ISL
ENGINEERING COLLEGE
Approved By AICTE, Affiliated to Osmania University
Chandrayangutta, Bandlaguda, Hyderabad - 500005, Telangana State.
Email: info@islec.edu.in | Tel: 040-29880083 / 29880084

B.E. AICTE II SEM, II INTERNAL EXAMINATION AUGUST- 2024

DEPARTMENT OF MECHANICAL

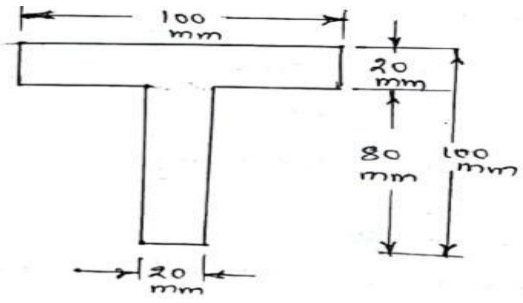
SUBJECT CODE : PC231ME **SUBJECT: MOM**

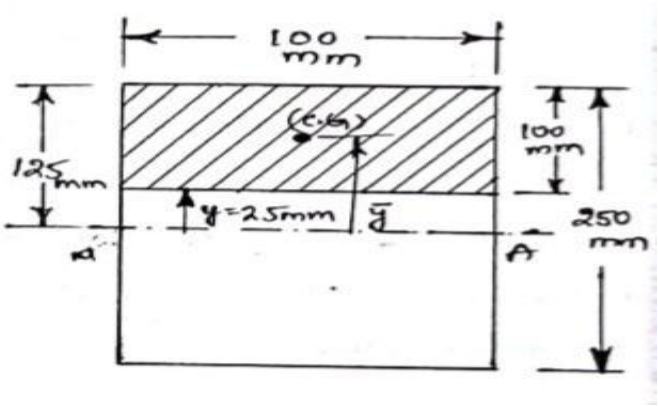
TIME: 1:00 HOUR **MAXIMUM MARKS : 20** **Date : 07/08/2024FN**

PART-A **ANSWER ALL QUESTIONS** **MARKS: 3 X 2 = 6**

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	Define Torsion.	3	1	1	-
2.	A solid shaft of 150 mm diameter is used to transmit torque. Find the maximum torque transmitted by the shaft if the maximum shares stress induced to the shaft is 45 N/mm².	4	2	1	-
3.	Explain the deflection of cantilever been.	3	2	1	-

PART-B **ANSWER ANY TWO QUESTIONS** **MARKS: 2 X 7 = 14**

Q.No.	Questions	BTL	CO(S)	PO (S)	PSO
1.	A cast iron beam is of T-section as shown in figure. The beam is simply supported on a span of 8m. The beam carrier a uniformly distributed load of 1.5 KN/m length on the entire span. Determine the maximum tensile and maximum  compressive stresses.	4	1	2	1
2.	Draw the shear force and bending moment diagrams for a simply supported beam of length 8m and carrying uniformly distributed load of 10KN/m for a distance of 4m as shown in figure.	4	1	2	1

3.	A rectangular beam 100mm wide and 250 mm deep is subjected to a maximum Shear force of 50KN. Determine 1)  Average shear stress. 2) Maximum shear stress. 3) Shear stress at a distance of 25 mm above the Neutral axis.	5	1	2	1