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2107079

**BACHELOR OF VOCATION**  
**Automotive Mechatronics**  
**Subject: Industry 4.0**  
**Subject Code: BBME-309**  
**Semester: Fifth**  
**July 2021**  
**Theory (External): 35 Marks**  
**Time: 03 Hours**

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**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 mark.
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

Roll Number									

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

- A. Discuss benefits of Industry 4.0.
- B. Discuss the principle of smart factory.
- C. Discuss the function of digital transformation.
- D. Discuss the concept of fourth industrial revolution.
- E. Discuss Industry 4.0 strategies.
- F. Explain Touch Interface.
- G. Define merits of IoT.
- H. Define the concept of Human Machine interaction.
- I. Discuss the concept of Utility driven.
- J. What do you meant by learning agents?

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

1. Explain industry 4.0 challenges and risk with suitable example.
2. Explain the concept of lean manufacturing. Discuss the factor affecting the Implementation of lean manufacturing.
3. Discuss the concept of 3D Printing with neat and clean diagram along with suitable Industrial example.
4. What is cloud computing. Explain the issues related to cloud computing during implementation.
5. Define IoT. Explain the characteristics of IoT with suitable examples.
6. Differentiate between IoT and M2M with neat diagram along with suitable applications.
7. Explain the approaches of AI with suitable industrial example.
8. Explain the features of advanced robotics with suitable diagram and applications.

==END OF PAPER==