

VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE (VJTI) [Central Technological Institute, Maharashtra State] Matunga, Mumbai-400 019

T 13 002

EXAMINATION	ESE - Odd Semester 2018			
	See Semester 2018	DATE OF	28 11 2019	
SEMESTER &	V & B.Tech Computer	EXAM		
	Engineering	TIME	10.00 AM to 1.00 Pa	
THE PRESENTED	7 11		10000	
COURSE (Course Code)		MARKS	100	
	Artificial Intelligence(CO30028	Inte	Migent such	

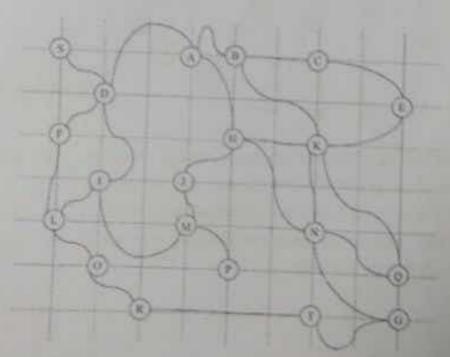
Instructions: All questions are Compulsory

Q.1 a) is it possible to generate state space for chess game using latest computing power like high end servers like NVIDIA DGX-1 with Tesla

TFLOPS (deep learning)	1000
CUDA Cores Tensor Cores	40.960
NVLink vs PCle Speed-up	5,120
Deep Learning Training Speed-up	10X
Give justification to your appearup	3X

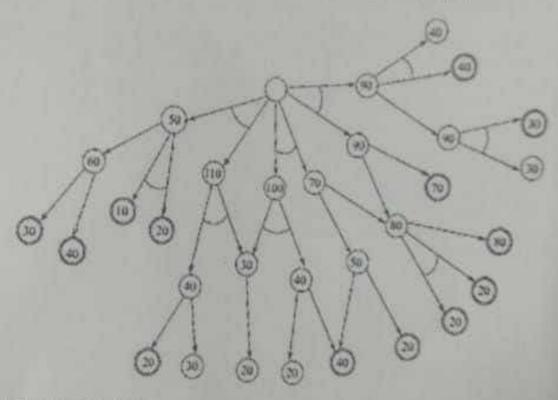
Give justification to your answer.

b) Show how the hill climbing and Best First Search algorithm will explore the following graph. Use Manhattan distance as heunstics. Assume each unit on the grid as 10KM

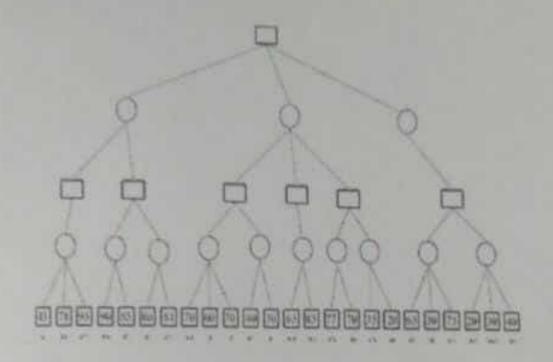


0.2	a)	What will happen if we remove the mutation and crossover operation from genetic algorithm?	05
	b)	What is the motivation for Beam search? Illustrate with example	05
		In which situation A* will get a node present in closed list. Illustrate with	05

Q.3 a) For the following graph show how the AO* algorithm will solve the graph. 26 Show each expansion clearly and highlight the final solution, is the algorithm guaranteed to provide answer? Justify your answer.



Show how goal stack planning with STRIPS operator will achieve the goal {on(T,O), on(O,P)}. Give the complete stack trace and plan found b) Show how the alpha beta explores the game tree searching from left to 10 countright. Show cutoffs and fill the non-leaf node.



0.5	a)	Give the application of constraint propagation and its importance	05	CO
	b)	Give Significance of Rete Network	05	CC
	0)	Explain Huffman cloves scene labelling	05	CC
	d)	What is Nash Equilibrium? Write suitable example	05	CC

......