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CS/B.TECH/CSE/ODD SEM/SEM-7/CS-705A/2016-17

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Paper Code: CS-705A INTERNET TECHNOLOGY

Time Allotted: 3 Hours

Full Marks: 70

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

# GROUP - A ( Multiple Choice Type Questions )

Choose the correct alternatives for the following:

 $10 \times 1 = 10$ 

The correct HTML tag for the biggest heading is

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<h6> a)

- <heading small>
- <small heading>
- <hl> d)
- Which of the following technologies is not a part of J2EE architecture?
  - JSP

b) Servlet

**EJB** c)

COBRA.

**EJB** contains

7/70401

- unique interface a)
- four interfaces
- two interfaces c)
- no interface. **d**)

Turn over

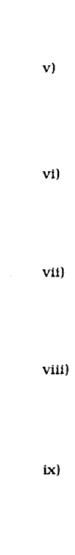
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d)

none of these.

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The JSP tags are interpreted by JSP compiler JSP engine JSP debugger None of these. Which of the following protocols is stateless in nature? FTP HTTP TCP d) UUCP. c) Variables are declared in Java Script using which of the following? dim a) var function d) variable. c) vii) After a servlet is destroyed, garbage collection is performed by the server the servlet JVM. HTTP viii) The ..... in XML is equivalent to the schema in database. Attribute Element b) a) d) DTD. c) Parser An XML parser is used to ..... the contents of an XML document. display a) read but not interpret b) read and interpret c)

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- XML tags are case sensitive
- XML documents must have a root tag b)
- XML elements must be properly closed c)
- All the statements are true. d)

#### GROUP - B

### (Short Answer Type Questions)

Answer any three of the following.

 $3 \times 5 = 15$ 

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- Why do we need to have a dynamic webpage? What is the advantage of using style sheet in formatting the different elements of webpages in a website? How can we link a style sheet to a webpage?
- What are the different technologies available to make a webpage dynamic? Why does Java play a vital role in dynamic webpage creation?
- Write a brief note on the role of Java Script in client side data validation with suitable examples. State also briefly the need of client side validation.
- 5. What is servlet? What do you understand by servlet API? Describe the life cycle of a servlet.

#### GROUP - C

## (Long Answer Type Questions)

Answer any three of the following.  $3 \times 15 = 45$ 

- Explain an internal valid XML document with an 6. a) example.
  - Write down the rules for creating a well formed XML document.
  - Write the differences between DOM and SAX parser 3 in XML.

3 [ Turn over

- Explain the following:
  - (i) <! ELEMENT section ( title +. para(note | code\*)>
  - <!ATTLIST sign signaturefile CDATA #implied email CDATA # required> 2 + 2
- 7. What is Applet? Discuss life-cycle of an Applet.

1 + 4

- b) Discuss an effective communication between a client and a server. 6
- Write a PERL script to show current date.
- Discuss Congesting Policy. Congestion Avoidance and Congestion Detection in TCP with relevant diagrams.

 $3 \times 5$ 

4

- 9. A block of address is given to a small organization. It is known that one of the addresses is 205.16.37.39/28. What is the first and last address in the block? What is 'subnet'? Is 'masking' required at all? What is the difference between default mask and subnet mask? 2 + 1 + 1 + 1
  - b) Explain Denial of Service (DoS) attacks. Discuss Real-time Transport Protocol (RTP). What is the utility of NVT character in remote logging applications such as Telnet? 4 + 4 + 2
- 10. Write short notes on any three of the following:  $3 \times 5$ 
  - **IPTV** a)
  - Web Crawler
  - IP Security
  - Proxy Firewall d)
  - HTML DOM.

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