# CMAT 2020 Set 3 Question Paper

## Quantitative Techniques and Data Interpretation

**Q1.** What is the farthest distance between two points on a cylinder of height 8 and radius 8?

(1) $8\sqrt{5}$

(2) $8\sqrt{2}$

(3) $8\sqrt{3}$

(4) $16\sqrt{5}$

**Q2.** Tom's salary is 150% of John's salary. John's salary is 80% of Steve's salary. What is the ratio of Steve's salary to Tom's salary?

(1) 6:5

(2) 5:4

(3) 5:6

(4) 4:5

**Q3.** In a certain town, 40% of people have brown hair, 30% of people have brown eyes, and 12% have both brown hair and brown eyes. How many people in town have neither brown hair nor brown eyes?

(1) 41(2) 42(3) 43(4) 44

**Q4.** 25,000/- is borrowed at compound interest at the rate of 3% for the first year, 4% for the second year, and 5% for the third year. Find the amount to be paid after 3 years.

(1) 28,119/-

(2) 28,120/-

(3) 28,118/-

(4) 28,117/-

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**Q5.** Which of the following sets of numbers can be used as the lengths of the sides of a triangle?

(1) $[5, 7, 9]$

(2) $[2, 4, 10]$

(3) $[5, 7, 12]$

(4) $[7, 9, 17]$

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**Q6.** The LCM and HCF of two numbers are 84 and 21 respectively. If the ratio of two numbers is 1:4, then the larger among two numbers is:

(1) 88

(2) 28

(3) 48

(4) 84

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**Q7.** X and Y are running towards each other from their houses. X can reach Y's house in 25 minutes which is half the time taken by Y to run from his house to X's house. If the two start to run towards each other at the same time, then how much more time will it be required by Y to reach the middle of houses?

(1) 18 min

(2) 12.5 min

(3) 50 min

(4) 25 min

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**Q8.** A company publishes to its customers that at a certain compound interest rate, a sum of money deposited by anyone will become 8 times in 3 years. If the same amount is deposited at the same compound rate of interest, then in how many years will it become 16 times?

(1) 4 years

(2) 4.5 years

(3) 3 years

(4) 3.5 years

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**Q9.** A shopkeeper marks his books at 25% above the cost price. Due to slump in the market, his cost reduces by 5%. And then, to boost his sale, he offered a discount of 8% due to which sales go up by 25%. Compute the change in the shopkeeper's profit.

(1) No change

(2) 7(3) 2.5(4) 8

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**Q10.** Five years ago, the average age of A, B, C, and D was 45 years. By including X in the present lot, their present average changes to 49 years. What is the present age of X?

(1) 45 years

(2) 40 years

(3) 48 years

(4) 49 years

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**Q11.** Brother and Sister both appear for an interview. The probability of the selection of brother is $\frac{1}{8}$ while the probability of rejection of sister is $\frac{4}{5}$. What is the probability that only one of them is selected?

(1) $\frac{11}{40}$

(2) $\frac{5}{13}$

(3) $\frac{1}{10}$

(4) $\frac{7}{40}$

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**Q12.** In how many different ways can the letters of the word "EXTRA" be arranged so that the vowels are never together?

(1) 48

(2) 120

(3) 72

(4) 168

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**Q13.** The sum of two numbers is 135 and their HCF is 9. How many such pairs of numbers can be formed?

(1) 6

(2) 2

(3) 5

(4) 4

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**Q14.** Find the smallest number by which 2400 should be divided to make it a perfect cube.

(1) 300

(2) 220

(3) 385

(4) 260

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**Q15.** Simplify the following: $0.3 \times 0.3 + 0.03 \times 0.03 - 0.6 \times 0.03$

(1) 0.03

(2) 0.90

(3) 0.982

(4) 0.135

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**Q16.** If $x : y = 2 : 3$, the value of $(3x + 2y) : (2x + 5y)$ is:

(1) 12

(2) 19

(3) 11

(4) 15

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**Q17.** The work done by a man, woman, and a child are in the ratio 3 : 2 : 1. If daily wages of 20 men, 30 women, and 36 children amount to 78/-, what will be the wages of 15 men, 21 women, and 30 children for 18 weeks?

(1) 7371/-

(2) 8645/-

(3) 9000/-

(4) 7532/-

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**Q18.** A city has an average demand of water of 33,000 Lts. of water which lasts for 50 days. But if some people enter the city, then the demand increases to 37,000 Lts. of water for which supply will last 35 days. Give an estimation of how much minimum water should be used daily so that it could last 50 days?

(1) 24,253.00 Lts.

(2) 24,123.72 Lts.

(3) 23,666.66 Lts.

(4) 23,662.34 Lts.

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**Q19.** In how many ways a committee consisting of 5 men and 6 women can be formed from 8 men and 10 women?

(1) 5041

(2) 11670

(3) 5040

(4) 11760

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**Q20.** There are six teachers. Out of them, two teach Physics, other two teach Chemistry, and the rest two teach Mathematics. They have to stand in a row such that Physics, Chemistry, and Mathematics teachers are always in a set. The number of ways in which they can do is:

(1) 48

(2) 36

(3) 24

(4) 12

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**Q21.** Two successive discounts of 8

(1) 19.04(2) 20(3) 20.96(4) 22

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Number of Boys and Girls (in hundreds) in six different years in 5 different schools data is given below :

| School → | A | | B | | C | | D | | E | |
|---|---|---|---|---|---|---|---|---|---|---|
| Years ↓ | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| 2014 | 3.3 | 3.6 | 5.2 | 3.1 | 5.5 | 4.5 | 2.4 | 1.4 | 6.5 | 6.6 |
| 2015 | 6.6 | 4.2 | 4.9 | 2.2 | 6.9 | 3.3 | 4.4 | 2.3 | 5.5 | 3.6 |
| 2016 | 9.3 | 6.9 | 4.7 | 4.2 | 5.8 | 4.9 | 6.4 | 3.3 | 2.7 | 2.4 |
| 2017 | 5.4 | 9.6 | 6.3 | 5.4 | 6.6 | 5.2 | 5.3 | 5.4 | 5.4 | 5.7 |
| 2018 | 8.4 | 12.9 | 7.5 | 5.9 | 8.7 | 6.6 | 12.1 | 5.2 | 6.8 | 6.5 |
| 2019 | 12.3 | 14.4 | 9.8 | 4.4 | 11.7 | 4.2 | 12.2 | 9.4 | 10.8 | 12.7 |

**Q22.** What is the approximate percentage decrease in the number of boys in school D in the year 2017 as compared to the previous year?

(1) 17(2) 12(3) 9(4) 5

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**Q23.** The number of girls in school B in the year 2018 is approximately what percent of the total number of students in school E in the year 2015?

(1) 46(2) 52(3) 58(4) 65

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**Q24.** What is the average number of girls in school A in all years taken together?

(1) 760
(2) 800
(3) 860
(4) 600

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**Q25.** What is the ratio of the number of boys in school C in the year 2018 to the number of girls in school A in the year 2018?

(1) 29:41
(2) 36:11
(3) 29:43
(4) 36:13

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## Logical Reasoning

**Q26.** A man wears gloves of two colours - Red and Green. He has altogether 30 Red Gloves and 10 Green Gloves. Supposing he has to take out Gloves in the dark, how many must he take out to be sure that he has a matching pair?

(1) 3

(2) 4

(3) 5

(4) 6

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**Q27.** Should all the factories in the cities be shifted to outskirts far away from the main city?

(1) If only argument I is strong.

(2) If only argument II is strong.

(3) If neither I nor II is strong.

(4) If both I and II are strong.

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**Q28.** In the following, choose the pair/group of words having the same relationship as given in the question. Elevated : Exalted : : _____ : _____

(1) Promoted : Excellence

(2) Disorderly : Unfaithful

(3) Raise : Commensurate

(4) Dirty : Filthy

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**Q29.** The following question is given by 2 statements and 2 conclusions numbered I and II. Choose the right answer from the given options. Statements: - All huts are bungalows. - All bungalows are churches. Conclusions: I. Some churches are huts. II. Some churches are mansions.

(1) If only conclusion I follows.

(2) If only conclusion II follows.

(3) If either conclusion I or II follows.

(4) If both conclusion I and II follow.

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**Q30.** In the following question, select one alternative in which the third statement is implied by the first two statements. - All wolves are wild. - All tigers are wild. - So, all tigers are wolves.

(1) All wolf's are wild. All tiger's are wild. So, all tigers are wolves.
(2) All oranges are red. Some peaches are strawberries. So, all peaches are red.
(3) All buses are boxes. All hens are buses. So, all boxes are hens.
(4) All PQR can run. All ABC are PQR. So, all ABC can run.

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**Q31.** The question given below consists of a statement, followed by 3 arguments numbered I, II and III. You should decide which of the arguments is/are 'strong' arguments and which is/are 'weak' argument(s) and accordingly choose your answer from given options. Statement: Should religion be taught in schools? Arguments: I. No, ours is a secular state. II. Yes, teaching religion helps inculcate moral values among children. III. No, how can one dream of such a step when we want the young generation to fulfill its role in the 21st century?

(1) All are strong.
(2) Only I is strong.
(3) Only II is strong.
(4) Only I and III are strong.

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**Q32.** Find the missing letters. _ aba _ ba _ ab

(1) abba
(2) abbab
(3) baabb
(4) bbaba

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**Q33.** What comes next? 3, 12, 27, 48, 75, 108, _

(1) 147

(2) 162

(3) 183

(4) 192

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**Q34.** Choose the right answer, based on the relationship given in question. Clasp : Bracelet

(1) Wrist : Watch

(2) Cuff : Trousers

(3) Buckle : Belt

(4) Hook : Coat

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**Q35.** Identify the odd man out.

(1) Cabbage

(2) Papaya

(3) Cucumber

(4) Brinjal

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**Q36.** In a certain code language, RUSTICATE is written as QTTUIDBSD. How would STATISTIC be written in that code?

(1) RSBUJTUHB

(2) RSBUITUHB

(3) RSBUIRSJD

(4) TUBUITUMB

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**Q37.** From the given alternatives, find the correct relationship that holds between two terms: FJUL : BOQQ : : LHRX : _____

(1) HMNC

(2) HMCC

(3) HCMM

(4) HMCM

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**Q38.** Mr. Ravi Reddy has three children - Swarna, Kamal and Avinash. Avinash married Madhuri, the eldest daughter of Mr. and Mrs. Chowdhry. The Chowdhry's married their youngest daughter to the eldest son of Mr. and Mrs. Patel, and they had two children named Arun and Sharada. The Chowdhry's have two more children Ratan and Varsha, both elder to Veeksha. Sameer and Ajay are sons of Avinash and Madhuri. Rohini is the daughter of Arun.

What is the surname of Rohini?

(1) Reddy

(2) Chowdhry

(3) Patel

(4) Arora

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**Q39.** How is Sameer related to Madhuri's father?

(1) Grandson

(2) Son

(3) Son-in-Law

(4) Father-in-Law

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**Q40.** What is the surname of Sameer?

(1) Patel

(2) Reddy

(3) Chowdhry

(4) Cannot be determined

**Q41.** How is Mrs. Chowdhry related to Avinash?

(1) Aunt

(2) Mother-in-Law

(3) Mother

(4) Sister-in-Law

**Q42.** Saritha went 15 km to the West from her house, then turned left and walked 20 km. She then turned East and walked 25 km and finally turning left covered 20 km. How far is she from her house?

(1) 10 km

(2) 5 km

(3) 40 km

(4) 80 km

**Q43.** How is this represented using a Venn diagram? Shirt, Collar, Pocket

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**Q44.** In the following alphabets, which letter is eight to the right of the fourteenth letter from the right end? ZABCDEFGHIJKLMNOPQRSTUVWXYZ

(1) H

(2) R

(3) S

(4) T

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**Q45.** Standing near a bus stop, Ayush told Smitha that Koti was more than ten kilometres but less than 15 kilometres from there. Smitha knew that it was more than 12 kilometres but less than fourteen kilometres from there. If both of them were correct, which of the following could be the distance to Koti from the bus stop?

(1) 11 km

(2) 12 km

(3) 13 km

(4) 14 km

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**Q46.** In the following question, different letters stand for various symbols as indicated below:

R: Addition

S: Subtraction

T: Multiplication

U: Division

V: Equal to

W: Greater than

X: Less than

Out of the four alternatives given, only one is correct according to the above letter symbols. Identify the correct one.

(1) 16T2R4U6X8

(2) 16R2S4V6R8

(3) 16T2U4V6R8

(4) 16U2R4S6W8

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**Q47.** Choose the correct order: (A) Yarn (B) Silkworm (C) Saree (D) Silk (E) Cloth

(1) (B), (D), (A), (E), (C)

(2) (B), (D), (C), (E), (A)

(3) (B), (C), (D), (A), (E)

(4) (C), (D), (A), (B), (E)

**Q48.** Identify the missing numbers.

| 9 | 11 | 13 |
|---|---|---|
| 13 | 15 | 17 |
| 10 | 12 | 14 |
| 10 | 12 | 14 |
| 14 | 16 | ? |

(1) 14, 18

(2) 22, 20

(3) 18, 15

(4) 12, 13

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**Q49.** What comes next?

**Options :**
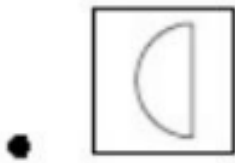


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**Q50.** What comes next?

**Options :**



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## Language Comprehension

**Q51.** The reformer must know that what moves people is the authentic life, not mere writing. The newspaper and journals that Tilak and other reformers ran, the books they wrote, sold little, but had enormous effect. Their writing was known to reflect and be just an extension of their exemplary lives. It was the authenticity of their lives which lent weight to their message, to their example. All knew that their lives were an integral whole - they were not

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moral in public life and lack in private, not vice versa. They were not full of pious thoughts and sacred resolutions within the walls of a temple

A writer who is merely entertaining his readers, even one who is merely informing them, can do what he wants with the rest of his life. But the writer, who sets out to use his pen to reform public life, cannot afford such dualities. Here is the testimony of one great man - about the influence of another, Lokmanya Tilak.

"I believe that an editor who has anything worth saying and who commands a clientele cannot easily be hushed. He delivered his finished message as soon as he is put underduress. Tilak spoke more eloquently from the Mandalay fortress than through columns of the printed Kesari.

His influence was multiplied thousand fold by his imprisonment and his speech and his pen had acquired much greater power after he was discharged than before his imprisonment. By his death we have been editing his paper without pen and speech through the sacred resolution of the people to realize his life's dream.

He could possibly have done more if he were here today in flesh preaching his view. Critics like me would perhaps be still finding fault in the expression of this or that. Today, his message rules millions of hearts which are determined to raise permanent living memorial by the fulfillment of his ambition in their lives".

Complete the following sentence:

Tilak's messages were most effective _____.

(1) after his death

(2) before his imprisonment

(3) when delivered in speeches

(4) when he delivered them through editorials

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**Q52.** Which of the following is the result of Lokmanya Tilak's exemplary life?

(1) The newspapers edited by him did not incur monetary loss

(2) He was put in jail at Mandalay

(3) People resolved to fulfill his life's dreams

(4) The books written by him are useful

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**Q53.** Which of the following is the general tendency of critics according to the passage?

(1) To find fault with one or the other expression of a writer

(2) To praise only those writers who they like

(3) To condemn one and all the reformer writers

(4) To justify their criticism

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**Q54.** In the context of the passage, a reformer becomes effective if:

(1) he is a journalist with an objective viewpoint

(2) he is an author with an excellent style of writing

(3) he is a person with consistency in his writing and life style

(4) he is good critic of social practices

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**Q55.** Which of the following types of writers can be moral in their personal life and lack in public life?

(1) Those who want to reform people

(2) Those who want to entertain people

(3) Those who lead an authentic life

(4) Those whose writing is an extension of their exemplary lives

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**Q56.** In the context of the passage, which of the following statements about Tilak and the reformers is true?

(1) They were moral in private life but lack in public life

(2) Their influence on people was negligible

(3) Very few people used to read the newspapers even from inside the jail

(4) They were allowed to edit their newspapers even from inside the jail

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**Q57.** In this question, you are given a sentence, a part of which is underlined. This is followed by four ways of phrasing the underlined part. Select the version that best rephrases the underlined part. We want the teacher to be him who has the best rapport with the students.

(1) We want the teacher to be he.
(2) We want him to be the teacher.
(3) We desire the teacher to be him.
(4) We anticipate the teacher to be him.

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**Q58.** The question has a group of sentences marked A, B, C, D, and E. Arrange these to form a logical sequence. (A) but there is some merit in it
(B) as distinct from consumption
(C) the bifurcation of plan and non-plan funds
(D) in so far as it focuses attention on development expenses
(E) in the budget in artificial

(1) (B), (C), (A), (E), (D)
(2) (C), (D), (B), (E), (A)
(3) (C), (E), (A), (B), (D)
(4) (D), (E), (A), (C), (B)

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**Q59.** Fill in the blank(s) with appropriate word/words. As _____ head of the organisation, he attended social functions and civil meetings, but had no _____ in the formulation of company policy.

(1) hypothetical, vote
(2) titular, voice
(3) nominal, competition

(4) former, pride

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**Q60.** Fill in the blank(s) with appropriate word/words. Confused and _____, Shyam fumbled to make sense of seemingly inconsistent statements, _____ the impatience of his listeners.

(1) philosophical, overlooking
(2) tired, hearing
(3) prostrate, listening
(4) incoherent, oblivious to

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**Q61.** The appropriate meaning of stir up a hornet's nest would be _____

(A) to mix the good and the bad
(B) to destroy homes and settlements
(C) to create trouble
(D) to quicken an action

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**Q62.** Fill in the blank with appropriate word/words. Harris _____ thirteen pages when his laptop crashed.

(A) is typing
(B) typed
(C) has typed
(D) had already typed

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**Q63.** Fill in the blank with appropriate word(s). One who believes in no Government and therefore incites disorder in a state is called _____

(A) a Naxalite
(B) an Autocrate

(C) an Anarchist

(D) a Monarchist

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**Q64.** Choose an appropriate synonym for the given word: WREAK

(A) to sting

(B) to twist

(C) to inflict

(D) to sweat

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**Q65.** Ranjini is a Voracious reader. The meaning of the underlined word is:

(A) tenacious

(B) truthful

(C) spacious

(D) ravenous

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**Q66.** Radha keeps an open house every weekend to teach yoga. What does the underlined word mean?

(A) Welcomes yoga practitioners

(B) Welcomes all those who are interested

(C) Welcomes selected group of people

(D) Keeps the doors of her house open

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**Q67.** Select the word or phrase which is closest to the opposite in meaning to the underlined word. You are advised to show clemency to the defeated enemy.

(A) Cruelty

(B) Mercy

(C) Leniency

(D) Kindness

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**Q68.** Rajiv's <u>utopian idea</u> was entertaining, but not acceptable. What does the underlined word mean?

(A) unworthy idea

(B) imaginary idea

(C) classic idea

(D) big idea

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**Q69.** What do you understand by - FRATRICIDE?

(A) murder of father

(B) murder of brother

(C) murder of a foetus

(D) murder of oneself

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**Q70.** Form a meaningful sentence from the given sentences.

(A) It results from a carefully revised plan

(B) Men work together for a cause or purpose

(C) Team work does not just happen

(D) It must be clearly known to them

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**Q71.** In the following sentence, choose the nearest similar meaning word so that the meaning of the sentence may not change. Ritu asked Rashmi not a <u>meddle</u> in her affairs.

(A) enthuse

(B) cross

(C) impose

(D) interfere

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**Q72.** Choose the most suitable word for the given expression. One who cannot die.

(A) Invulnerable

(B) Perpetual

(C) Mortal

(D) Immortal

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**Q73.** Choose the correctly spelt word.

(A) Forein

(B) Foriegn

(C) Fariegn

(D) Foreign

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**Q74.** New Metro Rail Project was <u>commissioned</u> yesterday at Hyderabad by the State Railway Minister. What is the opposite of the underlined word?

(A) Started

(B) Closed

(C) Finished

(D) Terminated

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**Q75.** In this question, a word is underlined in the given sentence. For the underlined word, four words are listed below. Choose the word nearest in meaning to the underlined word. The football coach had a sympathetic presence, <u>albeit</u> a commanding one.

(A) Although

(B) Further more

(C) Because

(D) Not only

## General Awareness

**76.** Who wrote the book "The Paradoxical Prime Minister"?

(A) Khushwant Singh

(B) Vikram Seth

(C) Shashi Tharoor

(D) Arundhati Roy

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**77.** Which city houses the headquarters of International Atomic Energy Agency (IAEA), the World's 'Atoms for Peace' organisation set-up in 1957 within the United Nations family?

(A) Tokyo (Japan)

(B) Vienna (Austria)

(C) Geneva (Switzerland)

(D) New York (USA)

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**78.** Which city is known for its 'Chicken embroidery'?

(A) Lucknow

(B) Pune

(C) Surat

(D) Indore

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**79.** What do you call the study of inscriptions?

(A) Palaeography

(B) Numismatics

(C) Epigraphy

(D) Archaeology

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**80.** VAIO is the product of which company?

(A) Verizon Associates

(B) Compaq

(C) Dell

(D) Sony

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**81.** Who is the only batsman to score five centuries in a single edition of the ICC World Cup?

(A) Clive Loyd

(B) Rohit Sharma

(C) Virat Kohli

(D) Hardik Pandya

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**82.** The longest circle which can be drawn on the Earth's surface passes through:

(A) Equator

(B) Tropic of Cancer

(C) Arctic circle

(D) Tropic of Capricorn

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**83.** To which field of literature is the 'Booker Prize' awarded every year?

(A) Philosophy

(B) Autobiography

(C) Religion

(D) Fiction

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**84.** EXIM Policy of India is prepared by

(A) RBI

(B) SEBI

(C) Ministry of Commerce

(D) Ministry of Finance

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**85.** 'Grapevine' is the term used in relation to

(A) Group Communication

(B) Formal Communication

(C) Informal Communication

(D) E-mail Communication

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**86.** Birla Industrial and Technological Museum is located in the state _____.

(A) Bihar

(B) Karnataka

(C) West-Bengal

(D) Maharashtra

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**87.** Which is the oldest Veda ?

(A) Atharveda

(B) Yajurveda

(C) Samveda

(D) Rigveda

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**88.** The famous hill station 'Kodaikanal' is in _____.

(A) Nilgiri Hills

(B) Cardamom Hills

(C) Palani Hills

(D) Javadi Hills

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**89.** Who won the Miss Universe Australia title in 2019 ?

(A) Priya Serrad

(B) Sushmitha Rao

(C) Kalpana Chawla

(D) Preethi Lamba

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**90.** MDMK is a Political Party, what does it stand for ?

(A) Marumalarchi Dravida Munnetra Kazhagam

(B) Munnetra Dravida Marumalarchi Kazhagam

(C) Makkal Dravida Munnetra Kazhagam

(D) Madras Dravida Munnetra Kazhagam

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**91.** The country which is also known as Persia is _____.

(A) Iraq

(B) Iran

(C) Kuwait

(D) Qatar

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**92.** How many overs were allowed per side in the inaugural 1975 Cricket World Cup ?

(A) 50

(B) 60

(C) 25

(D) 40

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**93.** Who is the founding member of Muslim League ?

(A) Md. Ali Jinnah

(B) Shaukat Ali

(C) Nawab Khwaja Salimullah

(D) Aga Khan

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**94.** The bank which merged with Capital First was _____.

(A) IDBI

(B) SBI

(C) ICICI

(D) IDFC

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**95.** _____ is gained when a bullet is fired upwards vertically.

(A) Synergy

(B) Energy

(C) Potential Energy

(D) Kinetic Energy

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**96.** The length of the longest railway platform in India is _____.

(A) 4412 ft.

(B) 4432 ft.

(C) 4483 ft.

(D) 4492 ft.

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**97.** What strait divides Morocco and Spain?

(A) Strait of Gibraltar

(B) Strait of Malacca

(C) Strait of Hormuz

(D) Strait of Bosporus

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**98.** Which Indian has become the first woman in the world to be awarded with the International Maritime Organisation (IMO) award for Exceptional Bravery at sea?

(A) Avani Chaturvedi

(B) Radhika Menon

(C) Bhawana Kanth

(D) P.V. Sindhu

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**99.** 'Siamese Fighting Fish' is the national aquatic animal of which country?

(A) Singapore

(B) Thailand

(C) New Zealand

(D) Australia

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**100.** In India, how many banks were nationalised during the Second Round of Nationalization in 1980?

(A) 5 Banks

(B) 6 Banks

(C) 7 Banks

(D) 8 Banks

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