

March/April

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T.Y. B.Sc. (Computer Science) (III Sem.) EXAMINATION, 2016

COMPUTER SCIENCE

Paper VI

CS-336 : Object-Oriented Software Engineering

(2013 PATTERN)

Time : Two Hours

Maximum Marks : 40

- N.B. :—**
- (i) Neat diagrams must be drawn wherever necessary.
 - (ii) Figures to the right indicate full marks.
 - (iii) All questions carry equal marks.
 - (iv) All questions are compulsory.

1. Attempt *all* of the following : [10×1=10]
- (a) What do you mean by organizing the objects ?
 - (b) Define an object “Debit Card” with possible attributes and operations with visibility.
 - (c) What do you mean by qualified association ?
 - (d) Give any *two* names of the initial researchers.
 - (e) What is meant by N-Ary association ?
 - (f) Which symbol is used to define a node ?
 - (g) What is the use of Swimlanes ?
 - (h) Define inception.

P.T.O.

- (i) Define Deployment Component.
- (j) Give any *two* attributes of a good test case ?

2. Attempt any *two* of the following : [2×5=10]

- (a) What is relationship ? Explain dependency relationship with example.
- (b) What is package ? Explain it with import and export stereotype.
- (c) Discuss components of use case diagram.

3. Attempt any *two* of the following : [2×5=10]

- (a) How to model an embedded system ?
- (b) Explain Top-down testing and give its advantages.
- (c) A hospital is having wards such as general, special and ICU. Patients admitted to wards as per their choice. Doctor treats the patients. Draw a class diagram for this applying relationship association with multiplicity. Use generalization and aggregation.

4. Attempt the following :

- (A) The Government announces a scheme for fertilizer subsidy for Indian Farmers where application are invited online. Many farmers has to apply and provide complete details with various documents such as Adhar Card, 7/12 certificate and bank details.



Applicants can first register on the site then Government authorities gives One Time Password (OTP) on mobile to verify the applicants. After successful registration applicants can add, edit, delete and upload documents as and when required. After final submission Government authorities e-verify the documents and allowed or disallowed the subsidy for farmers.

Consider the above case and draw the following diagrams :

- (1) Use case diagram [3]
- (2) Activity diagram. [4]
- (B) What is Elaboration ? State the significant of elaboration. [3]

Or

- (B) Prepare state transition diagram for stack implementation using linked list. [3]