

MODEL PAPERS ANNUAL EXAMINATION
MATHEMATICS

CLASS VIII

M.M 70

VERY SHORT ANSWER QUESTIONS
[EACH QUESTION CARRIES 1 MARK]

1. Choose the correct answer

- i) On what a discount is calculated?
a) selling price b) cost price c) marked price d) none of these
- ii) On which of the following, percent of profit or loss is calculated?
a) selling price b) cost price c) market price d) none of these
- iii) If an article sold for Rs 100 then there is a gain of Rs 20, which of the following is the gain percent?
a) 25% b) 22% c) 20% d) 16 %
- iv) What should be the rate of interest per annum if interest is calculated quarterly?
a) reduced to half b) reduced to one fourth c) is doubled d) becomes four times
- v) What is the value of $(-1)^{-1}$?
a) 0 b) -1 c) 1 d) None of these
- vi) Which of the following is used as a form of 5.05×10^6 ?
a) 505000 b) 505000000 c) 5050000 d) 50500000
- vii) $1 \text{ micron} = \frac{1}{1000000} \text{ m}$. Which of the following is its standard form?
a) 1.1×10^{-5} b) 1.6×10^{-5} c) 0.1×10^{-6} d) 1.0×10^{-6}
- viii) Which of the following is the common factor of $21x^2y$ and $35xy^2$?
a) 7 b) xy c) $7xy$ d) none of these.
- ix) Which of the following is quotient obtained on dividing $-18xyz^2$ by $-3xz$?
a) $6yz$ b) $-6yz$ c) $6xy^2$ d) $6xy$
- x) If the edge of a cube is 1 cm then which of the following is its volume?
a) 6 m^3 b) 3 m^3 c) 1 m^3 d) none of these
- xi) Which of the following is equal to 1litre?
a) 1000 cm^3 b) 100 dm^3 c) 1 dm^3 d) 1000 dm^3
- xii) The side-view of a cone appears as:
a) Circle b) Square c) Rectangle d) Triangle
- xiii) If a polyhedron has 6 vertices and 12 edges. What is the number of faces it has?
a) 6 b) 8 c) 12 d) 18
- xiv) The percentage of 3:4 is
a) 75% b) 50% c) 25% d) 100%
- xv) An item marked at Rs. 840 is sold for Rs. 714. The discount % is:
a) 10% b) 15% c) 20% d) 25%

- xvi) Waheeda bought an air cooler for Rs. 3300 including a tax of 10%. The price of the air cooler before VAT was added is:
 a) . Rs. 2000 b) Rs. 3000 c) . Rs. 2500 d) Rs. 2800
- xvii) If x and y are directly proportional, then which of the following is correct?
 a). $x+y=\text{constant}$ b) $x-y=\text{constant}$ c) $xy=\text{constant}$ d) $x/y=\text{constant}$
- xviii) 6 pipes are required to fill a tank in 1 hour 20 minutes. If we use 5 such types of pipes, how much time it will take to fill the tank?
 a) 120 minutes b) 96 minutes c) 80 minutes d) 85 minutes
- xix) The area of a trapezium is 480 cm^2 , the distance between two parallel sides is 15 cm and one of the parallel side is 20 cm. The other parallel side is:
 a) 20 cm b) 34 cm c) 44 cm d) 50 cm
- xx) The height of a cylinder whose radius is 7 cm and the total surface area is 968 cm^2 is:
 a) 15 cm b) 17 cm c) 19 cm d) 21 cm

SHORT ANSWER QUESTIONS I

[EACH QUESTION CARRIES 2 MARKS]

- Subtract $5x^2 - 6y^2 + 8y - 5$ from $7x^2 - 5xy + 10y^2 + 5x - 4y$.
- A shirt is marked at rs 850 and is sold for Rs. 765. What is the discount and discount percent?
- A 10 m 50 cm high vertical pole casts a shadow 6 m long. Find at the same time the length of the shadow cast by another pole 5 m 60 cm high.

SHORT ANSWER QUESTIONS II

[EACH QUESTION CARRIES 3 MARKS]

- A school has 9 periods a day each of 40 minutes duration. How long would each period be, if the school has 8 periods a day, assuming the number of school-hours to be the same?
- Factorise : $27x^3 - 21x^2 + 15x^4$
- Draw a graph of ΔPQR , the coordinates of whose vertices are $P(9, 5)$, $Q(7, 7)$ and $C(9, 9)$.

LONG ANSWER QUESTIONS

[EACH QUESTION CARRIES 4 MARKS]

- Draw a 'deposit-interest' graph for the following data:

Deposit (in Rs)	5000	6000	7000	8000	9000
Simple interest (in Rs) for 1 Year	400	480	560	640	720

From the graph, find the interest on Rs 7500 for 1 year.

- How many bricks each 25 cm by 15 cm by 8 cm, are required for a wall 32 m long, 3 m high and 40 cm thick?
- Simplify $[25 \times t^{-4}]/[5^{-3} \times 10 \times t^{-8}]$**
- Factorise the following:
 (a) $p^2q - pr^2 - pq + r^2$
 (b) $x^2 + yz + xy + xz$

12. Evaluate the following divisions:

(a) $(3b - 6a) \div (30a - 15b)$

(b) $(4x^2 - 100) \div 6(x + 5)$

13. Find the values of p, q and r in the following multiplication problem.

$$\begin{array}{r} 3 \ p \ 4 \\ \times \ q \ 6 \\ \hline 2 \ 1 \ 2 \ 4 \\ 1 \ 0 \ 6 \ r \ \times \\ \hline 1 \ 2 \ 7 \ 4 \ 4 \end{array}$$

14. Vishakha offers a discount of 20% on all the items at her shop and still makes a profit of 12%. What is the cost price of an article marked at ₹ 280?

15. Draw the front, side and top views of the following 3-D figures.


