

Question 1

The sum of the interior angles of a convex n -sided polygon is less than 2019° . The maximum possible value of n is _____

Question 2

Suppose that a, b and c are real numbers greater than 1. Then the value of

$$\frac{1}{1 + \log_{a^2 b} \frac{c}{a}} + \frac{1}{1 + \log_{b^2 c} \frac{a}{b}} + \frac{1}{1 + \log_{c^2 a} \frac{b}{c}}$$

is _____

Question 3

A real-valued function f satisfies the relation

$$f(x)f(y) = f(2xy + 3) + 3f(x + y) - 3f(y) + 6y, \text{ for all real numbers } x \text{ and } y.$$

Then the value of $f(8)$ is _____

Question 4

Let A, B, C be three 4×4 matrices such that $\det A = 5$, $\det B = -3$, and $\det C = \frac{1}{2}$. Then the $\det(2AB^{-1}C^3B^T)$ is _____

Question 5

If A is a 3×3 non-zero matrix such that $A^2 = O$ then determinant of $[(I + A)^{50} - 50A]$ is equal to _____

Question 6

Three friends divided some apples in the ratio 3:5:7 among themselves. After consuming 16 apples they found that the remaining number of apples with them was equal to largest number of apples received by one of them at the beginning. Total number of apples these friends initially had was _____

Question 7

A shopkeeper reduces the price of a pen by 25% as a result of which the sales quantity increased by 20%. If the revenue made by the shopkeeper decreases by $x\%$ then x is _____

Question 8

For all real values of x , $\frac{3x^2-6x+12}{x^2+2x+4}$ lies between 1 and k , and does not take any value above k . Then k equals _____.

Question 9

The maximum distance between the point $(-5, 0)$ and a point on the circle $x^2 + y^2 = 4$ is _____

Question 10

If x, y, z are positive real numbers such that $x^{12} = y^{16} = z^{24}$, and the three quantities $3 \log_y x, 4 \log_z y, n \log_x z$ are in arithmetic progression, then the value of n is _____

Question 11

The number of pairs (x, y) satisfying the equation $\sin x + \sin y = \sin(x + y)$ and $|x| + |y| = 1$ is _____

Question 12

The circle $x^2 + y^2 - 6x - 10y + k = 0$ does not touch or intersect the coordinate axes. If the point $(1, 4)$ does not lie outside the circle, and the range of k is $(a, b]$ then $a + b$ is _____

Question 13

If a 3×3 matrix is filled with $+1$'s and -1 's such that the sum of each row and column of the matrix is 1, then the absolute value of its determinant is _____

Question 14

Let the set $P = \{2, 3, 4, \dots, 25\}$. For each $k \in P$, define $Q(k) = \{x \in P \text{ such that } x > k \text{ and } k \text{ divides } x\}$. Then the number of elements in the set $P - \bigcup_{k=2}^{25} Q(k)$ is _____

Question 15

The number of whole metallic tiles that can be produced by melting and recasting a circular metallic plate, if each of the tiles has a shape of a right-angled isosceles triangle and the circular plate has a radius equal in length to the longest side of the tile (Assume that the tiles and plate are of uniform thickness, and there is no loss of material in the melting and recasting process) is _____

Question 16

If $|x| < 100$ and $|y| < 100$, then the number of integer solutions of (x, y) satisfying the equation $4x + 7y = 3$ is _____

Question 17

The average of five distinct integers is 110 and the smallest number among them is 100. The maximum possible value of the largest integer is _____

Question 18

Assume that all positive integers are written down consecutively from left to right as in 1234567891011..... The 6389th digit in this sequence is _____

Question 19

The number of pairs of integers whose sums are equal to their products is _____

Question 20

You have been asked to select a positive integer N which is less than 1000, such that it is either a multiple of 4, or a multiple of 6, or an odd multiple of 9. The number of such numbers is _____

Question 21

If the compound interest earned on a certain sum for 2 years is twice the amount of simple interest for 2 years, then the rate of interest per annum is _____ percent

- a) 200%
- b) 2%
- c) 4%
- d) 400%

Question 22

The maximum value of the natural number n for which 21^n divides $50!$ is

- a) 6
- b) 7
- c) 8
- d) 9

Question 23

The remainder when $(29^{29})^{29}$ is divided by 9 is

- a) 1
- b) 2
- c) 3
- d) 4

Question 24

Placing which of the following two digits at the right end of 4530 makes the resultant six-digit number divisible by 6, 7 and 9?

- a) 96
- b) 78
- c) 42
- d) 54

Question 25

In a school 70% of the boys like cricket and 50% like football. If $x\%$ like both Cricket and Football, then

- a) $20 \leq x \leq 50$
- b) $x \leq 20$
- c) $x \geq 50$
- d) $10 \leq x \leq 70$

Question 26

In a class of 65 students 40 like cricket, 25 like football and 20 like hockey. 10 students like both cricket and football, 8 students like football and hockey and 5 students like all three sports. If all the students like at least one sport, then the number of students who like both cricket and hockey is

- a) 7
- b) 8
- c) 10
- d) 12

Question 27

If $x \in (a, b)$ satisfies the inequality $\frac{x-3}{x^2+3x+2} \geq 1$, then the largest possible value of $b - a$ is

- a) 3
- b) 1
- c) 2
- d) No real valued x satisfies the inequality

Question 28

If a, b, c are real numbers $a^2 + b^2 + c^2 = 1$, then the set of values $ab + bc + ca$ can take is:

- a) $[-1, 2]$
- b) $[-\frac{1}{2}, 2]$

- c) $[-1, 1]$
- d) $[-\frac{1}{2}, 1]$

Question 29

The inequality $\log_2 \frac{3x-1}{2-x} < 1$ holds true for

- a) $x \in (\frac{1}{3}, 1)$
- b) $x \in (\frac{1}{3}, 2)$
- c) $x \in (0, \frac{1}{3}) \cup (1, 2)$
- d) $x \in (-\infty, 1)$

Question 30

The set of values of x which satisfy the inequality $0.7^{2x^2-3x+4} < 0.343$ is

- a) $(\frac{1}{2}, 1)$
- b) $(\frac{1}{2}, +\infty)$
- c) $(-\infty, \frac{1}{2})$
- d) $(-\infty, \frac{1}{2}) \cup (1, +\infty)$

Question 31

A chord is drawn inside a circle, such that the length of the chord is equal to the radius of the circle. Now, two circles are drawn, one on each side of the chord, each touching the chord at its midpoint and the original circle. Let k be the ratio of the areas of the bigger inscribed circle and the smaller inscribed circle, then k equals

- a) $2 + \sqrt{3}$
- b) $1 + \sqrt{2}$
- c) $7 + 4\sqrt{3}$
- d) $97 + 56\sqrt{3}$

Question 32

Points P, Q, R and S are taken on sides AB, BC, CD and DA of square ABCD respectively, so that $AP : PB = BQ : QC = CR : RD = DS : SA = 1 : n$. Then the ratio of the area of PQRS to the area of ABCD is

- a) $1 : (1 + n)$
- b) $1 : n$
- c) $(1 + n^2) : (1 + n)^2$
- d) $(1 + n) : (1 + n^2)$

Question 33

On a circular path of radius 6 m a boy starts from a point A on the circumference and walks along a chord AB of length 3 m. He then walks along another chord BC of length 2 m to reach point C. The point B lies on the minor arc AC. The distance between point C from point A is

- a) $\frac{\sqrt{15} + \sqrt{35}}{2}$ m
- b) 8 m
- c) $\sqrt{13}$ m
- d) 6 m

Question 34

The area enclosed by the curve $2|x| + 3|y| = 6$ is

- a) 12 square units
- b) 3 square units
- c) 4 square units
- d) 24 square units

Question 35

Two points on a ground are 1 m apart. If a cow moves in the field in such a way that its distance from the two points is always in ratio 3:2 then

- a) the cow moves in a straight line
- b) the cow moves in a circle
- c) the cow moves in a parabola
- d) the cow moves in a hyperbola

Question 36

Given that $\cos x + \cos y = 1$, the range of $\sin x - \sin y$ is

- a) $[-1,1]$
- b) $[-2,2]$
- c) $[0, \sqrt{3}]$
- d) $[-\sqrt{3}, \sqrt{3}]$

Question 37

If $\sin\theta + \cos\theta = m$, then $\sin^6\theta + \cos^6\theta$ equals

- a) $\frac{3(m^2+1)}{4}$
- b) $\frac{3(m^2-1)}{4}$
- c) $1 - \frac{3(m^2-1)}{4}$
- d) $1 - \frac{3(m^2-1)^2}{4}$

Question 38

If inverse of the matrix $\begin{bmatrix} 2 & -0.5 \\ -1 & x \end{bmatrix}$ is $\begin{bmatrix} 1 & 1 \\ 2 & 4 \end{bmatrix}$, then the value of x is

- a) 0.5
- b) 1
- c) 2
- d) 3

Question 39

The function $f(x) = \frac{x^3 - 5x^2 - 8x}{3}$ is

- a) positive and monotonically increasing for $x \in \left(-\infty, \frac{5-\sqrt{57}}{2}\right)$ and $x \in \left(\frac{5+\sqrt{57}}{2}, +\infty\right)$
- b) negative and monotonically decreasing for $x \in \left(-\infty, \frac{5-\sqrt{57}}{2}\right)$ and $x \in \left(\frac{5+\sqrt{57}}{2}, +\infty\right)$
- c) negative and monotonically increasing for $x \in \left(-\infty, \frac{5-\sqrt{57}}{2}\right)$ and positive and monotonically increasing for $x \in \left(\frac{5+\sqrt{57}}{2}, +\infty\right)$
- d) positive and monotonically increasing for $x \in \left(-\infty, \frac{5-\sqrt{57}}{2}\right)$ and negative and monotonically decreasing for $x \in \left(\frac{5+\sqrt{57}}{2}, +\infty\right)$

Question 40

For $a > b > c > 0$, the minimum value of the function $f(x) = |x - a| + |x - b| + |x - c|$ is

- a) $2a - b - c$
- b) $a + b - 2c$
- c) $a + b + c$
- d) $a - c$

Question 41

Let α, β be the roots of $x^2 - x + p = 0$ and γ, δ be the roots of $x^2 - 4x + q = 0$ where p and q are integers. If $\alpha, \beta, \gamma, \delta$ are in geometric progression then $p + q$ is

- a) -34
- b) 30
- c) 26
- d) -38

Question 42

If $(1 + x - 2x^2)^6 = A_0 + \sum_{r=1}^{12} A_r x^r$, then value of $A_2 + A_4 + A_6 + \dots + A_{12}$ is

- a) 31

- b) 32
- c) 30
- d) 29

Question 43

The number of terms common to both the arithmetic progressions 2, 5, 8, 11, ..., 179 and 3, 5, 7, 9, ..., 101 is

- a) 17
- b) 16
- c) 19
- d) 15

Question 44

From a pack of 52 cards, we draw one by one, without replacement. If $f(n)$ is the probability that an Ace will appear at the n^{th} turn, then

- a) $f(2) = \frac{1}{13} > f(3)$
- b) $\frac{1}{13} > f(2) > f(3)$
- c) $f(3) > f(2) = \frac{1}{13}$
- d) $f(2) = f(3) = \frac{1}{13}$

Question 45

A die is thrown three times and the sum of the three numbers is found to be 15. The probability that the first throw was a four is

- a) $\frac{1}{6}$
- b) $\frac{1}{4}$
- c) $\frac{1}{5}$
- d) $\frac{1}{10}$

Question 46

In a given village there are only three sizes of families: families with 2 members, families with 4 members and families with 6 members. The proportion of families with 2, 4 and 6 members are roughly equal. A poll is conducted in this village wherein a person is chosen at random and asked about his/her family size. The average family size computed by sampling 1000 such persons from the village would be closest to

- a) 4
- b) 4.667
- c) 4.333
- d) 3.667

Question 47

The value of $(\log_3 30)^{-1} + (\log_4 900)^{-1} + (\log_5 30)^{-1}$ is

- a) 0.5
- b) 30
- c) 2
- d) 1

Question 48

The inequality $\log_a \{f(x)\} < \log_a \{g(x)\}$ implies that

- a) $f(x) > g(x) > 0$ for $0 < a < 1$ and $g(x) > f(x) > 0$ for $a > 1$
- b) $g(x) > f(x) > 0$ for $0 < a < 1$ and $f(x) > g(x) > 0$ for $a > 1$
- c) $f(x) > g(x) > 0$ for $a > 0$
- d) $g(x) > f(x) > 0$ for $a > 0$

Question 49

Three cubes with integer edge lengths are given. It is known that the sum of their surface areas is 564 cm^2 . Then the possible values of the sum of their volumes are

- a) 764 cm^3 and 586 cm^3

- b) 586 cm^3 and 564 cm^3
- c) 764 cm^3 and 564 cm^3
- d) 586 cm^3 and 786 cm^3

Question 50

Determine the greatest number among the following four numbers

- a) 2^{300}
- b) 3^{200}
- c) $2^{100} + 3^{100}$
- d) 4^{100}

Question 51

The number of points, having both co-ordinates as integers, that lie in the interior of the triangle with vertices $(0,0)$, $(0,31)$, and $(31,0)$, is

- a) 435
- b) 465
- c) 450
- d) 464

Question 52

Two small insects, which are x metres apart, take u minutes to pass each other when they are flying towards each other, and v minutes to meet each other when they are flying in the same direction. Then, the ratio of the speed of the slower insect to that of the faster insect is

- a) $\frac{u}{v}$
- b) $\frac{u}{v-u}$
- c) $\frac{v-u}{v+u}$
- d) $\frac{u}{v+u}$

Question 53

An alloy P has copper and zinc in the proportion of 5 : 2 (by weight), while another alloy Q has the same metals in the proportion of 3 : 4 (by weight). If these two alloys are mixed in the proportion of $a : b$ (by weight), a new alloy R is formed, which has equal contents of copper and zinc. Then, the proportion of copper and zinc in the alloy S, formed by mixing the two alloys P and Q in the proportion of $b : a$ (by weight) is

- a) 7:9
- b) 9:7
- c) 9:5
- d) 5:9

Question 54

How many different numbers can be formed by using only the digits 1 and 3 which are smaller than 3000000?

- a) 64
- b) 128
- c) 190
- d) 254

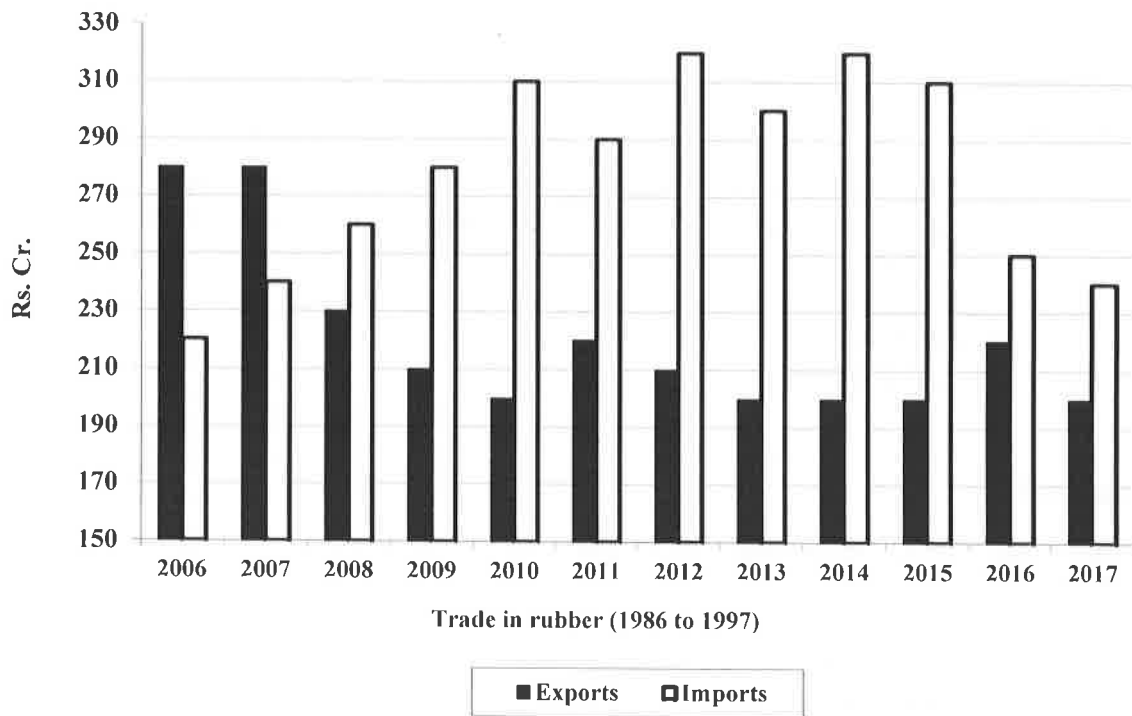
Question 55

There are n numbers $a_1, a_2, a_3, \dots, a_n$ each of them being +1 or -1. If it is known that $a_1 a_2 + a_2 a_3 + a_3 a_4 + \dots + a_{n-1} a_n + a_n a_1 = 0$ then

- a) n is a multiple of 2 but not a multiple of 4
- b) n is a multiple of 3
- c) n can be any multiple of 4
- d) The only possible value of n is 4

Analyze the given data for exports and imports of rubber in Rs. crores from 2006 to 2017 and answer the questions based on the analysis.

Trade in Rubber (2006 to 2017)



Question 56

Average annual exports for the given period (2006-2017) was approximately

- (a) Rs.230 Cr
- (b) Rs.220 Cr
- (c) Rs.210 Cr
- (d) Rs.190 Cr

Question 57

The percentage decline in exports during the period 2006-2011 is more than the percentage decline in exports during 2012-2017 by approximately ____ percent

- (a) 16.5
- (b) 20.5
- (c) 12.5
- (d) 21.5

Question 58

The maximum difference between imports and exports is

- (a) Rs.60 Cr
- (b) Rs. 110 Cr
- (c) Rs.120 Cr
- (d) Rs.100 Cr

Question 59

Balance of trade is defined as imports subtracted from exports (=exports-imports). Which of the following blocks of three years has witnessed the largest average negative balance of trade?

- (a) 2007-2009
- (b) 2015-2017
- (c) 2014-2016
- (d) 2010-2012

Question 60

The percentage increase in imports over the previous year is maximum during

- (a) 2009 to 2010
- (b) 2010 to 2011
- (c) 2013 to 2014
- (d) 2008 to 2009

Read the following passage and choose the answer that is closest to each of the questions that are based on the passage.

Supposing half a dozen or a dozen men were cast ashore from a wreck on an uninhabited island and left to their own resources, one of course, according to his capacity, would be set to one business and one to another; the strongest to dig and to cut wood, and to build huts for the rest; the most dexterous to make shoes out of bark and coats out of skins; the best educated to look for iron or lead in the rocks, and to plan the channels for the irrigation of the fields. But though their labours were thus naturally severed, that small group of shipwrecked men would understand well enough that the speediest progress was to be made by helping each other—not by opposing each other; and they would know that this help could only be properly given so long as they were frank and open in their relations, and the difficulties which each lay under properly explained to the rest. So that any appearance of secrecy or separateness in the actions of any of them would instantly, and justly, be looked upon with suspicion by the rest, as the sign of some selfish or foolish proceeding on the part of the individual. If, for instance, the scientific man were found to have gone out at night, unknown to the rest, to alter the sluices, the others would think, and in all probability rightly think, that he wanted to get the best supply of water to his own field; and if the shoemaker refused to show them where the bark grew which he made the sandals of, they would naturally think, and in all probability rightly think, that he didn't want them to see how much there was of it, and that he meant to ask from them more corn and potatoes in exchange for his sandals than the trouble of making them deserved. And thus, although each man would have a portion of time to himself in which he was allowed to do what he chose without let or inquiry—so long as he was working in that particular business which he had undertaken for the common benefit, any secrecy on his part would be immediately supposed to mean mischief; and would require to be accounted for, or put an end to: and this all the more because, whatever the work might be, certainly there would be difficulties about it which, when once they were well explained, might be more or less done away with by the help of the rest; so that assuredly every one of them would advance with his labour not only more happily, but more profitably and quickly, by having no secrets, and by frankly bestowing, and frankly receiving, such help as lay in his way to get or to give.

Question 61

When a dozen men are cast away on an imaginary island, the best educated would look for metals in rocks because

- (a) metals can be used to make weapons.
- (b) such an island probably has unexploited resources.
- (c) he may find it beneath him to dig or cut or make shoes.
- (d) he is suited for such work.

Question 62

The author states that any appearance of secrecy or separateness would instantly and justly be looked upon with suspicion. From this statement we may infer that

- (a) what is secret is not what is separate

- (b) secrecy is not exactly the same as separateness
- (c) it is natural to be suspicious of secrecy
- (d) it only takes an instant for a relationship to deteriorate

Question 63

The instance of the shoemaker who refuses to show his source and asks for more corn and potatoes, is an example of

- (a) a strong bargain.
- (b) unfair practice.
- (c) the system of barter.
- (d) the intent to make trouble.

Question 64

According to the author, whatever one's work might be

- (a) hardships are going to be part of it.
- (b) one cannot keep complaining.
- (c) one should expect others to assure of help and advance our labours.
- (d) one must offer help to others in order to receive help.

Question 65

The author's belief is that for progress to happen

- (a) a team should consist of people with multiple talents.
- (b) co-operation among team members is essential.
- (c) one must deal with those who are secretive.
- (d) transparency among all concerned is mandatory.

Question 66

The writer makes a hypothesis, which can be related to

- (a) communities in general.
- (b) an imaginary island, rich with resources.
- (c) an ideal world of talented people.
- (d) a primitive and unsophisticated world.

Read the following passage and choose the answer that is closest to each of the questions that are based on the passage.

The perennial debate over gender differences threatens to remain inconclusive. Stereotypes pertaining to male superiority and female submissiveness could be traced to earlier ages where assigned roles were needed as survival measures. But, can we today see a swing away from these stereotypes, or have they established a stranglehold on our perceptions? In this gendered world, we continue to live with notions that one's gender determines one's skills and preferences, from toys and colours to career choices. So the girl child will be presented with a Barbie doll, while the boy child will receive a Lego set.

Does that mean that our brains are different? This myth has been exploded by a British professor of cognitive neuroimaging. Her research attempts to establish how these stereotypes mould our ideas of ourselves. She examines how science has been misinterpreted or misused to ask the wrong questions, instead of challenging the status quo. She urges us to move beyond a binary view of people's brains and instead to see these as highly individualised, profoundly adaptable, and full of unbounded potential. Her conclusive findings establish that no brain differences can be found that are solely gender related. In other words, modern neuroscientists have identified no decisive category-defining differences between the brains of men and women.

As a result of these findings we owe it to ourselves to dump the myths and look at ourselves afresh. We need to recognise that the male and female brain debate is a distraction, besides being based on inaccuracies. It is possibly harmful too, because it can be used as a hook to justify saying there is no point in girls doing science because they do not have a science brain; or compelling boys to opt for science because their brains are shaped for that subject. It can also condemn boys for being emotional, as this is seen as a feminine trait. And, most dangerous of all, to proclaim that boys, not girls, are meant to lead.

Question 67

The research of a British professor of cognitive neuroimaging has succeeded in establishing that

- (a) the brains of men and women are alike.
- (b) science needs to challenge the status quo.
- (c) society must break away from attempts at stereotyping gender issues.
- (d) the potential of a human brain is not directly linked to gender.

Question 68

By referring to the world as 'gendered' the writer wants to convey that

- (a) gender differences can be detected right from childhood.
- (b) society continues to be fixated on gender stereotypes.
- (c) one's gender is bound to determine one's abilities.

(d) the debate on gender differences will never be resolved.

Question 69

One of the dangers in adopting a binary view of the human brain is that it can

- (a) promote the notion of feminine and masculine traits.
- (b) determine as well as limit academic choices.
- (c) lead to the distortion and misinterpretation of scientific data.
- (d) be used to encourage male dominance and superiority.

Question 70

The writer of this passage wants to emphasise the need to

- (a) use new insights provided by scientific research for a better understanding of human abilities.
- (b) continuously debate issues of gender differences to achieve human progress.
- (c) question the findings of scientific inquiry into the functioning of the human brain.
- (d) accept gender differences as essential to the survival of the human species.

Question 71

The synonym for 'stranglehold' (Para 1) is

- (a) asphyxiation
- (b) containment
- (c) prohibiting entry
- (d) overwhelming control

Question 72

The antonym for 'unbounded' (Para 2) is

- (a) imprisoned
- (b) aggressive
- (c) restricted
- (d) fearful

Complete the following sentences by choosing the most appropriate phrase from the options given below.

Question 73

Although he is recovering from his illness, he has to follow certain diet restrictions. He cannot eat junk food. Please do not pity him and _____.

- (a) give him some snack
- (b) cut him some slack
- (c) be slack with his eating
- (d) cut down the snacks

Question 74

The problems may be difficult, but all you have to do is _____ as long as you can.

- (a) hang in up there
- (b) hang on there
- (c) hang on to that
- (d) hang in there

Question 75

The standards set by the examination board are so high that it would be difficult for poorly prepared students to _____.

- (a) pass most errors
- (b) past muster
- (c) get past most errors
- (d) pass muster

Question 76

After all the alliances and arithmetic, the party is likely to _____ a majority in the assembly election.

- (a) scrape through
- (b) scrape together
- (c) tape together
- (d) shape together

Question 77

I'll have to _____ because I don't know how Sheila's parents are going to react to this offer.

- (a) count on my fingers
- (b) face the music
- (c) break the ice
- (d) play it by ear

Question 78

If you had been more alert, this golden opportunity would not have _____.

- (a) escaped your fingers
- (b) slipped off
- (c) escaped away
- (d) slipped through your fingers

In each of the following sentences the incorrect part of the sentence is underlined. Choose an alternative from the four given options so that the sentence is rendered correct.

Question 79

The place where her father disappeared and the reason why he did are unknown to her.

- (a) her father disappeared and the reason why he did
- (b) where her father disappeared and the reason he did
- (c) her father disappeared and the reason he did
- (d) where her father disappeared and the reason why he did

Question 80

Which team has the best record, yours or theirs?

- (a) Which of the teams has the best record
- (b) Which one of the teams has the best record
- (c) Which one team has the better record
- (d) Which team has the better record

Question 81

After sensing a problem with the factory workers, the personnel officer demanded to know who the union leaders had contacted to conduct the petition drive.

- (a) whom the union leaders had contacted
- (b) who had the union leaders had contacted
- (c) whom the union leaders have contacted
- (d) who union leaders contacted

Question 82

His wrongdoing was completely exposed, but not once he apologised for his actions.

- (a) not once did he apologise
- (b) never he made an apology
- (c) not once did he give apology
- (d) not once he made an apology

Question 83

The Municipal Council can no longer wash its hands off its responsibilities.

- (a) wash its hands from its
- (b) wash their hands off their
- (c) wash their hand of their
- (d) wash its hands of its

Question 84

The letter states that one can avail the service offered by the company till June 20, 2019.

- (a) avail the service on offer from
- (b) avail the service on offer by
- (c) avail of the service offered by
- (d) avail of the service offered from

Each of the paragraphs given below has a sentence missing which is indicated by a blank. From the choices given below each paragraph, choose the sentence that seems most logically appropriate to complete the paragraph.

Question 85

_____ Infrastructure, in the form of paved surfaces, disrupts water absorption and lowers water retention. This leads to disastrous levels of flooding which diminishes the biodiversity and impoverishes the people of the region.

Land should be used mindfully to prevent water logging during heavy rains.

- (a) Climate change is not the only cause for flooding.
- (b) Flooding can happen after heavy or low rainfall.
- (c) Infrastructure can actually cause a lot of trouble during flooding.
- (d) Water retention is less important to prevent flooding.

Question 86

Few look forward to old age and all that it brings in its wake - deteriorating health, loss of vigour, restricted mobility, increasing dependence on others, not to mention a sense of foreboding and anxiety. Yet, one has to learn to cope with the onset of old age. Firstly, it is imperative to prepare to accept old age in spite of the restrictions or limitations it imposes on one's mobility. Equally important is the need to adopt a positive attitude towards life.

Above all, peace of mind, is the efficacious balm that brings equanimity to one's life. We must resign ourselves to growing old, and in the process let us try to make life as fulfilling and meaningful as possible.

- (a) The role of humour and fun are indispensable as these are the spice of life and guaranteed to bring cheer and bonhomie, besides keeping one's mind off life's grim realities.
- (b) Owing to advances in medical science, we can now expect to live well beyond 90 years.
- (c) Physical debility and stiffening body joints 'creaking' in protest may make mobility difficult - something one should learn to take in one's stride stoically.
- (d) Turning nostalgic and recalling 'those good old days' when they were young and life was radically different from what it is today, help one accept old age.

Question 87

The Arab Spring is widely believed to have stemmed from dissatisfaction with the rule of local governments, though some have speculated that wide gaps in income levels may have had a hand as well. Issues such as political corruption, human rights violations, unemployment, and educated but dissatisfied youth may have been responsible as well.

- (a) Thus, youth unrest was the main reason for the Arab Spring
- (b) Some also cite the 2009-10 Iranian election protests as one of the reasons behind the Arab Spring
- (c) The Arab Spring was due to the wide gap between the haves and the have-nots
- (d) To sum up, the Arab Spring was a series of anti-government protests, uprisings, and armed rebellions across the Arab world

The sentences below have words that are missing. Choose the best option from those given below to complete the sentence.

Question 88

One who is _____ gets on with his job in spite of obstacles, while the one who is _____ hardly shows any progress. The latter spends all his time _____ about his troubles.

- (a) artful, doubtful, speaking

- (b) assiduous, querulous, whining
- (c) hardworking, dishonest, gossiping
- (d) hotheaded, scared, crying

Question 89

The _____ of multiculturalism, in times of war or economic _____, tribalism is what causes those in power to confine groups of people with different _____ into ghettos or in communes on the margins of their cities.

- (a) rise, doldrums, ideologies
- (b) tyranny, growth, habits
- (c) antithesis, prosperity, persuasions
- (d) opposite, distress, ethnicities

Question 90

That the artiste went about systematically to get traditional _____ and designs back into the mainstream and _____ a textile culture for dance is to be celebrated.

- (a) practices, processed
- (b) motifs, created
- (c) totems, evolved
- (d) stories, described

Question 91

In response to my friend's request, I decided to write her a letter, which I hoped would be honest and practical, while also serving as a _____ of sorts for my own feminist thinking. This book is a _____ of that letter, with some details changed.

- (a) map, version
- (b) chart, form
- (c) base, fallout
- (d) guide, precis

Question 92

Quantum Physics really begins to point to this discovery. It says that you can't have a Universe without mind _____ into it, and that the mind is actually _____ the very thing that is being _____.

- (a) getting, creating, acknowledged
- (b) intruding, making, construed
- (c) entering, shaping, perceived
- (d) penetrating, forming, seen

One of the statements below contains a word used incorrectly. Choose the option which has the incorrect or inappropriate usage of the word.

Question 93

- (a) The emperor ordered the arrest of his most vocal critic.
- (b) There are very few film critics left in our city.
- (c) Mahatma Gandhi's critic of the West remains relevant to this day.
- (d) His classmates warned him, "It is not a good idea to critique our Principal."

Question 94

- (a) The river teemed with salmon and trout.
- (b) The wedding was teamed in Bhojpuri style.
- (c) Which team will win this year's IPL tournament?
- (d) The film star wore a purple suit teamed with a crimson tie.

Question 95

- (a) Last week we learnt about the right way to greet our customers.
- (b) 'Get it write the first time' is an often-heard management slogan.
- (c) In India, driving on the Right side of the road is wrong.
- (d) The rite of afternoon tea is described in many of Enid Blyton's books.

Question 96

- (a) The attackers decided to raise the castle to the ground.
- (b) They raised their children to be freethinking boys and girls.
- (c) To raise a toast to a newly-wed couple is a common practice.
- (d) The rays of the sun rose above the mountain.

Question 97

- (a) Shakespeare is sometimes referred to as a bard.
- (b) He barred his soul to the preacher.
- (c) Because of his age, he was barred from entering the theatre.
- (d) The Bar barred all bards.

The sentences given below, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the most logical order and enter the sequence of numbers in the space provided.

Question 98

1. He just harvested the wild grains.
2. The hunter-gatherer went from place to place in search of food.
3. As the crops began to give better yields, this reduced his need to go in search of animals and wild plants.
4. This was followed by an attempt to grow food by scattering the spare grains.

Question 99

1. People here are one injury away from starvation, one misspoken word away from detainment or death.
2. Soon, however, she notices the lack of access to basic medical care or education.
3. Life in a rural Kashmiri village seems idyllic to Shalini at first, as she's befriending lovely people and admiring majestic natural scenery, especially in contrast to the cacophony of urban Mumbai.
4. Moreover, the ever-present political disruptions mean that life in Kashmir is far from a Shangri-La utopia.

Question 100

1. The study, published in the Lancet recently, revealed that people living in democratic countries live longer than those who don't; they also have less of a chance of dying from heart disease, strokes, and even road accidents.
2. Incredible as it may sound, we are now told that democracy is not just good for the soul, it is good for the body too.
3. Without pressure from voters or foreign-aid agencies, dictators have less incentive to finance more expensive prevention and treatment of heart disease, cancers, and other chronic illnesses.
4. The study suggests that elections and the health of the people are increasingly inseparable.
5. A study spanning 170 countries found a strong correlation between health and the most progressive form of government.

