

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Program: BE Information Technology
Curriculum Scheme: Rev2012
Examination: Fourth Year Semester VII
Course Code: ITC703 and Course Name: Intelligent System

Time: 1 hour

Max. Marks: 50

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Note to the students: - All the Questions are compulsory and carry equal marks.

Q1.	Which of the following not a common AI problem?
Option A:	Water Jug Problem
Option B:	N-Queen's Problem
Option C:	8 Puzzle Problem
Option D:	Sleeping Barber Problem
Q2.	What is most appropriate description of an 'agent'?
Option A:	Perceives its environment through sensors and acting upon that environment through actuators
Option B:	Takes input from the surroundings and uses its intelligence and performs the desired operations
Option C:	A embedded program controlling line following robot
Option D:	Perceives its environment through sensors and builds the model of environment or refines it.
Q3.	Which of the following is not part of PEAS descriptors for Agent abstraction?
Option A:	Performance Measure
Option B:	Environment
Option C:	Action sequence
Option D:	Sensors
Q4.	Agents behavior can be best described by _____
Option A:	Perception sequence
Option B:	Agent function
Option C:	Sensors and Actuators
Option D:	Environment in which agent is performing
Q5.	Which search strategy is also known as blind search?
Option A:	Uninformed search
Option B:	Informed search
Option C:	Simple reflex search
Option D:	Adversarial Search
Q6.	Which search algorithm imposes a fixed depth limit on the nodes?
Option A:	Depth-limited search
Option B:	Depth-first search
Option C:	Iterative deepening search
Option D:	Bidirectional search
Q7.	_____ are mathematical problems defined as a set of objects whose state must

University of Mumbai
Examination 2020 under cluster 4 (PCE)

	satisfy a number of constraints or limitations.
Option A:	Informed search problem
Option B:	Uninformed search problem
Option C:	Local search problems
Option D:	Constraint Satisfaction problem
Q8.	The variation of Hill Climbing which picks random, instead of best move is known as _____
Option A:	Random Restart Hill Climbing
Option B:	Simulated Annealing
Option C:	Randomized Hill Climbing
Option D:	Memory Bounded
Q9.	Which of the following statements are true regarding solving a CSP?
Option A:	Values must be assigned to ALL variables such that ALL constraints are satisfied.
Option B:	Values must be assigned to at least SOME variables such that ALL constraints are satisfied.
Option C:	Values must be assigned to ALL variables such that at least SOME constraints are satisfied.
Option D:	Values must be assigned to at least SOME variables such that at least SOME constraints are satisfied.
Q10.	In $f(n)=g(n)+h(n)$, what is $g(n)$?
Option A:	Estimated total cost of path through 'n' to Goal state
Option B:	Estimated cost from 'n' to Goal state
Option C:	Cost so far to reach the node 'n'
Option D:	Total Cost so far to reach the Goal state through node 'n'
Q11.	In alpha beta pruning the value is updated at
Option A:	Initial state
Option B:	At the end
Option C:	along the path of search
Option D:	In middle of search
Q12.	which search is equals to min max search but eliminate the branches that can't influence the final decision
Option A:	breadth first search
Option B:	A star search
Option C:	Depth first search
Option D:	Alpha beta pruning
Q13.	What are the two major aspects which combines AI Planning problem?
Option A:	Search & Logic
Option B:	Logic & Knowledge Based Systems
Option C:	FOL & Logic
Option D:	Knowledge Based Systems
Q14.	A general strategy of delaying a choice during search is called

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Option A:	Most commitment approach
Option B:	Least commitment approach
Option C:	opportunistic planning
Option D:	Non linear planning
Q15.	Which is also called single inference rule?
Option A:	Forward Chaining
Option B:	Resolution
Option C:	Reference
Option D:	Reform
Q16.	_____ sentences are constructed from simpler sentences using logical connectives
Option A:	atomic sentences
Option B:	biconditional
Option C:	complex sentences
Option D:	positive literals
Q17.	What does a first order predicate logic contain?
Option A:	Predicate and a subject
Option B:	Predicate and a Preposition
Option C:	Subject and an object
Option D:	Object
Q18.	A _____ is used to demonstrate, on a purely syntactic basis, that one formula is a logical consequence of another formula.
Option A:	Deductive Systems
Option B:	Inductive Systems
Option C:	Reasoning with Knowledge Based Systems
Option D:	Search Based Systems
Q19.	Where does the dependence of experience is reflected in prior probability sentences?
Option A:	Syntactic distinction
Option B:	Semantic distinction
Option C:	Both Syntactic & Semantic distinction
Option D:	systematic distinction
Q20.	Which are the formal languages are used for stating propositions?
Option A:	Only propositional logic
Option B:	first-order logic and propositional logic
Option C:	Only First Order Logic
Option D:	Neither first order nor propositional logic
Q21.	Where does the Bayes rule can be used?
Option A:	Solving queries
Option B:	Increasing complexity
Option C:	Decreasing complexity

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Option D:	Answering probabilistic query
Q22.	What is the basic element of a language?
Option A:	Literal
Option B:	Variable
Option C:	Random variable
Option D:	Literal and variables
Q23.	What is used in determining the nature of the learning problem?
Option A:	Environment
Option B:	Feedback
Option C:	Problem
Option D:	Solution
Q24.	Different learning method does not include
Option A:	Memorization
Option B:	Analogy
Option C:	Deduction
Option D:	Introduction
Q25.	An _____ system has a stored knowledge base and an inference engine.
Option A:	Expert
Option B:	Centers
Option C:	Control
Option D:	MIS

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	D
Q2.	A
Q3.	C
Q4	B
Q5	A
Q6	A
Q7	D
Q8.	B
Q9.	A
Q10.	C
Q11.	C
Q12.	D
Q13.	A
Q14.	B
Q15.	B
Q16.	C
Q17.	A
Q18.	A
Q19.	A
Q20.	B
Q21.	D
Q22.	C
Q23.	B
Q24.	D
Q25.	A