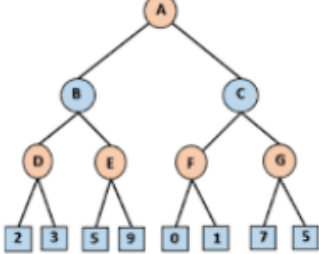


Exam	Regular		
Level	BE/BAR	Full Marks	60
Program	BCT	Pass Marks	24
Year / Part	III / II	Time	3 Hrs

Subject:- Artificial Intelligence (ENCT 351)

QN	Questions	Marks	Unit												
1.	What is Reverse turing test? What are the Importance of DIKW in Artificial Intelligence?	1+4=5	1												
2.	What is Cryptoarithmetics? Explain with steps why Genetic Algorithm is used for optimization?	2+4=6	2												
3.	What is adversarial search? For the given graph, compute Alpha-beta search technique. 	2+4=6	2												
4.	What are the knowledge representation techniques? What are the components of Fuzzy Inference System?	2+4=6	3												
5.	What is semi supervised learning? Explain the working principle for Support Vector Machine.	2+4=6	4												
6.	Why linear algebra is used for machine learning? Confusion Matrix for Disease Detection <table><tr><th>Actual Disease</th><th colspan="2">Predicted Disease</th></tr><tr><td></td><th>True</th><th>False</th></tr><tr><th>True</th><td>25</td><td>5</td></tr><tr><th>False</th><td>15</td><td>55</td></tr></table> a) What is the total number of actual positive classes? b) Calculate Precision, recall and F1 score. c) Is model better at detection disease or not?	Actual Disease	Predicted Disease			True	False	True	25	5	False	15	55	2+4=6	4
Actual Disease	Predicted Disease														
	True	False													
True	25	5													
False	15	55													
7.	Difference between ML and DL. What is Backpropagation algorithm, perform its derivation?	2+4=6	5												

8.	Define GAN. What is the working principle for Convolution Neural Networks?	2+4=6	5
9.	What is Green AI? Explain the steps for Computer vision and components.	2+4=6	6
10.	Write short notes on: a) Federated Learning b) Backward Chaining	3*2=6	7