

F 3625

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18/11  
Reg. No.....

Name.....



**B.TECH. DEGREE EXAMINATION, NOVEMBER 2014**

**Fifth Semester**

Branch : Mechanical Engineering/Automobile Engineering

AU 010 502 / ME 010 502 – COMPUTER AIDED DESIGN AND MANUFACTURING (AU, ME)

(New Scheme – 2010 Admission onwards)

[Regular/Improvement/Supplementary]

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

*Each question carries 3 marks.*

1. What is circle drawing?
2. What are the advantages and disadvantages of numerical control?
3. Distinguish feed world and tool world.
4. Define CAPP.
5. Define Pneumatic systems.

(5 × 3 = 15 marks)

**Part B**

*Answer all questions.*

*Each question carries 5 marks.*

6. Explain the elements of interactive graphics.
7. Write down the needs of PLC.
8. Write a short note on CNC languages.
9. Give the advantages of FMS.
10. Explain briefly about the sensors usage in robotics.

(5 × 5 = 25 marks)

**Part C**

*Answer all questions.*

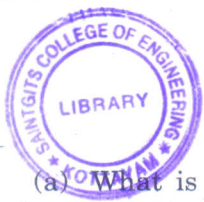
*Each question carries 12 marks.*

11. (a) CAD helps in integrating CAM – Justify this statement.

*Or*

- (b) Explain the various operations involved in 2D transformation.

**Turn over**



12. (a) What is a digitizer? Explain how it can be use for transferring paper drawing to CAD system.

*Or*

- (b) Explain the following NC motion control systems : (a) Point to point ; (b) Straight cut ; and (c) Contouring.
13. (a) Differentiate between Numeric Control (NC), Computer Numerical Control (CNC) and Direct Numerical Control (DNC) systems of CAM.

*Or*

- (b) Explain APT language structure in detail.
14. (a) Discuss a few applications of FMS in detail.

*Or*

- (b) Explain the concept of FMS with a typical sketch describing its components.
15. (a) Explain any *one* robot applications in detail.

*Or*

- (b) Explain inspection and welding with suitable diagram.

(5 × 12 = 60 marks)