

2107069

BACHELOR OF VOCATION
Automotive Mechatronics (Captive)
Subject: Manufacturing Automation & Ergonomics
Subject Code: ABME-204
Semester: Sixth
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. Define the function of buffer storage
- B. Discuss the applications of fabrication
- C. Discuss manufacturing execution system
- D. Define the function and application of automated machine tool
- E. Define the function of handling systems
- F. Define efficiency
- G. Define the function of manufacturing cells
- H. Discuss the concept of productivity
- I. Define the concept of Man to machine interaction in Ergonomics
- J. Discuss the applications of AI in ergonomics

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

1. Define automation. Explain the working of different types of automation with neat and clean diagram along with industrial applications.
2. Differentiate between hydraulic and pneumatic circuits with neat diagrams.
3. What is line balancing? Explain the methods of line balancing with suitable applications.
4. Explain the types of flexible manufacturing systems with suitable diagram and applications.
5. Explain the working of flexible assembly lines with neat and clean diagram
6. Discuss the working of Industrial Robotics with neat and clean diagram along with industrial applications.
7. Explain work study. Discuss the types of work study with suitable applications.
8. Describe ergonomics. Explain the scope and evaluation of ergonomics with suitable example and applications.

==END OF PAPER==