


- What is the loss per cent incurred when chocolates bought at 2 for a rupee are sold at 4 for a rupee?  
 (1) 50% (2) 100%  
 (3) 75% (4) 25%
- If  $(x - 1)$  and  $(x + 3)$  are the factors of  $x^2 + ax + b$ , then find the values of 'a' and 'b' respectively.  
 (1) 2, 3 (2) -2, -3  
 (3) -2, 3 (4) 2, -3
- The ratio of the time taken to row a certain distance upstream to the time taken to go downstream is 4 : 1. What is the ratio of the speed along stream to that upstream?  
 (1) 5 : 3 (2) 3 : 5  
 (3) 4 : 1 (4) 1 : 4
- Who was the first Indian to go into the space?  
 (1) Rakesh Sharma  
 (2) Kalpana Chawla  
 (3) Ravish Malhotra  
 (4) Sunita Williams
- Which country awarded Shri. Ram Nath Kovind with the highest civilian award the "Grand Order of the King of Tomislav"?  
 (1) France (2) Croatia  
 (3) England (4) Germany
- Express  $0.\overline{125}$  in rational form of number.  
 (1)  $\frac{113}{990}$  (2)  $\frac{125}{999}$   
 (3)  $\frac{100}{999}$  (4)  $\frac{199}{993}$
- Find the ODD one out from the given options :  
 (1) 290 (2) 324  
 (3) 144 (4) 100
- Two trains 200 metre and 150 metre long are running on parallel rails at the rates of 40 km/h and 45 km/h respectively. In how much time will they cross each other if they are running in the same direction?  
 (1) 72 seconds  
 (2) 132 seconds  
 (3) 192 seconds  
 (4) 252 seconds
- Complete the series.  
 2, 3, 6, 15, 42, (...)  
 (1) 94 (2) 48  
 (3) 62 (4) 123
- The governor of a state of India is appointed for a term of  
 (1) Five years  
 (2) Three years  
 (3) Six years  
 (4) Two years
- Which of the following sports originated in India?  
 (1) Kabaddi (2) Tennis  
 (3) Cricket (4) Football
- Kinetic energy of gas molecules is directly proportional to-  
 (1) Pressure  
 (2) Temperature  
 (3) Atmospheric pressure  
 (4) Both temperature and pressure
- Who among the following was awarded with the Padma Shri in 2019?  
 (1) Gautam Gambhir  
 (2) Budhaditya Mukherjee  
 (3) John Chambers
- If 31 December 2005 was a Saturday, then what day of the week will 31 December 2009 be?  
 (1) Saturday (2) Sunday  
 (3) Friday (4) Thursday
- When 8 times of a number is increased by 4, the result is the smallest 3 digit number. What is the number?  
 (1) 8 (2) 12  
 (3) 15 (4) 10
- Which word will best complete the relationship given below?  
 Asphalt : Road :: Brick : ?  
 (1) Cloth (2) Wall  
 (3) Fabric (4) Prism
- Natural source of vitamin C is-  
 (1) Guava  
 (2) Spinach  
 (3) All of the options  
 (4) Apple
- How many squares are there in the given figure?  
  
 (1) 11 (2) 14  
 (3) 12 (4) 10
- If the interest is compounded half-yearly, find the compound interest on the sum of Rs. 18500 at the rate of 40% per annum for 18 months.  
 (1) Rs. 16000  
 (2) Rs. 16280  
 (3) Rs. 13468  
 (4) Rs. 15469

20. Bacteria are bacteria which are-

- (1) Comma-shaped
- (2) Spherical
- (3) Spiral
- (4) Rod-shaped

21. The isotope deuterium of hydrogen has-

- (1) One proton and one neutron
- (2) One neutron and two protons
- (3) No neutrons and one proton
- (4) One electron and two neutrons

22. On which of the following river banks is the city of Agra located?

- (1) Tapti
- (2) Yamuna
- (3) Gangā
- (4) Sabarmati

23. Ram is facing towards east and Ravi is facing Ram and walking towards him. Ravi takes a left turn. Which direction is Ravi facing now?

- (1) East
- (2) South west
- (3) South east
- (4) South

24. How many triangles are there in the given figure?



- (1) 21
- (2) 26
- (3) 30
- (4) 34

25. In a certain code, 'MEDICAL' is written as 'MEIDCAL'. How would 'POLICE' be written in that code?

- (1) ILCEPO
- (2) POCEIL
- (3) PCELIO
- (4) POILCE

26. How are detergents called?

- (1) Hard soaps
- (2) Soapless soaps
- (3) Carboric soaps
- (4) Soft soaps

27. Water holding capacity is the highest in-

- (1) Loamy soil
- (2) Sandy soil
- (3) Clayey soil
- (4) Silty soil

28. \_\_\_\_\_ is a sexually transmitted killer disease.

- (1) AIDS
- (2) Typhoid
- (3) Jaundice
- (4) Malaria

29. Michael Phelps of US is famous for-

- (1) Swimming
- (2) High jump
- (3) Pole vault
- (4) Horse riding

30. Simplify :

$$3 + \frac{1}{1 + \frac{1}{2 + \frac{1}{4}}}$$

- (1)  $\frac{1}{12}$
- (2)  $\frac{3}{13}$
- (3)  $\frac{13}{49}$
- (4)  $\frac{48}{13}$

31. If '+' means '-', '-' means 'x', 'x' means '-' and '-' means '+', then  $(5 - 8 \times 6 + 11) + 9 = ?$

- (1) 5
- (2) 20
- (3) 15
- (4) 12

32. Which of the following is a leguminous plant?

- (1) Potato
- (2) Pea
- (3) Cabbage
- (4) Tomato

33. If in a certain code, RAT = 40, CHAT = 33, then RETURN = ?

- (1) 99
- (2) 97
- (3) 84
- (4) 88

34. Which of the following is a source for quinine?

- (1) Teak
- (2) Cinchona
- (3) Neem
- (4) Bamboo

35. The product of two co-prime numbers is 117. Find their HCF.

- (1) 117
- (2) 1
- (3) 13
- (4) 7

36. Find the HCF of two consecutive even integers.

- (1) 1
- (2) 2
- (3) -1
- (4) 0

37. Simplify :

$$\cos 5^\circ + \cos 24^\circ + \cos 175^\circ + \cos 204^\circ + \cos 300^\circ$$

- (1)  $\frac{1}{2}$
- (2) 0
- (3)  $\frac{1}{2}$
- (4) 1

38. The amount of air inspired and expired during normal respiration is known as-

- (1) Vital capacity
- (2) Tidal volume
- (3) Minute volume
- (4) Residual volume

39. What happens to the force of gravitation between two objects when the mass of one object is doubled?

- (1) The force of gravitation is tripled
- (2) The force of gravitation is halved
- (3) The force of gravitation is four times
- (4) The force of gravitation is doubled

40. If the radius of curvature of a convex mirror is 24 cm, what is its focal length?

- (1) 12 cm
- (2) 14 cm
- (3) 24 cm
- (4) 48 cm

41. If  $53 \times 13 = 33$ ,  $39 \times 13 = 26$  and  $74 \times 28 = 50$ , then what will be  $37 \times 21$ ?

- (1) 43
- (2) 37
- (3) 24
- (4) 29

42. The sum of two numbers is 22. Five times of one number is equal to 6 times the other. Find the larger of the two numbers.

- (1) 12
- (2) 16
- (3) 15
- (4) 10

43. Twinkling of stars at night happens due to-

- (1) Scattering of light
- (2) Reflection of light
- (3) Dispersion of light
- (4) Atmospheric refraction

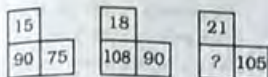


44. An article is sold at a certain price. Had it been sold at 60% of this price, there would have been a loss of 35%. What is the percentage profit now?
- (1)  $16\frac{2}{3}\%$  (2)  $12\frac{1}{2}\%$   
 (3) 15% (4)  $8\frac{1}{3}\%$
45. Find the ODD one out from the given options :
- (1) HTI (2) GQI  
 (3) DRM (4) ETN
46. Barium chloride on reacting with ammonium sulphate forms barium sulphate and ammonium chloride. Which of the following CORRECTLY represents the type of reaction involved?
- (1) Combination reaction  
 (2) Combustion reaction  
 (3) Oxidation reaction  
 (4) Precipitation reaction
47. The sum of the ages of two cousins is 35 years. Ten years ago, the ratio of their ages was 2 : 1. What are their present ages? (In years)
- (1) 30, 5 (2) 20, 15  
 (3) 28, 7 (4) 10, 25
48. What is the chemical name of limewater?
- (1) Sodium hydroxide  
 (2) Calcium hydroxide  
 (3) Ammonium hydroxide  
 (4) Magnesium hydroxide
49. In a period, elements are arranged in the order of-
- (1) Decreasing charges in the nucleus  
 (2) Constant charges in the nucleus  
 (3) Equal charges in the nucleus  
 (4) Increasing charges in the nucleus
50. Why are the tyres of the cars, trucks and bulldozers treaded?
- (1) To increase the speed of the vehicle  
 (2) The treads of the tyres are meant to add beauty to its design  
 (3) To decrease the friction  
 (4) To increase friction and to give a better grip to them on the road
51. Which of the following elements is represented by the symbol "Si"?
- (1) Silicon (2) Sodium  
 (3) Silver (4) Sulphur
52. Which word will best complete the relationship given below?  
 Oil : Seed :: Metal : ?
- (1) Paper (2) Leather  
 (3) Ore (4) Brick
53. Which technique is used to determine the depth of the sea, locate the underwater hills, valleys, submarines, icebergs etc.?
- (1) SONAR  
 (2) Sound absorption  
 (3) Infrasound  
 (4) MRI
54. Find the missing number in the following series.  
 1, 1, 2, (...), 24, 120, 720
- (1) 8 (2) 3  
 (3) 6 (4) 2
55. Find the selling price of an article, if a shopkeeper allows two successive discounts of 5% each on the marked price of Rs.80.
- (1) Rs.72 (2) Rs.73  
 (3) Rs.72.20 (4) Rs.70.10
56. A 2 metre broad pathway is to be constructed around a rectangular plot on the inside. The area of the plot is 96 m<sup>2</sup>. The rate of construction is Rs.50 per m<sup>2</sup>. Find the total cost of the construction.
- (1) Rs.4800  
 (2) Data Inadequate  
 (3) Rs.4000  
 (4) Rs.2400
57. Which of the following is a fossil fuel?
- (1) Alcohol (2) Biogas  
 (3) Wood (4) Coal
58. A cube has numerically equal surface area and volume. Find the volume of the cube.
- (1) 276 cubic units  
 (2) 162 cubic units  
 (3) 512 cubic units  
 (4) 216 cubic units
59. A 110 metre long train crosses a pole in 12 seconds. What is the speed of the train in km/h?
- (1) 49 km/h (2) 27 km/h  
 (3) 30 km/h (4) 33 km/h
60. Find the group of wrong alphabet in the following series :  
 MA, WO, OE, SI, YM
- (1) SI (2) OE  
 (3) WO (4) YM
61. Chandigarh is the capital of which of the following states?
- (1) Himachal Pradesh  
 (2) Both Punjab and Haryana  
 (3) Punjab  
 (4) Haryana
62. Which of the following statements about the modern periodic table is CORRECT?
- (1) It has 18 vertical columns known as groups  
 (2) It has 7 horizontal rows known as groups  
 (3) It has 7 vertical columns known as periods  
 (4) It has 18 horizontal rows known as periods
63. One day in the evening, an eagle was flying towards sun and turned left. Again it took left turn. Which direction was the eagle flying now?
- (1) South  
 (2) South west  
 (3) East  
 (4) South east

64. Thilliana is one of the presentation styles of which dance form?

- (1) Bharatanatyam
- (2) Kuchipudi
- (3) Odissi
- (4) Kathak

65. Choose the alternative that best replaces the question mark (?) in the given figure.



- (1) 136
- (2) 126
- (3) 84
- (4) 108

66. In this question, three statements are given followed by four Conclusions. Choose the Conclusion(s) which best fit(s) logically.

**Statements :**

- I. All gold are platinum.
- II. Some platinum are silver.
- III. All silver are diamonds.

**Conclusions :**

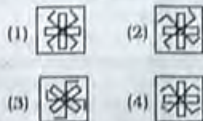
- I. Some diamonds are platinum.
- II. Some diamonds are gold.
- III. Some silver are gold.
- IV. Some platinum are diamonds.

- (1) Only Conclusions I and IV follow
- (2) Only Conclusions I and II follow
- (3) Only Conclusion III follows
- (4) Only Conclusions I and III follow

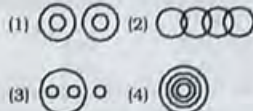
67. To hear a distinct echo, what is the minimum time interval required between the original sound and the echo?

- (1) 0.1 second
- (2) 0.2 second
- (3) 0.4 second
- (4) 0.01 second

68. Find the ODD one out from the given options.



69. Choose the figure that best represents the relationship among the classes given below. Wheat, Grains, Onion, Maize



70. Which of these does NOT have an optical lens?

- (1) Periscope
- (2) Stethoscope
- (3) Telescope
- (4) Microscope

71. Which gas is typically produced when metal reacts with acids?

- (1) Oxygen
- (2) Nitrogen
- (3) Hydrogen
- (4) Carbon dioxide

72.

If  $\cot \theta = \frac{a}{b}$ , then find  $\frac{\cos \theta - \sin \theta}{\cos \theta + \sin \theta}$ .

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

73. Read the following information carefully and answer the question given below :

Eight captains of different cricket teams—Australia, New Zealand, India, Pakistan, Sri Lanka, England, West Indies and South Africa are sitting around a circular table and are facing the centre, but not necessarily in the same order. Indian captain sits third to the left of the Sri Lankan captain.

Only two people sit between the Australian captain and West Indies captain. Neither the Australian captain nor West Indies captain is an immediate neighbour of the Indian captain. The captain of South Africa sits second to the right of the England captain. England captain is not an immediate neighbour of the Indian captain. The Australian captain sits third to the left of the Indian captain. Captains of Pakistan and New Zealand are not immediate neighbours. Pakistan captain sits third to the left of the England captain. Which of the following captains sits exactly between the captain of India and West Indies?

- (1) Sri Lanka
- (2) South Africa
- (3) Pakistan
- (4) Australia

74. The sum of three numbers is 100. The ratio of the first number to the second number is 4 : 9 and the ratio of the second to the third number is 3 : 4. Find the second number.

- (1) 28
- (2) 30
- (3) 36
- (4) 24

75. Which community gets special provision for certain services in Article 336?

- (1) Sikh community
- (2) Hindu community
- (3) Anglo-Indian community
- (4) Muslim community

76. Complete the series.

- CJ, PU, ND, LG, (...)
- (1) RE
  - (2) JE
  - (3) KS
  - (4) VV

77. A sum of money at simple interest amounts to Rs. 815 in 3 years and Rs. 854 in 4 years. What is the sum?

- (1) Rs. 698
- (2) Rs. 690
- (3) Rs. 700
- (4) Rs. 650



78. Which of the following is/are rich in vitamin A?

- (1) Tomato (2) Oranges  
(3) Apple (4) Carrot

79. Simplify :

$$\sqrt{0.01} + \sqrt{0.0225}$$

- (1) 16 (2) 0.4  
(3) 4 (4) 0.04

80. In which of the following lists is Economic planning placed?

- (1) Concurrent list  
(2) State list  
(3) Union list  
(4) Both State list and Union list

81. What is the total surface area of a solid cylinder whose radius is half the radius of a circle of area  $154 \text{ m}^2$  and height is the same as its radius?

- (1)  $312 \text{ m}^2$  (2)  $132 \text{ m}^2$   
(3)  $123 \text{ m}^2$  (4)  $231 \text{ m}^2$

82. P, Q and R enter into a partnership investing Rs. 35000, Rs. 45000 and Rs. 55000. Find their respective share in the annual profit of Rs. 40500.

- (1) Rs.10500, Rs.13500, Rs.18500  
(2) Rs.10500, Rs.13500, Rs.16500  
(3) Rs.10500, Rs.13500, Rs.17500  
(4) Rs.10500, Rs.13500, Rs.19500

83. Complete the series.

- 167, 334, 668, 1336, (...)  
(1) 2653 (2) 2681  
(3) 2672 (4) 2661

84. The simple interest after 10 years at some rate will be Rs. 600 on a certain sum. If the principal is trebled after 5 years, what will be the total interest at the end of tenth year?

- (1) Rs.600 (2) Rs.1500  
(3) Rs.900 (4) Rs.1200

85. Efficiencies of P, Q, R and S in doing a job are in the ratio 2 : 3 : 5 : 4. The wages paid for the job are Rs. 4200. Who is paid the largest amount and how much is paid?

- (1) R, Rs. 2000  
(2) S, Rs. 1800  
(3) R, Rs. 1500  
(4) P, Rs. 2000

86. Read the following information carefully and answer the question given below :

A, B, C, D, E, F, G and H are sitting around a circle facing the centre. B is third to the right of F and third to the left of H. C is fourth to the left of A. A is not an immediate neighbour of F and B. E is not an immediate neighbour of D. G is second to the right of B. Who is to the immediate right of H?

- (1) E (2) A  
(3) F (4) G

87. The town of Paranda is located on Green lake. The town of Akram is to the west of Paranda. Tokhada is to the east of Akram but to the west of Paranda. Kokran is east of Bopri but west of Tokhada and Akram. If they are all in the same district, which town is the farthest west?

- (1) Paranda (2) Kokran  
(3) Akram (4) Bopri

88. If  $10.98 \times 10.98 + 10.98k + 0.02 \times 0.02$  is a perfect square, then find the value of 'k'.

- (1) 0.4 (2) 0.2  
(3) 0.04 (4) 0.02

89. Which of the following options will best complete the relationship given below?

- 8 (246) 3  
3 (213) 7  
3 (???) 5  
(1) 516 (2) 615  
(3) 156 (4) 165

90. Which of the following has comparatively high electrical resistance and is used in the circuit to reduce current?

- (1) Semi conductor  
(2) Resistor  
(3) Conductor  
(4) Insulator

91. In Indian history, who was also known as Alamgir?

- (1) Aurangzeb (2) Babur  
(3) Jahangir (4) Akbar

92. In a right triangle, the sides are in the ratio  $1 : 1 : \sqrt{2}$ . Find  $\cos A \cos B - \sin A \sin B$ .

- (1) 0 (2)  $\frac{1}{2}$   
(3)  $\frac{1}{\sqrt{2}}$  (4) 1

93. Which of these sports is NOT a board (table) game?

- (1) Squash (2) Chess  
(3) Carrom (4) Billiards

94. Which mineral is essential for bones?

- (1) Iron (2) Sulphate  
(3) Calcium (4) Zinc

95. Simplify:  $106 \times 106 + 94 \times 94$

- (1) 23032 (2) 21032  
(3) 20032 (4) 20072

96. A person clapped his hands near a cliff and heard the echo after 4 seconds. What is the distance of the cliff from the person when the speed of the sound is  $344 \text{ m/s}$ ?

- (1) 300 m (2) 600 m  
(3) 688 m (4) 344 m

97. The common transport form of sugar in plants is-

- (1) Sucrose (2) Galactose  
(3) Fructose (4) Glucose

98. Which of the following is a weak base?

- (1)  $\text{NH}_4\text{OH}$  (2)  $\text{Ca(OH)}_2$   
(3) NaOH (4) KOH

99. Which of the following is rich in dietary fibre?

- (1) Apples  
(2) White bread  
(3) Noodles  
(4) Ice-cream

100. Which was the first satellite to be sent into space?

- (1) Vanguard IA  
(2) Rohini  
(3) Sputnik 1  
(4) Explorer 1