

R16

Code No: 138AT

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, July - 2021

AUTOMATION IN MANUFACTURING

(Common to ME, MCT)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

1. Explain the types and strategies of automation in detail. [15]
- 2.a) Discuss the automation in machine tools.
b) Explain mechanical feeding and tool changing for automation. [7+8]
3. Explain design and fabrication of automated flow lines. [15]
- 4.a) Analyze the transfer lines with buffer storage.
b) Explain implementation of automated flow lines. [7+8]
- 5.a) What are the factors to be considered in the analysis of line balancing of assembly line design?
b) With a neat sketch, explain the various elements of assembly line. [8+7]
6. Discuss the automated guided vehicle systems with a neat sketch. [15]
- 7.a) Explain work in process storage.
b) Discuss automated storage systems. [8+8]
8. Explain concurrent engineering in detail. [15]

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