

FREE EXAMINATION SOLVED PAPER ON : <http://indiaknow.blogspot.com>

1. A clock shows the time as 6 a.m. If the minute hand gains 2 minutes every hour, how many minutes will the clock gain by 9 p.m.?

- (a) 30 minutes
- (b) 25 minutes
- (c) 28 minutes
- (d) 34 minutes

2. Find the right number, from the given options, at the place marked by the question mark: 2, 4, 8, 32, 256, ?

- (a) 4096
- (b) 8192
- (c) 512
- (d) 1024

3. Find the number missing at question mark:

10, 11, 23, 39, 64, ?, 149

- (a) 100
- (b) 103
- (c) 78
- (d) 128

4. A super fast bus of KSRTC starting from 'Trivandrum' and reaches 'Attingal' in 45 minutes with an average speed of 40 km/hr. If the speed is increased by 10 km/hr how much time it will take to cover the same distance?

(a) 34 minutes (b) 36 minutes (c) 38 minutes (d) 40 minutes

5. The difference between 6 times and 8 times of a figure is 14. What is the figure?

(a) 12 (b) 9 (c) 7 (d) 6

6. If $92y = 36$ what is $9y$?

(a) 4 (b) 6 (c) 9 (d) 18

7. One fourth percent of 180 is:

(a) 4.5 (b) 0.45 (c) 0.045 (d) 45

8. A candidate appearing for an examination has to secure 40% marks to pass paper I. But he secured only 40 marks and failed by 20 marks. What is the maximum mark for paper I?

(a) 100 (b) 200 (c) 180 (d) 150

9. Find the missing number 32, 52, 74, 112, 135

(a) 16 (b) 15 (c) 17 (d) 14

10. If 250 is increased to 300, what is the percentage increase?

(a) 16.67 (b) 20 (c) 23 (d) 17

11. The ratio of 9 seconds to 10 hours is

(a) 1:40 (b) 1:4000 (c) 9:10 (d) 1:400

12. A person lost 10% when he sold goods at Rs.153. For how much should he sell them to gain 20%?

(a) 204 (b) 250 (c) 240 (d) 210

13. What will be xy if $7862xy$ is to be divisible by 125?

(a) 25 (b) 00 (c) 75 (d) 50

14. A train of 100 meters long is running at the speed of 36 km per hour. In what time it passes a bridge of 80 meters long?

(a) 30 seconds (b) 36 seconds (c) 20 seconds (d) 18 seconds

15. If two-third of a bucket is filled in one minute then the time taken to fill the bucket completely will be

(a) 90 seconds (b) 70 seconds (c) 60 seconds (d) 100 seconds

16. If a quarter kilogram costs Rs. 60 then how much will cost for 150 grams?

(a) Rs. 30 (b) Rs. 24 (c) Rs. 36 (d) Rs. 40

17. If 3 men or 6 boys can do a piece of work in 20 days then how many days with 6 men and 8 boys take to do the same work?

(a) 5 (b) 8 (c) 10 (d) 6

18. Find the sum of first 100 natural numbers

(a) 5050 (b) 5005 (c) 9900 (d) 9050

19. Two poles of height 6 meters and 11 meters stand on a plane ground. If the distance between their feet is 12 meters then find the difference in the distance between their tops:

(a) 12m (b) 5m (c) 13m (d) 11m

20. How many balls of radius 4 cm can be made from a solid sphere of lead of radius 8 cm?

(a) 4 (b) 8 (c) 16 (d) 2

21. The solution to $x^2 + 6x + 9 = 0$ is

(a) $x_1 = +3, x_2 = -3$ (b) $x_1 = 3, x_2 = 3$ (c) $x_1 = -3, x_2 = -3$ (d) No solution

22. What is the chance of getting a 2 or 4 in rolling a die?

(a) $\frac{2}{3}$ (b) $\frac{1}{6}$ (c) $\frac{1}{3}$ (d) $\frac{1}{2}$

23. At what rate of simple interest per annum an amount will be doubled in 10 years?

(a) 10% (b) 7.5% (c) 16% (d) 15%

24. Five times an unknown number is 5 less than 50. The unknown number

(a) 10 (b) 11 (c) 9 (d) 5

25. The acute angle between the hour hand and minute hand of a clock at 4 PM

(a) 900 (b) 1200 (c) 1500 (d) 2400

26. Water is filled in a cylindrical vessel in such a way that its volume doubles after every five minutes. If it takes 30 minutes for the vessel to be full, then the vessel will be one fourth full in

(a) 20 minute (b) 25 minutes (c) 7 minutes 30 seconds (d) 10 minutes

27. If 10 cats can kill 10 rats in 10 minutes how long will it take 100 cats to kill 100 rats

(a) 1 minutes (b) 10 minute (c) 100 minutes (d) 10000 minutes

28. If 75 % of a number is added to 75, the result is the number itself, then the number is:

(a) 250 (b) 750 (c) 400 (d) 300

29. A school has enough food for 400 children for 12 days. How long will the food last if 80 more children join them?

a) 6 days (b) 7 days (c) 10 days (d) 8 days

30. The sum of two consecutive numbers is 55, which is the largest number?

(a) 25 (b) 28 (c) 26 (d) 27

31. When a shop keeper sold $\frac{2}{3}$ of an item, he got the cost price of the whole lot. What is the percentage of his profit?

(a) $33\frac{1}{8}\%$ (b) $66\frac{2}{3}\%$ (c) 25 % (d) 50 %

32. The perimeter of a rectangular field is 480 meters and the ratio between the length and breadth is 5:3. The area of the field is:

(a) 7,200m² (b) 15,000m² (c) 54,000m² (d) 13,500m²

33. If you add 100 to a certain number, the result will be more than, if you multiply that number by 1000 what is that number?

(a) 1.5 (b) 1.0 (c) 2.5 (d) 2.0

34. A student has to secure 40 % marks to pass. He gets 150 marks and fails by 30 marks. What is the maximum marks?

(a) 400 (b) 500 (c) 475 (d) 450

35. The circumcentre of an obtuse triangle will always be in the

- (a) Interior of the triangle**
- (b) Midpoint of the diameter**
- (c) Exterior of the triangle**
- (d) Midpoint of the side of the triangle**

36. What is the degree measure of a semicircle?

- (a) 360 (b) 90 (c) 270 (d) 180**

37. Which among the following is the point of intersection of the medians of a triangle?

- (a) Circumcentre (b) Centroid (c) Orthocenter (d) Incentre**

38. The height of a cone and its base diameter are equal. If the base radius is 'r' what is its slant height?

- (a) $3r$ (b) $4r$ (c) $\sqrt{5}r$ (d) $\sqrt{3}r$**

39. The radii of two spheres are in the ratio 2:3. What is the ratio of their surface areas?

- (a) 4:9 (b) 2:3 (c) 8:27 (d) 4:6**

40. What is the common ratio of the progression $3\sqrt{2}$, 6, $6\sqrt{2}$?

- (a) 3 (b) 2 (c) $\sqrt{2}$ (d) $\sqrt{3}$**

41. In class of 100 students 50 students passed in Mathematics and 70 passed in English, 5 students failed in both Mathematics and English. How many students passed in both the subjects?

- (a) 25 (b) 30 (c) 50 (d) 45**

42. Speed of a boat in still water is 9 km/hr. It goes 12 km down stream and comes back to the starting point in three hours. What is the speed of water in the stream?

(a) 3 km/hr (b) 4 km/hr (c) 4.5 km/hr (d) 5 km/hr

43. A student was asked to add 16 and subtract 10 from a number. He by mistake added 10 and subtracted 16. If his answer is 14 what is the correct answer?

(a) 20 (b) 26 (c) 30 (d) 32

44. Find the area of a right angled triangle whose hypotenuse is 10 cm and base 8 cm.

(a) 48 sq.cm (b) 34 sq.cm (c) 24 sq.cm (d) 42 sq.cm

45. Find the next term of the series: 3, 6, 9, 18, 27, 54,

(a) 81 (b) 69 (c) 63 (d) 57

46. A number consists of 20 plus 20% of its value. The number is:

(a) 20 (b) 22 (c) 25 (d) 30

47. 20% of 5 + 5% of 20 =

(a) 5 (b) 2 (c) 6 (d) 21

48. The angle between the minute hand and the hour hand of a clock, when the time is 8.30

(a) 800 (b) 600 (c) 1050 (d) 750

49. Rs. 1581 is divided among A, B and C in the ratio 10 : 15 : 6. What is the share of B?

(a) 306 (b) 765 (c) 700 (d) 510

50. The sum of four consecutive counting numbers is 154. Find the smallest number:

(a) 36 (b) 37 (c) 38 (d) 31

Answers

1 A 11 B 21 C 31 D 41 A

2 B 12 A 22 B 32 D 42 A

3 A 13 D 23 A 33 B 43 B

4 B 14 D 24 C 34 D 44 C

5 C 15 A 25 B 35 C 45 A

6 B 16 C 26 A 36 D 46 C

7 C 17 D 27 B 37 B 47 B

8 D 18 A 28 D 38 C 48 D

9 C 19 C 29 C 39 C 49 B

10 B 20 B 30 B 40 C 50 B