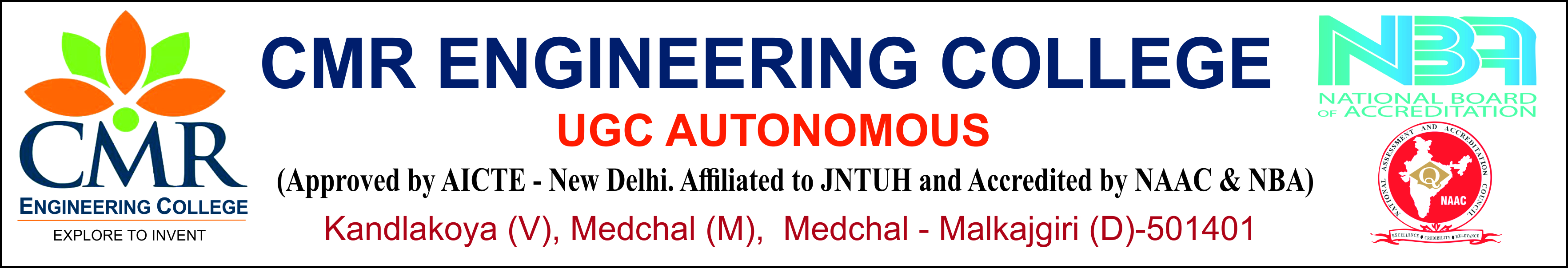
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**III.B.TECH- I-SEM (R20)-II MID Examinations-December-2023 Date: 27.12.2023**

**Subject: Introduction to Artificial Intelligence Time: 10:00 TO 11:30 AM**

**Branch: AIDS Marks: 25 M**

***Answer All Questions In Part-A& Part-B***

**PART-A 5x2=10 M**

1. Briefly explain about categories and objects? (CO3)
2. Explain about inferences in first order logic? (CO3)
3. What is planning? Briefly explain block world problem? (CO4)
4. Explain about classical approaches of Boolean satisfiability and partially ordered plans? (CO4)
5. Define probabilistic reasoning? Explain about acting under uncertainty? (CO5)

(CO1)

**PART-B 3X5=15 M**

6. Define ontology? What is ontological engineering explain with neat diagram? (CO3)

**(OR)**

7. With a neat diagram and example explain about forward and backward chaining? (CO4)

8. Explain different types of planning? Explain about hierarchical planning? (CO4)

**(OR)**

9. Explain about planning graphs with graph plan algorithm? (CO4)

10. Explain about Bayesian network with example? Write the semantics of Bayesian networks? (CO4)

**(OR)**

11. Explain about conditional distributions? (CO5)

**SCHEME OF EVALUATION**

**Part –A**

| **SNO** | **THEORY** | **MARKS** | **TOTAL** |
| --- | --- | --- | --- |
| **1** | Briefly explain about categories and objects? | **2** | **2** |
| **2** | Explain about inferences in first order logic | **2** | **2** |
| **3** | What is planning? Briefly explain block world problem? | **2** | **2** |
| **4** | Explain about classical approaches of Boolean satisfiability and partially ordered plans? | **2** | **2** |
| **5** | Define probabilistic reasoning? Explain about acting under uncertainty? | **2** | **2** |

**Part –B**

| **SNO** | **THEORY** | **MARKS** | **TOTAL** |
| --- | --- | --- | --- |
| **6** | Define ontology? What is ontological engineering explain with neat diagram?  (or) | **5** | **5** |
| **7** | With a neat diagram and example explain about forward and backward chaining? | **5** |  |
| **8** | Explain different types of planning? Explain about hierarchical planning  (or) | **5** | **5** |
| **9** | Explain about planning graphs with graph plan algorithm? | **5** |  |
| **10** | Explain about Bayesian network with example? Write the semantics of Bayesian networks  or | **5** | **5** |
| **11** | Explain about conditional distributions? | **5** |  |