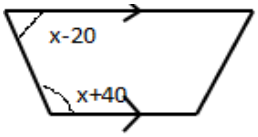
INDIAN SCHOOL MUSCAT – MIDDLE SECTION – DEPARTMENT OF MATHEMATICS

QUESTION BANK – MATHEMATICS – CLASS 8 – TERM :01 – (2019 – 20)

S.NO	MCQ
1	Multiplicative inverse of $\left(\frac{-2}{3}\times\frac{9}{4}\right)$ is _____ a) $\frac{-3}{2}$ b) $\frac{18}{12}$ c) $\frac{3}{2}$ d) $\frac{-2}{3}$
2	A quadrilateral with only one pair of parallel sides is called a _____ a) parallelogram b) trapezium c) rhombus d) rectangle
3	The number of digits in the square root of 99225 is _____a) 5 b) 3 c) 4 d) 6
4	The number of non-square numbers between 85^2 and 86^2 is ____a) 170 b) 172 c) 171 d) 7310
5	$\sqrt{0.000625}$ = _____ a) 0.025 b) 0.25 c) 25 d) 2500
6	$\sqrt[3]{27} - \sqrt[3]{64}$ = _____ a) 7 b) -7 c) -1 d) 1
7	If a and b vary directly, and a = 7 , b = 21. Then the value of "a" when b = 33 is _____ a) 11 b) 5 c) 14 d) 12
8	The value of $(-4)^{-3}$ is _____ a) -12 b) - 64 c) $\frac{-1}{24}$ d) $\frac{-1}{64}$
9	$(-3x^2y^3)(-2x^3y^5)$ = _____ a) $6x^5y^8$ b) $-6x^5y^8$ c) $3x^8y^5$ d) $6x^8y^5$
10	The value of $2a^3 - 6a^2$ when a = 1 is _____ a) – 4 b) 4 c) 8 d) -8
11	Additive inverse of $\frac{-3}{7}+\frac{4}{7}$ is _____ a) $\frac{1}{7}$ b) $\frac{-1}{7}$ c) 7 d) 1
12	If an angle of a parallelogram is 95°, then its adjacent angle is _____a) 95° b) 85° c) 105° d) 75°
13	Number of sides of a regular polygon with each exterior angle as 20° is _____ a) 20 b) 10 c) 15 d) 18
14	$\sqrt{125\times125}$ + $\sqrt{121}$ = _____ a) 261 b) 114 c) 136 d) 246
15	$\sqrt[3]{343}+\sqrt[3]{8}$ =_____ a) 9 b) 11 c) 8 d) 12
16	If the quantities m and n are in inverse proportion then the constant k is _____ a) m + n b) m - n c) m ÷ n d) mn
17	$5^3 \div 5^5$ = _____ a) 25 b) - 25 c) $\frac{1}{25}$ d) $\frac{-1}{25}$
18	2p – 3q -5p + 2q = _____ a) 7p – 5q b) -3p - q c) -3p – 5q d) 7p + q
19	Coefficient of y in $-5x^2y$ is _____ a) -5 b) x^2 c) -5x d) $-5x^2$
20	The number $\frac{-11}{a}$ is not a rational number for 'a' = ____. a) 0 b) – 1 c) 1 d) 10
21	The perimeter of a parallelogram whose adjacent sides are 12cm & 7cm is _____. a) 28cm b) 38cm c) 19cm d) 84cm
22	Given that $\sqrt{2025}$ = 45, the value of $\sqrt{2025}$ + $\sqrt{20.25}$ is _____. a) 85.5 b) 50.5 c) 49.5 d) 45.45
23	The prime factorization of a number is 2 x 2 x 2 x 3 x 3 x 5. The least number by which it should be divided to make it a perfect cube is _____.a) 15 b) 10 c) 75 d) 45
24	The value of $(-2)^{2x3-1}$ is _____. a) – 32 b) 64 c) – 64 d) 32
	FILL IN THE BLANKS
25	If one angle of a rhombus is 85° then its adjacent angle is _____
26	The measure of each exterior angle of a regular polygon with 20 sides is _____
27	The smallest two digit perfect square number is _____
28	The number of people who share a cake and the share quantity of each gets are in _____ proportion.
29	The standard form of 0.000056 is _____
30	The value of $2^{-1} \times 4^{-1}$ is _____

31	The product of $\frac{2}{17}$ and the reciprocal of $\frac{-1}{17}$ is _____
32	The cube of $\frac{-3}{4}$ is _____
33	The product of $3m(2m^2 - 9)$ is _____
34	The additive inverse of $\frac{-1}{3} - \frac{-1}{3}$ is _____.
35	If 2 adjacent angles of a rhombus are equal, then the rhombus becomes a _____.
36	The square root of 7.2 x 7.2 is _____.
37	The digit in the ones place of $(38)^3$ is _____.
38	The value of $\left[\frac{2}{5}\right]^{-2}$ is _____.
	VSA- VERY SHORT ANSWER TYPE QUESTIONS
39	What is the multiplicative inverse of -1?
40	What is the sum of a rational number and its additive inverse?
41	What is the measure of each exterior angle of an equilateral triangle?
42	How many digits are there in the square root of 301401?
43	How many non-square numbers are there between 314^2 and 315^2?
44	Write the smallest three digit number which is a perfect cube.
45	'a' and 'b' vary inversely. If a=8, b= 3. What will be the value of a if 'b' = 6?
46	What is the standard form of 0.0000476?
47	If $3^m = 243$, find the value of m.
48	Find the product of $(2y^3z^4)$ and $(-4y^2z^5)$
49	What is the quotient of $\frac{2}{3}$ and its additive inverse?
50	What is the number of sides of a polygon having each exterior angle of measure 36^0?
51	Find the value of $\sqrt{50 \times 2}$.
52	What is the sum of 7q, – 2q, – 3q and – 5q?
53	What type of variation exists between 'distance covered' and the 'fare paid'?
54	Write 2.005×10^{-5} in the usual form.
55	What is the volume of a cuboid with Length = 2a units, breadth = 4b units and height = 5b units?
56	'a' = 5 and 'b' = 7 and if 'a' and 'b' vary inversely, then what is the value of the constant of variation?
57	Find the value of $\sqrt{162/2}$
58	Simplify: 4m(2m – 3n)
	SA –I SHORT ANSWER TYPE QUESTIONS
59	Find the number of diagonals of a polygon with 11 sides.
60	Find the square root of 3025 by division method.
61	Find the smallest number by which 648 must be divided to make it a perfect cube.
62	If x and y varies inversely as each other, find the values of m and n. X: 10, 15, n y: m, 6, 3
63	If $3^x = 81$, find the value of x, and hence find 2^x.
64	Subtract $-3ab + 6b^2 + 17c^2$ from $3c^2 - 16b^2 - 3ab$
65	Find the Pythagorean triplet whose one member is 20
66	If a and b vary directly, find the values of x and y. a: 6, 15, y b: x, 25, 35
67	Simplify: $\left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{5}\right)^{-2}$
68	Simplify: $5a^2 - 4a(5a^2 - 4a) + 3a^3$
69	Find the sum of $2ab^2c^2 + 4a^2b^2c - 5a^2bc^2$ and $-10ab^2c^2 + 4a^2b^2c - 3a^2bc^2$

70	**Find the value of** $\left[\left(\frac{-2}{3} \right)^{-4} \right]^{-1}$
71	**'p' varies directly with 'q' and 'p' = 5 when 'q' = 2/3. Find 'p' when 'q' = 16/3.**
72	**The exterior angle and interior angle of a regular polygon are in the ratio 1: 5. Find the number of sides of the polygon.**
	SA-II SHORT ANSWER TYPE QUESTIONS
73	**Find three rational numbers between** $\frac{-1}{4}$ **and** $\frac{-1}{7}$**.**
74	**Two opposite angles of a parallelogram are (3x–2) ° and (50–x) °. Find the measure of each angle of the parallelogram.**
75	**The perimeter of a parallelogram is 92cm. If one side is greater than its adjacent side by 10cm, find each side of the parallelogram.**
76	**Find the perimeter of a square field of area 3969 m^2.**
77	**Find the cube root of 4096 by prime factorization method.**
78	**If the cost of 80 m of certain kind of cloth material is ₹ 1320, then what would be the cost of 110 m of the same such cloth material ?**
79	**Simplify** $\left\{ \left((5)^{20} \right)^{0} - \left(\frac{1}{5} \right)^{-2} \right\} + \left(\frac{1}{5} \right)^{-2}$
80	**Simplify and find the value of 5p $(3p^2 - 2p + 4)$ when p = -1.**
81	**Find each angle of a parallelogram if two of its adjacent angles are in the ratio 2:3**
82	**Find the number of sides of a regular polygon with each interior angle as 135°.** **Write the name of the polygon.**
83	**Area of a square field is 46225m^2.Find its perimeter.**
84	**If 15kg of sugar costs ₹540, how many kg of sugar can be bought for ₹900?**
85	**Find the product : $(3x + 2y)(x^2 - 2xy + y^2)$**
86	**Find the value of n if** $\left(\frac{4}{5} \right)^{3} \div \left(\frac{4}{5} \right)^{n} = \left(\frac{4}{5} \right)^{3n-5}$
87	**a) Divide the sum of** $\frac{-1}{3}$ **and** $\frac{5}{6}$ **by the sum of** $\frac{1}{-4}$ **and** $\frac{3}{8}$ **b) Simplify:** $\left[\frac{-2}{9} \div \frac{14}{36} \right] - \left[\frac{-8}{21} \times \frac{3}{16} \right]$
88	**Subtract: $-3p^2 + 3pq + 3pr$ from $3p(-p-q-r)$**
89	**a) A photo frame in the shape of a quadrilateral has one diagonal longer than the other. Is it a Rectangle? Why or why not?**  **b) Find the value of 'x' from the given figure.**
90	**Sharada types 108 words in 6 minutes. How many words will she type in half hour?**
91	**a) Find the measure of each exterior angle of a regular octagon.** **b) Find the number of diagonals of a polygon with 20 sides.**
92	**Find the product of $(5m+6m^2n)$ and $(2mn-3)$**
	LA-LONG ANSWER TYPE
93	**Simplify by using suitable properties :** $\frac{2}{5} \times \frac{4}{9} - \frac{1}{3} \times \frac{1}{6} - \frac{4}{9} \times \frac{3}{5}$
94	**Find the least number to be added to 9352 to make it a perfect square. Also find the square root of the number so obtained.**
95	**Find the smallest square number divisible by 6,9,15 and 20**
96	**If 16 workers can build a wall in 52 hours, how many more workers will be required to do the same**

	work in 32 hours?
97	**Find the value using laws of exponents** $\frac{5^{-4} \times 4^{5} \times 81}{2^{8} \times 9^{2} \times 25^{-2}}$
98	**If 1240 persons can finish a job in 30 days, how many more persons are needed to complete the same job in 24 days?**
99	**Subtract [2m(3m – 4n) – m(5m – 2n)] from 3m(4m – 3n)**
100	**a) Find two rational numbers between** $\frac{-1}{4}$ **and** $\frac{-2}{3}$ **b) Simplify using properties:** $\frac{2}{7} \times \frac{3}{8} + \frac{2}{7} \times \frac{-1}{4}$
101	**Evaluate:** $\left(\frac{3}{2}\right)^{-4} \times \left(\frac{1}{3}\right)^{-4} \times 3^{-2} \times \frac{1}{6}$
102	**Subtract $b(b^2 + b – 7)$ from $3b^2 – 8$ and find the value of the expression obtained for b = – 1.**
103	**a) Find the square root of 56.25.** **b) Find the greatest number of 3-digits which is a perfect square.**