

Code: AT15

Subject: INTERNET & WEB TECHNOLOGY

AMIETE – IT (OLD SCHEME)

Time: 3 Hours

OCTOBER 2012

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

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 45 minutes 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. In OSI network architecture, the routing is performed by
- (A) network layer (B) data link layer
(C) transport layer (D) session layer.
- b. Which of the following is an important characteristic of LAN?
- (A) application independent interfaces
(B) unlimited expansion
(C) Low cost access for low bandwidth channels
(D) parallel transmission
- c. Which of the following device is used to connect two systems, especially if the systems use different protocols?
- (A) bridge (B) hub
(C) gateway (D) repeater
- d. Which of the following TCP/IP internet protocol a diskless machine uses to obtain its IP address from a server?
- (A) RDP (B) RARP
(C) RIP (D) X.25
- e. A modem is connected in between a telephone line and a
- (A) Network (B) Computer
(C) Communication adapter (D) Serial port

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- f. WAP internally uses the _____ language.
- (A) HTML (B) WML
(C) HDML (D) XML
- g. The SAX parser uses a _____ approach.
- (A) RANDOM (B) sequential
(C) dynamic (D) hierarchical
- h. EDI transactions are traditionally carried out over
- (A) VANs (B) MANs
(C) WANs (D) LANs
- i. To allow components developed in different programming languages to work together, the _____ language is used.
- (A) CORBA (B) IDL
(C) COM (D) RMI
- j. The _____ transforms HTTP requests and responses to WAP.
- (A) Web server (B) WAP browser
(C) WAP database (D) WAP gateway

Answer any FIVE Questions out of EIGHT Questions.

Each question carries 16 marks.

- Q.2** a. Two basic approaches – Static and Dynamic routing are used to compute routing table entries in a large network. Discuss these briefly. (8)
- b. Differentiate between TCP and UDP. (8)
- Q.3** a. Briefly describe the features of the following devices and standards, if any. (8)
Also mention which layer of the OSI model they belong to.
- (i) Repeater
(ii) Hub
(iii) Switch
(iv) Bridge
- b. What is IP Telephony (VoIP)? Discuss its motivation and challenges also. (8)
- Q.4** a. Write brief note on Simple Network Management Protocol (SNMP). (6)
- b. Discuss briefly about mail gateways. (6)

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- c. What is protocol configuration? (4)
- Q.5** a. Address Resolution algorithms can be grouped into three basic categories. Discuss briefly. (4)
- b. One of the most interesting aspects of TCP is a mechanism for congestion control. Discuss briefly. (6)
- c. Write down the characteristics of Open Shortest Path First (OSPF) protocol. (6)
- Q.6** a. Write characteristics of clients and servers in Client-Server paradigm. (6)
- b. Why was JSP required? Discuss its lifecycle. (6)
- c. Why are active web pages powerful? (4)
- Q.7** a. What is a firewall? Discuss its architecture. (6)
- b. Write short notes on 'Dynamic Web Page Technologies'. (6)
- c. How is RMI different from CORBA? (4)
- Q.8** a. What is EDI? Describe its architecture in brief. (6)
- b. State features of IPv6 that are different from IPv4. (6)
- c. Describe briefly how TCP/IP model is different from OSI reference model. (4)
- Q.9** a. Write basics of Wireless Markup Language (WML) and its most common features. (6)
- b. Write short notes on any **TWO** of the following: (10)
- (i) HTTP
 - (ii) DNS
 - (iii) TFTP