FORMATIVE ASSESSMENT-IV (2023-24)

MATHEMATICS Model Paper

35

Class: VIII   **Max. Marks: 35**   **Time: 60 Min.**

Name of the student: …………………………………….   Roll No.: …………

I. Solve the following problems.   2 x 10 = 20

1. Find the common factor of $3x^2$ and $9x^3$.
2. Total surface area of cylinder = $2\pi r (h + r)$. (True/False)?
3. Factorize: a^2+ab.
4. Which are Inverse proportion in the following variables   [   ]

    A) Time and Interest   B) Cost and length of cloth

    C) Distance and time for a constant speed

    D) Number of hours and number of workers

5. If the number of articles purchased increases and the total cost also increases, is this an example of direct or inverse proportion?
6. If two quantities increase or decrease together in the same ratio, what type of proportion do they follow?
7. Factorize: $2x+4$.
8. What is the factorized form of a^2-b^2?
9. The cost of 5 pens is ₹40. Find the cost of 8 pens, assuming direct proportion.
10. Factorize: x^2-9.

II. Solve the following problems.   2 x 3 = 6

11. A machine in a soft drink factory fills 840 bottles in six hours. How many bottles will it fill in five hours?
12. If 8 workers can complete a task in 6 days, how many days will 4 workers take to complete the same task.
13. Find the factors of $x^2-2x-35$.

III. Solve the following problem.   1 x 4 = 4

14. A train running at a uniform speed covers a distance of 240 km in 4 hours. How long will it take to cover 360 km at the same speed? Also, find the speed of the train.

IV. Solve the following problem.   1 x 5 = 5

15. Factorize: $x^3+6x^2+11x+6$ using the factor theorem