

Total No. of Questions : 8]

SEAT No. :

P4139

[4860]-345

[Total No. of Pages : 3

M.E. (Computer Engg.)

ADVANCED INTERNET PROGRAMMING

(2008 Pattern) (Semester - II)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer three questions from section - I and three questions from section - II.
- 2) Answers to the two sections should be written in separate books.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Figures to the right indicate full marks.
- 5) Assume suitable data, if necessary.

**SECTION - I**

**Q1) a)** Draw a diagram of the Document Object Model (DOM) interface showing the relationship between browser, HTML document, scripts, compiled modules and the DOM. How are the dynamic capabilities of the client enabled? **[10]**

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

- i) What is the advantage of IPV6 over IPV4?
- ii) Describe why an application developer may choose to run an application over UDP rather than TCP?

**Q2) a)** Write shorts on the followings : **[8]**

- i) Compare 2-tier, 3-tier and N-tier architectures.
- ii) Explain how an HTML page differs from a DHTML page.
- b) i) Suitably explain the architectural pattern called MVC as implemented in the JAVA EE framework?
- ii) How much data can be send in a Single FTP session? How does Active FTP communication Work?

**[8]**

**P.T.O.**

- Q3)**
- a) i) Explain the life cycle of applet with a neat diagram.
  - ii) What are global variables in PHP? How are these variable declared and what are the problems associated with using them? Explain with example.
- [8]
- b) i) How you do Session Management in JSP? Explain.
  - ii) What are the types of statements in JDBC? What are the differences/ key features between the 3 different types of statements in JDBC?
- [8]
- Q4)**
- a) With reference to IBM portlet API explain the characteristics functions of the following objects :
    - i) Portlet request
    - ii) Portlet response
    - iii) Portlet session
- [8]
- b) i) State the sequence of steps that one needs to go through to create a bean.
  - ii) Write short notes on the following:
    - 1) Portlets
    - 2) Internationalization and localization
- [8]

**Q5) a)** With reference to the JMS API architecture, state the functions of the following: **[10]**

- i) JMS provider.
  - ii) JMS Client.
  - iii) Message.
  - iv) Administered object.
  - v) Native Clients.
- b) Draw a diagram showing the way the parts in (a) above interact in a JMS application.

**Q6)** Explain the following items:

- a) State what are the three most common web application architecture patterns? [4]
- b) What are the four types of modules specified by J2EE specification? [4]
- c) Differentiate between .jar, .ear and .war files? [4]
- d) What is the difference between Struts 1 and struts2? [3]
- e) How action-mapping tag is used for request forwarding in Struts configuration file? [3]

**Q7)** a) i) List out the difference between ServletConfig and ServletContext? [8]  
ii) Between JavaScript and an ASP script, which is faster? Justify it.  
iii) Describe a suitable IDE for bean development.

- b) Elucidate the following items : [8]
  - i) Example of an application server.
  - ii) Ways of accessing JSP files.
  - iii) JSR 168 API

**Q8)** a) i) Explain Write() and WriteLine() Methods with examples in C#. [8]  
ii) How to pass parameters to applets? Explain with an example.

- b) i) What are the difference between GET and POST methods in form submitting, give the case where we can use GET and we can use POST methods?  
ii) Define the following terms in PHP:
  - 1) MIME
  - 2) PEAR
  - 3) LAMP

[8]

