

No. of Printed Pages : 03

Roll No.

841

B. Tech. EXAMINATION, May 2018

(Eighth Semester)

(Old Scheme) (Re-appear Only)

(ME)

ME438

FLEXIBLE MANUFACTURING SYSTEM

Time : 3 Hours]

[Maximum Marks : 100

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt any *Five* questions. All questions carry equal marks.

1. (a) Differentiate among various automation strategies. **10**

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- (b) How will you automate a manufacturing operation ? **10**
2. (a) How will you control and analyse operation of a single-station assembly machine ? **10**
- (b) Write short note on part feeding devices. **10**
3. (a) How will you design a machine cell ? **10**
- (b) Write short note on group technology. **10**
4. Where will you apply FMS technology ? How will you control data file, system reports and operation of a FMS ? **20**
5. (a) Define robot. Classify its motives and driving systems. **10**
- (b) Describe various components of Industrial Robot using neat sketch. **10**

6. (a) Differentiate between Lead through programming and motion programming. **10**
- (b) Write short note on off-line programming and work cell control. **10**
7. (a) How will you process an assembly and inspection operation using robot ? **10**
- (b) What are various technical features of an industrial robot ? **10**
8. Write short notes on the following : **7,7,6**
- (a) Detroit-type automation
- (b) Machine cell design
- (c) FMS work station.