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Sixth Semester B.E. Degree Examination, July/August 2022 Computer Integrated Manufacturing

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define CAD, CAM and explain role of computers in manufacturing. (10 Marks)
- b. Explain elements of CIM system. (10 Marks)

OR

- 2 a. Explain with diagrams NC, CNC and DNC. (10 Marks)
- b. With the help of block diagram, explain elements of NC system. (10 Marks)

Module-2

- 3 a. Explain milling tool system. (10 Marks)
- b. Explain ATC and work holdings. (10 Marks)

OR

- 4 a. Explain vertical and horizontal machining centers. (10 Marks)
- b. Explain 3 different CNC turning centers. (10 Marks)

Module-3

- 5 a. What is Industrial Robot? Explain the how robots are used in different fields. (10 Marks)
- b. Explain robot configuration. (10 Marks)

OR

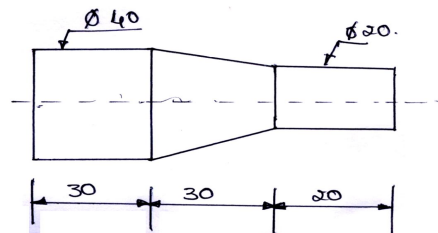
- 6 a. Explain the basic motions of robots. (10 Marks)
- b. Explain End effectors. (10 Marks)

Module-4

- 7 a. Briefly explain the steps involved in development of a part program. (10 Marks)
- b. Explain documentation of NC. (10 Marks)

OR

- 8 a. Explain the ISO standard for coding. (10 Marks)
- b. Write the CNC part program. (10 Marks)



All dimensions are in 'mm'

(10 Marks)

Module-5

- 9 a. Explain architecture of a CAPP system. (10 Marks)
- b. Explain generative approach to CAPP. (10 Marks)

OR

- 10 a. Briefly explain parts classification and coding. (10 Marks)
- b. Explain FMS layout configuration. (10 Marks)