[5059]-207
B.E. (Computer Engineering)
SOFTWARE ARCHITECTURE
(2008 Pattern)

Time : 3 Hours]   *[Max. Marks : 100*

Instructions to the candidates:

1) *Answers to the two sections should be written in separate answer books.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Assume suitable data, if necessary.*

SECTION - I

Q1) a) Explain software architecture and functional nonfunctional requirements.**[6]**

b) Write short notes on **[12]**

i) Software design

ii) Synchronous and asynchronous messaging

OR

Q2) a) Write short note on software architecture and 4+1 views. **[8]**

b) Explain software architect and his/her role in IT industry. **[10]**

Q3) Explain the given terms in context of QUALITY. **[16]**

a) Importance of achieving 'performance' for any system.

b) Quality attributes

c) Testability

d) Relationship between design and quality

OR

Q4) Explain and illustrate the following concepts (in context of quality attribute/ tactics) with examples, in brief **[16]**

a) USABILITY

b) Interfaces and ease of modifiability

c) Authentication as a security tactic

d) Performance, response time, throughput

Q5) a) Give intent/motivation for Singleton pattern, with examples. **[8]**

b) Write short note on MVC pattern. **[8]**

OR

Q6) Which design pattern will you choose in following CONTEXT and why?

a) Explain how the pattern will work with UML diagrams, CONTEXT is that you wish to create objects in your application Dynamically? **[8]**

b) Write short note on MEDIATOR pattern **[8]**

SECTION - II

Q7) a) Compare the java world and Microsoft world for their offerings .NET and J2EE. **[9]**

b) What is the role of JAVA SE, JAVA EE technologies? **[9]**

OR

Q8) a) Discuss how JDBC is used by web applications. **[9]**

b) What is the need of J2ME and Java APIs? **[9]**

Q9) In brief explain the concept and give good examples to illustrate. **[16]**

a) Server side responsibilities.

b) XMLDOM

c) Custom controls in VB

d) Need for JSF

OR

Q10) Explain following Web Client side concepts through simple examples. **[16]**

a) Browser differences

b) Use of active X controls

c) XHTML

d) Java applets

Q11) a) Explain role of server side in a typical website and UDDI **[8]**

b) List and explain advantages of java and struts. **[8]**

OR

Q12) a) Explain interfaces and DLL servers in context of COM/.NET. **[8]**

b) Write short note on .NET and advantages of .NET. **[8]**

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