

GUJARAT TECHNOLOGICAL UNIVERSITY**MBA - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 2830402****Date: 08-12-2014****Subject Name: System Analysis and Design (SA&D)****Time: 10:30 am - 01:30 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Describe System Analysis and the major activities that occur during this phase of the System Development Life Cycle. **07**
- (b) Explain when to use different types of file organizations to store computer files. **07**
- Q.2** (a) Draw context diagram and leve-0 Data Flow Diagram for the Order Processing System. **07**
- (b) Explain in detail the following terms: **07**
1. Decomposition
 2. Coupling
 3. Cohesion
- (b) Describe different types of data errors? Explain the various techniques used by the Systems Designers to detect data errors before saving or transmission. **07**
- Q.3** (a) Explain what is meant by Critical Path Scheduling? Describe the process of creating Gantt charts and network diagram with an example. **07**
- (b) Contrast the following set of terms: **07**
- i. Encapsulation & Polymorphism
 - ii. Static binding & Dynamic binding
- Q.3** (a) Describe the structured walkthrough process. What roles need to be performed during a walkthrough? **07**
- (b) Describe five approaches to system testing **07**
- Q.4** (a) Draw E-R Diagram about Team, Players and their Fans including the following information: **07**
1. For each team: its name, its players, its team captain (one of its players) and the colour of its uniform.
 2. For each players: his / her name
 3. For each fan: his / her name, favorite teams, favorite players, and favorite colours.
- (b) What is Data-flow diagram? How data-flow diagrams can be used as an analysis tools. **07**
- Q.4** (a) Distinguish between unary, binary, and ternary relationships and give an example of each. **07**
- Q.4** (b) Explain the use of models, prototypes, and CASE tools in the systems development process. Also explain the pros and cons of agile development methods. **07**

- Q.5 (a)** Describe the process of coding, testing, and converting an organizational information system and outline the deliverables and outcomes of the process. **07**
- (b)** Describe six different sources of software **07**
- Q.5 (a)** What are different types of relationship employed in a use-case diagram and what is their purpose. **07**
- (b)** Explain the process of designing forms and reports, and the deliverables for their creation. **07**
