
QUESTION BANK

CAD/CAM

PCME-302

ICD (6th Semester)



MQC-50

Short Questions-30

Descriptive Questions-20

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50 MQC for Subject CAD/CAM, PCME302

1. CAD is a

- a. Software tool
- b. Hardware tool
- c. Both software and hardware tools
- d. None

ANS: (a)

2. CAD prepares 2D and 3 D drawings which are

- a. Non digital
- b. Digital
- c. Both digital and non digital
- d. None

ANS: (b)

3. CAD is

- a. Computer aided drafting
- b. Computer aided design
- c. Both drafting and design
- d. None

ANS: (c)

4. CAD prepares models with computer which are

- a. Dynamic patterns
- b. Static patterns
- c. Geometric patterns
- d. None

ANS: ©

5. Types of CAD software in existence

- a. 6

- b. 9
- c. 3
- d. None

ANS: (b)

6. CADD stands for

- a. Firstly Computer aided drawing and design
- b. Secondly Computer aided design and drawing
- c. Computer aided design and drafting
- d. None

ANS: (c)

7. EDA stands for

- a. Electric design automation
- b. Electronic design automation
- c. Both (a) & (b)
- d. None

ANS: (b)

8. CAD technology is used in the design of

- a. Tools and machines
- b. All types of buildings
- c. Both (a) & (b)
- d. None

ANS: (c)

9. DPD stands for

- a. Design product development
- b. Digital product development
- c. Both (a) & (b)
- d. None

ANS: (b)

10. PLM related to CAD stands for

- a. Product life management
- b. Product lifecycle management
- c. Both (a) & (b)
- d. None

ANS: (b)

11. CAE related to Cad stands for

- a. Firstly Computer aided electronics
- b. Secondly Computer aided engineering
- c. Computer aided electrical
- d. None

ANS: (b)

12. FEM related CAD stands for

- a. Final analysis mechanics
- b. Finite element analysis
- c. Full analysis machines
- d. None

ANS: (b)

13. FEM related to CAD stands for

- a. Final element manufacturing
- b. Finite element Machine
- c. Finite element method
- d. None

ANS: (c)

14. PDM in CAD stands for

- a. Product development management
- b. Product data management
- c. Both (a) & (b)
- d. None

ANS: (b)

15. How many types of solids modeling?

- a. 6
- b. 2
- c. 4
- d. None

ANS: (b)

16. Most of the CAD require a

- a. One special hardware

- b. No special hardware
- c. Two special hardware
- d. None

ANS: (b)

17. CAGD in CAD stands for

- a. Firstly Computer aided geo design
- b. Secondly Computer aided geological design
- c. Computer aided geometric design
- d. None

ANS: (c)

18. Computer Aided Manufacturing (CAM) is

- a. The use of software to automate a manufacturing process
- b. The use computer aided machinery to automate a manufacturing process
- c. Both (a) & (b)
- d. None

ANS: (c)

19. Identify the fact

- a. CAM can work without CAD
- b. CAD can work without CAM
- c. Both (a) & (b)
- d. None

ANS: (b)

20. CAM is computer aided manufacturing which is

- a. Manual
- b. Semi-automatic
- c. Fully automatic
- d. None

ANS: (c)

21. CAM is a

- a. Fast process
- b. Slow process
- c. Mixture of slow and fast process
- d. None

ANS: (a)

22. Components manufactured by CAM needs

- a. Further machining to achieve the final product
- b. No further machining required
- c. Very light machining is required
- d. None

ANS: (b)

23. A CNC machine translates

- a. CAD into CAM
- b. CAM into CAD
- c. Both (a) & (b)
- d. None

ANS: (a)

24. Computer Aided Manufacturing is

- a. Firstly Computer aided modeling
- b. Secondly Computer aided machining
- c. Both (a) & (b)
- d. None

ANS: (c)

25. Energy requirements with CAM is

- a. > than conventional machining
- b. < than conventional machining
- c. = conventional machining
- d. None

ANS: (b)

26. Wastage of material during CAM is

- a. > than conventional machining
- b. < than conventional machining
- c. = conventional machining
- d. None

ANS: (b)

27. In computer aided manufacture

- a. CAD comes first.

- b. CAM comes first
- c. Both work simultaneously
- d. None

ANS: (a)

28. CAM requires

- a. Skilled professionals
- b. Unskilled professionals
- c. Both (a) & (b)
- d. None

ANS: (a)

29. CAM uses

- a. G-codes
- b. M-codes
- c. Both G & M codes
- d. None

ANS: (c)

30. G-code is a

- a. Formula in computers
- b. Machining process in computers
- c. Language of a computer
- d. None

ANS: (c)

31. Common data formats CAD uses are

- a. IGES or STL
- b. STL or Para solid
- c. IGES or STL or Para solid
- d. None

ANS: (c)

32. Number of computer commands used in CAM are

- a. Small
- b. Medium
- c. Large
- d. None

ANS: (c)

- 33. IGES regarding CAD / CAM refers to**
- a. International Graphics Exchange Specifications**
 - b. Initial Graphics Exchange Specifications**
 - c. Both International & initial Exchange Specifications**
 - d. None**

ANS: (b)

- 34. IGES does digital exchange of information among**
- a. Computer-aided design (CAD) systems.**
 - b. Computer-aided manufacturing (CAM) systems**
 - c. Both CAD and CAM Systems**
 - d. None**

ANS: (a)

- 35. STL is primary related to**
- a. CAD**
 - b. CAM**
 - c. Both CAD & CAM**
 - d. None**

ANS: (a)

- 36. STL in CAD is a**
- a. Video form**
 - b. Photo form**
 - c. File form**
 - d. None**

ANS: (c)

- 37. The backronyms of STL in CAD are**
- a. Standard triangle Language**
 - b. substandard Tessellation Language**
 - c. Both (a) & (b)**
 - d. None**

ANS: (c)

- 38. STL in CAD software is related to**
- a. One dimensional printing**

- b. Two dimensional printing
- c. Three dimensional printing
- d. None

ANS: (c)

39. STL is used for

- a. Rapid prototyping & 3-D printing
- b. 3-D printing and computer aided manufacturing
- c. Computer aided manufacturing, 3 D printing & Rapid prototyping
- d. None

ANS: (c)

40. STL deals with

- a. Rectangular surfaces
- b. Square surfaces
- c. Hexagonal surfaces
- d. None

ANS: (d)

41. STL deals with

- a. Square surfaces
- b. Triangular surfaces
- c. Pentagonal surfaces
- d. None

ANS: (b)

42. STL deals with

- a. External surfaces
- b. Internal surfaces
- c. Both external and internal surfaces
- d. None

ANS: (a)

43. CAD/CAM design and manufacture

- a. Prototype & Finished products
- b. Finished products & Production runs of products
- c. Production runs of products, finished products & prototypes
- d. None

ANS: (c)

44. CAD/CAM is used for the manufacture of

- a. Aircrafts, missiles & satellites**
- b. Digitization of dental structure and oral cavity**
- c. Both (a) & (b)**
- d. None**

ANS: (c)

45. CAD/CAM is used for the manufacture of

- a. Mass production in fashion companies**
- b. Create 3 D prototypes of new automobile body**
- c. Both (a) & (b)**
- d. None**

ANS: (c)

46. CAD/CAM is used to

- a. Estimate ages & 3D reconstruction of crime scene for investigation**
- b. Conduct injury analysis**
- c. Both (a) & (b)**
- d. None**

ANS: (c)

47. Which of these is not a software of CAD

- a. AutoCAD & Autodesk Inventor**
- b. Autodesk Inventor & CATIA**
- c. Soli CAD & Desk CAD**
- d. None**

ANS: (c)

48. Computer Aided manufacturing is also known as

- a. Firstly Computer Aided modeling**
- b. Secondly Computer Aided Machining**
- c. Both (a) & (b)**
- d. None**

ANS: (c)

49. Which is not a part of CAM?

- a. Computer monitoring and control**

- b. Manufacturing support applications
- c. Computer monitoring design
- d. None

ANS: (c)

50. Which is not a part of Computer monitoring & control?

- a. Firstly Computer process monitoring
- b. Secondly Computer process control
- c. Computer design control
- d. None

ANS: (c)

51. Manufacturing support applications includes

- a. Direct interface between the computer and the manufacturing process
- b. No direct interface between the computer and the manufacturing process
- c. Both (a) & (b)
- d. None

ANS: (b)

52. Interactive Computer Graphics (ICG) is an important parameter of

- a. CAD
- b. CAM
- c. Both CAD & CAM
- d. None

ANS: (a)

53. ICG is a system in which computer is used to create, transform and display data in the form of

- a. Pictures
- b. Symbols
- c. Both pictures and symbols
- d. None

ANS: (c)

54. Fundamental reasons for using CAD are

- a. To increase the productivity of the designer and to improve communication
- b. To improve the quality of design and to create a database for CAM
- c. Both (a) & (b)

d. None

ANS: (c)

55. Major components of CAD are

- a. Computer design and manufacturing**
- b. Interactive computer graphics and human designer**
- c. Both (a) & (b)**
- d. None**

ANS: (b)

Short Questions (30) for Subject CAD/CAM, PCME302

- 1. Name two motion commands used in NC machines.**
- 2. Write the coordinate words used in NC programming**
- 3. Define MCU.**
- 4. Name two sensors used in NC machines.**
- 5. Tool in NC or CNC machine is changed with help of which drive?**
- 6. Name at least two common problems in PC components of CNC machines.**
- 7. Define DNC.**
- 8. Draw the schematic sketch showing the axis used in lath machine and milling machine.**
- 9. Name two miscellaneous commands used in NC machines.**
- 10. Write the words used for spindle speed function in NC programming**
- 11. Name two non contact sensors used in NC machines.**
- 12. What types of drive systems are used in NC machines?**
- 13. Name at least two common problems in PC components of CNC machines.**
- 14. Define CNC.**
- 15. Which axis directions are used in lath machine.**
- 16. Draw the CAD/CAM product cycle with neat sketch (5M)**
- 17. Explain the product cycle and CAD/CAM product cycle? (5M)**
- 18. Explain the various types of display devices? (5M)**
- 19. List the Evaluation criteria CAD standards (5M)**
- 20. Explain briefly about the elements of a CAD system. (5M)**
- 21. Explain detail about analytic representations. (5M)**
- 22. Short notes about synthetic representations. (5M)**
- 23. Define the solid modeling and Explain any one type of solid modeling (5M)**
- 24. Compare 2-D and 3-D wire frame models. (5M)**
- 25. Explain about boundary representation approach. (5M)**
- 26. What are the Fundamentals of solid modeling (5M)**
- 27. List out and Explain about basic components of an NC system and CNC system. (5M)**
- 28. Explain detail about motion statement. (5M)**
- 29. Differentiate Manual part programming and Computer assisted part programming (5M)**
- 30. What are the advantages and disadvantages of Numerical control? (5M)**

Descriptive Questions (20) for Subject CAD/CAM, PCME302

- Q1 Describe each step in detail for the design process and explain the use of computer in these steps.
- Q2 Explain all the ways by which CNC can be classified
- Q3 Discuss about following in term of their use in NC machine
 i) Ball Screw ii) Slide Ways iii) Machine Bed iv) Adaptive control
- Q4 Explain any two Part programming formats with examples.
- Q5 Discuss how a fixed cycle can be useful in writing a part programme.
- Q6 Write note on use of online fault diagnosis tools in CNC machine.
- Q7 Write part program using sub routines for figure no. 1.

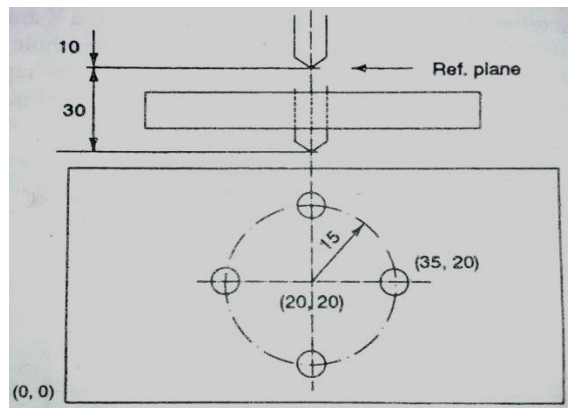


Figure no. 1

- Q8 Write a part programme for the component shown in Figure 2. The machining parameters are cutting speed= 800 rpm, feed= 200 mm/min and depth of cut should not exceed 2 mm.

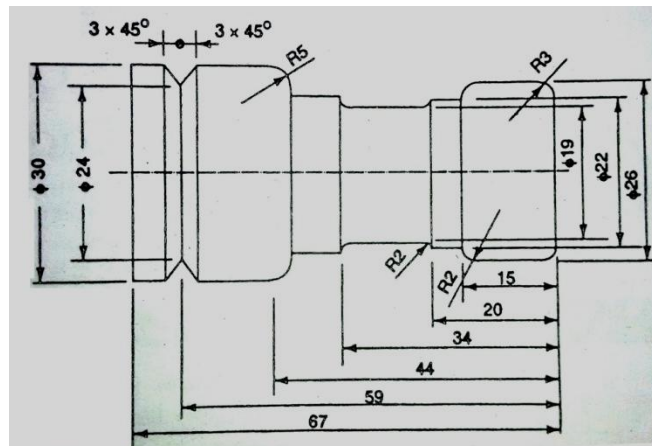


Figure no. 2

- Q9 Elaborate the benefits of CAD.**
- Q10 Discuss about following in term of their use in NC machine**
 - i) Spindle ii) Swarf removal iii) Machine Bed iv) Automatic tool changer**
- Q11 What should be first instruction in any part programme?**
- Q12 Discuss how a canned cycle can be useful in writing a part programme.**
- Q13 Write note on use of online fault diagnosis tools in CNC machine.**
- Q14 Explain following commands i) G00 ii) G04 iii) G03 iv) G71.**
- Q15 Illustrate Brief about NC motion control systems.**
- Q16 Explain about various NC words used in part programming.**
- Q17 Explain briefly about Computer Assisted Part Programming with example.**
- Q18 Explain detail about auxiliary statement.**
- Q19 With neat sketch and describe the canned cycles**
- Q20 Explain horizontal machining center with diagram**