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ECS305

B.Tech

(SEM III) ODD SEMESTER THEORY EXAMINATION 2009-10
OBJECT ORIENTED SYSTEMS

Time : 3 Hours]   *[Total Marks : 100*

Note :   *Attempt all questions.*

1   Attempt any **four** parts :   5×4=20

   (a)   What is object oriented methodology ?

   (b)   Explain links and association with suitable example.

   (c)   Differentiate between aggregation and association.

   (d)   Prepare a portion of an object diagram for a library book checkout system that shows the data a book in due and the late charges for an over due book as derived objects.

   (e)   Explain generalization and inheritance with example.

   (f)   What is meta data ? How it is important in object oriented methodology ?

2   Attempt any **four** parts :   5×4=20

   (a)   What is dynamic modeling ? What is its important ?

   (b)   What are nested state diagrams ? Explain by taking a suitable example.

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(c) Prepare a list of objects that you would expect of the system to handle a Telephone Answering Machine.

(d) Explain event and state by taking a suitable example.

(e) What do you mean by aggregation concurrency ?

(f) Discuss various ways of implementing DFD.

3 Attempt any **two** parts :   2×10=20

(a) What is functional modeling ? What are its advantages ? Describe the relation of functional model, object model and dynamic model.

(b) What is JSD ? Compare between SA/SD and OMT modeling.

(c) What is Java foundation classes ? Prepare a date flow diagram for computing the volume and a surface of cylinder. Inputs are the height and radius of the cylinder. Output are volume and surface area. Discuss several way of implementing the data flow diagram.

4 Attempt any **four** parts :   5×4=20

(a) How are methods and data organised in an object oriented program ? With a example.

(b) What are command line arguments ? Write a program for finding factorial for a given number using command line argument.

(c) What is type casting ? Why is it required in programming ?

(d) What is copy constructor with example ?

(e) What is an interface ? Write a program to find the area of the circle by using interface.

(f) How many types of layout manager are used in java programming ? Describe each type in short.

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5   Attempt any **two** parts : $2×10=20$

(a)   What is swing ? How it differs with AWT. Write a program in swing which shows two input boxes names uses id and passwords.

(b)   What is applet, define its life cycle ? How servlets are different from applet ? Write a program in servlet which prints the word "hello".

(c)   Write short notes on any two :

(i)   JDBC

(ii)   Difference between Java and C++

(iii)   Java Beans

(iv)   Lavatron applet.