2005-CALICUT UNIVERSITY
B.TECH DEGREE EXAMINATION
DATA MODELING AND DESIGN
(INFORMATION TECHNOLOGY)

TIME-3HOUR
MARKS-100

ANSWER FULL QUESTIONS

SECTION A 8*5=40 MARKS

1.a) explain how object differs from variable.

b) give example for function over loading. also specify the rules.

c) with an example, explain class diagram.

d) what do you mean by window navigation diagram? explain.

e) explain the significance of cohesion with examples.

f) explain principle of type conformance.

g) compare multilevel and multiple inheritance.

h) what are components? describe.

SECTION B 4*15=60 MARKS

2.a i) highlight the salient features of OO programming.

ii) discuss the significance of message passing with 2 distinct examples.
                    OR
b i) what is runtime polymorphism? explain.

ii) with simple example, differentiate the benefits of inheritance over non-inheritance based applications.

3.a i) compare association and aggregation of classes.

ii) explain the use of sequence diagrams.
                    OR
b i) draw the state diagram corresponding to the transaction in a bank by a customer.

ii) what is the significance of architecture diagram? explain.

4.a i) for an application of your choice, bring out class invariants, preconditions and post conditions

ii) with examples, discuss the types of visibility levels of classes.
                    OR
b i) what is coupling? how is it different for procedure and object oriented systems?

ii) discuss the features of encapsulation in detail.

5.a i) highlight the characteristics of polymorphism?

ii) are components different from objects? how?
                    OR
b i) what is template? explain with example.
ii) why and how maxim lasses are useful for OO applications.