

SUMMATIVE ASSESSMENT – SECOND TERM

MATHEMATICS

Max. Marks: 100

Std - VII

Time: 2½ Hrs

Name of the School: <hr/>	Name of the Student: <hr/>
Place: <hr/>	Roll No.: <hr/>

I. Choose the best answer:

10 x 1 = 10

1. 40% is _____.
 a) $\frac{1}{4}$ b) $\frac{2}{5}$ c) $\frac{4}{100}$ d) $\frac{4}{5}$
2. 0.003 can be written as _____.
 a) $\frac{3}{10}$ b) $\frac{3}{100}$ c) $\frac{3}{1000}$ d) $\frac{3}{10000}$
3. $\frac{4}{5}$ year =
 a) 219 days b) 192 days c) 200 days d) 292 days
4. If amount = ₹ 3420, Principal = ₹ 3000, Rate of interest = 7%, What is the time period of deposit?
 a) 2 months b) 1 year c) 6 months d) 2 years
5. _____ is the observation which occurs most frequently in a set of given observations.
 a) Mean b) Median c) Mode d) Frequency
6. The number that should be included among the numbers 6, 8, 9, 9 and 10, so that the median is 8.5 is _____.
 a) 8.5 b) 9.5 c) 9 d) 8
7. _____ are circles having the same centre and different radii.
 a) Concentric circles b) Identical circle
 c) Semi circle d) Circum centre
8. 3.2×2.7 is equal to _____.
 a) 8.64 b) 86.4 c) 864.0 d) 0.864
9. $144 \times 5^4 =$ _____.
 a) 145^4 b) 19^4 c) 19^8 d) 70^4
10. If $(10 + m)^3 = 3375$, the value of 'm' would be
 a) 5 b) 1 c) 0 d) 3

II. Fill in the blanks:

5 x 1 = 5

1. Find the degree of $-6m^2 n^5$. The degree is _____.
2. The unit digit of the product $12345 \times 67890 \times 9099$ would be _____.
3. 108 can be expressed in the exponential form as _____.
4. Area of trapezium = _____ (Write the formula)
5. The SP is $8y$ and the gain is $2y$. The gain % is _____.

III. Match the following:**5 x 1 = 5**

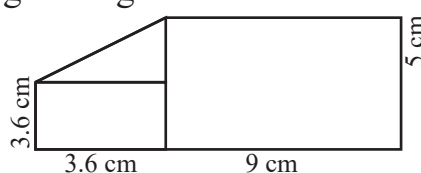
1. 6% of 1 hour – 20ml
2. 2% of 1 litre – 9409
3. 97^2 – 216 s
4. $(-5)^4$ – 2401
5. $(-7)^4$ – 625

IV. Do as Directed. (Any 10)**10 x 3 = 30**

1. In a party, 30% of the balloons are pink, 45% are green, and the rest are blue, What is the percentage of blue balloons?. Write the ratio of the pink, green and blue balloons the party.
2. A printer is bought for ₹ 7500 and is sold at a gain of 20%. How much will be gained if the printer is sold at a gain of 30%.
3. The value of a machine depreciates at the rate of 9%. per year. If its present value is ₹ 1,23,000, what would be its value after 3 years?
4. Find the mode of the data, the marks obtained by 12 students of a class in a class test.
25, 20, 15, 22, 28, 25, 7, 18, 25, 20, 17, 18
5. The perimeter of a square is 400m. Find its area.
6. Find the area of a Rhombus whose diagonals measure 24 cm and 16 cm respectively.
7. Mallika has been granted permission to spend between ₹ 150 and ₹ 550 on return gifts. If each box holds 5 gifts and each gift costs ₹ 35, how many boxes of gifts can she buy?
8. If $a - \frac{1}{a} = 8$, find the value of $a^2 + \frac{1}{a^2}$
9. Simplify and write the following in exponent form using power rule.
a) $(11^8)^{13}$ b) $(10^9)^9$ c) $[(-7)^3]^5$
10. Find the value of $\frac{(-1)^{10} \times (-1)^5 \times 1^{81} \times (-1)^{11} \times (-1)^{16}}{1^{62} \times (-1)^{33} \times (-1)^{24} \times (-1)^6}$
11. Simplify using the product rule of exponents $81 \times 128 \times 729 \times 32$

V. Answer the following (Any 10):**10 x 5 = 50**

1. a) A number is 6 more than another number. The difference between their squares is 132, find the two numbers.
b) Factorize the expression $4a^2 - 12ab + 9b^2 - 16c^2$
2. a) Find the value of 208^2 using Identity formula.
b) Evaluate using identity $(7x - 4y)^2$
3. Find the cost of leveling a square park of side 120m at ₹ 3 per sq.m.
4. A wire is in the shape of a square of side 20cm. If the wire is rebent into a Rectangle of length 16cm,
a) Find the length of the wire b) Area of the square and area of the rectangle.
5. Construct an angle of 150° with ruler and compass.
6. The mean of six numbers is 40. If one of the numbers is excluded, the mean of the remaining numbers is 38. Find the excluded number.
7. A certain sum of money amounts to ₹ 3600 in 2 years and ₹ 4200 in 3 years. What would be the principal and the rate of interest?
8. In a class, 35% of the students learn vocal music, 11% of the students learn instrumental music and the rest learn dance. What is the percentage of the students learning dance?
9. Construct triangle DEF where $\angle DEF = 60^\circ$, $\angle FDE = 90^\circ$ and the side DE = 6.5cm.
10. Calculate the area of the given figure.



11. Evaluate: a) $(m^2 + 10m + 25)(m^2 - 10m + 25)$ b) $9x = 37^2 - 8^2$