

SUMMATIVE ASSESSMENT – SECOND TERM**MATHEMATICS****Std - VII****Max. Marks: 100****Time: 2½ Hrs**

Name of the School: _____	Name of the Student: _____
Place: _____	Roll No.: _____

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**

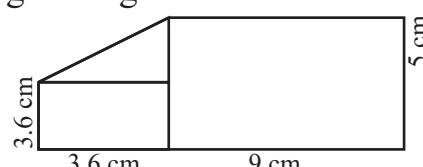
1. 6% of 1 hour	—	20ml
2. 2% of 1 litre	—	9409
3. 97^2	—	216 s
4. $(-5)^4$	—	2401
5. $(-7)^4$	—	625

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

- 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.
- 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%.
- 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?
- 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
- The perimeter of a square is 400m. Find its area.
- Find the area of a Rhombus whose diagonals measure 24 cm and 16 cm respectively.
- 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?
- If $a - \frac{1}{a} = 8$, find the value of $a^2 + \frac{1}{a^2}$
- Simplify and write the following in exponent form using power rule.
a) $(11^8)^{13}$ b) $(10^9)^9$ c) $[(-7)^3]^5$
- Find the value of $\frac{(-1)^{10} \times (-1)^5 \times 1^{81} \times (-1)^{11} \times (-1)^{16}}{1^{62} \times (-1)^{33} \times (-1)^{24} \times (-1)^6}$
- Simplify using the product rule of exponents $81 \times 128 \times 729 \times 32$

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

- a) A number is 6 more than another number. The difference between their squares is 132, find the two numbers.
b) Factorize the expression $4a^2 - 12ab + 9b^2 - 16c^2$
- a) Find the value of 208^2 using Identity formula.
b) Evaluate using identity $(7x - 4y)^2$
- Find the cost of leveling a square park of side 120m at ₹ 3 per sq.m.
- 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.
- Construct an angle of 150° with ruler and compass.
- 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.
- 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?
- 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?
- Construct triangle DEF where $\angle D = 60^\circ$, $\angle F = 90^\circ$ and the side DE = 6.5cm.
- Calculate the area of the given figure.



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