

M.C.A. SEM - II (CHOICE BASED CREDIT SYSTEM 2011 & 2012 COURSE) : WINTER - 2017

SUBJECT : OBJECT ORIENTED ANALYSIS AND DESIGN

Day : **Saturday**
Date : **11/11/2017**

W-2017-1691

Time : **10.00 AM TO 01.00 PM**
Max. Marks : 100

N. B. :

- 1) Attempt **ANY FOUR** from Section – I. Each question carries **15** marks.
 - 2) Attempt **ANY TWO** from Section – II. Each question carries **20** marks.
 - 3) Answers to both the sections should be written in the **SEPERATE** answer book.
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SECTION - I

- Q. 1** Explain Dependency, Association, Generalization and Realization (15) relationships in UML.
- Q. 2** List the names of UML diagrams. Also explain advantages and disadvantages (15) of UML diagram.
- Q. 3** Explain role of GRASP in assigning responsibility to classes and objects in (15) OOAD.
- Q. 4** Explain Collaboration diagram and Sequence diagram and the features that (15) differentiate them.
- Q. 5** What is Domain Modelling? Discuss in detail the different relationships in it. (15)
- Q. 6** Write short notes on **ANY THREE** of the following: (15)
- a) Include and Extend relationship
 - b) Aggregation and Composition
 - c) Package diagram
 - d) Synchronous and Asynchronous messages

SECTION – II

- Q. 7** A College is having various departments. Each department requires number (20) of items like computers, printers, scanners and laboratory equipments while functioning. When a department requires new items, it prepares a requirement list and gives it to Purchase committee of the college. Purchase committee prepares a purchase inventory and gives it to the Principal. After communication with Accounts department, Principal approves or rejects. If approved, a Purchase Order is prepared and sent to the Supplier. Supplier sends order items to the respective department.
Draw Use case diagram
Draw Activity diagram.
- Q. 8** Draw Class diagram for Medical Shop Management system. Consider at least (20) four classes and show suitable relationships amongst them with proper multiplicity.
- Q. 9** a) Consider the case where Mr. X gives a telephonic call to Mr. Y. Prepare a (10) Collaboration diagram.
- b) Draw State Transition diagram for a 'Coffee Vending Machine' with all (10) possible states.

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