MATHS
SAMPLE QUESTION PAPER ( SEMESTER II )

Class: VII
Time duration: 2hrs
Maximum Marks: 60
No of pages: 3

List of Topics covered in this sample paper:
Problems based on simple equations
Percent and Percentage
Profit, Loss and Discount
Construction of Quadrilaterals
Volume and Surface area
Factorization
Indices
Set concepts
Subsets, Universal Set
Venn- diagrams
Congruent Triangles
Simple Interest
Averages
Collection and tabulation of Data

General Instructions:
All questions are compulsory.
Section A – Questions 1 to 5 carry 1 marks each.
Section B – Questions 6 to 15 carry 2 marks each.
Section C – Questions 16 to 20 carry 3 marks each.
Section D – Questions 21 to 24 carry 5 marks each.

Section A
1. What number when increased by 10% becomes 86?
2. Factorize: $2x^2y - 5xy^2 = 0$
3. $20a^2 ÷ 55a^{20}$
4. What is amount in simple interest
5. What is line graph
Section B

6. six time the sum of digits of a two digit number is less than the number and 8 more than the number obtained by reversing the digit number. what is the product of digits?

7. A person save 25% of his salary every month. If his salary is $ 8000, find the expenditure

8. The list price of an journals is Rs 550 and it is sold for Rs 410 find the discount and discount percentage

9. Find the total surface area of a box whose length is 5m, breadth4.7m and height is 6.2m

10. simplify using positive index \((m^2n^4)^4 \div (m^3n^5)^4\)

11. If X = \{2,4,6,8\} name the proper subset of X

12. Gven A= \{0,1,2,3,4,5,6,7,8,9\}B = \{3,5,7,9\}

find a)n(AnB) b) n (BuC) c)n (CuA)

13. Find simple interest for rs 8500 for 12 months at the rate of 3½ p.a

14. Find the mean of the terms 2,5,6,7,8,9

15. Find the mean of the data

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Section C

16. Find the gain or loss percent if

a) CP = Rs 500 SP = Rs 520   b) SP = Rs 15 and profit = Rs 6

17. A hall is 6.2m long, 3.5m board and 3.6m high. Find the cost of laying tiles on its floor and on its four walls at the rate of Rs 60per m²

18. Factor: a) x(x+2) -x-2   b) x³-x²+x-1

19. Explain intersection of two sets with examples

20. Find the total surface area and volume of cuboid with l = 5m, b = 25cm, h is 80m.

Section D

21. In the given figure prove that a) Triangle AOD = triangle BOC   b) AD = BC
22. Construct a rhombus ABCD, if two diagonals are 7cm and 8.2 cm, one side = 4 cm, one diagonal is 6 cm, measure each side of the rhombus.

23. GIVEN \( u = \{ \text{natural number} \} \) \( A = \{ \text{set of even number till 12} \} \) \( B = \{ \text{set of odd number till 12} \} \) \( C = \{ \text{set of multiple of 2 till 12} \} \) find
   a) \( A' \),   b) \( B' \)   c) \( \text{AnB}' \),   c) \( \text{AuB}' \)

24. use the Venn – diagram to find
   a) \( \text{Aub} \)    b) \( \text{AnB} \)    c) \( \text{AuB}' \)    d) \( \text{A-B} \)