

B.Sc. (I.T.) - III (with Credits)-Regular-Semester 2012 Sem V  
**5BIT4 - Paper-IV : Computational Linguistics**

P. Pages : 2  
Time : Three Hours



**GUG/S/18/3292**  
Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw well labelled diagram wherever necessary.
  3. Avoid vague answers.

Either:

1. a) Explain the importance of cut and fail predicate in prolog. 8
- b) What do you mean by AI? Explain techniques of AI. 8

**OR**

- c) What do you mean by criteria for success? Explain level of model. 8
- d) Discuss water jug problem with example. 8

Either:

2. a) Write and explain Breadth first search algorithm. 8
  - b) What is constraint satisfaction? Solve following cryptarithmic problem. 8
- SEND  
+ MORE  
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Money

**OR**

- c) Write and explain Hill climbing algorithm. 8
- d) What is Heuristic search? Explain depth first search algorithm. 8

Either:

3. a) Discuss Representation of simple facts in Logic. 8
- b) What is Resolution? Explain Resolution in predicate logic with one example. 8

**OR**

- c) Explain following: 8
  - i) Predicate Logic
  - ii) Propositional Logic
- d) Write and explain structure to representation of knowledge. 8

Either:

4. a) Explain following: 8  
i) Syntactic Analysis ii) Semantic Analysis  
b) What do you mean by matching translation? Explain. 8

**OR**

- c) What is pattern Recognition? Explain in detail. 8  
d) Write a detail note on Natural language processing. 8
5. Attempt all the questions.
- a) Explain problem solving methods. 4  
b) What is state space search? Explain. 4  
c) Give the basic principle of Resolution. 4  
d) What is translation? Explain it's types. 4

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