

Total No. of Questions : 10]

SEAT No. :

P3220

[Total No. of Pages : 2

[5354]-676

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

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Solve Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.
- 2) Figures to the right indicate full marks.
- 3) Assume Suitable data, if necessary.

- Q1)** a) Explain with examples Object Transfer service using Path Reversal. [5]  
b) What are Locks? Explain Distributed Lock services using Timestamps. [5]

OR

- Q2)** a) What is bounded buffer? How semaphores are useful in bounded buffer. [5]  
b) Define Service oriented architecture. List any four SOA characteristics. [5]

- Q3)** a) What is auto-boxing and unboxing? When does it happen in Java? [5]  
b) What is a thread? Describe the complete life cycle of thread. [5]

OR

- Q4)** a) Write an applet for each of following graphics methods.  
drawoval(), drawrect(), drawline(), filloval() [5]  
b) Explain the following with servlet. [5]  
i) How can we create deadlock condition on our servlet?  
ii) For initializing a servlet can we use constructor in place of init()? Why?  
iii) How can you get the information about one servlet context in another servlet?

**P.T.O.**

- Q5)** a) What is cloud computing? Explain its framework model in detail. [9]  
b) What is Ajax? What are Ajax applications? What are the advantages and disadvantages of Ajax? Also write difference between AJAX and JavaScript. [8]

OR

- Q6)** a) What is difference between web services and software component? How do we create a web service in Java? Give suitable example of web service in Java. [9]  
b) What is EJB? How it is different from RMI? Explain in detail web services and software component. [8]
- Q7)** a) Write a short notes on Hadoop Ecosystem. Also explain Features and advantages of Hadoop. [8]  
b) Write short notes on: [8]  
i) MongoDB  
ii) AJAX  
iii) RDBMS verses Hadoop.

OR

- Q8)** a) What do you mean by Hadoop YARN? What are the failure handling in YARN? [8]  
b) Explain shared Nothing Architecture (SNA) with advantages and disadvantages. [8]
- Q9)** a) Explain with examples ETL Processing. [8]  
b) Explain the different execution modes of Pig. [9]

OR

- Q10)** a) Explain with examples Hadoop Daemons, MongoDB, Word-Count Program and MapReduce function. [9]  
b) Explain the functionalities of Mapper, Reducer, Combiner, Partitioner. Also write searching and sorting using MapReduce. [8]

