
| :--- | :--- |
| (A) | HUUFNUSPOPH |
| (B) | FIICLIQMEMF |
| (C) | FUUCLUQMOMF |
| (D) | HEEDATTACRH |


| Q.21 | The stranger is by nature no "owner of soil" -- soil not only in the physical, but also <br> in the figurative sense of a life-substance, which is fixed, if not in a point in space, <br> at least in an ideal point of the social environment. Although in more intimate <br> relations, he may develop all kinds of charm and significance, as long as he is <br> considered a stranger in the eyes of the other, he is not an "owner of soil." <br> Restriction to intermediary trade, and often (as though sublimated from it) to pure <br> finance, gives him the specific character of mobility. If mobility takes place within <br> a closed group, it embodies that synthesis of nearness and distance which constitutes <br> the formal position of the stranger. For, the fundamentally mobile person comes in <br> contact, at one time or another, with every individual, but is not organically <br> connected, through established ties of kinship, locality, and occupation, with any <br> single one. <br> What assumptions can be made about the stranger from the passage above? |
| :--- | :--- |
| (A) | The stranger can become an owner of soil through developing all kinds of charm in <br> more intimate relations. |
| (B) | The stranger cannot become an owner of soil either in the physical or psychological <br> sense. |
| (C) | The stranger can become an owner of soil through establishing ties of kinship and <br> so on. |
| (D) | The stranger might become an owner of soil in the physical sense but not in the <br> psychological |
|  | Wer |


| Q.22 | L is the only son of A and S. S has one sibling, B, who is married to L's aunt, K. <br> B is the only son of D. How are L and D related? <br> Select the possible option(s): |
| :--- | :--- |
| (A) | Grandchild and Paternal Grandfather |
| (B) | Grandchild and Maternal Grandfather |
| (C) | Grandchild and Paternal Grandmother |
| (D) | Grandchild and Maternal Grandmother |
|  |  |


| Q. 23 | Five segments of a sentence are given below. The first and fifth segments are at their correct positions, while the middle three segments (represented by 2,3 , and 4 ) are jumbled up. Choose the correct order of the segments so that they form a coherent sentence: <br> 1. Consumed multitudes are jostling and shoving inside me <br> 2. and guided only by the memory of a large white bedsheet with a roughly circular hole some seven inches in diameter cut into the center, <br> 3. clutching at the dream of that holey, mutilated square of linen, which is my talisman, my open-sesame, <br> 4. I must commence the business of remaking my life from the point at which it really began, <br> 5. some thirty-two years before anything as obvious, as present, as my clockridden, crime-stained birth. |
| :---: | :---: |
| (A) | 2-3-4 |
| (B) | 3-2-4 |
| (C) | 4-2-3 |
| (D) | 4-3-2 |
|  |  |


| Q. 24 | "I told you the truth," I say yet again, "Memory's truth, because memory has its own special kind. It selects, eliminates, alters, exaggerates, minimizes, glorifies, and vilifies also; but in the end it creates its own reality, its heterogeneous but usually coherent versions of events; and no sane human being ever trusts someone else's version more than his own." <br> What are the different ways in which 'truth' can be understood from the passage? |
| :---: | :---: |
| (A) | Truth is what can be verified by hard empirical evidence. |
| (B) | Truth is based on what can be perceived by the senses. |
| (C) | Truth is the product of memory that is fallible, selective and slanted. |
| (D) | Truth is contingent on the observer and can only be partial. |
| Q. 25 | A firm needs both skilled labour and unskilled labour for the production of cloth. The wage of skilled labour is Rs. 40,000 per month, and that of unskilled labour is Rs. 15,000 per month. The total wage bill of the firm for the production of cloth is Rs. $23,75,000$ in a month for 100 labour. How many skilled labour are employed by the firm (in Integer)? |
| Q. 26 | Select the odd word and write the option number as answer: <br> (1) Lek (2) Zloty (3) Diner (4) Drachma (5) Real |
|  |  |

## Psychology - C5

XH-C5: Q. 27 - Q. 44 Carry ONE mark Each

| Q.27 | Blind spot in the retina contains___ |
| :--- | :--- |
| (A) | only rod cells |
| (B) | only cone cells |
| (C) | both rod and cone cells |
| (D) | neither rod nor cone cells |
| Q.28 | Taking painkillers eliminates pain, increasing the likelihood that the person will <br> take painkillers again. This is an example of _ <br> (B) |
| positive reinforcement |  |
| (C) | negative reinforcement |
| (D) | positive punishment |
| negative punishment |  |
|  |  |
|  |  |


| Q.29 | When learning something new impairs the ability to retrieve information learnt <br> earlier, it is known as <br> (A) <br> retroactive interference <br> (B) <br> proactive interference <br> (C) <br> tip-of-the-tongue phenomenon <br> (D) <br> recency effect <br> Q.30 <br> Iconic memory is a type of <br> (B) <br> (C) <br> sensory memory <br> (A) <br> short term memory <br> working memory |
| :--- | :--- |


| Q.31 | Which one of the following components of language has to do with the practical or <br> social aspects of communication with others? |
| :--- | :--- |
| (A) | Phonemes |
| (B) | Morphemes |
| (C) | Pragmatics |
| (D) | Syntax |
| Q.32 | The Yerkes-Dodson law states that_ |
| (B) | frustration leads to aggression |
| (C) | self-concept helps us organize and remember information |
| (D) | changes in behaviour are a result of experiences that have happened frequently or <br> recently |
| (A) |  |
|  |  |
|  |  |


| Q.33 | Transduction of mechanical energy into nerve impulses in the auditory system takes <br> place in reponse to bending of the <br> (A) <br> pinna <br> (B) <br> hair cells <br> (C) <br> incus <br> (D) <br> malleus <br> Q.34 <br> Which one of the following theories states that emotion occurs as a result of physical <br> arousal and labeling of the arousal based on cues from the surrounding <br> environment? <br> (C) <br> James-Lange theory <br> (D) <br> Cannan-Friesen theory <br> Schachter-Singer theory |
| :--- | :--- |



| Q.37 | Which of the following is/are NOT the factor(s) of the Big Five Personality model? |
| :--- | :--- |
|  |  |
| (A) | Conscientiousness |
| (B) | Optimism |
| (C) | Humility |
| (D) | Extraversion |
| Q.38 | Which of the following is/are TRUE for creative individuals? |
|  |  |
| (D) | They are unconventional in their work |
| (B) | They are not very good at mental imagery |
| (C) | They do not value their independence afraid to be different |
| (A) |  |


| Q.39 | Which of the following is/are included under behavioural genetics studies in <br> humans? |
| :--- | :--- |
| (A) | Selective breeding studies |
| (B) | Family studies |
| (C) | Twin studies |
| (D) | Adoption studies |
| Q.40 | Which of the following statements regarding locus of control is/are CORRECT? |
| (D) |  |
| It is associated with self-esteem |  |
| (C) | Internal locus of control is positively correlated with success |
| (D) | Regret has no association with locus of control |
|  |  |
|  |  |
|  |  |


| Q.41 | Which of the following is/are TRUE for nonparametric statistics? |
| :--- | :--- |
|  |  |
| (A) | It is often called distribution free statitstics |
| (B) | It is used to analyze interval data |
| (C) | It is used to analyze ordinal data |
| (D) | It compares groups in terms of means |
| Q.42 | According to the review of research on stress and immune system, which of the <br> following statement(s) has/have substantial evidence? |
| (D) |  |
| (B) | There is no measurable impact of stress on functional immune measures |
| (A) | There is a positive relationship between long term stressors and functional immune |
| measures |  |
| (Begative relationship between stress and functional immune measures |  |
|  |  |
|  | The relationship between stress and functional immune measures |
|  |  |
|  |  |


| Q. 43 | Which of the following influence(s) gender dysphoria? |
| :---: | :---: |
| (A) | Prenatal factors |
| (B) | Early childhood experiences |
| (C) | Socialization |
| (D) | Attention Deficit Hyperactivity Disorder |
| Q. 44 | If the variance of a set of scores is 100, the standard deviation is $\qquad$ (in integer). |
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## XH-C5: Q.45- Q. 65 Carry TWO marks Each



| Q.46 | Which one of the following is established by the replication of research studies? |
| :--- | :--- |
|  |  |
| (A) | Validity of the results |
| (B) | Reliability of the results |
| (C) | Interaction effect |
| (D) | Mediation effect |
|  |  |
|  |  |
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|  |  |
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| Q.49 | individual and society, whereas explains aging as a process of mutual withdrawal of <br> correlation between activity and successful aging. <br> (A) <br> Decay theory, Engagement theory positive |
| :--- | :--- |
| (B) | Balance theory, Engagement theory |
| (C) | Disengagement theory, Activity theory |
| (D) | Withdrawal theory, Activity theory |
|  |  |
|  |  |
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| Q.52 | Which one of the following would resolve the basic dilemma of the social <br> psychologist? |
| :--- | :--- |
| (A) | Conducting carefully designed experiments with high internal validity |
| (B) | By replicating experiments and conducting some new experiments that have internal <br> validity and others that have external validity |
| (C) | Conducting research exclusively in the field |
| (D) | Conducting applied rather than basic research |
|  |  |
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|  |  |
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| Q.54 | Which one of the following statements is TRUE according to Brehm's reactance <br> theory? |
| :--- | :--- |
| (A) | A mild sign prohibitting spitting would be more effective in preventing spitting than <br> a strong sign |
| (B) | A strong sign would be more effective in preventing spitting than a mild one |
| (C) | Absence of any sign would be most effective in preventing spitting |
| (D) | Signs are irrelevant to spitting behaviour |
| Q.55 | According to the overjustifcation effect, which one of the following consequences <br> would be TRUE for students who freely choose to study psychology, if marks are <br> given for attendance? |
| (D) | Increased interest in other social science subjects |
| (B) | Decreased interest of students in the subject |
| Increased interest of students in the subject |  |
| (C) effect on the interest of students in the subject |  |
|  |  |
|  |  |


| Q.56 | Large rewards and severe punishments are examples of <br> justification for behaviour and result in__ changes in attitude. <br> (A) <br> internal; big <br> (B) <br> external; big <br> (C) <br> internal; small <br> (D) <br> external; small <br> Q.57 <br> Which of the following therapies is/are based on classical conditioning? <br> (A) <br> Systematic desensitization <br> (B) <br> Aversion therapy <br> (D) <br> Rational emotive behaviour therapy |
| :--- | :--- |


| Q.58 | Which of the following characterize(s) Wernicke's aphasia? |
| :--- | :--- |
| (A) | Inability to comprehend spoken words |
| (B) | Inability to understand the meaning of words |
| (C) | Inability to speak grammatically correct language |
| (D) | Inability to write and understand the symbols that represent speech sounds |
| Q.59 | Which of the following is/are the component(s) of Theory of Mind? |
| (D) | Recognizing that others have mental states |
| (D) | Having a vast vocabulary to express one's thoughts |
| (A | Understanding that people can have false beliefs |
| (Dishing faces and smells |  |
|  |  |
|  |  |


| Q.60 | Which of the following would NOT be effective in minimizing groupthink? |
| :--- | :--- |
| (A) | The leader being impartial to all ideas no matter what they are |
| (B) | The leader reminding the team that everyone will be held responsible for the decision <br> of the group |
| (C) | The leader taking all decisions on behalf of the group |
| (D) | The leader arriving at a consensus quickly |
| Q.61 | Which of the following describe(s) the standard error of the mean? |
| (D) | It is the standard deviation of a stratified sample |
| (B) | It is the standard deviation of the sampling distribution of the mean accuracy with which sample means estimate the population mean |
| (C) | It is the difference between mean and standard deviation of a distribution |
|  |  |
|  |  |


| Q.62 | Which of the following describe(s) organizational commitment? |
| :--- | :--- |
|  |  |
| (A) | A strong desire to remain a member of the organization |
| (B) | Willingness to exert high level of effort on behalf of the organization |
| (C) | A definite belief in and acceptance of values and goals of the organization |
| (D) | High turnover intention of the employees of the organization |
| Q.63 | Prejudice is supported by the human tendency to categorize into in-groups and <br> out-groups. Prejudice is supported by which of the following processes? |
| (D) | By working towards a common goal |
| (B) | The way we assign meaning to others behaviour |
| (A) | The way we think about others |
| (Dollowing intellectual pursuits |  |
|  |  |
|  |  |
|  |  |


| Q. 64 | Which of the following is/are feature(s) of clinical phobia? |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (A) | The fear must be persistent |  |  |  |
| (B) | The fear must be a source of significant distress |  |  |  |
| (C) | The fear is rational |  |  |  |
| (D) | The fear is usually perceived as unwarranted |  |  |  |
| Q. 65 | The value of F calculated from the data given in the table below is $\qquad$ (rounded off to one decimal place). |  |  |  |
|  |  | Sum of Square (SS) | Degree of freedom (df) | Mean Square (MS) |
|  | Between | 54 | 3 | 18 |
|  | Within | 100 | 20 | 5 |

## END OF QUESTION PAPER

