

BUDDHA INSTITUTE OF TECHNOLOGY, GIDA, GORAKHPUR DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING CLASS TEST-2 (EVEN SEMESTER 2022-23)

MAY-2023

Course: **B.Tech** Semester: 6 Subject: **EMBEDDED SYSTEMS KOE-062** Subject Code: M.M. 30 Time: 2Hrs Roll No.

SECTION-A

| 1. Attempt all questions. Each questions carry equal marks. | | Marks: 5*2=10 | |
|---|---|---------------|-------------|
| Q. | Question | Level of | Course |
| No.1 | | Taxonomy | Outcome |
| a. | Define kernel | Understanding | CO-4 |
| b. | How do the following indicate the start and end of a byte or data frames? (a) I2C (b) CAN | Understanding | CO-3 |
| с. | What is EDLC? | Understanding | CO-3 |
| d. | Define deployment phase. | Understanding | CO-4 |
| e. | Define process and threads | Understanding | CO-4 |

SECTION-B

Attempt All questions. Each questions carry equal marks.

| Q. | Question | Level of | Course | | |
|------|--|---------------|---------|--|--|
| No.2 | | Taxonomy | Outcome | | |
| а. | Explain the terminologies (i) Semaphores (ii) Mail box (iii) Pipes(iv) Shared memory RTOS. | Understanding | CO-4 | | |
| | OR | | | | |
| a. | Write the difference between process and program in RTOS. | Understanding | CO-4 | | |
| b. | Describe one type of serial communication bus with its communication protocol | Understanding | CO-3 | | |
| | OR | | | | |
| b. | Explain the functionalities of RS 232 and RS 485 standardserial interface with neat diagram. | Understanding | CO-3 | | |
| c | Explain the difference between RISC and CISC processor in detail. | Understanding | CO-3 | | |
| | OR | | | | |
| С | Mention the essential and objectives of EDLC. Discuss indetail about the different phases of EDLC. | Understanding | CO-3 | | |

SECTION-C

Attempt All questions. Each questions carry equal marks.

| Q. | Question | Level of | Course |
|------|---|---------------|---------|
| No.3 | | Taxonomy | Outcome |
| a. | Analyze the following modeling of EDLC (i) Linear or Waterfall Model | | |
| | (ii)Iterative or Incremented type of Model (iii)Proto typing or | Understanding | CO-5 |
| | Evolutionary Model (iv) Spiral Model. | | |
| | OR | | |
| a. | Illustrate the following type of computational state model (i)Data Flow | | |
| | Graph Type Model (ii) State Diagram Type Model(iii) Concurrent | Understanding | CO-5 |
| | Process Model with suitable example for each. | | |
| b | With suitable diagram explain the following Protocol | Understanding | CO-4 |
| | (i) UART Protocol (ii) SPI Protocol (iii)I2C Protocol | | |

Note: Revised Bloom's Taxonomy Levels-

L1->Remembering, L2->Understanding, L3->Applying, L4->Analyzing, L5->Evaluating, L6->Creating

Marks: 2*5=10

Marks: 3*5=15