

Total No. of Questions : 10]

SEAT No. :

P2046

[4859] - 1075

[Total No. of Pages : 2

B.E. (Computer Engg.)

ADVANCED COMPUTER PROGRAMMING (Elective - I)

(2012 Pattern) (Semester - I)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Figures to the right indicate full marks.*
- 2) Assume suitable data, if necessary.*

Q1) a) What is EJB? How it is different from RMI. What are the major categories of EJB? **[5]**

b) What is concurrency? What are the basic approaches to achieve concurrency? **[5]**

OR

Q2) a) What is the difference between SOAP web service and Restful Web service? What is the significance of SOAP, WSDL and UDDI in SOAP web service. **[5]**

b) What is string Tokenizer and Observable in java? Explain any two methods of these utilities? **[5]**

Q3) a) Explain use of simple lock in a producer consumer problem. **[5]**

b) Explain following java collection framework? **[5]**

i) Hashmap ii) Treemap iii) Itrators

OR

Q4) a) Write a simple program using locks and condition variables. **[5]**

b) How to use timestamp in the distributed request scheduling problem?[5]

Q5) a) What are the advantages of JSP over Java servlets? Expalin life cycle of a JSP. **[8]**

b) Explain how Ajax is used for development of Rich Internet Applications (RIA). Give the examples of Ajax effects which improve the web page interactivity **[9]**

P.T.O.

OR

- Q6)** a) Explain HTML Document Object Model (DOM) with suitable example. [8]
b) Explain the following JDBC API components: [9]
- DriverManager, SQLException, Connection, Statement, ResultSet

- Q7)** a) What are column oriented databases? Compare column oriented databases with relational databases. [8]
b) What is HDFS? How it is different from traditional file systems? [8]

OR

- Q8)** a) What are document oriented databases? Give MongoDB database example for shopping application. [8]
b) What is the difference between traditional RDBMS and Hadoop? [8]

- Q9)** a) Draw a diagram for MapReduce system showing different stages/phases like input-split, shuffle, sort, combine etc. [8]
b) Explain the following execution modes of Pig: [9]
i) Local mode ii) MapReduce mode

OR

- Q10)** a) Which interfaces need to be implemented to create Mapper and Reducer for the Hadoop? [8]
b) Explain the functionalities of: [9]
i) Mapper ii) Combiner
iii) Reducer iv) Partitioner

