

STaRT-2012

SAMPLE TEST PAPER

CLASS-VIII

Time : 90 min.

Maximum Marks : 200

GENERAL INSTRUCTIONS

1. The question paper contains 50 questions, 15 Questions from Mathematics (1-15), 10 questions from Physics (16-25), 5 questions from Chemistry (26-30), 5 questions from Biology (31-35), and 15 questions from Mental Ability (36-50).
2. The OMR sheet given in the examination hall is the Answer Sheet.
3. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.
4. Do not forget to mention your roll number neatly and clearly in the blank space provided in the answer sheet.
5. Each Question carries 4 marks. '1' mark will be deduct for each wrong answer. So attempt each question carefully.
6. No rough sheets will be provided by the invigilators. All the rough work is to be done in the blank space provided in the question paper.
7. In case of any dispute, the answer filled in the OMR sheet available with the institute shall be final.

Name : _____ Roll No. : _____

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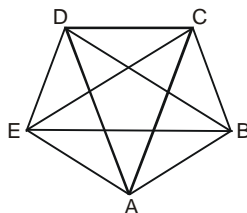
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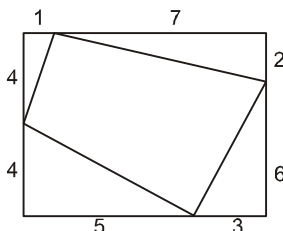
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1. If $(1^3 + 2^3 + 3^3 + 4^3)^{3/2} = \frac{1}{x}$, then x is –
(A) 100 (B) 1/100 (C) 1000 (D) 1/1000
2. ABCDE is a regular pentagon. A star of five points ACEBDA is formed to join their alternate vertices. The sum of all five vertex angles of this star is –



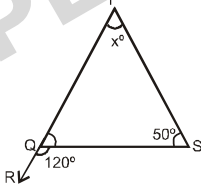
- (A) Two right angle (B) Three right angle (C) Four right angle (D) Five right angle
3. A fruit seller losses 10% by selling 26 oranges for Rs. 25/- The number of oranges he should sell for Rs. 5/ each to gain 17% is :
(A) 4 (B) 5 (C) 6 (D) 8
4. Amongst the given options which of the number is the average of the remaining three ?
(A) 26 (B) 39 (C) 30 (D) 61
5. Six more than one-fourth of a number is two fifth of the same number. Then the number is :
(A) 30 (B) 40 (C) 50 (D) 60
6. If $a + b = 12$, $ab = 17$ then the value of $(4 + a)(4 + b)$ is –
(A) 61 (B) 64 (C) 81 (D) 74
7. The sides of an 8×8 square are cut by certain points into pieces of length 1 and 7, 2 and 6, 3 and 5 and 4 and 4 as shown in figure. The area of the quadrilateral determined by these four points are :



- (A) 28 (B) 36 (C) 48 (D) 8
8. Which of the following number is the largest ?
(A) $(1 + 2^{1/2})^2$ (B) $2\left(\frac{1}{6} + \frac{1}{3}\right)^{-1}$ (C) $(24)^{0.5}$ (D) $\left(\frac{10}{7}\right)\left(\frac{9}{6}\right)\left(\frac{8}{5}\right)$

Space For Rough Work



9. In a class, the number of boys is more than the number of girls by 12% of the total strength. The ratio of boys to girls is :
(A) 11 : 14 (B) 14 : 11 (C) 25 : 28 (D) 28 : 25
10. The mean weight of a class of 34 students is 46.5 kg. If weight of the teacher is included, the mean rises by 500 gm. Then the weight of the teacher is –
(A) 175 kg (B) 62 kg (C) 64 kg (D) 72 kg
11. In an examination, 92% of the candidates passed and 36 failed. How many candidates appeared ?
(A) 550 (B) 450 (C) 400 (D) 500
12. If width of a rectangle is 4m less than its length and its perimeter is 32m, then the area of rectangle is
(A) 90 m² (B) 30 m² (C) 60 m² (D) 120 m²
13. The perimeter of an isosceles triangle is 28 cm. If one side is 8 cm, then the length of each of the equal side is :
(A) 20 cm (B) 10 cm (C) 12 cm (D) 8 cm
14. The angles of a triangle are in the ratio 3 : 2 : 1, then the angles are
(A) 90°, 60°, 30° (B) 100°, 50°, 30° (C) 80°, 60°, 40° (D) 70°, 60°, 50°
15. Measure of x° in the given figure is
(A) 60°
(B) 70°
(C) 80°
(D) 55°
- 
16. Pressure varies with force F as :
(A) F (B) F⁻¹ (C) F² (D) F⁻²
17. The unit of change in momentum is :
(A) N × s (B) N/s (C) N (D) $\frac{\text{kg} \times \text{s}}{\text{m}}$
18. The phenomenon due to which bottom of a tank filled with water appears raised is :
(A) dispersion (B) refraction (C) reflection (D) all of them

Space For Rough Work



19. How many electrons constitute current of one micro ampere in one second ?
(A) 6.25×10^6 (B) 6.25×10^{12} (C) 6.25×10^9 (D) 6.25×10^{15}
20. The shrillness of a musical sound depends upon:
(A) Amplitude (B) Loudness (C) Frequency (D) Quality
21. A convex mirror has a focal length of 10 cm. A real object is placed at a distance of 10 cm from pole produces an image at :
(A) infinity (B) 20 cm (C) 10 cm (D) 5 cm
22. The planet closest to the sun is :
(A) mars (B) Jupiter (C) mercury (D) earth
23. The velocity of sound wave is maximum in
(A) Gas (B) Liquid (C) Vacuum (D) Copper
24. Heat energy is transferred by radiation in the form of :
(A) mechanical waves (B) electromagnetic waves
(C) both (A) and (B) (D) none of these
25. A calorimeter full of hot water is hang in vacuum. It will cool by :
(A) convection (B) radiation (C) conduction (D) Not cool at all
26. Tungsten is used in electric bulbs because -
(A) it has high melting point (B) it is metallic in nature
(C) it has high tensile strength (D) it has high density
27. Which of the following substances is added to petrol to improve its quality ?
(A) Calcium carbonate (B) Ethylene dibromide
(C) Tetraethyl lead (D) Ethyl Mercaptan
28. Statement - 1 \rightarrow Graphite is used as an electrode in an electrolytic cell.
Statement - 2 \rightarrow Graphite is an example of non-metal .
Choose the correct statement :
(A) Statement 1 and 2 are true and statement 2 is the correct explanation of statement 1
(B) Statement 1 and 2 are true but statement 2 is not the correct explanation of statement 1.
(C) Statements 1 and 2 are false
(D) Statement 1 is true and statement 2 is false



29. A, B, C are three elements such that A on reaction with air produces dazzling white flame, B is used in rubber industry for hardening and C acts as a conductor with rise in temperature. Then A, B, C are –
(A) metals (B) metalloid, metal, and non-metal respectively
(C) non-metal, metal, metalloid respectively (D) metal, non-metal, metalloid respectively
30. CO_2 gas when bubbled through limewater, produces white precipitate. This dissolves on passing CO_2 gas in excess. The compounds 'A' and 'B' formed are respectively :
(A) 'A' is CaHCO_3 and 'B' is $\text{Ca}(\text{HCO}_3)_2$
(B) 'A' is CaCO_3 and 'B' is $\text{Ca}(\text{OH})\text{HCO}_3$
(C) 'A' is $\text{Ca}(\text{OH})\text{HCO}_3$ and 'B' is $\text{Ca}(\text{HCO}_3)_2$
(D) 'A' is CaCO_3 and 'B' is $\text{Ca}(\text{HCO}_3)_2$
31. Which among the following is a connecting link between living and non living ?
(A) Euglena (B) Virus (C) Fungi (D) Protozoa
32. Which of the following statement is / are true for an animal cell :
(i) It contains a single large vacuole (ii) Outer most boundary is plasma membrane
(iii) Nucleus is well developed and lies in center.
(A) (i) and (ii) (B) (ii) and (iii) (C) none of these (D) all are true
33. Virus contains
(A) DNA only (B) RNA only
(C) RNA and DNA both (D) Either RNA or DNA but not both
34. "Master gland" of the body is
(A) Hypothalamus (B) Pituitary (C) Adrenal (D) Pancreas
35. Match the disease with causative agent and mark the correct statement.
(i) Rabies 1. Bacteria
(ii) Malaria 2. Fungus
(iii) Ring worm 3. Virus
(iv) Tuberculosis 4. Plasmodium
(A) i - 1, ii - 2, iii - 3, iv - 4 (B) i - 3, ii - 4, iii - 2, iv - 1
(C) i - 2, ii - 3, iii - 4, iv - 1 (D) i - 4, ii - 2, iii - 1, iv - 3

Directions : (36 to 38) Find the missing terms :

36. 55, 210, ?, 820, 1275
(A) 465 (B) 420 (C) 410 (D) 515

36. BYCXA, EVFUD, HSIRG, KPLOJ, ?
(A) MNLOL (B) NMOLM
(C) QJRIIP (D) PKQJO

38.

A	?	D
B	35	C
D	189	E

- (A) 64 (B) 65 (C) 66 (D) 67

39. If **RED** is written as **24** and **GREEN** is written as **44** then **WHITE** will be written as:
(A) 59 (B) 45 (C) 60 (D) 65

Direction : (40) Arrange the following group such that when arranged in a specific order, meaningful word is formed.

40. **D I F E R N**
1 2 3 4 5 6
(A) 1,4,3,6,2,5 (B) 6,4,3,5,2,1 (C) 3,5,2,4,6,1 (D) 5,4,3,2,6,1

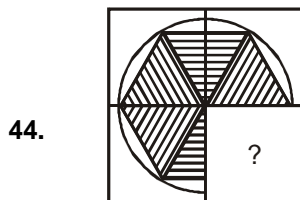
41. Ram is 11th in a queue which has 45 people. In queue the number of men member is double than the number of ladies. If 5 men are in front of Ram, how many ladies are behind him ?
(A) 10 (B) 9 (C) 8 (D) 7

42. There are five different houses, A to E, in a row. A is to the right of B; E is to the left of C and right of A; B is to the right of D. Which of the houses is in the middle?
(A) A (B) B (C) D (D) E

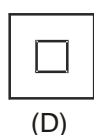
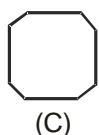
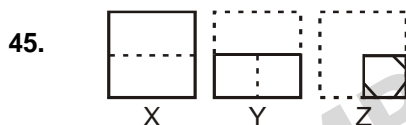
43. Pointing to a photograph, a person says to his friend, "She is the grand-daughter of the elder brother of my father, "How is the girl in the photograph related to the man ?
(A) Niece (B) Sister (C) Aunt (D) Sister-in-law

Space For Rough Work

Direction : (44) In the following question, complete the missing portion of the given pattern by selecting from the given alternatives.



Direction : (45) A sheet has been folded in the manner as shown in X, Y and Z respectively and punched. You have to choose from the alternatives how it will look when unfolded.

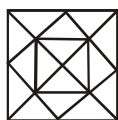


Direction : (46) Find the month which is different from the others.

46. (A) April (B) May (C) July (D) September

47. How many squares are there in the figure?

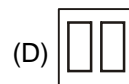
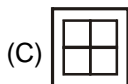
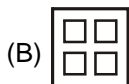
- (A) 5
(B) 6
(C) 7
(D) None of these



Space For Rough Work

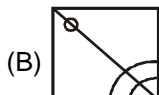
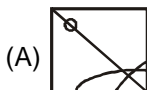
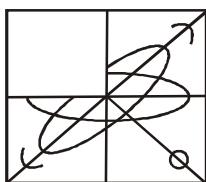
Direction : (48) The figures in the question follow a series. Select the figure form the given alternatives which would continue the series.

48.



Direction : (49) In the following question, complete the missing portion of the given pattern by selecting from the given alternatives.

49.



50. If you are 15th in a queue starting from extreme end, how many persons are there in the queue?
(A) 30 (B) 31 (C) 28 (D) 29

ANSWER

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	D	A	A	B	B	C	B	A	B	C	B	C	B	A	B
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	A	A	B	B	C	D	C	D	B	B	A	C	B	D	D
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	B	B	D	B	B	A	B	B	C	C	A	A	A	C	A
Ques.	46	47	48	49	50										
Ans.	A	C	B	A	D										