PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
DEPARTMENT OF COMPUTER TECHNOLOGY
ACADEMIC SESSION: 2022-23 (ODD SEMESTER)
QUESTION BANK FOR CAT–II

Subject	:	Artificial Intelligence	Semester	:	V - A and B
Subject Teacher	:	Dr.(Mrs.) A.V. Dehankar / Prof. Pragati Budhe	**Date of Display**	:	21-10-2022
Unit	:	III(1/2),IV,V			

Course Outcomes:

After completing the course, students will be able to

CO3: Understand and apply various non-formal knowledge representation methods and statistical reasoning methods in AI problem solving.

CO4: Describe various application domain of AI such as Expert system, Game Playing, Natural Language.

CO5: Apply neural network learning and evolutionary algorithms such as Genetic Algorithms for solving AI

Que No.		Questions	Mapping with CO	BT Level
Q1	a	Define the importance of using Bayes theorem? Explain the conditional probability,posterior probability and prior probability.	CO3	I,II
	b	Differentiate between monotonic and non-monotonic reasoning systems.	CO3	II
Q2	a	Construct the semantic network for following sentence. i)"Every mail carrier was bitten by a dog". ii) Radha gave a book to Sita. iii) Every dog in the city bites the constable.	CO3	III
	b	Describe a script for restaurant.	CO3	II
Q3	a	Explain the types of grammar in detail	CO4	II
	b	Compare knowledge based expert system with rule based expert system.	CO4	II
Q4	a	Explain the two basic parsing techniques and differentiate between them.	CO4	II
	b	Define expert system shell? Explain architecture of expert system.	CO4	I,II
Q5	a	Describe the importance of Game playing concept in AI.	CO4	II
	b	Explain the following (any one) i) Mini Max search procedure ii) Alpha - beta pruning	CO4	II
Q6	a	a)Define NLP. Explain the following components of NLP. i) NLU (Natural Language Understanding) ii)NLG (Natural Language Generation)	CO4	I,II
	b	List the levels of NLP and explain each with suitable example.	CO4	I
Q7	a	Explain the knowledge representation in artificial neural networks.	CO5	II
	b	Explain the life cycle of genetic algorithm.	CO5	II
Q8	a	List the genetic operators and explain each of them with suitable example.	CO5	I
	b	Explain the following terms:- i) Genes ii) Chromosomes	CO5	II
Q9	a	Describe different applications of neural networks.	CO5	II
	b	Define : i) Artificial Neural Network ii Genetic Algorithm.	CO5	I
Q10	a	Explain with neat diagram various components of a typical expert system.	CO5	II
	b	Explain GA based machine learning.	CO5	II

Dr. (Mrs.)A.V. Dehankar / Prof. Pragati Budhe   Dr (Mrs) N.M.Thakare
Subject Teacher   **HOD**