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[5163]-504

T.Y. BCA (Fifth Semester) EXAMINATION, 2017

504 : OBJECT ORIENTED SOFTWARE ENGINEERING

(2013 PATTERN)

Time : Three Hours

Maximum Marks : 80

N.B. :— (i) All questions are compulsory.

(ii) Neat diagrams must be drawn wherever necessary.

(iii) Figures to the right indicate full marks.

1. Attempt any *eight* of the following : [8×2=16]

(a) Define Polymorphism.

(b) What is Package ?

(c) What is the purposes of state chart diagram ?

(d) What is meant by object-oriented Analysis ?

(e) Write down the generic components of object-oriented design model.

(f) What is the use of tagged values in UML Diagrams ?

(g) Define joining.

(h) What is Recursive Message ?

(i) Define UML.

(j) What is meant by Elaboration ?

P.T.O.

2. Attempt any *four* of the following : [4×4=16]

- (a) What are the features of UML ?
- (b) What is association relationship ? Explain in detail with role, multiplicity.
- (c) Draw use case diagram for Railway Reservation System.
- (d) What is meant by Iterative Development ? State its various advantages.
- (e) Explain object design process in detail.

3. Attempt any *four* of the following : [4×4=16]

- (a) Explain any *four* 'structural things with well labelled diagram.'
- (b) Explain dependency relationship along with stereotypes.
- (c) Explain Deployment diagram with any *four* notations.
- (d) Define UP ? Explain phases with diagram.
- (e) Explain the Jacobson's method of object-oriented design.

4. Attempt any *four* of the following : [4×4=16]

- (a) Explain class diagram with suitable example.
- (b) Write a short note on "Interaction diagram".
- (c) Explain architecture of UML.
- (d) Explain system design process with diagram.

(e) Define the following terms :

- (i) Transition
- (ii) Instance
- (iii) Actor
- (iv) Realization.

5. Attempt the following : [16]

“Supermarket” is a well known supermarket with a chain of stores. The supermarket accepts payment in cash or through credit card of major Bank. Customers using credit card given the card at the time of purchase and sign the receipt. Once in a week, the billing clerk prepares a statements and forwards it along with the signed slips to the respective Banks. The Bank make payment on statements to statement basis sometimes rejecting some of the slips listed for irregularities. Customer having “Supermarket card” have charge slips for certain amount of purchase. Each time a purchase is made; the balance on the charge slip is updated and authorized. Some customers make purchase using either of the above mentioned facilities.

Consider above situation, draw the following UML diagrams :

- (a) Class Diagram
- (b) Sequence Diagram
- (c) Activity Diagram
- (d) Use Case Diagram.