

**OL MANIKBAGH INDORE****CLASS Session: 2017-18****Subject: MATHEMATICS****Assignment No: 1****Allotment Date:07/07/17****Submission date 12/07/17**

S.No	QUESTION	MARKS	LEVEL
<b>OBJECTIVE TYPE</b>			
1	Which of the following is irrational? (A) $\sqrt{45} - \sqrt{20} - \sqrt{5}$ (B) $11/2$ (C) $0.1416$ (D) $\pi$	1 mark	Knowledge
2	If the coordinates of the two points are P(-2, 3) and Q(-3, 5) then $2(\text{Abscissa of P}) - 3(\text{Abscissa of Q})$ (A) 5 (B) 1 (C) -1 (D) -2	1 mark	Understanding
3	Zero of the zero polynomial is (B) 0 (B) 1 (C) any real number (D) not defined	1 mark	H.O.T.
<b>SHORT ANSWER TYPE I</b>			
4	Write the coordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at the origin, the longer side lies on the X-axis and one of the vertices lies in the third quadrant.	2 Marks	Knowledge
5	Without finding the cube factorize, $(x-2y)^3 + (2y-3z)^3 + (3z-x)^3$	2 Marks	Understanding
6	If $\frac{\sqrt{2}+\sqrt{3}}{3\sqrt{2}+2\sqrt{3}} = a + b\sqrt{6}$ , then find the value of a and b.	2 Marks	logic
7	If x, y, z are positive real numbers show that : $\sqrt{x^{-1}y} \cdot \sqrt{y^{-1}z} \cdot \sqrt{z^{-1}x} = 1$	2 Marks	H.O.T.
<b>SHORT ANSWER TYPE II</b>			
8	Find the value of x, if $4^{x-1} \times (0.5)^{3-2x} = \left(\frac{1}{8}\right)^x$	3 Marks	Understanding
9	Mohan has given his one plot to his son, whose area is $x^2 + 22x + 121 \text{ m}^2$ and another plot with area $x^2 - 121 \text{ m}^2$ to his daughter. Who is given bigger plot? <b>Comment on the decision of Mohan.</b>	3 Marks	Value based
10	Factorize using identity : $\frac{64}{125}x^3 - 8 - \frac{96}{25}x^2 + \frac{48}{5}x$	3 Marks	Multi concept
11	Simplify: $\frac{6}{2\sqrt{3}-\sqrt{6}} + \frac{\sqrt{6}}{\sqrt{3}+\sqrt{2}} - \frac{4\sqrt{3}}{\sqrt{6}-\sqrt{2}}$	5 Marks	H.O.T.