

AMIETE – IT (OLD SCHEME)

Code: AT15
Time: 3 Hours

Subject: INTERNET & WEB TECHNOLOGY
Max. Marks: 100

DECEMBER 2010

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after half an hour of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

a. The information contained in a document can change whenever a server receives a request for the document is an

- (A) Active document (B) Dynamic document
(C) Static document (D) None of the above

b. Encryption is handled by:

- (A) Presentation layer (B) Transport layer
(C) Session layer (D) Data Link layer

c. XML is used to

- (A) Specify format of the data (B) Structure the data
(C) To display the data (D) A, B and C

d. The transport protocol used by TFTP (Trivial File Transfer Protocol) is:

- (A) FTP (B) UDP
(C) TCP (D) IP

e. HTTP head operation helps in

- (A) Secure HTTP transfer (B) Cache management
(C) Both A and B (D) None

f. The Environment variable GATEWAY_INTERFACE in CGI script specifies:

- (A) Domain name of the computer running on server
(B) The path of URL after server name
(C) Name of the server
(D) The version of the CGI software the server is using

- g. In IP, telephony audio is encoded using a well known standard called
 - (A) RTP
 - (B) PDC
 - (C) PCM
 - (D) Both A and B
- h. Which of the following is not a valid HTML TAG
 - (A) <pre>
 - (B) <bold>
 - (C)
 - (D) None of the above
- i. In Java System.err is an object of type
 - (A) InputStream
 - (B) PrintStream
 - (C) OutputStream
 - (D) None of the above
- j. In TCP protocol header “checksum” is of
 - (A) 32 bits
 - (B) 16 bits
 - (C) 8 bits
 - (D) 64 bits

Answer any FIVE Questions out of EIGHT Questions.
Each question carries 16 marks.

- Q.2**
 - a. Why optimization for multiple recipients is important during mail transfer? (8)
 - b. When a file is transferred, is it necessary for the server to specify the client the file size in advance? Explain. (8)
- Q.3**
 - a. Design an applet that receive 3 numbers as input from the users and displays the minimum number on the screen. (5)
 - b. How non-textual information is contained in a web page? (6)
 - c. Write an HTML program segment that contains hypertext links from one section of the same document to another section. (5)
- Q.4**
 - a. Explain the features of Java Servlet that make it more useful over CGI. (8)
 - b. Is it possible for a datagram to have a size larger than the MTU of a network? Explain. (8)
- Q.5**
 - a. Ethernet standards specify a minimum frame size as well as a maximum. Why a minimum size is needed? (7)
 - b. Why is TCP called end-to-end protocol? (3)
 - c. IP specifies that datagram can arrive in a different order than they were sent. If a fragment from one datagram arrive at a destination before all the segments from a previous datagram arrive, how does the destination know to which datagram the fragments belong? (6)

- Q.6** a. While using FTP what is wildcard expansion in file names? (6)
- b. IP fragments are reassembled at final destination only. Why? (5)
- c. 'TCP's retransmission scheme is the key to its success'. Explain. (5)
- Q.7** a. How does public key encryption scheme ensure the confidentiality? Explain. (8)
- b. As IPv6 contains multiple headers, how does it know where a particular header ends and next header begins? (8)
- Q.8** Write short notes on any **FOUR**:- (4×4)
- (i) Middleware
 - (ii) ASN.1 (Abstract syntax notation dot one)
 - (iii) Digital Signature
 - (iv) Cold Fusion
 - (v) BOOTP (Boot Strap Protocol)
- Q.9** a. Why do we need a DTD (Document Type Definition) for an XML document? Explain with suitable example. (7)
- b. Explain the WAP architecture in brief. (6)
- c. Compare EDI with e-mail. (3)