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V Semester B.C.A. 3 Degree Examination, September - 2020

COMPUTER NETWORKS

(Repeater/Regular)

Time : 3 Hours

Maximum Marks : 80

Instructions to Candidates:

1. Answer all sections.
2. Draw neat diagrams wherever necessary.
3. Write question numbers correctly.

SECTION - A

Answer any **TEN** questions.

(10×2=20)

1. a) Define Computer Networks. Mention two example networks.
- b) List the four categories of applications of computer networks.
- c) Mention two guided and unguided media.
- d) What is message switching?
- e) What are the three Data Link Layer design issues?
- f) Define piggybacking.
- g) Write any two differences between pure ALOHA and slotted ALOHA.
- h) Mention IEEE 802 standards for Ethernet LAN and Wireless LAN.
- i) What is the drawback of Flooding?
- j) What are the four parameters for Quality of Service in networking?
- k) Define Transport Entity and TPDU.
- l) Mention two major application layer protocols.

P.T.O.

**SECTION - B**

Answer any **Four** questions.

(4×5=20)

2. What are the two broadcast topologies? Explain them.
3. Draw a neat diagram of Coaxial Cable. Write its features.
4. Explain Point-to-Point Protocol.
5. Explain 1-persistent and non-persistent CSMA protocols.
6. What is congestion? Explain Leaky Bucket Algorithm.
7. Explain DNS.

SECTION - C

Answer any **Four** questions.

(4×10=40)

8. What is Reference Model? Explain TCP/IP Reference Model.
 9. Sender sends 10111101 message by calculating CRC. But receiver receives 11011101, that is original message changed. Detect the error by using CRC method while generator polynomial used is $x^2 + 1$.
 10. Explain IEEE 802.15 Bluetooth standard.
 11. How do packets routed using Hierarchical Routing? Explain.
 12. Explain TCP and UDP segment header.
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V Semester B.C.A. UG Examination, September - 2020**PROGRAMMING WITH PYTHON****(Repeater)****Time : 3 Hours****Maximum Marks : 80****Instructions to Candidates:**

- 1) All Sections are compulsory
- 2) Give examples and syntax wherever necessary.

SECTION - A**1. Answer the following questions.****(10×2=20)**

- a) Define python?
- b) Define variable? Give example.
- c) What are Ranges?
- d) Define Testing? Mention types of testing.
- e) What is Assertion in python. Give syntax.
- f) Define Regular expressions.
- g) Define IDE's of python.
- h) Define database?
- i) Define single query.
- j) Define strings in python. Give syntax.

SECTION - B**Answer any FOUR of the following:****(4×5=20)**

2. What are objects of python. Explain types of objects with syntax.
3. Explain functions as objects of python?
4. Explain Debugging in python? Discuss types debugging.
5. Discuss (Tkinter) GUI in python.
6. Write steps for database connectivity using python?

P.T.O.

**SECTION - C**Answer any **FOUR** of the following:**(4×10=40)**

7. a) Explain Branching in python. **(5)**
b) Explain Iteration? Give program example. **(5)**
 8. a) Explain lists and Tuples. **(5)**
b) Discuss dictionaries in python? **(5)**
 9. a) Explain Exception handling in python? **(5)**
b) Explain Inheritance and Encapsulation properties of python? **(5)**
 10. Explain in detail with examples of any five widgets of python? **(10)**
 11. Explain following terms each. **(5×2=10)**
 - i) Match
 - ii) Fetch all ()
 - iii) Search
 - iv) Execute functions
 - v) Connect and cursor.
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