

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

(Special exam)End semester examination for graduating batch, May 2020

Course: B tech Mechatronics Engg

Semester: VIII

Program: Theory of Automation

Time 03 hrs.

Course Code: MEEL415

Max. Marks: 100

Instructions:

SECTION A

S. No.		Marks	CO
Q 1	Discuss the characteristic features of Flexible manufacturing system.	5	CO 1
Q 2	Enlist the significance of computer controlled monitoring system?	5	CO 3
Q 3	Differentiate between product layout and process layout.	5	CO 3
Q 4	Enlist the objectives of Group technology.	5	CO 5
Q 5	Discuss the flexible manufacturing system based on kind of manufacturing operations they can perform.	5	CO 1
Q 6	Differentiate between unit load carriers and pallets.	5	CO 2

SECTION B

Q 7	Discuss the principles of material handling system, which are considered as the Key to success of effective material handling system to achieve Greater Productivity and workers satisfaction	10	CO 2
Q 8	Contrast on the use of hoisting appliances like roller chains and lifting tackles during material handling.	10	CO 4
Q 9	Explain how the flow and movement of materials can be tracked inside the plant by using modern technologies. <p style="text-align: center;">OR</p> Explain how to make the materials handling facility to be more effective by using different control systems and safety measures.	10	CO 4

SECTION-C

Q 10	(a) Explain the basic structure of OPTIZ system .Evaluate the basics of part coding and classification of part families in group technology.	20	CO 5
Q 11	Write a shot notes on the following with respect to material handling during AS/RS system (i) Wired Navigation (ii) Guide Tape (iii) Laser Navigation (iv) Vision Guidance OR Discuss the characteristic features and benefits of flexible manufacturing systems. Explain some operational issues encountered during planning and implementation of FMS.	20	CO 5