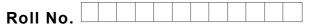


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Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(CAD/CAM) (Elective-II) (Sem.-2)**MECHATRONICS** Subject Code : ME-514 Paper ID : [E0868]

Time: 3 Hrs.

Max. Marks: 100

INSTRUCTION TO CANDIDATES :

- Attempt any FIVE questions out of EIGHT questions. 1.
- 2. Each question carries TWENTY marks.
- 1. Explain the construction and working principle of any four pneumatic directional control valves with the help of neat sketch.
- 2. What do you mean by operational amplifier? Discuss various configurations of operational amplifiers.
- 3. What is the procedure for selection of sensor? Discuss any two force sensor.

stRanker.co Explain the following with their applications : 4.

- a) Hall effect sensor
- b) Tachometer
- c) Absolute optical encoder
- d) Resolver
- What do you mean by modeling element? Distinguish between physical and mathematical 5. model.
- Explain the constructional features of the DC motor with a neat sketch and describe the 6. working of an AC servo motor.
- 7. a) Illustrate in detail Computer and interfacing.
 - b) Write a detailed note on PLC.
- 8. Describe the construction and working principle of microprocessor with the help of schematic diagram and list its applications.