

**Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot**  
Affiliated to Saurashtra University, Rajkot

**SEMESTER END EXAMINATION APRIL - 2018**

**B.Sc. Information Technology**

**16UITCC17 – STRUCTURED OBJECT ORIENTED ANALYSIS AND DESIGN METHODOLOGY**

*Duration of Exam – 3 hrs*

*Semester – IV*

*Max. Marks – 70*

**Part A (10x1= 10 marks)**

Answer **ALL** questions

1. Write the Class Relationship Types.
2. Write full form of LOC.
3. What is defect? How it differs from error?
4. Which metric includes complexity factor (Weighting Factor)?
5. Write full form of CRC.
6. List types of Maintenance.
7. Give one example of iterative model.
8. Write another name of Bubble Chart.
9. What is [I, S, O] Input, State, Output?
10. In which phase of SDLC “Use Case” diagram is useful?

**Part B (5x5 = 25 marks)**

Answer **ALL** questions

- 11a. Write skill required to work as System Analyst.

**OR**

- 11b. Discuss Car, Computer and Software in terms of Abstract Vs physical system and Tangible Vs. Intangible System.

- 12a. Explain linear Sequential Model.

**OR**

- 12b. Explain Spiral Model.

- 13a. Write short note on a Project Management Tool (Software).

**OR**

- 13b. Explain Timeline chart in terms of Project Tracking.

- 14a. What is Domain Analysis?

**OR**

- 14b. What is Object Oriented Relationship Model?

- 15a. Describe symbols of DFD and state five rules of drawing it.

**OR**

- 15b. Draw Structure chart of Hospital Management System.

***Part C (5x7 = 35 marks)***

Answer **ALL** questions

16a. Explain First phase of SDLC including Feasibility Analysis.

**OR**

16b. What a System Analyst does?

17a. Explain Iterative Model

**OR**

17b. Explain V-Model.

18a. Write short note on Drawing Tool (Software) with which you can draw Data Flow Diagram.

**OR**

18b. Explain Function Oriented Metrics.(with equation of FP)

19a. Explain Object Behavior Model.

**OR**

19b. Explain Object Oriented Analysis Process.

20a. Draw a 0 level Data Flow diagram for Hospital Management System. You can include process for issuing case paper, recording patient history, diagnosing and giving prescription by doctor, selling drugs, admitting patient into hospital (ICU), managing database of nurses and other employees and equipment's, also include process to print necessary reports which are helpful to run hospital with proper management. ( You are allowed to use your experience of your visit to a hospital)

**OR**

20b. Draw an Activity Diagram for issuing case paper for patient in a hospital, to examine and give prescription to patient by doctor in a hospital. Doctor may admit patient if he or she is serious. Assume other activities as per your knowledge and Experience.

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