Seat No.: _____ Enrolment No._____

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**

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