April 2019

Time – Three hours
(Maximum Marks: 75)

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART – A and PART – B

(2) Answer division (a) or division (b) of each question in PART – C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]

PART – A

1. What are the types of CAD system?

2. What is meant by scaling?

3. What are the functions of CAM?

4. What is meant by coding structure?

5. List out the methods of NC part programming.

6. List out the benefits of CIM.

7. Define AGV.

8. Write the need of CE.

PART – B

9. Write about the two types of geometric modelling.

10. Write short notes on JIT.

11. What are the advantages of CAPP?

12. Describe the coordinate system.

13. List out the benefits of FMS.

14. What are the types of robot sensors?

15. Define DFMA and list out it's benefits.

16. List out M codes.

[Turn over....

PART – C

17. (a) Explain Shigley's design process.

    (Or)

    (b) Explain the various types of solid modelling.

18. (a) Describe optiz system and MICLASS system.

    (Or)

    (b) Explain the variant and generative type CAPP.

19. (a) Explain the concept of mirroring using sub program.

    (Or)

    (b) Explain about the canned cycle programming using in peck drilling.

20. (a) Explain in detail about the working principle of AGV.

    (Or)

    (b) Explain about the robot configuration.

21. (a) Discuss in detail about sequential engineering Vs concurrent engineering.

    (Or)

    (b) Explain in detail about the FMEA process.

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