## GBGS SCHEME

17CS562

## Fifth Semester B.E. Degree Examination, July/August 2021 Artificial Intelligence

Max. Marks: 100

Note: Answer any FIVE full questions.

ن				
ctic	1	a.	What is Artificial Intelligence? Explain.	(06 Marks)
lpra		b.	A water jug problem: Two Jugs of 4L and 3L capacity (No marker on it). How	can you get
ma			exactly 2L of water into 4L jug? Write both production rule and solution.	(10 Marks)
d as		C.	What is meant by uniformed search? Explain Depth-first-search strategy.	(04 Marks)
y blank pages. = 50, will be treated as malpractice.				
ages I be	2	a.	What is an AI technique? Explain.	(06 Marks)
k pë		b.	Write a note on Production System.	(06 Marks)
blan 50,		c.	Crypt arithmetic problem:	
8			SEND	
42-			+ MORE	
eg,			MONEY	
the			Initial state: No two letters have same value. Sum of digits must be shown.	(08 Marks)
On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Any revealing of identification, appeal to evaluator and /or equations written eg, $42+8=50$ , will be				
is linatio	3	a.	Explain mapping between Facts and representation with example.	(05 Marks)
cros		b.	Explain Forward and Backward reasoning.	(05 Marks)
nal /or		C.	Translate following into First Order Logic:	
iago and			(i) All pompeins were Romans.	
w d ator			(ii) All Romans are either loyal to Caesar or hated him.	
dra alu			(iii) Everyone is loyal to someone.	
rily o ev			(iv) Was Macrus loyal to Caesar?	
ulso eal t			(v) All pompeins died when the voleano errupted in 79AD.	(10 Marks)
appe				
, co.				(06.74 1)
wers	4	a.	Explain Inheritable knowledge.	(06 Marks)
ans		b.		
our ide			(i) John likes all kind of food.	
lg y s of			(ii) Apple and Chicken are food.	
letir aling			(iii) Anything anyone eats and is not killed by is food.	
evez			<ul><li>(iv) Bill eats peanuts and is still alive.</li><li>(v) Sue eats everything bill eats.</li></ul>	
n cc ny r			Using resolution prove that "John likes Peanuts".	(10 Marks)
		c.	Write a note on Matching.	(04 Marks)
2 . 1		C.	Write a note on Matching.	
Not				
Important Note: 1. 2.	5	a.	Explain logics for Non-Monotonic reasoning.	(06 Marks)
port		b.	What is Bayesian Network? Explain semantics of it.	(08 Marks)
ImJ		c.	Explain slot as full-fledged objects.	(06 Marks)

## 17CS562

	6	a.	Explain implementation of Breadth-first search.	(08 Marks)
		b.	State Baye's theorem. How it is used in statistical reasoning?	(08 Marks)
		c.	Write a note on Semantic Nets.	(04 Marks)
	7	a.	Explain Conceptual dependency.	(08 Marks)
	,	b.	What is global ontology? Explain.	(06 Marks)
		c.	Write about iterative deepening.	(06 Marks)
		0.	1 3	
	8	a.	Explain CYC and its motivations.	(10 Marks)
		b.	Explain Min Max search procedure.	(10 Marks)
	9	a.	Explain various steps in natural language understanding process.	(10 Marks)
		b.	Write a note on Knowledge Acquisition.	(10 Marks)
	10	a.	Explain how decision trees are used in learning.	(06 Marks)
		b.	What are the capabilities expected from expert systems.	(08 Marks)
		c.	Explain the process of learning from examples.	(06 Marks)
			*****	
			And the second s	
			Y. The second se	
*				
			2 of 2	
			A	
			A. A	