UNIT IV			
Planning- Planning problems, Simple planning agent, Planning languages, Blocks world ,Goal stack planning, Mean Ends Analysis, Non-linear Planning, Conditional planning, Reactive planning. Learning-Machine learning, Goals and Challenges of ML, Learning concepts, models, Artificial neural network base learning-Back propogation, Support Vector machines, Reinforcement learning, Adaptive learning, multiagent based learning, Ensemble learning, Learning for decision making, Distributed learning, Speedup learning.			
PART-A (Multiple Choice Questions)			
Q. No	**Questions**	**Course Outcome**	**Competence BT Level**
1	Block world problem is also known as _____ 1. STRIPS 2. Linear Planning 3. Non-Linear Planning 4. **Susan Anomaly**	CO4	BT1
2	Standard planning algorithms assumes environment to be **1. Deterministic** **2.** Fully observable **3.** Single agent **4.** Stochastic	CO4	BT1
3	Planning problem combines the two major aspects of AI **1. Search & Logic** **2.** Logic & Knowledge Based Systems **3.** FOL & Logic **4.** Knowledge Based Systems	CO4	BT1
4	Machine learning is a subset of 1.Deep Learning 2.Data Science 3.**Artificial Intelligence** 4.All the above	CO4	BT1
5	Which type of learning best describes the problem of learning to ride a bicycle? 1.Supervised 2.Unsupervised 3.**Reinforcement** 4.Inductive	CO4	BT4
6	What is used to mitigate overfitting in a test set? 1.Overfitting set 2.Training set 3.**Validation dataset** 4.Evaluation set	CO4	BT2
7	What is perceptron? 1.**A single layer feed-forward neural network with pre-processing** 2.A neural network that contains feedback 3.A double layer auto-associative neural network 4.An auto-associative neural network	CO4	BT1

8	Real-Time decisions, Game AI, Learning Tasks, Skill Acquisition, and Robot Navigation are applications of which of the following 1.Supervised Learning: Classification 2.**Reinforcement Learning** 3.Unsupervised Learning: Clustering 4.Unsupervised Learning: Regression	CO4	BT4
9	**Which of the following algorithm is used to obtain the plan directly from the planning graph, instead of using the graph to provide heuristic.** 1. BFS/DFS 2. A* 3. **Graph-Plan** 4. Greedy	CO4	BT1
10	**Suppose we want to eliminate the inaccuracy problem in partial-order planning problem or planning problem, then the best data structure to use is the?** **1.**Stacks 2.**Planning Graphs** 3.BST (Binary Search Tree) 4.Queue	CO4	BT1

UNIT V			
Expert system-Architecture- Pros and Cons of expert system- Rule based systems- Frame based expert system- Natural language processing-Levels of NLP- Syntactic and Semantic Analysis- Information retrieval- Information Extraction- Machine translation- NLP Applications- Advance topics in Artificial Intelligence-Cloud Computing and intelligent agent- Business intelligence and analytics- Sentiment Analysis- Deep learning Algorithms- Planning and logic in intelligent agents			
PART-A (Multiple Choice Questions)			
Q. No	**Questions**	**Course Outcome**	**Competence BT Level**
1	MYCIN falls under the category of a) Shell **b) Rule-based expert system** c) Frame based expert system d) None of these	5	1
2	The core part of decision making for the expert system lies in the **a) Knowledge base** b) Explanations c) Inference mechanism d) Facts	5	1
3	A rule of 'If you are wearing a cardigan, then it is cold' falls under the semantics of a) Recommendation b) Heuristic c) Relation **d) Directive**	5	1
4	A when needed method is invoked in frame based expert system a) By an event when changed **b) In the decision making, as required** c) By any action that need some data d) All of the above	5	1
5	The interpreters in expert systems are termed as a) Frames b) Explanations **c) Shells** d) None of the above	5	1
6	The process of coding the knowledge in expert system is a) Knowledge base **b) Knowledge engineering** c) Knowledge acquisition d) None of the above	5	1
7	In fuzzy expert system, conversion is crisp value is done by a) Inference mechanism **b) Defuzzification** c) Composition d) Fuzzification	5	1
8	Semantic analysis is based on a) Transitive networks **b) Context sensitive grammars** c) Any grammars d) Knowledge representation	5	1

9	Which of the following checks the correctness of the sentence grammatically? **a) ATN** b) RTN c) Indexing d) Wrappers	5	1
10	In case grammar, the agent case is always a compulsory case with any verb. a) It as to be with dative b) The above statement is true c) The case grammar can have instrumental case too **d) It depends on the verb**	5	1
11	In which of the following, the context and the relations among the sentences are important? a) Conceptual dependency b) Case grammars **c) Discourse and pragmatic processing** d) None of the above	5	1
12	Suppose we want to identify fraud transactions in bank, under this scenario, we would look up on a) High precision **b) High Recall** c) Precision and recall = 1 value d) None of the above	5	1
13	Which of the text preprocessing task would return 'learn' if the input word is 'learnt'? a) Text standardisation b) Term stripping **c) Stemming** d) None of the above	5	1
14	Which of the following does not exist in the Boolean model? **a) Ranking** b) Weighting c) Indexing d) All of these	5	1
15	Pattern analytics intends to a) Hide the meaningful patterns for processing b) Select the useful patterns and study them **c) Discover the meaningful patterns** d) All the above	5	1
16	Sentiment analysis is not about **a) Finding the opinion about the person on some product** b) Determining the polarity from the text c) Feature based sentiment classification d) Finding sentiments in the text	5	1
17	Which of the statement is not true about big data? a) It discovers hidden patterns from a variety of data b) Analytics of big data helps in better business decisions c) Hadoop, NoSQL and MapReduce are the technologies associated with it **d) Social media activity, web logs are data sources for big data**	5	1

18	Which of the following includes major tasks of NLP? a) Automatic summarization b) Discourse analysis c) Machine translation **d) All the above**	5	1
19	What is meant by compositional semantics? **a) Determining the meaning** b) Logical connectives c) Semantics d) None of the above	5	1
20	What is meant by quasi logical form? **a) Sits between syntactic and logical form** b) Logical connectives c) All the above d) None of the above	5	1
21	Among the given options, which search algorithm requires less memory? a) Optimal search **b) Depth first search** c) Breadth first search d) Linear search	5	1
22	Which algorithm is used in the game tree to make decision of win/Lose? a) Heuristic search algorithm b) DFS/BFS algorithm c) Greedy search Algorithm **d) Min/Max algorithm**	5	1
23	The component of an expert system is a) Knowledge base b) Inference engine c) User interface **d) All the above**	5	1
24	Which rule is applied for the simple reflex agent? a) Simple action rule b) Simple and condition action rule **c) Condition action rule** d) None of the above	5	1
25	Which agent deals with happy and unhappy states? a) simple reflex agent b) model based agent c) learning agent **d) utility based agent**	5	1