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Marks: 400   **Time: 120 minutes**

ROLL NO.: _____	**NAME:** _____
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	INSTRUCTIONS FOR THE CANDIDATES
1.	The question booklet contains English section (Q 1-40) and Mathematics Section (Q 41-100).
2.	Before attempting the paper carefully read all the Instructions & Examples given on Side 1 of Answer Sheet (OMR Sheet) supplied separately.
3.	At the start of the examination, please ensure that all pages of your Test booklet are properly printed; your Test booklet is not damaged in any manner and contains 100 questions. In case of any discrepancy the candidate should immediately report the matter to the invigilator for replacement of Test Booklet. No claim in this regard will be entertained at a later stage.
4.	An OMR Answer Sheet is being provided separately along with this Test booklet. Please fill up all relevant entries like Roll Number, Test Booklet Code etc. in the spaces provided on the OMR Answer Sheet and put your signature in the box provided for this purpose.
5.	Make sure to fill the correct Test booklet code on Side 2 of the OMR Answer Sheet. If the space for the Booklet Code is left blank or more than one booklet code is indicated therein, it will be deemed to be an incorrect booklet code & Answer Sheet will not be evaluated. The candidate himself will be solely responsible for all the consequences arising out of any error or omission in writing the test booklet code.
6.	This Test Booklet consists of 08 pages containing 100 questions. Against each question four alternative choices (1), (2), (3), (4) are given, out of which one is correct. Indicate your choice of answer by darkening the suitable circle with BLACK/BLUE pen in the OMR Answer Sheet supplied to you separately. Use of Pencil is strictly prohibited. More than one answer indicated against a question will be deemed as incorrect response.
7.	The maximum marks are 400. Each question carries four marks. There will be negative marking of minus one (-1) for each incorrect answer.
8.	Do not fold or make any stray marks on the OMR Answer Sheet. Any stray mark or smudge on the OMR Answer Sheet may be taken as wrong answer. Any damage to OMR Answer Sheet may result in disqualification of the candidate.
9.	On completion of the test, candidate must hand over the OMR Answer Sheet to the invigilator on duty in the room/hall. You may retain the Question Booklet.
10.	Use of Mobile phones, wrist watches and calculators etc. are not allowed.
11.	Keep all your belongings outside the Examination hall. Do not retain any paper except the ADMIT CARD.

Directions (Question 1 to 7). In these questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

1	Drowsy
	(1) Sluggish (2) lethargic (3) lazy (4) sleepy
2	Gaffe
	(1) Robbery (2) joke (3) blunder (4) gossip
3	Credence
	(1) reward (2) award (3) belief in (4) prize
4	Divulge
	(1) divert (2) reveal (3) explore (4) narrate
5	Lethal
	(1) deadly (2) wrong (3) lovely (4) suicidal
6	Trespass
	(1) overrule (2) walk over (3) offend (4) inform
7	Watershed
	(1) Waterfall (2) decisive (3) fire brigade (4) turning point

Directions (Question 8 to 12). Fill in the blanks with a word from amongst the choices given.

8	He made a slight _____ of judgment, of which he had to repent later.
	(1) Error (2) blunder (3) decision (4) slip
9	No country can _____ to practice a rigid foreign policy.
	(1) allow (2) afford (3) policy (4) say
10	The passengers and crew members of the aircraft had a _____ escape when it was taking off from the runway.
	(1) dangerous (2) slight (3) narrow (4) huge
11	In spite of our best efforts we failed to_____ any new facts from him.
	(1) evoke (2) elicit (3) provoke (4) eject
12	This book is a useful _____ to our library.
	(1) arrival (2) discovery (3) thing (4) addition

Directions (Question 13 to 16). In these questions, out of the four alternatives, choose the one which can be substituted for the given words/sentences.

13	An office with no work but high pay
	(1) aristocratic (2) sinecure (3) dictator (4) president
14	That which happens once a year.
	(1) calendar (2) perennial (3) annual (4) eclipse
15	One who is all knowing.
	(1) versatile (2) specialist (3) student (4) omniscient
16	Constant effort to achieve something
	(1) perseverance (2) achiever (3) quitter (4) winner

Directions (Question 17 to 18). Find the correctly spelt word out of the four words given

17	(1) ocasion (2) occasion (3) occassion (4) ocassion
18	(1) rupaiyah (2) rupee (3) ruppee (4) ruppe

Directions (Question 19 to 23). Four alternatives are given for the idiom/phrase in italics in the sentence. Choose the one which best expresses the meaning of the idiom/phrase

19	He is the *apple of his parent's eyes*.
	(1) red like an apple (2) tasty like an apple
	(3) very dear to his parents (4) very happy parents
20	He is in the habit of *blowing his own trumpet*.
	(1) works in a band (2) trumpet major
	(3) indulges in self praise (4) talks too much
21	He likes to *call a spade a spade*
	(1) a gardener (2) plays cards (3) tells lies always (4) to speak truly
22	The doctor came and saved the patient *at the eleventh hour*.
	(1) late at night (2) at the last moment (3) before midnight (4) very quickly
23	That was a play *of the first water*.
	(1) of top quality (2) sailor (3) pirate (4) swimmer

Directions (Question 24 to 27). In these questions, out of the four alternatives, choose the one which is opposite to the meaning of the given word.

24	Rigid
	(1) hard (2) flexible (3) brittle (4) silky

25	**Odd**
	(1) strange (2) funny (3) wise (4) even
26	**Triumph**
	(1) defeat (2) give up (3) surrender (4) trophy
27	**Laxity**
	(1) harsh (2) persistence (3) polite (4) strictness

Directions (Question 28 to 29). A part in the following sentences is underlined, which may or not be correct. Improve the sentence by choosing one of the options. If no improvement is possible choose the option accordingly.

28	The writing is already _at_ the wall.
	(1) in (2) on (3) with (4) no improvement
29	The winter has _set in_ and the days are cold.
	(1) set (2) set out (3) set up (4) no improvement

Directions (Question 30 to 32). Reorder P,Q,R,S to make a meaningful sentence.

30	**When he**
	P: did not know Q: he was nervous and
	R: heard the hue and cry at midnight S: what to do
	(1) RPSQ (2) SQRP (3) RQPS (4) SPRQ
31	**While**
	P: some people live Q: to eat and drink and wear
	R: many have not even enough S: in luxury
	(1) PQRS (2) SQPR (3) QRPS (4) PSRQ
32	**At least**
	P: early today Q: five persons were killed and 32 injured
	R: when a passenger train rammed into S: a stationary goods train
	(1) QRSP (2) PSQR (3) QSPR (4) SPRQ

Directions (Question 33 to 40). In these questions, you have two brief passages with 4 questions following each passage. Read the passage carefully and choose the best answer out of the four alternatives.

PASSAGE – 1

When the canals were made and enabled coal to be readily conveyed along them at comparatively moderate rates, the results were immediately felt in the increased comfort of the people. Employment became more abundant and industry sprang up in their neighborhood in all directions. The transport of all articles being reduced to about one fourth of their previous rates, articles of necessity and comfort such as had formerly been unknown except to the wealthier classes came into common use among the people.

33	Canals caused -
	(1) to move the ships freely (2) convey the coal along them at cheaper rates
	(3) to share the water equally (4) to restore water transport
34	Employment became abundant because -
	(1) more ships were pressed in use (2) more offices were established
	(3) people moved out of their houses (4) industry sprang in the neighborhood
35	Common people benefitted because: -
	(1) water was available (2) more coal was used
	(3) articles of necessity and comfort were available to them (4) By not getting angry
36	The word 'abundant' means
	(1) abandon (2) always ready (3) more than enough (4) jobs

PASSAGE – 2

When I had finished, George asked if the soap was in. I said I did not care if the soap was in or whether it wasn't. I closed the case and strapped it and found that I had packed my tobacco pouch in it, and had to reopen it. I finally shut it up at 10.05 PM. Now we had to pack up the basket. Harris said that we had to start in less than 12 hours time, so he and George had better to do the rest. I agreed and sat down and they started packing the basket.

37	What did George ask when the narrator had finished?
	(1) he asked to repack (2) is the soap in the pack?
	(3) why are you so slow? (4) get soap from the market
38	Why did the narrator reopen the case
	(1) George asked him to do so (2) he liked to pack and repack
	(3) they were to start in 12 hours (4) he had packed his tobacco pouch in it
39	Why did Harris offer to pack the basket himself?
	(1) he did not trust the narrator (2) George wanted Harris to pack
	(3) they had less than 12 hours to start (4) George refused to pack

40	Who finally packed the basket?
	(1) George and Harris (2) George
	(3) the narrator sat down and packed (4) George, Harris and the narrator

MATHEMATICS

41.	If a number x is 10% less than another number y and y is 10% more than 125, then x is equal to
	(1) 123.25 (2) 125 (3) 137.50 (4) 123.75

42.	How many different triangles are there in the figure shown below:-
	(1) 28 (2) 20 (3) 24 (4) 26

43.	The sum of two digits of a number and the number obtained by reversing its digits is a square number. How many such numbers are there?
	(1) 4 (2) 6 (3) 7 (4) 8

44.	$999\frac{1}{7}+999\frac{2}{7}+999\frac{3}{7}+999\frac{4}{7}+999\frac{5}{7}+999\frac{6}{7}$ is simplified to
	(1) 5997 (2) 5979 (3) 5994 (4) 2997

45.	Teja Singh gets 3 marks for each correct sum and loses 2 marks for each wrong sum. He attempts 30 sums and obtained 40 marks. The number of sums solved correctly is
	(1) 15 (2) 20 (3) 25 (4) 10

46.	Some friends decided to go for a picnic and planned to spend Rs. 108 on eatables. Three of them, however, didn't turn up. As a consequence, each one of the remaining had to contribute Rs. 3 extra. The number of them who attended the picnic was:-
	(1) 15 (2) 12 (3) 9 (4) 6

47.	In an office, there are 108 tables and 132 chairs. If 1/6 of the tables and 1/4 of the chairs are broken, how many people can work in the office, if each person requires one table and one chair?
	(1) 86 (2) 90 (3) 92 (4) 99

48.	If the average of six consecutive even numbers is 25, the difference between the largest and smallest number is:-
	(1) 8 (2) 10 (3) 12 (4) 14

49.	A cricketer had a certain average of runs for his 64 innings. In his 65th inning, he is bowled out for no score. This brings down his average by 2 runs. His new average of runs is:
	(1) 130 (2) 128 (3) 132 (4) 70

50.	The average of the three numbers x, y and z is 45. x is greater than the average of y and z by 9. The average of y and z is greater than y by 2. Then the difference of x and z is:
	(1) 3 (2) 5 (3) 7 (4) None of these

51.	The ratio of milk and water in mixture of four containers are 5 : 3, 2 : 1, 3 : 2 and 7 : 4, respectively. In which container the quantity of milk, relative to water is minimum?
	(1) First (2) Second (3) Third (4) Fourth

52.	The income of C is 20% more than B and the income of B is 25% more than A. How much per cent is C's income more than A's ?
	(1) 150% (2) 50% (3) 25% (4) 35%

53.	If an article is sold at a gain of 5% instead of being sold at a loss of 5%, one gets Rs. 5 more. What is the cost price of the article?
	(1)105 (2) 110 (3) 50 (4) None of these
54.	The list price of a clock is Rs. 160. A customer buys it for Rs. 122.40 after two successive discounts. If first discount is 10%, the second is
	(1) 10% (2) 12% (3) 15% (4) 18%
55.	If Rs. 12000 is divided into two parts such that the simple interest on the first part for 3 years at 12% per annum is equal to the simple interest on the second part for $4^1/_2$ years at 16% per annum. The greater part is=
	(1) Rs.8000 (2) Rs.7000 (3) Rs.7500 (4) Rs.6500
56.	A certain scheme of investment in simple interest declares that it trebles the investment in 8 years. If you want to quadruple the money through that scheme, for how many years you have to invest for:
	(1) 11 years 6 months (2) 10 years 8 months (3) 10 years (4) 12 years
57.	The sides of an equilateral triangle are (x+3y) cm, (3x+2y-2)cm and $(4x+ \frac{y+1}{2})$ cm. Then length of each side is:
	(1) 12 cm (2)15cm (3) 10cm (4) None of these
58.	A man gave 50% of his savings of Rs. 84,100 to his wife and divided the remaining sum among his two sons A and B of 15 and 13 years of age respectively. He divided it in such a way that each of his sons, when they attain the age of 18 years, would receive the same amount at 5% compound rate of Interest per annum. The share of B was:
	(1) Rs. 20,000 (2) Rs. 20,050 (3) Rs. 22,000 (4) Rs. 22,050
59.	In a race of one kilometer, A gives B a start of 100 meters and still wins by 20 seconds. But if A gives B a start of 25 seconds, B Wins by 50 meters. The time taken by A to run one kilometer is
	(1) 17 sec (2) $\frac{500}{29}$ sec (3) $\frac{1200}{29}$ sec (4) $\frac{700}{29}$ sec
60.	The nth term of the sequence $\frac{1}{n}$, $\frac{n+1}{n}$, $\frac{2n+1}{n}$, . . .is
	(1) $\frac{n^2+1}{n}$ (2) $\frac{n^2-n+1}{n}$ (3) n+1 (4) None of these
61.	If x+y = 2z then the value of $\frac{x}{x-z} + \frac{z}{y-z}$ is :
	(1) 1 (2) 3 (3) ½ (4) 2
62.	If $(x+1/x)^2 =3$ then the value of $(x^{72}+x^{66}+x^{54}+x^{36}+x^{24}+x^6+1)$ is
	(1) 1 (2) 2 (3) 3 (4) 4
63.	If p and q are non-zero constants and the equation $x^2+px+q=0$ has roots α and β, then the equation $qx^2+px+1= 0$ has roots
	(1) α and 1/β (2) 1/ β and α (3) 1/ α and 1/β (4) None of these
64.	The smallest positive value of θ satisfying the equation tan θ =2sin θ is
	(1) 0 (2) ∞ (3) 60^0 (4) None of these
65.	A tower subtends an angle α at a point 'A' in the plane of its base and the angle of depression of the foot of the tower at a height 'b' just above point A is β . Then the height of the tower is
	(1) b tanαcotβ (2) b cotαtanβ (3) b tanαtanβ (4) b cotαcotβ

66.	A boat is rowed away from a cliff 150 m high. At the top of cliff, the angle of depression of the boat changes from 60^0 to 45^0 in 2.5 minutes. The speed of boat (in m/sec)is: (1) $1 + \dfrac{1}{\sqrt{3}}$ (2) $1 - \dfrac{1}{\sqrt{3}}$ (3) $\sqrt{3} + 3$ (4) $2\sqrt{3} - 3$
67.	The height of a room is $1/4^{th}$ of the sum of length and breadth. The cost of painting the wall at the rate of 50 paise per m^2 is Rs. 400. Then height of room is (1) 12m (2) 15m (3) 8m (4) 10m
68.	A man builds a circular pool of radius 5 m inside circle of radius 12m. In order to compensate the area lost by construction of pool, he extends the radius by "r" while keeping the garden still circular, so that the area of garden remains the same. The value of "r" in meter is: (1) 1 (2) $\sqrt{5}$ (3) $\sqrt{7}$ (4) $\dfrac{5}{\pi}$
69.	Jay, Babita, Keshav and Deepa are standing on four different corners of square. Jay moves toward Keshav and reaches at his position in $20\sqrt{2}$ steps. Now Keshav will reach on Deepa's position in (1) $20\sqrt{2}$ steps (2) 20 steps (3) 10 steps (4) data in adequate
70.	In a group of 40 singers and 80 dancers, 20% of the singers are less than 25 years of age and 40% of the entire group is less than 25 years of age. What %age of dancers are less than 25 years of age? (1) 25% (2) 30% (3) 50% (4) 15%
71.	Circle A touches circle B through the centre of circle B. If the area of circle A is 100 cm^2, then the area of circle B is: (1) 200 cm^2 (2) 300 cm^2 (3) 400 cm^2 (4) 500 cm^2
72.	The following pie chart shows the hours spent for study at home per day by class 10 students. What percent of students study at least for one hour? (1) 25% (2) 33% (3) 66% (4) 75%
73.	If p and q are two consecutive natural numbers, then HCF (p, q) is (1) q (2) p (3) 1 (4) none of these
74.	If zeros of the polynomial $x^3 - 3x^2 + x + 1 = 0$ are a-d, a, a +d then (a+d) is (1) a natural no. (2) a non-integer no. (3) an integer (4) an irrational no.
75.	The equation $kx^2 - 6x - 2 = 0$ has real roots for: (1) $k \geq -19/2$ (2) $k \geq -9/2$ (3) $k \leq -19/2$ (4) $k \leq -9/2$
76.	Under which conditions the equation $2(a^2+b^2) x^2 + 2 (a + b) x +1 = 0$ have non-real roots? (a and b are real numbers) (1) If a =b (2) If a >b (3) if a <b (4) If a ≠ b
77.	Two tangents PA and PB are drawn to a circle with centre O from an external point P. Then which of the following is correct: (1) $\angle APB = 2\angle OAB$ (2) $\angle APB + 2\angle OAB = 180$ (3) $\angle APB = 2\angle PAB$ (4) $\angle APB + \angle OAB = 180$
78.	The distance between the points P (4, -5) and Q (12, k) is 10 units. The sum of all the possible values of 'k' is? (1) -10 (2) -5 (3) 12 (4) 4
79.	The radius of a sphere is doubled. Which of the following will increase by a factor of 4? (1) Only the surface area (2) Only the volume (3) Both the volume and surface area (4) None of these

80.	The area of a square inscribed in a circle of diameter p cm is (1) p^2 cm^2 (2) $p^2/2$ cm^2 (3) $p/2$ cm^2 (4) $p^2/4$ cm^2
81.	Cards marked with number 2 to 101 are placed in a box and mixed thoroughly. One card is drawn from the box. Then the probability of card having number a perfect cube is: (1) $\frac{5}{101}$ (2) $\frac{4}{101}$ (3) $\frac{3}{101}$ (4) $\frac{3}{100}$
82.	In $\triangle$ ABC, right angled at C, having sides a,b,c opposite to A,B,C respectively. Then TanA + TanB is: (1) $\frac{b^2}{ac}$ (2) $\frac{a+b}{ac}$ (3) $\frac{a^2}{bc}$ (4) $\frac{c^2}{ab}$
83.	If the circumference of a circle is π units more than the diameter 'd' of the circle, then the diameter of circle in units is: (1) $\frac{2\pi}{\pi - 1}$ (2) $\frac{\pi}{\pi - 1}$ (3) $\frac{\pi}{\pi + 1}$ (4) $\frac{2\pi}{\pi + 1}$
84.	The area of a square field is 8 hectares. Then time taken by a man to cross it diagonally by walking at the rate of 4 kmph is? (1) 8 Min (2) 5 Min (3) 6 Min (4) None of these
85.	Two lines are said to be parallel. The equation of one of the lines is 4x+3y=14. The equation of second line is : (1) 3x+4y=14 (2) 12x + 9y=42 (3) -12x=9y (4) None of these.
86.	If the roots of the equation $12 x^2 + mx + 5 = 0$ are in the ratio 3:2, then m is equal to: (1) $3\sqrt{10}$ (2) $2\sqrt{10}$ (3) $5\sqrt{10}$ (4) $4\sqrt{10}$
87.	At what angle the hands of a clock (in degree) are inclined at 15 minutes past 6? (1) $27\frac{1}{2}$ (2) $97\frac{1}{2}$ (3) $25\frac{1}{2}$ (4) $72\frac{1}{2}$
88.	The sides of a cube are painted in different color. Red side is opposite to Black. White side is between Black and Red. Green side is adjacent to Grey and Blue side is adjacent to Green. What color is opposite to White side of cube? (1) Blue (2) Grey (3) Green (4) Red
89.	The additive inverse of S, where S=1-2+3-4+5-6+7 .... + 49-50, is: (1) -25 (2) 1 (3) 0 (4) 25
90.	The product of two whole numbers is 24. The smallest possible sum of all these numbers is: (1) 10 (2) 12 (3) 8 (4) 9
91.	The hundred digit of a three digit number is 7 more than the unit digit. The digits of the number are reversed and the resulted number so obtained, is subtracted from the original three digit number. The unit digit of the final number so obtained is: (1) 0 (2) 1 (3) 2 (4) 3
92.	A container contains 80 L of milk. From this container, 8 L of milk was taken out and replaced by water. This process was further repeated two times. How much milk is now contained by the container? (1) 60L (2) 58.6 L (3) 58 L (4) 58.32L
93.	If two adjacent sides of a square paper are reduced by 20% and 40% respectively, by what % does the new area decrease? (1) 50% (2) 52% (3) 62% (4)58%
94.	A cone of height "h" and radius R, whose base is fixed, is squeezed by applying a force at its tip so that the height of the squeezed solid became h/2. What is the radius of the new circular face (frustum) generated: (1) $\frac{\sqrt{5}}{2}$ R (2) $\frac{(\sqrt{5}-1) R}{2}$ (3) $\frac{(\sqrt{5}+1) R}{3}$ (4) $\frac{(\sqrt{5}+1) R}{2}$

95.	In $\triangle$ ABC, $\angle$BCA=90º and CD $\perp$ AB, with AD = 4cm and BD = 9 cm, then the value of DC is: (1) 8cm (2) 6cm (3) 4cm (4) 10cm
96.	If Sin17 = x/y , then the value of sec17-sin73 will be: (1) $\dfrac{y^2}{x\sqrt{y^2-x^2}}$ (2) $\dfrac{x^2}{y\sqrt{y^2-x^2}}$ (3) $\dfrac{x^2}{y\sqrt{x^2-y^2}}$ (4) $\dfrac{y^2}{x\sqrt{x^2-y^2}}$
97.	The mean of a set of 20 observations is 19.3. The mean is reduced to 0.5, when a new observation is added to the set. The new observation is: (1) 19.8 (2) 9.8 (3) 9.2 (4) 8.8
98.	If a letter is drawn at random from the letters in the Word "PRORATA", then the letters which have equal probabilities of being drawn are: (1) A and R (2) P, O and T (3) R, O and A (4) both (1) and (2)
99.	Three numbers which are co-prime to each other are such that the product of first two numbers is 42 and product of last two numbers is 78. Then, the sum of all the three numbers are: (1) 25 (2) 32 (3) 26 (4) 13
100	If LCM [p(x), q(x)] = $24x^2y$, HCF [p(x), q(x)] = $24xy$ and p(x) = $8xy$, then q(x) is: (1) $3x^2y$ (2) $6x^2$ (3) $6x^2y$ (4) $3x^2$