



J A G R A N
Josh
your guide to success

WWW.JAGRANJOSH.COM

PRACTICE QUESTION SET ON QUANTITATIVE
APTITUDE FOR SSC RECRUITMENT
EXAMINATION- 2012

1. Ratio of the principal and the amount after 1 yr is 10 :12. Then the rate of interest per annum is

- (a) 12%
- (b) 16%
- (c) 18%
- (d) 20%

2. A solid cone of height 9 cm with diameter of its base 18 cm is cut out from a wooden solid sphere of radius 9 cm. The percentage of wood wasted is

- (a) 25
- (b) 30
- (c) 30
- (d) 75

3. The length of the chord of a circle is 8 cm and perpendicular distance between centre and the chord is 3 cm. Then the radius of the circle is equal to

- (a) 4 cm
- (b) 5 cm
- (c) 6 cm
- (d) 8 cm

4. In ΔABC , $\angle BAC = 90^\circ$ and $AB = \frac{1}{2} BC$. Then the measure of $\angle ABC$ is

- (a) 60°
- (b) 30°
- (c) 45°
- (d) 15°

5. The average of 5 numbers is 140. If one number is excluded, the average of the remaining 4 numbers is 130. The excluded number is

- (a) 135
- (b) 134
- (c) 180

(d) 150

6. If toys are bought at Rs 5 each and sold at Rs 4.50 each, then the loss is

(a) 10%

(b) 11%

(c) 12%

(d) 13%

7. What is the greatest number which will divide 110 and 128 leaving a remainder 2 in each case?

(a) 8

(b) 18

(c) 28

(d) 38

8. If $a = 23$ and $b = -29$, then the value of $25a^2 + 40ab + 16b^2$ is

(a) 1

(b) -1

(c) 0

(d) 2

9. If $(2^x)(2^y) = 8$ and $(9^x)(3^y) = 81$, then (x, y) is

(a) (1, 2)

(b) (2, 1)

(c) (1, 1)

(d) (2, 2)

10. One chord of a circle is known to be 10.1 cm, The radius of this circle must be

(a) 5 cm

(b) greater than 5 cm

(c) greater than or equal 5 cm

(d) less than 5 cm

11. If x, y are acute angles, $0 < x + y < 90^\circ$ and $\sin (2x - 20^\circ) = \cos (2y + 20^\circ)$, then the value of $\tan (x + y)$ is

(a) $\frac{1}{\sqrt{3}}$

(b) $\frac{\sqrt{3}}{2}$

(c) $\sqrt{3}$

(d) 1

12. The ratio of the angles $\angle A$ and $\angle B$ of a non-square rhombus ABCD is 4 : 5, then the value of $\angle C$ is

(a) 50°

(b) 45°

(c) 80°

(d) 95°

13. A straight line parallel to BC of ΔABC intersects AB and AC at points P and Q, respectively. $AP = QC$, $PB = 4$ units and $AQ = 9$ units, then the length of AP is

(a) 2.5 units

(b) 3 units

(c) 6 units

(d) 6.5 units

14. If $x + y = a$ and $xy = b^2$, then the value of $x^3 - x^2y - xy^2 + Y^3$ in terms of a and b is

(a) $(a^2 + 4b^2)a$

(b) $a^3 - 3b^2$

(c) $a^3 - 4b^2a$

(d) $a^3 + 3b^2$

15. From a right circular cylinder of radius 10 cm and height 21 cm, a right circular cone of same base-radius is removed. If the volume of the remaining portion is 4400 cm^3 , then the height of the removed cone (taking $\pi = \frac{22}{7}$) is

(a) 15 cm

- (b) 18 cm
- (c) 21 cm
- (d) 24 cm

16. I is the incentre of ΔABC , $\angle ABC = 60^\circ$ and $\angle ACB = 50^\circ$. Then, $\angle BIC$ is

- (a) 55°
- (b) 125°
- (c) 70°
- (d) 65°

17. If $(3a + 1)^2 + (b - 1)^2 + (2c - 3)^2 = 0$, then the value of $(3a + b + 2c)$ is equal to

- (a) 3
- (b) -1
- (c) 2
- (d) 5

18. Among the numbers $\sqrt[6]{12}$, $\sqrt[3]{4}$, $\sqrt[4]{5}$, $\sqrt{3}$, the least one is

- (a) $\sqrt[6]{12}$
- (b) $\sqrt[3]{4}$
- (c) $\sqrt[4]{5}$
- (d) $\sqrt{3}$

19. A trader marks his goods 45% above the cost price and gives a discount of 20% on the marked price. The gain percentage on goods he makes, is

- (a) 15
- (b) 14
- (c) 29
- (d) 16

20. The simplified value of $(\sec x \sec y + \tan x \tan y)^2 - (\sec x \tan y + \tan x \sec y)^2$ is

- (a) -1

- (b) 0
- (c) $\sec^2 x$
- (d) 1

21. Speed of a boat is 5km/h in still water and the speed of the stream is 3 km/h. If the boat takes 3 h to go to a place and come back, the distance of the place is

- (a) 3.75 km
- (b) 4 km
- (c) 4.8 km
- (d) 4.25 km

22. The single discount equivalent to the discount series of 20%, 10%, 5% is

- (a) 11.66%
- (b) 31.6%
- (c) 31.66%
- (d) 32%

23. If $xy(x + y) = 1$, then the value of $\frac{1}{x^3y^3} - x^3 - y^3$ is

- (a) 0
- (b) 1
- (c) 3
- (d) -2

24. Two vessels A and B contain acid and water mixed in the ratio 2 : 3 and 4 : 3. In what ratio must these mixtures be mixed to form a new mixture containing half acid and half water?

- (a) 5 : 7
- (b) 1 : 2
- (c) 2 : 1
- (d) 7 : 5

25. The base of a right pyramid is a square of side 40 cm long. If the volume of the pyramid is 8000 cm^3 then its height is

- (a) 5 cm
- (b) 10 cm
- (c) 15 cm
- (d) 20 cm

26. If $\frac{x}{2x^2+5x+2} = \frac{1}{6}$, Value of $(x + \frac{1}{x})$ is

- (a) 2
- (b) $\frac{1}{2}$
- (c) $-\frac{1}{2}$
- (d) -2

27. Each internal angle of regular polygon is two times its external angle. Then, the number of sides of the polygon is

- (a) 8
- (b) 6
- (c) 5
- (d) 7

28. The perimeter of a rhombus is 40 cm and the measure of an angle is 60° , then the area of it, is

- (a) $100\sqrt{3}\text{cm}^2$
- (b) $50\sqrt{3}\text{cm}^2$
- (c) $160\sqrt{3}\text{cm}^2$
- (d) 100cm^2

29. The ratio of the areas of the incircle and the circumcircle of a square is

- (a) 1 : 2
- (b) 2 : 3
- (c) 3 : 4
- (d) 4 : 5

30. The ratio of the sum to the LCM of two natural numbers is 7 : 12. If their HCF is 4, then the smaller number is

- (a) 20
- (b) 16
- (c) 12
- (d) 8

31. Both the end digits of a 99 digit number N are 2. N is divisible by 11, then all the middle digits are

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

32. If $0 < x < \frac{\pi}{2}$ and $\sec x = \operatorname{cosec} y$, then the value of $\sin (x + y)$ is

- (a) 0
- (b) 1
- (c) $\frac{1}{2}$
- (d) $\frac{1}{\sqrt{3}}$

33. A solid wooden toy is in the shape of a right circular cone mounted on a hemisphere. If the radius of the hemisphere is 4.2 cm and the total height of the toy is 10.2 cm, find the volume of the wooden toy (nearly)

- (a) 104cm^3
- (b) 162 cm^3
- (c) 427 cm^3
- (d) 266 cm^3

34. A can do a piece of work in 12 days. B is 50% more efficient than A. In how many days B will finish the same work?

- (a) 6 days

- (b) 8 days
- (c) 12days
- (d) 24 days

35. Each interior angle of a regular polygon is three times its exterior angle, then the number of sides of the regular polygon is

- (a) 9
- (b) 8
- (c) 10
- (d) 7

36. Selling an article at a profit of 5%, Mr X gets Rs 150 more than selling it at a loss of 5%. Mr X purchased the article at

- (a) Rs 15,000
- (b) Rs 1500
- (c) Rs 150
- (d) Rs 15

37. The ratio of the radii of two circles is 1 : 2, then the ratio of their areas is

- (a) 1 : 2
- (b) 2 : 1
- (c) 1 : 4
- (d) 4 : 5

38. The true discount on a sum of money during 2 yr hence at 5% is Rs 15. Find the sum.

- (a) 150
- (b) 165
- (c) 170
- (d) 160

39. The average weight of 5 persons sitting in a boat is 38 kg. The average weight of the boat and the persons sitting in the boat is 52 kg. What is the weight of the boat?

- (a) 228 kg
- (b) 122 kg
- (c) 232 kg
- (d) 242 kg

40. The value of the expression $x^4 - 17x^3 + 17x^2 - 17x + 17$ at $x = 16$ is

- (a) 0
- (b) 1
- (c) 2
- (d) 3

41. Find the value of $\sqrt{4 + \sqrt{44} + \sqrt{10000}} = ?$

- (a) 4
- (b) 2
- (c) 8
- (d) 6

42. The average of squares of first 11 consecutive even numbers is

- (a) 225
- (b) 165
- (c) 184
- (d) 178

43. The LCM of two numbers is 48. The numbers are in the ratio 2 : 3. The sum of the numbers is

- (a) 28
- (b) 32
- (c) 40
- (d) 64

44. The value of $\frac{1}{\sqrt{2+1}} + \frac{1}{\sqrt{3+\sqrt{2}}} + \frac{1}{\sqrt{4+\sqrt{3}}} + \frac{1}{\sqrt{100+\sqrt{99}}}$, is

- (a) 1
- (b) 9
- (c) $\sqrt{99}$
- (d) $\sqrt{99} - 1$

45. If the cost price is 95% of the selling price, what is the profit per cent?

- (a) 4
- (b) 4.75
- (c) 5
- (d) 5.26

46. On a certain sum of money, the difference between the compound interest for a year, payable half-yearly, and the simple interest for a year is Rs.180. If the rate of interest in both the cases is 10%, then sum is

- (a) Rs.60000
- (b) RS.72000
- (c) Rs.62000
- (d) Rs.54000

47. The monthly income of H and W is in the ratio 4 : 3 and the expenditure is in the ratio 3 : 2. If each of them saves Rs.600 per month, the income of W, in rupees is

- (a) Rs.1200
- (b) Rs.2400
- (c) Rs.1800
- (d) Rs.9000

48. If $\frac{a}{b} = \frac{2}{3}$ and $\frac{b}{c} = \frac{4}{5}$, then $(a + b) : (b + c) = ?$

- (a) 3 : 4
- (b) 4 : 5
- (c) 5 : 9
- (d) 20 : 27

49. In a class, the average score of girls in an examination is 73 and that of boys is 71. The average score for the whole class is 71.8. Find the percentage of girls.

- (a) 40%
- (b) 50%
- (c) 55%
- (d) 60%

50. The cost of an article worth Rs.100 is increased by 10% first and again increased by 10%. The total increase in rupees is

- (a) Rs.20
- (b) Rs.21
- (c) Rs.110
- (d) Rs.121

Answers:

1	(d)
2	(d)
3	(b)
4	(b)
5	(c)
6	(a)
7	(b)
8	(a)
9	(a)
10	(b)

11	(d)
12	(c)
13	(c)
14	(c)
15	(c)
16	(b)
17	(a)
18	(c)
19	(d)
20	(d)

21	(c)
22	(b)
23	(c)
24	(a)
25	(a)
26	(b)
27	(b)
28	(b)
29	(a)
30	(c)

31	(d)
32	(a)
33	(d)
34	(b)
35	(b)
36	(b)
37	(c)
38	(b)
39	(b)
40	(b)

41	(a)
42	(c)
43	(c)
44	(b)
45	(d)
46	(b)
47	(c)
48	(d)
49	(a)
50	(b)