Roll No…….. **Total No. of Printed Pages: 1**

Total No. of Questions: [09]

B. Tech (Mechanical Engg.) (Semester – 7th)
INDUSTRIAL ENGINEERING & MANAGEMENT
Subject Code: BTME801
Paper ID: [7112301]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:
a) Enumerate the scope of industrial engineering.
b) What are Maslow's 5 hierarchy of human needs?
c) State the objective of a good plant layout.
d) What is Just-in-Time (JIT)? Write the principles of JIT.
e) What do you mean by the term "Ergonomics".
f) Why is hierarchy of planning important?
g) Define group technology.
h) Write the functions of management.
i) Value engineering is a powerful cost reduction tool. Justify.
j) What is span of control?

Section – B **(5 marks each)**

Q2. Discuss the qualities of a good industrial engineer.
Q3. Explain in brief various charts and diagrams utilized in method study.
Q4. Identify the techniques which will help in improving productivity in service sector. Explain any two of them in brief.
Q5. What is McGregor's Theory X and Theory Y? How does Theory X and Y motivate employees?
Q6. Explain the difference between product layout and process layouts by showing appropriate examples.

Section – C **(10 marks each)**

Q7. (a) Discuss the factors affecting the productivity of the manufacturing organization.
(b) Discuss the approaches to effective decision making in an organization.
Q8. (a) In order to achieve a good plant layout, explain in detail the scientific step by step procedure that must be followed.
(b) What is therbligs? State the importance of micro motion study.
Q9. (a) What is organization? Explain the characteristics of formal and informal organizations?
(b) Briefly describe dimensions of planning function in an organization.