

B.Tech. Computer Science Engineering (NEP) Semester-II  
**STPCCINS205 - Fundamentals of Artificial Intelligence**

P. Pages : 1

Time : Two Hours



**GUG/S/25/16799**

Max. Marks : 40

- Notes :
1. All questions carry equal marks.
  2. Assume suitable data wherever necessary.
  3. All questions are compulsory.

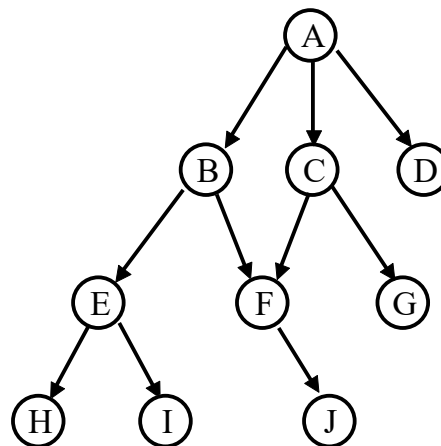
1. a) What is Artificial Intelligence and Briefly Explain Branches of AI? 7  
b) Define Turing Test and explain its significance in the context of AI? 7

**OR**

2. a) Provide a brief overview of the History and evolution of AI? 7  
b) Describe simple reflex agents & goal based agents with proper diagram? 7
3. a) Discuss the following search technique with the help of an example? 7  
b) Define heuristics search and elaborate its types with an example? 6

**OR**

4. a) Explain the Hill Climbing Algorithm with a suitable example? 7  
b) Apply DFS algorithm on following graph, where start state is (A) & the desired goal state is (G), show the successive value of open and closed, and the traversed path. 6



5. a) How frames are used for knowledge representation. Explain using an example? 7  
b) Explain the knowledge representation using semantic Net with the help of an example? 6
- OR**
6. a) Explain the components of an expert system & give any four applications of expert system? 7  
b) Define Resolution. Differentiate between backward chaining and forward chaining? 6

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