

1. Which of the following is the correct way to write $5.412\bar{2}$?

- a) 5.412412412...
- b) 5.4121212...
- c) -5.412
- d) $5.4 - 12$

2. $0.3454545\dots =$ _____

- a) $345/1000$
- b) $350/995$
- c) $355/900$
- d) $342/990$

3. The decimal expansion of rational numbers is either terminating or non-terminating and recurring (repeating).

- a) True
- b) False
- c) both
- d) none

4. $0.3333\dots$ is a/an _____

- a) natural number
- b) whole number
- c) rational number
- d) irrational number

5. $0.238765563246\dots$ is a/an _____

- a) rational number
- b) irrational number
- c) natural number
- d) whole number

6. Which of the following number is an irrational number between $1/3$ and $2/3$?

- a) $0.3333\dots$
- b) $0.343403400\dots$
- c) $0.5555\dots$
- d) $0.67670671\dots$

7. There are infinite irrational numbers between two numbers.

- a) True
- b) False
- c) both
- d) none

8. $\sqrt{5}$ is a/an _____

- a) natural number
- b) whole number
- c) rational number
- d) irrational number

9. $(x-y)^2 =$ _____

- a) $x^2 + 2xy + y^2$
- b) $x^2 - 2xy + y^2$
- c) $x^2 - y^2$
- d) $x^2 + y^2$

10. How many terms are there in a polynomial $5x^2 + 2x - 2$?

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

11. Which of the following is the example of Trinomial?

- a) $9x^3 + 5x^2 + 7x + 2$
- b) 9
- c) $7x - 2$
- d) $5x^2 + 2x - 2$

12. Point $p(0, 4)$ lies along _____ axis.

- a) OX
- b) OX'
- c) OY
- d) OY'

13. Point $p(-3, 5)$ lies in _____ quadrant.

- a) 1st
- b) 2nd
- c) 3rd
- d) 4th

14. Which of the following is the solution for $2x+4y=12$?

- a) $x=2, y=2$
- b) $x=1, y=0$
- c) $x=3, y=1$
- d) $x=-1, y=4$

15. What are the number of solutions of linear equation $2x+4y=12$?

- a) One
- b) Two
- c) Three
- d) Infinite

16. Things which are equal to the same thing are equal to each other.

- a) True
- b) False
- c) both
- d) none

17. How much lines can pass from one point?

- a) One
- b) Two
- c) Infinite
- d) Zero

18. How much lines can pass from two distinct points?

- a) Zero
- b) Only one
- c) Only two
- d) Infinite

19. A circle divides the plane into _____ parts.

- a) two
- b) three
- c) four
- d) five

20. From the diagram given, arc ABC is major arc.

- a) True
- b) False

- c) both
- d) none

21. A triangular board having sides 45m, 30m and 35m is used for advertising. One company uses this board for its advertisement for 4 months. How much rent will the company has to pay if the rent is Rs 3500 per m^2 ?

- a) Rs 611800
- b) Rs 1835400
- c) Rs 611900
- d) Rs 1835500

22. A box of dimensions 25cm * 30cm * 45cm is to be painted. A container which contains colour has a capacity to paint $1075cm^2$. How much containers are required to paint the box completely?

- a) 6
- b) 5
- c) 4
- d) 3

23. A water tank of dimensions 2m * 3m * 1.5m is to be painted leaving its base. Find the total cost of painting the tank if rate of painting = ₹20/ m^2 .

- a) ₹540
- b) ₹500
- c) ₹420
- d) ₹400

24. A man has built a cubical water tank in his house. All sides of it are equal to 1.8m. All sides except the base are to be covered by tiles having equal sides of 30cm. How much money will he spend on tiles if cost of tiles is ₹400/dozen?

- a) ₹7000
- b) ₹7200
- c) ₹6000
- d) ₹6500

25. Summation or Subtraction of two non-zero rational numbers is a/an _____

- a) natural number
- b) whole number
- c) rational Number
- d) irrational number

26. If we multiply or divide two rational numbers, we get a/an _____

- a) natural number
- b) whole number
- c) rational Number
- d) irrational number

27. If we add or subtract an irrational number and a rational number (non-zero), then we get a/an _____ number.

- a) natural
- b) rational
- c) irrational
- d) rational or irrational

28. If $p(x) = 4x^2 + 7x - 8$, then the value of $p(2)$ is _____

- a) 20
- b) 18
- c) 22
- d) 14

29. What is the zero of $p(x) = x^2 + 6x + 9$?

- a) -3
- b) -6
- c) -9
- d) -2

30. When the sum of the measures of the interior angles on the same side of the falling line is greater than 180 degree, then the two straight lines, if produced indefinitely, meet on that side on which the sum of angles is greater than 180 degree.

- a) True
- b) False
- c) both
- d) none

31. "For every line x and for every point o not lying on x, there exists a unique line y passing through o and parallel to x." This statement is _____

- a) Pythagoras' theorem
- b) Heron's theorem
- c) Thales' theorem
- d) Playfair's axiom

32. If a ray stands on a line, then the sum of two adjacent angle is 180° .

- a) True
- b) False
- c) both
- d) none

33. A triangle and a parallelogram has same base and same area as shown in the diagram below. Dimensions of triangle are 28cm, 26cm and 30cm with 28cm being the base. What is the height of the parallelogram?

- a) 15cm
- b) 10cm
- c) 12cm
- d) 18cm

34. Which of the following is an irrational number?

- a. $\sqrt{16}$
- b. $\sqrt{(12/3)}$
- c. $\sqrt{12}$
- d. $\sqrt{100}$

35. $3\sqrt{6} + 4\sqrt{6}$ is equal to:

- a. $6\sqrt{6}$
- b. $7\sqrt{6}$
- c. $4\sqrt{12}$
- d. $7\sqrt{12}$

36. $\sqrt{6} \times \sqrt{27}$ is equal to:

- a. $9\sqrt{2}$
- b. $3\sqrt{3}$
- c. $2\sqrt{2}$
- d. $9\sqrt{3}$

37. Which of the following is equal to x^3 ?

- a. $x^6 - x^3$
- b. $x^6 \cdot x^3$
- c. x^6/x^3
- d. $(x^6)^3$

38. Which of the following is an irrational number?

- a. $\sqrt{23}$
- b. $\sqrt{225}$
- c. 0.3796
- d. 7.478478

39. $2\sqrt{3} + \sqrt{3} =$

- a. 6
- b. $2\sqrt{6}$
- c. $3\sqrt{3}$
- d. $4\sqrt{6}$

40. The number obtained on rationalising the denominator of $1/(\sqrt{7} - 2)$ is

- a. $(\sqrt{7}+2)/3$
- b. $(\sqrt{7}-2)/3$
- c. $(\sqrt{7}+2)/5$
- d. $(\sqrt{7}+2)/45$

41. The irrational number between 2 and 2.5 is

- a. $\sqrt{11}$
- b. $\sqrt{5}$
- c. $\sqrt{22.5}$
- d. $\sqrt{12.5}$

42. The value of $\sqrt{10}$ times $\sqrt{15}$ is equal to

- a. $5\sqrt{6}$
- b. $\sqrt{25}$
- c. $10\sqrt{5}$
- d. $\sqrt{5}$

43. The decimal representation of the rational number is

- a. Always terminating
- b. Either terminating or repeating
- c. Either terminating or non-repeating
- d. Neither terminating nor repeating

44. Which of the following is a rational number?

a. 0

b. $2\sqrt{3}$

c. $2+\sqrt{3}$

d. π

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45. Which of the following is an irrational number?

a. $\sqrt{4/9}$

b. $\sqrt{12}/\sqrt{3}$

c. $\sqrt{7}$

d. $\sqrt{81}$

Answer:

1.b	2.d	3.a	4.c	5.b	6.b	7.a
8.d	9.b	10.c	11.d	12.c	13.b	
14.a	15.d	16.a	17.c	18.b	19.b	
20.a	21.a	22.a	23.c	24.b	25.c	
26.c	27.c	28.c	29.a	30.b	31.d	
32.a	33.c	34.c	35.b	36.a	37.c	
38.a	39.c	40.a	41.b	42.a	43.b	
44.a	45.c					

