Padasalai.Net's - Quarterly Exam 2021-22

Model Question Paper

STD : IX   TOTAL MARKS:100

SUBJECT: MATHS   DURATION: 2:30 HRS

I).CHOOSE THE CORRECT ANSWER   14 X 1=14

1. If $B \subseteq A$ then n(A$\cap$B) is _____

a)(A-B)   b)n(B)   c)n(B-a)   d)n(A)

2. If B-A is B ,then A$\cap$B is –

a)A   b)B   c)U   d)ϕ

3. If A U B=A$\cap$B, then _____

a)A≠ B   b)A =B   C) A $\subset$ B   d)B $\subset$ A

4. In a class of 50 boys, 35 boys play carrom and 20 boys play chess,then the number of boys play both games is ____

a)5   b)30   c)15   d)10

5.$0.\overline{34}$ +$0.3\overline{4}$ =

a)$0.6\overline{87}$ b) $0.\overline{68}$c)$0.68\overline{7}$ d)$0.68\overline{7}$

6.Which one of the following regarding sum of two irrational numbers, is true?

a)always an irrational number.   B)may be a rational or irrational number

c)always a rational number   d)always an integer

7.which of the following is not true?

a)every rational number is a real number   b)every integer is a rational number

c)every real number is an irrational number   d)every natural number is a whole number

8.The smallest rational number by which 1/3 should be multiplied so that is decimal

Expansion terminates with one place of decimal is

a)$\frac{1}{10}$ b)$\frac{3}{10}$ c)3   d)30

9.The type of the polynomial 4-3x^2 is

a)constant polynomial   b)linear polynomial c)quadratic polynomial d)cubic polynomial

10. The zero of the polynomial 2x+5 is

a)$\frac{5}{2}$ $b) -\frac{5}{2}$ $c)2/5$ $d) -2/5$

11.Cubic polynomial may have maximum of _____ linear factor

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

12.Degree of the constant polynomial is _____

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

13.A number between 0 and 1 that is used to measure uncertainty is called_____

a)random variable b)trial c)simple event d)probability

14) The six faces of the dice are called equally likely if the dice is

a)small b)fair c)six faced d)round

II ANSWER ANY TEN OF THE FOLLOWING QUESTION   10 X 2 = 20

15. Write the set of letters of the following words in the roster form ASSESSMENT

16.Represent the set in set builder form D = The set of all tamil months in a year

17.Find the cardinal number of following set R = {x : x is an integers, x∈Z, -5 ≤x<5}

18.Express the following rational numbers into decimal and state the kind of decimal

Expansion $\frac{327}{200}$

19.write the following in the form of 5^n : √125

20.write the coefficient of x and x in each of the following polynomials: 6-2x^2+3x^3-7√x

21.Find the roots of the polynomial equations:9x-4=0

22.Find the GCD of 25ab^3 c, 100 a^{2}bc, 125 ab

23.when two coins are tossed,what is the probability that two heads are obtained?

24.A company manufactures 10000 laptops in 6 months.out of which 25 of them are found

To be defective.when you choose one laptop from the manufactured,what is the probability

That selected laptop is a good one.

25.Factorise z^2 +4z-12

26.Expand the following using identities (3x+4y)^2

III)ANSWER ANY 5 OF THE FOLLOWING QUESTIONS   5 X 3 = 15

27.If n[P(A)]=256, find n(A)

28.Find any three rational numbers between $-\frac{7}{11}$ and $\frac{2}{11}$

29.Find the 5th root of $\frac{1024}{3125}$

30.Add the following polynomials and find the degree of the resultant polynomial

P(x)=6x^2 -7x+2, q(x) = 6x^3 − 7x + 15

31.Factorise 8x^3 + 125y^3 .

32.What is the probability of throwing an even number with a single standard dice of six

Faces?

33.What is the remainder when x^{2018} + 2018 is divided by x-1.

IV)ANSWER ANY 7 OF THE FOLLOWING QUESTION   7 X 5 = 35

34.Express the following decimal expression into rational numbers $\overline{0.24}$

35.Represent$\sqrt{9.3}$ on a number line

36.Represent the following numbers on the number line 6.$\overline{4}$upto 3 decimal places

37.If two polynomials 2x^3 + ax^2 + 4x-12 and x^3 + x ^{2}− 2x +a leave the same

38.If (x+y+z)=9 and (xy+yz+zx)= 26, then find the value of x^2 + y^2 + z^2 .

39.The area of a rectangle is x^2 + 7x +12.If its breadth is (x+3),then find its length.

40.Two dice are rolled, find the probability that the sum is i)equal to 1 ii) equal to 4

iii)less than 13

41.The probability of guessing the correct answer to a certain question is $\frac{x}{3}$. If the probability of

Not guessing the correct answer is $\frac{x}{5}$, then find the value of x.

42.If a probability of a player winning a particular tennis match is 0.72. what is the probability

Of a player loosing the match?

V)ANSWER ANY 2 OF THE FOLLOWING QUESTION   8 X 2 = 16

43.Construct the centroid of ΔPQR Whose sides are PQ = 8 cm, QR = 6 cm, RP = 7cm.

44.Draw an equilateral triangle of sides 6.5 cm and locate its orthocenter.

45.constructΔABC in which AB=BC=6cm &<B=80. locate its incentre and incircle.

Thanks to Mrs. Durga,   **FATHIMA MATRICULATION HIGHER SECONDARY SCHOOL - KOVILUR**