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| **USN** | 1 | D | A |  |  | C | S |  |  |  |  | Sub Code | 21CST502 |

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| ait big letter head scan - Copy | **Dr. Ambedkar Institute of Technology**  (An Autonomous Institution, Aided by Government of Karnataka  Affiliated to Visvesvaraya Technological University, Belgaum & Approved by AICTE, New Delhi)  BDA Outer Ring Road, Near Jnana Bharathi Campus, Mallathally, Bengaluru-560056, Karnataka |

Fifth Semester B.E. Degree (Autonomous) Continuous Internal Evaluation (CIE – II)

ODD Semester 2023-24

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| Date : 17-01-2024 | Sub.Title: Computer Networks | Timings : 3:00-4:00 PM |
| Day : Wednesday | Sub. Code :21CST502 | Time duration : 60 mins |
| Branch : CSE |  | Max marks : 25 |
| Semester / Sec : 5th A,B,C,D | CIE – II | Staff in-charge: Dr. Prerana Chaithra  Harish Kumar H.C. |

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| Q. No. | | **Note : Answer ALL the questions** | Marks | Course  Outcomes | RBT  Levels |
| 1 | a) | Discuss how Error detection performed in Block Coding. Explain with example. | 5 M | CO2 | L2 |
|  | b) | Define Hamming Distance and Minimum Hamming distance. Explain them with example. | 5 M | CO2 | L1, L2 |
| 2 | a) | Calculate CRC at the sender by considering 1001 as Dataword. 1011 as Divisor and size of the codeword is 7 bits. | 5 M | CO2 | L3 |
|  | b) | Explain different types of framing. | 5M | CO2 | L2 |
|  |  | or |  |  |  |
|  | c) | Compare Datagram Network with Virtual Circuit Network. | 5 M | CO3 | L2 |

**Prepared By Approved By H.O.D**

Dr. Prerana Chaithra

Harish Kumar H.C.

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| **Quiz/Objective Type Questions** | | | | | | | | |
| **Note :** ***Answer ALL the questions*** | | | | | | | | |
|  | In which type of error, only 1 bit in the data unit has changed | | | | | | | |
| A | Single bit error | B | Burst error | C | None of the above | D | No error |
| 1. Rue | In Block Coding, message is divided into blocks, each of k bits, called as | | | | | | | |
| A | Codewords | B | Datawords | C | Redundancywords | D | Truewords |
|  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between two words is the number of differences between corresponding bits. | | | | | | | |
| A | Hamming distance | B | Housing distance | C | Bit distance | D | Long distance |
|  | C(n, k) is known as | | | | | | | |
| A | Minimum Hamming Distance | B | Coding Scheme | C | Error correction | D | CRC |
|  | What represents Minimum Hamming Distance? | | | | | | | |
| A | dmax | B | Hmin | C | dmin | D | Hmax |
|  | In which code if a codeword is cyclically shifted (rotated), the result is another codeword.? | | | | | | | |
| A | Full stack code | B | Non Cyclic code | C | Semi Cyclic code | D | Cyclic code |
|  | In CRC \_\_\_\_\_\_\_\_is same for both sender and receiver. | | | | | | | |
| A | Difference | B | Dividend | C | Divisor | D | Multiplier |
|  | Full form of CRC is | | | | | | | |
| A | Cyclic Reform Check | B | Code Reduction Check | C | Cycle Reform Code | D | Cyclic Redundancy Check |
|  | Which is an error detection method used in the Internet | | | | | | | |
| A | checksum | B | calsum | C | Checkdiff | D | None of them |
|  | Character-oriented protocol belongs to which type of framing? | | | | | | | |
| A | Fixed-Size Framing | B | Variable-Size Framing | C | Simple Framing | D | Duplex Framing |