Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May– 2017**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Code** | **14EI2032** | **Duration :** | **3 hrs** |
| **Sub. Name** | **FLEXIBLE MANUFACTURING SYSTEMS** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Explain in detail about industrial automation. | CO1 | 15 |
| b. | What are the significance of automation? | CO1 | 5 |
| (OR) | | | | |
| 2. | a. | Describe in detail few strategies to improve Production and Manufacturing. | CO1 | 15 |
| b. | Draw the information processing cycle in a typical Manufacturing firm. | CO1 | 5 |
| 3. | a. | Explain the configurations of work flow and oblectives of flow line . | CO1 | 15 |
|  | b. | Explain any three transfer mechanisms. |  | 5 |
| (OR) | | | | |
| 4. | a. | Describe in detail about Production flow analysis. | CO2 | 15 |
|  | b. | Explain the elements of part feeding devices. | CO2 | 5 |
| 5. | a. | Explain in detail about machine cell design. | CO2 | 15 |
|  | b. | What are the significance of GT? | CO2 | 5 |
| (OR) | | | | |
| 6. | a. | Explain in detail the types of FMS. | CO3 | 15 |
|  | b. | What are the machines used in FMS? | CO3 | 5 |
| 7. | a. | Explain the FMS layout configurations. | CO3 | 15 |
|  | b. | What are the functions performed bt FMS computer control system ? | CO3 | 5 |
| (OR) | | | | |
| 8. | a. | How to analyse the FMS using mathematical models? | CO3 | 15 |
|  | b. | Explain computer control system in flexible manufacturing systems. | CO3 | 5 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Describe the fundamental planning process of flexible manufacturing systems. | CO3 | 15 |
|  | b. | Briefly explain the applications and benefits of Flexible manufacturing systems. | CO3 | 5 |

ALL THE BEST