

C 47544

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Name.....

Reg. No.....

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
JUNE 2008

IT 2K 603—DATA MODELLING AND DESIGN

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

1. (a) What do you mean by inheritance ?
(b) What are the different types of messages ?
(c) Explain callback mechanism.
(d) Differentiate between utility packages and classes.
(e) Write a note on class cohesion.
(f) What is type conformance ?
(g) Describe the different types of components.
(h) What are heavy weight components ?

(8 × 5 = 40 marks)

2. (a) Explain in detail, features of object oriented programming.

(15 marks)

Or

- (b) (i) What is a class ? Explain in detail with example. (8 marks)
(ii) What do you mean by overriding ? Explain with an example. (7 marks)
3. (a) (i) Explain classes, attributes and operations with the aid of UML notations. (7 marks)
(ii) What is an asynchronous message ? How is it depicted ? Explain using a collaboration diagram. (8 marks)

Or

- (b) (i) Differentiate between window layout diagram and window navigation diagram. (8 marks)
(ii) What do you mean by parameterized class and utility packages ? (7 marks)
4. (a) (i) Explain in detail encumbrance. (8 marks)
(ii) What do you mean by allowed behaviour of a class ? (7 marks)

Or

- (b) (i) What is state space and class invariant ? (8 marks)
(ii) State and explain Law of Demeter. (7 marks)

Turn over

5. (a) (i) Explain :

alternate cohesion
multiple cohesion
functional cohesion.

(8 marks)

(ii) What are the features of a software component ?

(7 marks)

Or

(b) (i) With suitable examples, explain abuses of inheritance.

(8 marks)

(ii) What are the different states in a class interface ?

(7 marks)

(4 × 15 = 60 marks)