Assignment | CSE 3207 | Artificial Intelligence | Marks: 10

01. Choose **one expert system** (e.g., MYCIN, DENDRAL, PROSPECTOR, XCON, etc.) as a boon of AI of your own. Prepare a detailed report figuring out the following outline mentioned. Your responses should be structured, concise, and written in your own words. **Include diagrams and references wherever applicable**.   CO1   10

    I.   Report **Title** (Title should mention the name of the selected expert system)
    II.   **Introduction** (Briefly define what an expert system is and explain the purpose of expert systems in AI)
    III.   **Background** of the Selected Expert System (Provide historical context – who developed it, when, and why. Mention the domain it was built for (e.g., medicine, engineering, etc.))
    IV.   **Literature Review** (The recent works, and advancements made in and by this expert system in the field of AI)
    V.   **Architecture** and **Components** (Describe the main components:
            - Knowledge Base – what kind of rules or data it holds;
            - Inference Engine – how it draws conclusions;
            - User Interface – how users interact with the system;)
    VI.   **Working Mechanism** (Explain how the system processes input and produces output. Use a **flow diagram** and mention any reasoning techniques used (e.g., forward chaining, backward chaining))
    VII.   **Strengths** and **Limitations** (List key advantages and also discuss known limitations or failures of the system)
    √III.   **Applications** and **Impact** (Discuss real-world usage and the influence it had on AI or its specific domain. Mention any modern successors if relevant)
    IX.   **Conclusion** (Summarize the importance of the expert system and what lessons were learned from it)
    X.   **References** (Cite textbooks, research papers, or websites used for information)