AMIETE – IT (OLD SCHEME)

Code: AT15 **Subject: INTERNET & WEB TECHNOLOGY**
Time: 3 Hours **Max. Marks: 100**

JUNE 2011

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. The 'ping' command produces the summary that

(A) specifies the network load.
(B) specifies the number of packets send and received, packet-loss and minimum mean and maximum round trip time.
(C) specifies the network traffic congestion.
(D) specifies the network server load.

b. The Common Gateway Interface (CGI) is the earliest and one of the most important

(A) Client side programming **(B)** Server side programming
(C) Browser scripting **(D)** None of the above

c. The dynamic web page is consisted of

(A) HTML
(B) HTML and javascript
(C) HTML, javascript and style sheet
(D) HTML, XML and javascript

d. The address resolution protocol(ARP) is used to discover

(A) Ethernet Address **(B)** IP address
(C) Physical Address **(D)** URL address

e. The 224.0.0.0 – 239.255.255.255 range of IP Address is reserved for

(A) Broadcasting **(B)** Multicasting
(C) Unicasting **(D)** Future use

f. One of the important use of ARP as a

(A) broadcast protocol
(B) multicast protocol
(C) unicast protocol
(D) none of the above

g. The 'Digital Signature' is used to

(A) authenticate a sender of message
(B) authenticate a receiver of message
(C) authenticate sender and receiver of message both
(D) none of the above

h. How mail client is invoked from browser window

(A) by using javascript
(B) by using 'mailto' tag of html
(C) by using special dll or no control
(D) None of the above

i. The Client/Server Communication will become statefull or stateless that depends on

(A) Application layer protocol **(B)** Transport layer protocol
(C) Network Layer protocol **(D)** Link layer protocol

j. SNMP uses five basic messages to communicate between the SNMP manager and the SNMP agent

(A) GET, GET-NEXT, GET-RESPONSE, SET, and TRAP
(B) GET, POST, GET-RESPONSE, SET, and TRAP
(C) GET, POST, PUT, SET, and TRAP
(D) GET, GET-NEXT, PUT, SET, and SETDO

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

Q. 2 a. What is packet? How Time Division Multiplexing is used for sharing channel to send packet? **(4+4)**

b. What do you mean by transmission error? What are the techniques available for detecting transmission error? **(2+6)**

Q.3 a. What is CIDR? How CIDR defines the boundary between network and hosts? Explain with example. **(2+6)**

b. What are the differences between UDP and TCP? What is a TCP/IP Routing table? **(2+2)**

c. Describe the Network address translation mechanism. (4

Q.4 a. What is Socket? How Socket interface perform data transfer in TCP and UDP? **(4)**

b. Explain following application layer protocol
(i) HTTP (ii) SMTP **(3+3)**

c. What do you understand by MIME? Explain. **(6)**

Q.5 a. What do you mean by MIB in SNMP protocol? Describe SNMP packet format. **(2+6)**

b. How information is transferred from web browser to CGI program? **(4)**

c. Define session object. How sessions are created and destroyed in ASP? **(2+2)**

Q. 6 a. List the features of DNS (Domain Name System). Is there any relationship between DNS (Server) and routing table? **(6)**

b. What is SIP? What are the elements of SIP technology? **(2+4)**

c. Differentiate between repeater and bridges. **(4)**

Q.7 a. What is WML and WMLScript? Also explain WAP protocol suite. **(2+2+4)**

b. State the new features of IPv6. How many octets does the smallest IPv6 datagram contains? **(6+2)**

Q.8 a. Describe the role of Firewall in Network security. What are the capabilities and limitations of the firewalls? **(4+4)**

b. What do you mean by RPC? What are the technologies available for implementing RPC? Explain. **(2+6)**

Q.9 a. What is E-commerce? List advantages of E-commerce with the help of an example. **(2+6)**

b. How Graphic image can be embedded in web page? Explain. **(4)**

c. What is the difference between cookies and session variables? **(4)**