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**Question Paper Code: 52111**

M.E. DEGREE EXAMINATION, NOV 2016

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)

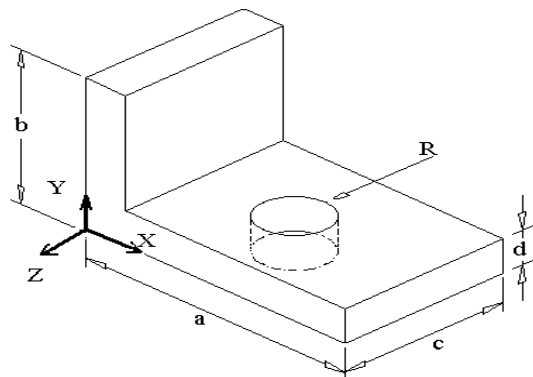
1. (a) (i) What are output primitives in computer graphics. (5)  
(ii) Find out the coordinates of the circle with radius 12 cm, using midpoint circle algorithm. (15)

Or

- (b) (i) What are the various types of continuity of the segments of curves. (5)  
(ii) Explain about the B-spline curves and its utility in CAD modeling. (15)
2. (a) (i) What are various solid primitives used in CAD. (5)  
(ii) Explain CSG Tree and the use of Boolean operators. (15)

Or

- (b) Classify the edges of the solid model given below using Dive and Conquer paradigm. (20)



3. (a) (i) Explain parametric modeling. (10)  
(ii) Explain the construction of lofted parts using CAD package. (10)

Or

- (b) (i) Explain various color models used for CAD. (10)  
(ii) Explain Warnock's algorithm for hidden surface removal. (10)

4. (a) (i) What are geometrical and mass properties. (5)  
(ii) Explain different categories of property evaluation of solid model. (15)

Or

- (b) (i) What is meant by geometric tolerances. (5)  
(ii) Explain the working of dimensioning and tolerance modeling of CAD model. (15)

5. (a) (i) Write short notes on conceptual design. (10)  
(ii) Write short notes on top down design. (10)

Or

- (b) (i) Explain the relationship between parametric modeling and feature based modeling. (5)

- (ii) Develop and discuss the conceptual design of Hybrid Car (Petrol and electricity). (15)

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