A   Reg. No. :

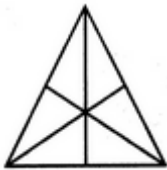Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. If a : b = 2: 3 and b : c = 5 : 4. Then find a : c   CO1- App
    (a) 5 : 6   (b)6 : 5   (c)2 : 3   (d)1 : 2

2. Find the average of first 11 odd numbers is   CO1- App
    (a) 11   (b)121   (c)132   (d)12

3. The simple interest on Rs. 1200 at 4% per annum for 3 years is   CO1- App
    (a) Rs. 142   (b)Rs. 140   (c)Rs. 144   (d)Rs. 136

4. What is the distance covered by a car traveling at a speed of 40   CO1- App
    kmph in 15 minutes?
    (a) 12 km   (b) 10 km   (c) 15 km   (d) 600 km

5. Find the value of nP_0?   CO1- App
    (a) 1   (b) 0   (c) n   (d) n!

6. Which of the following is a non-leap year?   CO1- App
    (a)1968   (b)2012   (c)2018   (d) 1996

7. 135 degree from North East direction rotating Anti clockwise   CO2- App
    direction is
    (a) West   (b) South-East   (c) South-West   (d)South

8. Paw : Cat :: Hoof : ?   CO2- App
    (a)Donkey   (b)Lion   (c)Elephant   (d) Horse

9. If ROSE is coded as 6821, CHAIR is coded as 73456 and   CO2- App
    PREACH is coded as 961473, what will be the code for
    SEARCH?
    (a)246173   (b)214673   (c)214763   (d)216473

10. Which of the following will be a number of the series: CO2- App
    1, 2, 6, 24,120, ?
    (a)256   (b)520   (c)240   (d)720

PART – B (10 x 2= 20 Marks)

11. The 4th proportional to 4, 16 and 7 is _____   CO1- App
12. If P% of P is 25. Then the value of P is _____   CO1- App
13. If 6 men dig the well in15 days than 10 men dig the same well in ___days.   CO1- App
14. At _____ rate of simple interest a certain sum will be double in 10 years.   CO1- App
15. When a coin is tossed twice we get the number of sample space is   CO1- App
    _____
16. Today is Thursday. After 119 days, it will be _____   CO1- App
17. The number of triangles in the given figure is _____   CO2- App

18. P started from his house towards west. After walking a distance of 12 m.   CO2- App
    He turned to the right and walked 5 m. Now he is _____ m from the
    starting point.
19. Question: On which date of the month was Anjali born in February 2004?   CO2- App
    Statements:
    1. Anjali was born on an even date of the month.
    2. Anjali's birth date was a prime number.
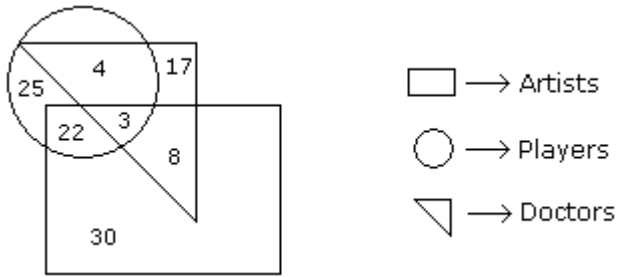20. Fill the blank in the series: AZ, GT, MN, ?, YB   CO2- App

PART – C (5 x 12= 60 Marks)

Answer any **five** of the following questions

21. (i) Find:(a) The fourth proportional to 5, 8, 15;   CO1- App   (12)
             (b) The third proportional to 9 and 12;
             (c) The mean proportional between 8 and 18.
    (ii) In an examination, 70% of students passed in physics, 65%
    in chemistry, 27% failed in both subjects. The percentage of
    students who passed is:

22. (i) The average weight of a group of 150 students in a class is   CO1- App   (12)
    60 kg. If the mean of the weights of all the 50 male students in
    the class is 70 kg. Find the average weight of 100 girls in the
    class?
    (ii) The sum ages of kartik and his father is 78 years. 6 years
    hence, father's age will be twice of kartik's age. Find their
    present age?

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23. (i) 39 persons can repair a road in 12 days, working 5 hours a day. In how many days will 30 persons, working 10 hours a day, complete the work?

(ii) The difference between simple interest and compound interests compounded annually on a certain sum of money for 2 years at 4% per annum is?

CO1- App   (12)

24. (i) A man travels from his home to office at 4km/hr and reaches his office 20 min late. If the Speed had been 6 km/hr he would have reached 10 min early. Find the distance from his home to office.

(ii) How many four digit numbers can be formed using the digits {1, 3, 4, 5, 7}

(a) Repetition of digits is allowed?

(b) Repetition of digits is not allowed?

CO1- App   (12)

25. Read the following information given below and answer the questions that follow.

• P, Q, R, S, T, U and V are seven friends and are sitting in a circle facing the center of the circle.

• V is second to the left of S and is the neighbor of T and U.

• S is not a neighbor of R or T.

• P is neighbor of Q and R.

1. Who is the 2nd to right of R?

2. Who is immediate left of U?

3. Who is in between P and S?

4. T is one of the neighbors of R then who is the other neighbor?

5. "U is to the immediate left of V" True or False?

CO2- App   (12)

26. (i) A and B are brothers. E is the daughter of F. F is the wife of B. What is the relation of E to A?

(ii)Ajay walks 24 km towards East and turns to right hand side and takes a drive of another 10 km. He then turning to his right (drives towards West) another 10 km. He then turns to his left & walks another 8 km. After that, he turns to his right & travels 14 km. How far is he from his initial point & in which direction?

CO2- App   (12)

3

27. Study the following figure and answer the questions given CO2- App (12) below.

1. How many doctors are neither artists nor players?
2. How many doctors are both players and artists?
3. How many artists are players?
4. How many players are neither artists nor doctors?
5. How many artists are neither players nor doctors?

28. 1. Find the odd man out 3, 7, 15, 39, 63, 127, 255, 511 CO2- App (12)
2. If sky is called sea, sea is called water, water is called air, air is called cloud and cloud is called river, Then what do we drink when thirst?
3. Selecting a suitable figure from the Answer Set that would replace the question mark (?) in figure (D).

Problem Figures: Answer Figures:

(A) (B) (C) (D)   (1)   (2)   (3)   (4)   (5)

4. If DEER = 12215 and HIGH = 5645, how will you code HEEL?
5. If each of the odd digits in the number 54638 is decreased by 1 and each of the even digits is increased by 1, then which of the following will be the sum of the digits of the new number?
6. Find the missing Number: 68 : 130 :: ? : 350