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Total Number of Pages : 03 **B.Tech.**
PIT6J009

6th Semester Regular Examination 2017-18
OBJECT ORIENTED SOFTWARE ENGINEERING
BRANCH : IT
Time : 3 Hours
Max Marks : 100
Q.CODE : C451
Answer Part-A which is compulsory and any four from Part-B.
The figures in the right hand margin indicate marks.

Part – A (Answer all the questions)

Q1 **Answer the following questions : *multiple type or dash fill up type :*** **(2 x 10)**

a) ……. Is a black box testing method?
(i) Boundary value analysis
(ii) Basic path testing
(iii) Code path Analysis
(iv) None of the above

b) What encapsulates both data and data manipulation functions ?
(i) Object
(ii) Class
(iii) Super Class
(iv) Sub Class

c) Which of the following is a disadvantage of OOD ?
(i) Easier maintenance
(ii) Objects may be understood as stand-alone entities
(iii) Objects are potentially reusable components
(iv) None of the mentioned

d) The object of Testing is ?
(i) Debugging.
(ii) To uncover error.
(iii) To gain modularity.
(iv) Analyze system

e) The term module in the design phase is refers to ?
(i) Function.
(ii) Procedure.
(iii) Sub program.
(iv) All the above.

f) An important aspects of coding is ?
(i) Readability.
(ii) Productivity.
(iii) To use as small memory space as possible
(iv) Brevity

g) …… concerned with developing an object-oriented model of a the application domain.
(i) Object oriented analysis
(ii) Object oriented methods
(iii) Object oriented design
(iv) Object oriented programming

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h) The construction is used to…….. error?
- (i) Compilation.
- (ii) Runtime.
- (iii) Design Time.
- (iv) None of the above.

i) How is generalization implemented in Object Oriented programming languages?
- (i) Inheritance
- (ii) Polymorphism
- (iii) Encapsulation
- (iv) Abstract Classes

j) The term module in the design phase is refers to ?
- (i) Function.
- (ii) Procedure.
- (iii) Sub program.
- (iv) All the above.

Q2 **Answer the following questions : *Short answer type :*** **(2 x 10)**

a) Explain how DFD are designed in an object oriented approach. Discuss it with teaching learning system.

b) When would you use interaction diagrams?.

c) What do you mean by regression testing ?

d) What are the major differences between design patterns and frameworks?

e) How can an object-oriented system be thought of as an organic system?

f) What is the main advantage of DFD?

g) Define CORBA?

h) What is the strength of Booch methodology?

i) What is inheritance ? How we can incorporate inheritance adjustment in object oriented methodology ?

j) Describe the differences between patterns and frameworks.

Part – B (Answer any four questions)

Q3 **a)** Suppose you are developing a software product in the organic mode. You have estimated the size of the product to be about 100,000 lines of code. compute the nominal effort and the development time. **(10)**

b) Briefly explain about Humphrey's Capability Maturity Model and its different levels ? **(5)**

Q4 **a)** What is the difference between a sequence diagram and a collaboration diagram ? **(10)**

b) Difference among basic COCOMO model, intermediate COCOMO model and complete COCOMO model. **(5)**

Q5 **a)** Consider a software project with 5 tasks T1-T5.Duration of the 5 tasks(in days) 15,10,12,25 and 10 respectively.T2 and T4 can start when T1 is complete.T3 can start when T2 is complete.T5 can start when both T3 and T4 are complete. When is the latest start date of the task T3 ? What is the slack time of the task T4 ? Which tasks are on the critical path ? **(10)**

b) What do you mean by balancing a DFD? Illustrate your answer with suitable example **(5)**

Q6	**a)**	What is a stereotype in UML ? Explain with some example situations where a s stereotype can be used.	**(10)**
	b)	Draw the schematic diagram to represent the Spiral model in software development life cycle.	**(5)**
Q7	**a)**	Explain the requirement elicitation activities.	**(10)**
	b)	Write down the difference between integration testing and system testing.	**(5)**
Q8	**a)**	What is centralized (Fork) and decentralized(Stair) structure for interaction diagram? Which is better?	**(10)**
	b)	How the Agile software development is different from Extreme programming (XP), Explain ?	**(5)**
Q9	**a)**	What are Different diagram used in UML with proper examples?	**(10)**
	b)	What are Structural things in UML?	**(5)**