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Reg. No. : | | | | | | | | | | |

Question Paper Code: 51P01

M.E. DEGREE EXAMINATION, NOV 2018

First Semester

CAD / CAM

15PCD101 - COMPUTER APPLICATIONS IN DESIGN

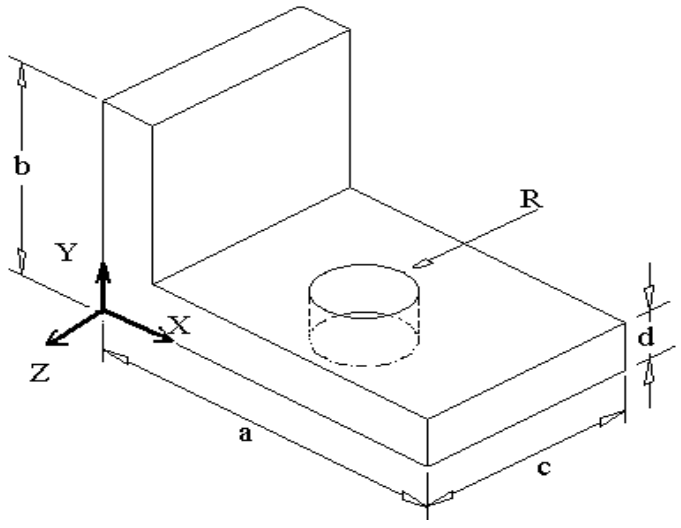
(Regulation 2015)

Duration: Three hours | Maximum: 100 Marks

Answer ALL Questions

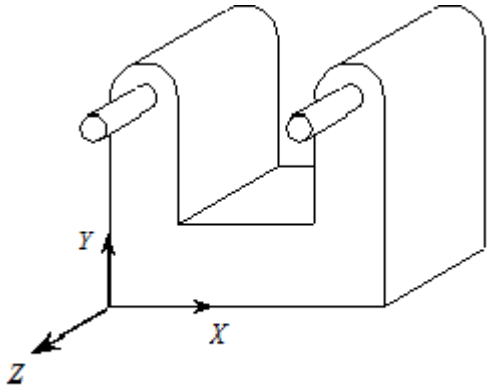
PART - A (5 x 20 = 100 Marks)

1.	(a)	(i) Explain the various transformations in computer graphics for 2 Dimensional objects.	CO1- U	(16)
		(ii) What is meant by clipping?	CO1- U	(4)
		Or		
	(b)	(i) With example explain Sutherland-Cohen algorithm for two dimensional clipping.	CO1- U	(16)
		(ii) Briefly explain polygon clipping.	CO1- U	(4)
2.	(a)	Explain the steps in the construction of the solid model given below using B-Rep Euler operators.	CO2- App	(20)



Or

(b) Explain the construction of the solid model shown below using Constructive Solid Geometry. CO2- U (20)



3. (a) (i) Explain Ray Tracing algorithm for hidden solid removal. CO3- U (16)

(ii) What is Z- Buffer algorithm. CO3- U (4)

Or

(b) (i) Explain priority algorithm for hidden line removal. CO3- U (12)

(ii) What is the use of silhouette in hidden line removal of CAD Model. CO3- U (8)

4. (a) (i) Explain the procedure of Mechanism simulation with example. CO4- U (12)

(ii) Explain the use of computer animation in simulation of Mechanism CO4- U (8)

Or

(b) Explain precedence graph for an assembly. CO4- U (20)

5. (a) Explain the Structural analysis of mechanical parts in ANSYS. CO5- U (20)

Or

(b) Explain the capabilities of any one of the modeling software. CO5- U (20)