Tsi8M

Tenkasi District Common Examinations
Second Mid Term Test - November 2022

Standard - 8

MATHEMATICS

Time: 1:30 Hrs Marks: 50

Part - A

I. Choose the correct answer. **(5x1=5)**

1. $(p+q)(p^2 - pq+q^2)$ is equal to _____
   a) p^3+q^3 b) $(p+q)^3$
   c) p^3-q^3 d) $(p-q)^3$
2. $(x+4)$ and $(x-5)$ are the factors of _____
   a) x^2-x+20 b) $x^2-9x-20$
   c) x^2+x-20 d) x^2-x-20
3. One factor of x^3+y^3 is _____
   a) $(x-y)$ b) $(x+y)$
   c) $(x+y)^3$ d) $(x-y)^3$
4. If 5 persons can to 5 jobs in 5 days, then 50 persons can do 50 jobs in _____ days.
   a) 5 b) 7 c) 9 d) 11
5. What is the eleventh fibonacci number? _____
   a) 55 b) 77 c) 89 d) 144

II. Fill in the blanks **(5x1=5)**

6. The value of m in the equation $8m = 56$ is _____
7. If a and b are positive integers then the solution of the equation $ax=b$ has to be always _____
8. A alone can do a piece of work in 35 days. If B is 40% more efficient than A, then B will finish the work in _____ days
9. A _____ is a quadrilateral in which the opposite sides are parallel.
10. The 3rd term of the fibonacci sequence is one _____ of 2nd term and the 1st term.

III. Write True (or) False.

11. Linear equation in one variable has only one variable with power 2.
12. Sum of a number and two times that number is 48 can be written as $y+2y=48$
13. x and y are said to vary inversly if $xy=K$ always, where K is called the proportionality constant and $K>0$.
14. Area of parallelogram $\frac{1}{2}\times b\times h$ sq units.
15. The difference between two consecutive numbers of the fibonacci sequence increase very quickly.

IV. Match the following. **(5x1=5)**

16. $(a+b)^2$ - 20
17. $(a-b)^2$ - $(a+b)(a-b)$
18. a^2-b^2 - $\frac{8}{3}$
19. $\frac{x}{2}=10$ - $a^2-2ab+b^2$
20. $2x-5=3-x$ - $a^2+2ab+b^2$

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Part - B

V. Answer the following (Any Five) **(5x2=10)**

21. Fine the value of 998^2 by using $(a-b)^2$ identity.
22. Expand $(3+m)^3$
23. Factorise $x^2+yz+xy+xz$
24. Convert the following statement into linear equation: The sum of the 4 time a number and 18 is 28.
25. 210 men working 12 hours a day can finish a job in 18 days. How many men are required to finish the job in 20 days working 14 hours a day?
26. A and B together can do a piece of work in 16 days and A lone can do it in 48 days. How long will B take to complete the work?
27. Colour the regions in the map with few colours as possible but make sure that no two adjacent countries are of the same colour.

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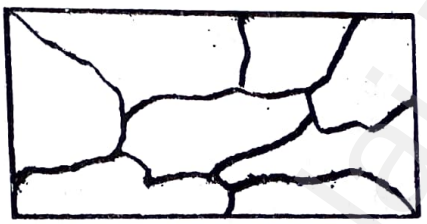

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28. Define : Fibonacci sequence.

Part - C

VI. Answer any three questions. **(3x5=15)**

29. Fine the volume of the cuboid whose dimension are $(x+2)(x-1)$ and $(x-3)$.
30. Factorise : (i) $x^2+8x+16$
    (ii) $y^2-10y+25$
31. A number consists of two digits whose sum is 9. If 27 is substracted from the original number, its digits are interchanged. Fine the original number.
32. x, y and z can do a piece of job in 4, 6 and 10 days respectively. If x, y and z work together to complete, then feird their seperate shares if they will be paid Rs.31000 for completing the job.
32. Given that one pair of new born rubbits they produce a new pair each month and from the second month, each new pair can breed themselves. Feird how many pairs of rabbits are breed from one pair in a year, and feird the relation ship between the number of months and the number of pair of rabbits by tabulation. (a pair means a male and a female).

Part - D

VII. Practical Geomatry (Any one) **(1x5=5)**

34. a) Construct a parallelogram CALF with CA=7cm, CF=6cm and AF=10cm. Also fine its area.

(OR)

b) Construct a parallelogram GAIN with GA=7.5cm, GI=9cm and $\angle GAI = 100^\circ$. Also ferid its Area.

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