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B.C.A. III Semester Degree Examination, March/April - 2023 COMPUTER SCIENCE

Paper No : DSC 9 : Computer Communication and Networks

(NEP)

Time : 2 Hours Maximum Marks: 60 **SECTION - A** I. 10x1 = 10Answer **all** the questions. Each question carries **1** mark. 1. (a) What is computer network ? Expand HTTP and MAC. (b) Define Bandwidth. (c) Mention types of Time Division Multiplexing. (d) What is parity bit ? (e) Mention types of errors while transmission of data in data link layer. (f) What do you mean by routing ? (g) (h) Define Congestion. What is DNS ? (i) Who invented WWW (World Wide Web) ? (i)

SECTION - B

II. Answer **any 4** questions. Each question carries **5** marks.

2. Write a short note on LAN and WAN.

- **3.** What are unguided media ? Explain any two unguided transmission media.
- **4.** What do you mean by error detection ? Explain checksum error detection method with example.
- **5.** Explain Stop-And-Wait ARQ protocol in noisy channels.
- **6.** With a neat diagram explain token bucket algorithm.
- 7. Write a short note on electronic mail (e-mail).

4x5 = 20

SECTION - C

III. Answer **any 3** questions. Each question carries **10** marks.

- **8.** With a neat diagram explain OSI reference model.
- **9.** What is Multiplexing ? Explain in detail about Frequency Division Multiplexing.
- **10.** Explain steps involved in 7-bit hamming code error detection and correction.
- 11. Explain any two routing algorithms available in computer network.
- **12.** Write a short note on TCP and UDP header format.

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3x10=30