P1454

SEAT No. :

[4759]-211

B.E. (Computer Engineering)

d: SOFTWARE ARCHITECTURE

(2008 Course) (Semester - I) (Elective -I) (410444)

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

Instructions to the candidates:

1) Answers to the two sections should be written in separate answer books.

2) From Section -I, answer (Q1 or Q2) and (Q3 or Q4) and (Q5 or Q6).

3) From Section -II, answer (Q7 or Q8) and (Q9 or Q10) and (Q11 or Q12).

4) Neat diagrams must be drawn wherever necessary.

5) Figures to the right side indicate full marks.

6) Assume suitable data, if necessary.

SECTION - I

Q1) a) With neat diagram explain architecture business cycle in brief. **[6]**

b) What is Software Architecture? Explain in brief.

Comment on the architecture activity: Creating the business case for the system. **[8]**

c) Comment "Architecture is a high level design". **[4]**

OR

Q2) a) Explain decomposition, uses and class with reference to module based structures. **[8]**

b) Define and explain architectural pattern, reference models and reference architectures. **[4]**

c) Write note on documenting Software Architecture. **[6]**

Q3) a) Explain quality attributes of a web application. **[8]**

b) With the help of appropriate diagram explain availability scenario and testability scenario. **[8]**

OR

Q4) Explain following in the context of quality attributes **[16]**

a) Quality attribute scenario.

b) Usability aspect observed in MS-WORD.

c) Business qualities.

d) Maintain data confidentiality.

Q5) a) Write note on Chain of responsibility and mediator pattern. **[8]**

b) Define Design pattern. Write C++ or JAVA code for Singleton pattern. **[8]**

OR

Q6) a) With structure and example explain Abstract Factory pattern. **[8]**

b) What is proxy pattern? Explain variants of proxy pattern? **[8]**

SECTION - II

Q7) a) With neat diagram explain how MVC is supported by Java. **[8]**

b) Explain the need of JDBC. **[2]**

c) What is Enterprise Java Beans? Explain entity, message and session beans. **[8]**

OR

Q8) a) Explain role of middleware in 3-tier architecture. **[6]**

b) Explain following **[12]**

i) RMI

ii) JMS

Q9) a) Explain Java applet life cycle. **[8]**

b) Explain various technologies used to develop client side. **[8]**

OR

*Q10)*a) Compare XML and HTML. **[4]**

b) Explain 3-tier architecture with diagram. **[8]**

c) Write note on AJAX. **[4]**

*Q11)*a) Enlist and explain various server side technologies. **[8]**

b) What is java web service? Explain the relationship between web services and SOA. **[8]**

OR

*Q12)*a) Explain with diagram struts architecture. **[8]**

b) Explain following: **[8]**

i) JSP

ii) Java Servlet

ℰ ℰ ℰ