KOLHAPUR INSTITUTE OF TECHNOLOGY'S
COLLEGE OF ENGINEERING (AUTONOMOUS),KOLHAPUR

First Year BTech
MID SEMESTER EXAMINATION
Engineering Mathematics 1 (123)

Day and Date : PRN:

Time : Max Marks:30

Instructions:

IMP: Verify that you have received question paper with correct course, code, branch, etc

i) All Questions are Compulsory
ii)Figure to right indicate full marks
iii)Assume suitable data wherever necessary

QNo	Question	Marks	CO	BL
1.	**Attempt 2 out of 5**	**8**		
1.A	find the value of $y = x^2$ where x=4 A)1 B)4 C)9 D)16	3	CO2	3
1.B	What is the Volume of Cylinder which has radius=4cm and height and 6 cm .π =3.14. A)25 B)32 C)25 D)30	3	CO5	4
1.C	find out the area of triangle with base =3cm and height =4cm. A)6 B)12 C)5 D)4	3	CO1	2

1.D	The Square of Hypotenus is the sum of squares of 2 adjacent sides. This law is termed as. A)Euler's law B)Pythogaros Theorem C)Newton's Law D)Aryabhatta's Law	3	CO1	1
1.E	$\frac{1-\cos a}{\sin a}$ equals tp: A)$\frac{\sin a}{1-\cos a}$ B)$\frac{\sin a}{1+\cos a}$ C)$\frac{\cos a}{1-\cos a}$ D)$\frac{\cos a}{1+\cos a}$	3	CO1	2

2.	**Attempt 2 out of 3**	**8**		
2.A	Derive π as a ratio of circumfrence and diameter.	3	CO2	4
2.B	Evaluate the following $\int y^3 dy$	3	CO2	3
2.C	Evaluate the following $\int_2^5 \sqrt{\frac{5x}{2}}$ dx	3	CO3	3

3.	**Attempt 2 out of 3**	**8**		
3.A	Rank of the matrix $\begin{matrix}1 & 1 & 1\\ 1 & 1 & 1\\ 1 & 1 & 1\end{matrix}$	3	CO1	1
3.B	find the sum $\frac{53}{22} + \frac{11}{22}$	3	CO1	1
3.C	Add the following matrices $\begin{bmatrix}1 & 2 & 3\\ 4 & 5 & 6\\ 7 & 6 & 4\end{bmatrix} + \begin{bmatrix}4 & 5 & 6\\ 7 & 8 & 9\\ 5 & 4 & 4\end{bmatrix}$	3	CO1	3