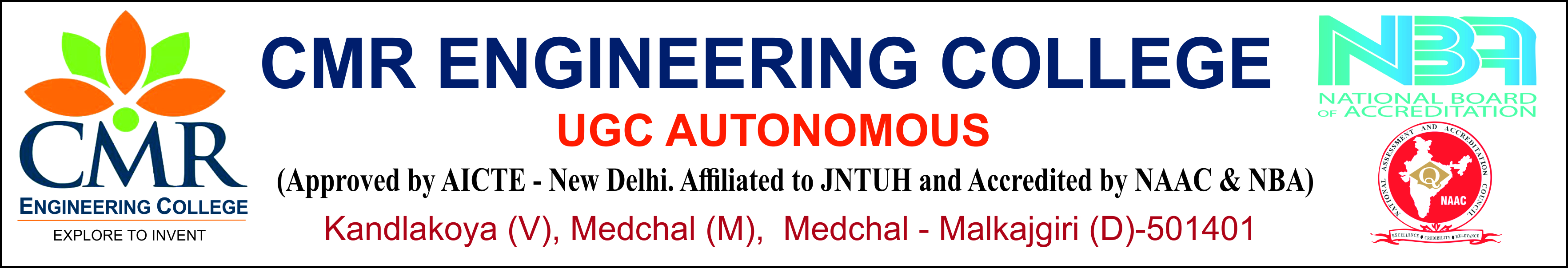
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**IV.B.TECH-I-SEM-II MID EXAMINATIONS Date: Time: 10:00 AM TO 11:30 AM**

**Subject: INTRODUCTION TO EMBEDDED SYSTEMS Branch: IT,CSM Marks: 25 M**

***Note: Question paper contains two parts, Part - A and Part - B.***

***Part-A is compulsory which carries 10 marks. Answer all questions in part-A.***

***Part-B consists of (21/2) units. Answer any one full question from each unit. Each question carries 5 marks and may have a, b, c sub questions.***

**PART A 5 x2=10**

1. Define kernel ? [CO2][BTL 1]
2. Write advantage of threads? [CO5][BTL1]
3. State the various embedded firmware development languages ? [CO3][BTL 2]
4. What is the use of device drivers? [CO4][BTL1]
5. Explain the drawbacks of out-of-circuit programming [CO5][BTL2]

**PART B 3 x5=15**

1. Compare process, task, threads? [CO5][BTL 2]

(Or)

1. How to choose an RTOS? [CO4][BTL2]
2. Write different types of files generated on cross compilation? [CO5][BTL1]

(Or)

1. Write various types of debugging techniques? [CO5][BTL1]
2. Explain the ‘assembly language’ based embedded firmware development. Write its advantages? [CO3][BTL2]

(Or)

1. Explain about any two synchronization issues ? [CO5][BTL2]

**CHEME OF EVALUATION**

**Part –A**

| **SNO** | **THEORY** | **MARKS** | **TOTAL** |
| --- | --- | --- | --- |
| **1** | Define kernel ? | **2** | **2** |
| **2** | Write advantage of threads? | **2** | **2** |
| **3** | State the various embedded firmware development languages ? | **1**  **1** | **2** |
| **4** | What is the use of device drivers? | **2** | **2** |
| **5** | Explain the drawbacks of out-of-circuit programming | **2** | **2** |

**Part –B**

| **SNO** | **THEORY** | **MARKS** | **TOTAL** |
| --- | --- | --- | --- |
| **6** | Compare process, task, threads | **5** | **5** |
| **7** | How to choose an RTOS | **5** | **5** |
| **8** | Write different types of files generated on cross compilation | **5** | **5** |
| **9** | Write various types of debugging techniques | **5** | **5** |
| **10** | Explain the ‘assembly language’ based embedded firmware development. Write its advantages | **3**  **2** | **5** |
| **11** | Explain about any two synchronization issues | **2**  **3** | **5** |