SUMMATIVE ASSESSMENT - II
MATHEMATICS

This question paper consists of 2 printed pages.
This question paper consists of 24 questions.
All questions are compulsory.

## Questions 1-6 carry 1 mark each.

Choose the correct answer from the options given.

1. If $\triangle \mathrm{ABC} \cong \triangle \mathrm{PQR}$, which part of $\triangle \mathrm{PQR}$ is corresponding to $\angle \mathrm{C}$.
a) $\angle \mathrm{P}$
b) $\angle \mathrm{Q}$
c) $\angle R$
d) $\overline{P Q}$
2. The ratio of 1 kg to 500 g .
a) $1: 2$
b) $2: 1$
c) $1: 5$
d) $5: 1$
3. Standard form of $\frac{36}{48}$.
a) $\frac{3}{4}$
b) $\frac{4}{3}$
c) $\frac{-3}{4}$
d) $\frac{-4}{3}$
4. Area of a parallelogram with base 12 cm and height 7 cm .
a) $19 \mathrm{~cm}^{2}$
b) $42 \mathrm{~cm}^{2}$
c) $38 \mathrm{~cm}^{2}$
d) $84 \mathrm{~cm}^{2}$
5. The numerical coefficient of $x y$ in $3 x^{2}+5 x y-4 y^{2}$.
a) 3
b) 5
c) 4
d) 2
6. The value of $100^{\circ}$.
a) 0
b) 1
c) 10
d) 100

Questions 7 - 12 carry 2 marks each.
7. In fig. $\mathrm{AB}=\mathrm{AC}$
and D is the midpoint of BC .
State the three pairs of equal parts in $\triangle \mathrm{ABD}$ and $\triangle \mathrm{ACD}$.

8. Find $35 \%$ of 80 .
9. Divide: $\frac{10}{18} \div \frac{45}{81}$
10. Find the area of a triangle with base 15 cm and corresponding height 8 cm .
11. Add $8 x+5 y+3$ and $6 x-3 y-5$
12. Express 1024 in exponential form taking base as 2.

## Questions 13-18 carry 3 marks each.

13. In fig. AB and CD bisect each other at O . State the three pairs of equal parts in $\triangle \mathrm{AOC}$ and $\triangle \mathrm{BOD}$ and hence write the congruence criterion for $\triangle \mathrm{AOC} \cong \triangle \mathrm{BOD}$.

14. A shopkeeper bought a table for Rs. 6000 and sold it for Rs. 7500 . Find the gain percent.
15. Construct $\triangle \mathrm{ABC}$ with $\mathrm{AB}=4.5 \mathrm{~cm}, \mathrm{BC}=5 \mathrm{~cm}$ and $\mathrm{AC}=5.5 \mathrm{~cm}$.
16. Find the circumference and area of a circle whose radius is 35 cm . $\left[\pi=\frac{22}{7}\right]$
17. Simplify $a-(a-b)-b-(b-a)$
18. Using laws of exponents, simplify and write the answer in the exponential form

$$
\left[\left(2^{2}\right)^{3} \times 3^{6}\right] \times 5^{6}
$$

## Questions 19-24 carry 4 marks each.

19. Rs. 9000 is borrowed at $4.5 \%$ rate of interest per annum for 2 years. Find the interest and amount to be paid at the end of the second year.
20. Find four rational numbers between $\frac{1}{3}$ and $\frac{1}{2}$
21. Construct $\triangle \mathrm{PQR}$ with $\angle \mathrm{Q}=60^{\circ} \angle \mathrm{R}=45^{\circ}$ and $\mathrm{QR}=6 \mathrm{~cm}$.
22. A rectangular park is 50 m long and 25 m wide. A path 5 m wide is constructed outside the park. Find the area of the path.
23. Find the value of $a^{3}+5 a^{2}+5 a-3$ when $a=-3$.
24. Using laws of exponents simplify and find the value of $\frac{12^{4} \times 9^{3} \times 4}{6^{3} \times 8^{2} \times 27}$
