

D.Voc Mechanical Manufacturing
Subject: CNC Machines & Automation
Subject Code: ME-404
Semester: Third
Session-September 2022
Max. Marks: 35

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 1 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 5 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

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SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x1=10 Marks)

- A. Define wear compensation
- B. Discuss the function of tool off sets
- C. Discuss the applications of CAD/CAM
- D. Discuss the applications of CIM
- E. Define the applications of ASRS
- F. Discuss the applications of sensors
- G. Define the function of encoder
- H. Define the Industrial application of AI
- I. Define the function of LVDT
- J. Discuss the application of automation

SECTION –B (ESSAY TYPE QUESTIONS)
(5x5=25 Marks)

1. Differentiate between CNC and DNC machine with suitable diagram and example
2. Differentiate between NC and CNC machine with suitable example
3. Explain the parameters are required for selection of parts to be machined on CNC machine with suitable example

4. Explain construction and working of actuator with neat and clean diagram along with its merits and demerits
5. Explain construction and working of potentiometer with neat and clean diagram
6. Discuss the working of Transducer with neat diagram along with industrial applications
7. Explain the concept of group technology with suitable example
8. Explain basic procedure of part programming with suitable example

END OF PAPER