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2107051

BACHELOR OF VOCATION
Automotive Mechatronics (Captive)
Subject: Computer Integrated Manufacturing
Subject Code: CBME-304
Semester: Fifth
July 2021
Theory (External): 70 Marks
Time: 03 Hours

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 2 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 10 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

Roll Number									

SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x2=20 Marks)

- A. What do you mean by levels of automation?
- B. Explain the Evolution of manufacturing system.
- C. Define Tool Supply System.
- D. Classify Cellular Manufacturing.
- E. Write any two benefits of CIM.
- F. What are the components of FMS?
- G. Define Robotics in CIM.
- H. Mention any two advantages of FMS.
- I. Differentiate Cellular and Flexible manufacturing.
- J. Explain the principle of pneumatics.

SECTION –B (ESSAY TYPE QUESTIONS)
(5x10=50 Marks)

1. Explain the working principle of type of manufacturing system.
2. Write short notes on:
 - (a) Tool Monitoring System
 - (b) Machining Cells
3. What do you mean by CIM? Write the scopes of computer integrated manufacturing in detail.
4. What is Cellular Manufacturing? What are the benefits of group technology?
5. What are the basic elements of automated system? Explain in detail.
6. Explain the following terms:
 - (a) FMS layouts
 - (b) Industry 4.0
7. What are the new trends in CIM? How the integration of robotics in CIM works?
8. What do you mean by flexible manufacturing system? Mention its needs.

==END OF PAPER==