S.NO	ANSWER THE FOLLOWING QUESTIONS
1	Factorize: $32x^2 + 48xy$
2	Find the number of revolutions taken by a road roller whose LSA is 32 cm^2 to level a play ground of area 6400m^2.
3	Find the HCF of $36a^3b^4$, $45a^2b^3$, $24a^5b^5$
4	Find the total surface area of a cylinder with base diameter 21m and height 24m.
5	In which quadrants or axis do the points lie? i (3, -5) ii (0,9) iii (-5,-8) iv (-4,0)
6	Solve: $\dfrac{m-1}{3} + \dfrac{m-6}{2} = \dfrac{m}{5}$
7	Find x so that (i) (5^m × 5^{-2}) ÷ 5 = 1 (ii) $\left(\dfrac{6}{13}\right)^x \times \left(\dfrac{6}{13}\right)^4 = \left(\dfrac{6}{13}\right)^{-4}$
8	Factorize: i) $8m^3n^2 - 16mn + 24m^2n$ ii) $3x^2 - 6x - 144$
9	The base of a parallelogram is twice its height. If the area of the parallelogram is 288cm^2, find its base and height.
10	Find the value of 98 × 104 using suitable identity.
11	How many non square numbers are there between 40^2 and 41^2?
12	If $\dfrac{x}{y} = \left(\dfrac{-1}{3}\right)^{-3} \div \left(\dfrac{-1}{3}\right)^{-5}$, find the value of $\left(\dfrac{x}{y}\right)^{-2}$
13	Sum of three consecutive odd numbers is 516. Find the numbers.
14	A dress material is sold for ₹540 after a 10% discount. Find the marked price and the discount amount.
15	The teacher made a pack of 50 cards and numbered them 1 to 50. She asked one of the students to pick a card. What is the probability that the card picked is (a) a prime number? (b) a multiple of 5? (c) a square number? (d) an even number?
16	The area of a trapezium is 182cm^2. One of the parallel sides is shorter than the other by 16cm and the perpendicular distance between them is 14cm. Find the length of the parallel sides.
17	Construct a rectangle ABCD with AB=6.4cm and BC=3.4cm
18	Simplify: $5x^2 - 3x(2x^3 - 4x + 2y)$ and then evaluate when x= 2 and y = -1
19	Factorize: (i) $(a + b)^2 - 49$ (ii) Evaluate using identity $\dfrac{352 \times 352 - 48 \times 48}{800}$

20	Find the compound interest on ₹20000 at 20% per annum compounded half yearly for 1½ years.
21	The numerator of a rational number is 5 less than its denominator. If 2 is subtracted from the numerator and 2 is added to the denominator, the fraction becomes $\dfrac{2}{5}$. Find the original rational number.
22	A water tank is filled with 1,04,000 litres of water. Its length and breadth are 800cm and 650cm respectively. What is the height of the water in the tank?

23	Draw a linear graph for following data.	No. of books	5	15	20	25
		Cost in ₹	70	210	280	350

24	Find the least number to be added to 9577 to make it a perfect square. Find the square root of the number so obtained.
25	Construct a quadrilateral ABCD in which AB=4.5cm, BC=5.2cm, AC= 6.5cm, CD=4.8cm and AD=5cm.
26	Divide: $(y^2 – 5y + 6) \div (y-2)$
27	From the product of $(x + 2y – 2)$ and $(x – 2)$, subtract $2x^2 – 3xy + 4y$.
28	A small bulb is packed in a cubical box of edge 4cm. How many such boxes can be packed in a box of dimensions 72cm × 60cm × 50cm ?
29	Construct a quadrilateral PQRS in which PQ = 6.5 cm, $\angle P = 70^0$, $\angle Q = 120^0$, QR = 4.5cm and PS = 5.4 cm
30	Evaluate using laws of exponents: $\dfrac{6^{-3} \times 8^{-2} \times 4}{12^{-4} \times 9^{-3} \times 27}$
31	A solid cube of edge 10 cm is melted and cast into a cuboid whose base measures 20 cm by 10 cm . Find the height of the cuboid
32	The sum of the ages of Raj and Ben is 37years. Five years ago, Raj's age was twice that of Ben. Find their present ages.
33	The volumes of two cubes are in the ratio 27: 64 Find the ratio of their surface areas.

34	Draw a histogram to represent the marks (out of 50) of 40 students in a mathematics test.

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	2	3	5	14	16

35	Factorize: $2a^2 – 3ab + 4a – 6b$
36	Two cubes, each of side 10 cm are joined end to end . Find the surface area of the resulting cuboid.

INDIAN SCHOOL MUSCAT – MIDDLE SECTION – DEPARTMENT OF MATHEMATICS (2018-19)

CLASS: 08   PORTION FOR THE ANNUAL EXAMINATION   TOTAL MARKS - 80

S.NO	TOPIC		
1	LINEAR EQUATION IN ONE VARIABLE	6	FACTORISATION
2	PRACTICAL GEOMETRY	7	INTRODUCTION TO GRAPHS
3	DATA HANDLING	8	ALGEBRAIC EXPRESSIONS
4	COMPARING QUANTITIES	9	EXPONENTS AND POWERS
5	MENSURATION	10	SQUARES AND SQUARE ROOTS

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