Q.NO:01

S.NO	MCQ (1 MARK EACH)
(a)	The product of $(x + 5)(x – 5)$ is_____ a) $x^2 + 15$ b) $x^2 - 15$ c) $x^2 + 25$ d) $x^2 -25$
(b)	The area of the triangle with base 8 cm and height 15 cm is ____ sq.cm a) 60 b) 120 c) 23 d) 7
(c)	The class size of the class interval 60 – 65 is _____ a)3 b) 4 c) 5 d) 6
(d)	The value of $\left(\dfrac{4}{5}\right)^2$ is _____ a) $\dfrac{8}{10}$ b)$\dfrac{16}{25}$ c)$\dfrac{10}{8}$ d)$\dfrac{25}{16}$
(e)	The HCF of 6abc, 24 ab², 12a²b is _____ a) 6ab b)6ab² c) 6a²b d) 6abc
(f)	The length of the edge of a cube whose volume is 64cu.cm is _____ cm a) 6 b) 4 c) 8 d) 9
(g)	If $\dfrac{2y}{3}$ = 10 , then the value of 'y' is _____ a)$\dfrac{1}{15}$ b) $\dfrac{2}{3}$ c) 15 d)$\dfrac{1}{3}$

S.NO	FILL IN THE BLANKS (1 MARK EACH)
(h)	The standard form of 0.000069 is _____
(i)	The abscissa of the point P (-5, 2) is _____
(j)	The product of 2a (p - y) is _____
(k)	The base of the parallelogram with height 9 cm and area 10.8 sq.cm is _____ cm
(l)	The factors of $x^2 + 5 x + 6$ is _____
(m)	The volume of the cylinder whose radius is 21 cm and height 10 cm is _____ cu. cm
(n)	The value of the expression 2a + 7 when a= 4 is _____

Q.NO '2' TO '12' – ('2' MARKS EACH)	
S.NO	QUESTIONS
2	Simplify: $\left((7)^3 \div (7)^{-5}\right)$ x $(7)^{-6}$
3	The class of 20 students took a mock exam in Mathematics. They were given percentage of marks as follows: 62 50 48 50 78 91 57 82 46 51 72 73 63 52 41 67 88 46 71 75 Prepare a frequency distribution table with one of the class intervals is (40 –50) (40 is included and 50 is excluded)

S.NO	QUESTIONS
4	A cylindrical tank has a capacity of 308cu.m. If the diameter of its base is 14 m, find its depth?
5	Construct a parallelogram ABCD, where BC= 6 cm ; CD = 4.5 cm and BD = 7.5 cm
6	The sum of three consecutive multiples of 11 is 165. Find these multiples?
7	Divide: $(55\ x^5y^{12} - 33\ x^{12}y^5) \div 11\ x^5y^5$
8	Find the area of the quadrilateral whose one diagonal is 14 cm and the lengths of the perpendiculars on it from the opposite vertices are 3cm and 9 cm?
9	In which quadrant the following points lie: i) (-5, -7) ii) (4, -2) iii) (-3, 5) iv) (9,15)
10	Factorize: $49\ m^2 + 140\ mn + 100\ n^2$
11	The area of a rhombus is 70.2sq.cm and one of its diagonal is 18 cm. Find the other diagonal?
12	Solve: $\dfrac{3x}{4} + \dfrac{x}{6} = 22$

Q.NO '13' TO '20' –('3' MARKS EACH)

S.NO	QUESTIONS
13	The numerator of a fraction is 4 less than its denominator. If 2 is added to the numerator then the fraction becomes $\dfrac{5}{7}$. Find the fraction?
14	Daniel wants to paint the four walls of a room having dimensions 20 m, 12 m and 6 m. From each can of paint 96sq.m of area is painted. How many cans of paint will he need to paint the room?
15	Factorize: $25a^2 - 100b^2$
16	The area of a trapezium is 180 sq.cm and its height is 10cm. If one of the parallel sides is longer than the other by 6 cm, find the two parallel sides?
17	Construct a rectangle ABCD such that AB = 6 cm and BC = 5.5 cm
18	Simplify: $(7m - 8n)^2 + (7m + 8n)^2$
19	The following table shows the favourite sports of 120 senior students in a school. Draw a pie-chart to represent the data.<table><tr><td>Sports</td><td>CRICKET</td><td>FOOTBALL</td><td>TENNIS</td><td>BASKETBALL</td><td>SWIMMING</td></tr><tr><td>No.of students</td><td>25</td><td>40</td><td>20</td><td>15</td><td>20</td></tr></table>
20	Construct a histogram for the following data.<table><tr><td>Yield (in tons)</td><td>0 – 2</td><td>2 – 4</td><td>4 – 6</td><td>6 – 8</td><td>8 – 10</td></tr><tr><td>Number of fields</td><td>4</td><td>12</td><td>15</td><td>10</td><td>6</td></tr></table>