State Board of Technical Education and Training, A. P

Diploma in Electronics and Communication Engineering (DECE)

V Semester

Subject Name: Data Communication and Computer Networks

Sub Code: EC - 505

Time: 90 minutes   **Unit Test I**   **Max.Marks:40**

Part-A   **16Marks**

Instructions: (1) Answer **all** questions.

         (2) First question carries **four** marks, each question of remaining carries **three** marks

1. a) Write any one antivirus software name available in market   (CO2)

   b) What is the full form of NTFS   (CO1)

   c) What is the full form of USB   (CO1)

   d) What is the full form of FAT   (CO1)

2. State the need for data communication networking   (CO1)
3. List the three types of switching techniques used in networking   (CO2)
4. State the need for protocols in computer networks.   (CO2)
5. Define the terms Internet and Intranet.   (CO3)

Part-B   **3×8=24**

Instructions: (1) Answer **all** questions.

         (2) Each question carries **eight** marks

         (3) Answer should be comprehensive and the criterion for valuation

         is the content but not the length of the answer.

6. (a) Draw the ISO: OSI 7-layer architecture and State the functions of each layer. (CO1)

                or

   (b) Draw TCP/IP reference model and State the functions of each layer.   (CO1)

7. (a) Explain CSMA/CD, CSMA/CA.   (CO2)

                or

   (b). Explain the frame format for Ethernet and State the different fields in it

                          (CO2)

8. (a) Explain classful addressing in IPv4.   (CO3)

                or

   (b)Distinguish among cut through, store-and-forward and adaptive switch mechanisms.

                          (CO3)

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V Semester

Subject Name: Data Communication and Computer Networks

Sub Code: EC - 505

Time: 90 minutes   Unit Test II   Max.Marks:40

Part-A   **16Marks**

Instructions: (1) Answer **all** questions.

(2) First question carries **four** marks, each question of remaining carries **three** marks

1. a) What is the full form of FTP   (CO3)

    b) What is the full form of UDP   (CO3)

    c) What is the full form of WLAN   (CO4)

    d) What is the full form of DNS   (CO4)

2. Compare the features of TCP and UDP   (CO3)
3. List the advantages of WLAN.   (CO4)
4.   State the applications of Bluetooth technology.   (CO4)
5. Define the term Cyber Security.   (CO5)

Part-B   **3×8=24**

Instructions: (1) Answer **all** questions.

(2) Each question carries **eight** marks

(3) Answer should be comprehensive and the criterion for valuation

is the content but not the length of the answer.

6. (a) Explain the working of Web server   (CO3)

                                        or

    (b Explain the internal architecture of ISP   (CO3)

7. (a) Explain the topology of wireless LAN and its frame format (IEEE 802.11)   (CO4)

                                        or

    (b) Describe the features of Zigbee Technology and its topologies.   (CO4)

8. (a) Explain the active and passive attacks in Cyber-attacks.   (CO5)

                                        or

    (b) Describe the five predominant laws in Information Technology Act, 2000.   (CO5)

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MODEL PAPER
BOARD DIPLOMA EXAMINATIONS
C-23, EC-505, Data Communication and Computer Networks
V SEMESTER
SEMESTER END EXAMINATION

TIME:3 HOURS   **MAX MARKS:80**

Part-A   **10×3=30**

Instructions: (1) Answer **all** questions.

(2) Each question carries **three** marks

(3) Answer should be brief and straight to the point and shall not exceed
five simple sentences.

1. State the need for data communication networking   (CO1)
2. List different network topologies.   (CO1)
3. List the three types of switching techniques used in networking   (CO2)
4. State the need for protocols in computer networks.   (CO2)
5. State the use of repeater/ hub   (CO2)
6. Define the terms Internet and Intranet.   (CO3)
7. Mention the role of DNS server   (CO3)
8. List the advantages of WLAN.   (CO4)
9. State the fundamentals of Cyber Security.   (CO5)
10. List the software attacks in Cyber-attacks.   (CO5)

Part-B   **5×10=50**

Instructions: (1) Answer **all** questions.

(2) Each question carries **TEN** marks

(3) Answer should be comprehensive and the criterion for valuation
is the content but not the length of the answer.

11. Draw the ISO: OSI 7-layer architecture and State the functions of each layer.   (CO1)

12. Explain the frame format for Ethernet and State the different fields in it.   (CO2)

13. Distinguish among cut through, store-and-forward and adaptive switch

mechanisms.   (CO3)

14. Explain the connectivity of systems using TCP (Three-way hand shake)   (CO3)

15. Explain the internal architecture of ISP.   (CO3)

16. Explain the topology of wireless LAN and its frame format (IEEE 802.11)   (CO4)

17. Describe the features of Zigbee Technology and its topologies.   (CO4)

18. Explain the active and passive attacks in Cyber-attacks.   (CO5)

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