

22658

23242

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) List the benefits of CIM in business organization.
- (b) Give two examples of Supply Chain Management (SCM) company.
- (c) Define the term “Internet Network” & “Intranet Network”.
- (d) State major elements of FMS system.
- (e) Enlist the different strategies of automotion system.
- (f) Define the “Automation”. Also write its types.
- (g) List various robot joints.



- 2. Attempt any THREE of the following :** **12**
- (a) Differentiate between CAD (Computer Aided Design) and CAM (Computer Aided Manufacturing).
 - (b) “Internet of things and digital transformation is new emerging trends of CIM.”
Comment.
 - (c) Explain the role of Data Base Management System (DBMS) in business organization.
 - (d) Draw diagram only “Degree of Freedom” of robot and label the various movements and parts.
- 3. Attempt any THREE of the following :** **12**
- (a) Explain the role of Supply Chain Management System (SCM) in business organization.
 - (b) Write advantages and disadvantages of group technology.
 - (c) Differentiate between High Cost Automation and Low Cost Automation with suitable example.
 - (d) Apply the grippers for following material handling :
Iron, Glass sheet, Aluminium sheet, Mild steel scrap.
- 4. Attempt any THREE of the following :** **12**
- (a) Describe the Computer Aided Business Functions (CABF) with suitable example.
 - (b) State and explain any two network softwares used in computer networking.
 - (c) Classify the FMS based on its layouts.
 - (d) Explain “Multiple Operations” as the strategies of automation with suitable example.

5. Attempt any THREE of the following : 12

- (a) Draw the diagram of CAD/CAM product cycle and label the various elements on it.
- (b) Justify benefits of Customer Relationship Management (CRM) in business functions.
- (c) “Cloud Computation & Artificial Intelligence” is recent emerging trends in CIM. Comment.
- (d) List various sensors and actuators used in robot system.

6. Attempt any TWO of the following : 12

- (a) Prepare a simple model of CIM for various sections of company with neat diagram.
 - (b) Describe a simple star type network for a city mall with neat labelled diagram.
 - (c) Draw rotary and rectangular type layouts of FMS diagram and explain briefly.
 - (d) Draw diagram showing polar type configuration of robot, and show work envelope on it.
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