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44 (6) BCA-6.1 (OOAD) (EL)

2023

**OBJECT ORIENTED ANALYSIS
AND DESIGN**

Paper : BCA-6.1

Full Marks : 80

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

Answer any four questions.

1. (a) Define object oriented analysis. Why is it important? 5

(b) Define the following terms with example : 2×5=10

Object, Classes, Encapsulation, Inheritance, Data hiding

Contd.

- (c) What do you mean by Generalisation ?
Explain with example. 5
2. (a) What are links and association ?
Explain with examples. 5
- (b) Differentiate between system design
and object design. 5
- (c) What are the advantages and
disadvantages of object oriented
analysis ? 5
- (d) Define dynamic modelling. What are the
major components of dynamic
modelling ? 5
3. (a) Define the following terms : $1 \times 10 = 10$
- (i) Guard condition
- (ii) Events
- (iii) Scenario
- (iv) Concurrency of events

- (v) DFD
- (vi) ERD
- (vii) Processes
- (viii) Abstraction
- (ix) Constraints
- (x) Relationship

(b) Define functional modelling. What are the major components of DFD? Explain with the help of *one* example. 10

4. (a) What are the main relationship between object, dynamic and functional models? Explain briefly. 10
- (b) Define class and object diagram with example. 5
- (c) What do you mean by component diagram? Explain briefly. 5

5. Write short notes on : **(any four)**

5×4=20

- (a) Deployment diagram
- (b) Use case diagram
- (c) Interaction diagram
- (d) Identifying patterns and handling boundary conditions
- (e) Implementing associations