

Total No. of Questions : 10]

SEAT No. :

P3109

[5154]-676

[Total No. of Pages : 2

B.E.(Computer Engineering)
ADVANCED COMPUTER PROGRAMMING
(2012 Pattern) (Semester-I) (Elective-I)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Neat diagram should be drawn wherever necessary.*
- 3) *Figure to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Explain with examples distributed lock using Timestamp. [5]
b) What is concurrency? What are the basic approaches to achieve concurrency. [5]

OR

- Q2)** a) Explain with examples single copy and multi copy distributed shared memory. [5]
b) What is JVM? Why Java is called platform independent programming languages? What is the difference between JDK and JRE? [5]

- Q3)** a) What is thread? Describe the complete life cycles of thread. [5]
b) Explain following Java collection framework. [5]
i) Hashmap
ii) Treemap
iii) Iterators.

OR

- Q4)** a) What are the main benefits of SOA? How to achieve loose-coupling in SOA? [5]
b) What is Reflection in Java? What are its drawbacks and practical usages? [5]

P.T.O.

- Q5) a)** What are advantages of JSP over Java servlets? Also explain WSDL. **[8]**
b) What is cloud computing? Explain its framework model in detail. **[9]**

OR

- Q6) a)** What is Ajax? What are Ajaxes applications? What are the advantages and disadvantages of Ajax? Also write difference between Ajax and Javascript. **[8]**
b) What is the real difference between HTML and HTML5? Write short notes on JSP architecture. **[9]**

- Q7) a)** What are the column oriented databases? Compare column oriented databases with relational databases. **[8]**
b) What are the best features of Hadoop? What are the advantages of Hadoop over traditional RDBMS? **[8]**

OR

- Q8) a)** Explain with examples. **[8]**
i) HDFS Daemons
ii) Hadoop YARN
iii) Word Count Program.
b) What are document oriented databases? Give mongoDB database examples for Hotel database application. **[8]**

- Q9) a)** Draw a diagram for Map Reduce system showing different phases/stages like input-split, shuffle, sort, combine etc. **[8]**
b) Explain with examples data types and complex data types in pig. **[9]**

OR

- Q10) a)** Explain word count implementation via Hadoop framework. **[8]**
b) Explain the functionalities of: **[9]**
i) Mapper
ii) Combiner.
iii) Reducer

