

MECH - VI Term - D' scheme
Computer Integrated
Manufacturing

Reg.No.

5689

APRIL -2019

Max. Marks : 75

Time : 3 Hours

(Note: Compulsory questions: Part A – No.8 & Part B – No.16)

PART -A (5 X 2=10)

Answer any FIVE questions

- 1) What is the concept of CIM?
- 2) What is graphics workstation?
- 3) Define Manufacturing Resource Planning.
- 4) List out any two materials used in rapid prototyping.
- 5) Define the term Erosion.
- 6) What is the use of feedback devices?
- 7) Explain ASRS.
- 8) What is value engineering?

PART - B (5 X 3 = 15)

Answer any FIVE questions

- 9) List out FEA advantages.
- 10) Define JIT. List the advantages.
- 11) Give short notes about part families.
- 12) Differentiate NC and CNC.
- 13) Define APT programming.
- 14) Explain the terms used in CNC programming i) Rapid positioning ii) Dwell
- 15) Give short notes about robot sensors.
- 16) Explain PHIGS.

PART - C (5 X 10= 50)

**i) Answer all questions by choosing either (a) or (b) from each question.
ii) All sub divisions carry equal marks.**

- 17) a) Explain with neat sketch about CIM wheel.
(OR)
b) Explain any two solid modelling techniques.
- 18) a) Explain OPITZ classification system.
(OR)
b) Explain 3D printing with example.

19) a) Explain construction and working of coordinate measuring machines.

(OR)

b) Explain the working principle of stepper motor.

20) a) Explain the step by step procedure of CNC programming.

(OR)

b) Write a sample part program for milling.

21) a) Explain any one vehicle guidance system used in AGV.

(OR)

b) With neat sketch explain various types of FMS layouts.
