D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1
SEMESTER EXAMINATIONS
NOVEMBER - 2017   15NMA3A
NON MAJOR ELECTIVE – I: FUNCTIONAL MATHEMATICS
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Time: 2 Hrs   **Max.Marks: 50**

SECTION-A (10 x 2 =20)

Answer ALL the questions.

1. *If A : B = 3 : 4 and B : C = 8 : 9, find A : C.*

2. *Find the third proportional to 16 and 36.*

3. *What percent of 7 is 84?*

4. *Evaluate 28% of 450 + 45% of 280.*

5. *Find S.P when C.P =Rs. 80.40, Loss = 5%.*

6. *If the cost price is 96% of the selling price, then what is the profit percent?*

7. *What will be the simple interest earned on an amount of Rs.16, 800 in 9 months at the rate of $6\frac{1}{4}$ %*
   per annum?

8. *Find compound interest on Rs.7, 500 at 4% per annum for 2 years, compounded annually.*

9. *The difference of two numbers is 11 and one-fifth of their sum is 9. Find the numbers.*

10. *Rajeev's age after 15 years will be 5 times his age 5 years back. What is the present age of Rajeev?*

SECTION-B (3 x 10 =30)

Answer any THREE of the following questions.

11. (i) *In a bag, there are coins of 25p, 10p and 5p in the ratio of 1 : 2 : 3. If there are Rs.30 in all, find*
    the number of 5p coins.

    (ii) *The salaries of A, B, C are in the ratio 2 : 3 : 5. If the increments of 15%, 10% and 20% are*
    allowed respectively in their salaries, then what will be the new ratio of their salaries?

12. (i) *The population of a town is 1, 76,400. If it increases at the rate of 5% per annum, what will be its*
    population 2 years hence? What was it 2 years ago?

    (ii) *Different of two number is 1660. If 7.5% of one number is 12.5% of the other number, find the*
    two numbers.

13. (i) *A book was sold for Rs. 27.50 with a profit of 10%. If it were sold for Rs. 25.75 then what would*
    have been the percentage of profit or loss?

    (ii) *A man bought a horse and a carriage for Rs. 3000. He sold the horse at a gain of 20% and*
    the carriage at a loss of 10%, there by gaining 2% on the whole. Find the cost of the horse.

14. (i) *At what rate percent per annum will a sum of money double in 16 years?*

    (ii) *In what time will Rs.1000 become Rs.1331 at 10% per annum compounded annually?*

15. (i) *The average of four consecutive even numbers is 27. Find the largest of these numbers.*

    (ii) *Rohit was 4 times as old as his son 8 years ago. After 8 years, Rohit will be twice as old as his*
    son. What are their present ages.

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