RK UNIVERSITY
SCHOOL OF ENGINEERING
SEE (April-2024)

Program: B. Tech.   **Semester: VI**

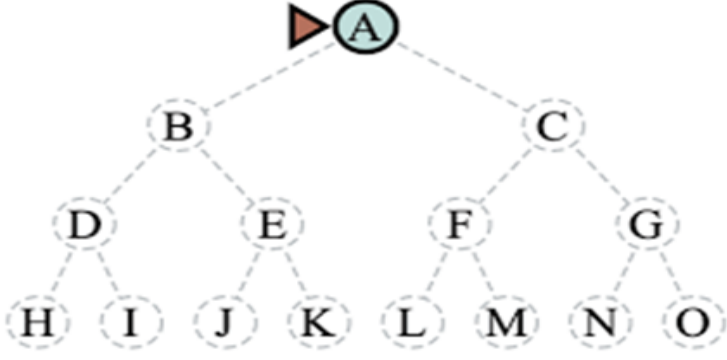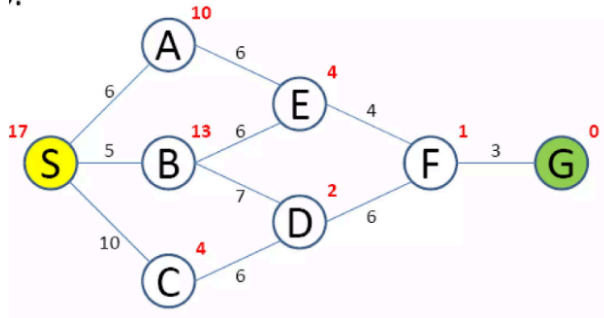**Date : 13/04/2024**   **Reporting time: 8:00AM**

Duration: 90 Mins   **Total Marks: 50**

Subject :CE628 Artificial Intelligence and Machine Learning

Dataset download link: □ **SET-3**

Q. No		Do as directed.	Marks
1	a	Perform BFS and DFS for a given graph.	5
	b	Write the advantages and disadvantages of BFS and DFS.	
2	a	Find shortest path using A* algorithm.	5
	b	Find cost of above graph using A* algorithm.	
3	a	Read computer.csv dataset.	1

	b	Build regression model	2
	c	Find accuracy of model? Conclude model is overfitting, underfitting or well fitted?	2
4	a	Explore dataset "std_marks_data.csv ".	1
	b	Find missing values and fill them with mean values.	2
	c	Segregate input and output. Fit model with appropriate ML algorithm.	2
5	a	Define purpose of SVM and KNN.	1
	b	Give the difference between overfitting and underfitting.	2
	c	List different metrics used for classification and regression tasks.	2
6	a	Read dataset "spambase.csv".	1
	b	Split the data into a train and test set.	2
	c	Implement Random forest algorithm.	2
7	a	Find no. of columns and rows from the dataset given in question no. 8	1
	b	Which algorithm is used for bagging and boosting.	2
	c	Implement boosting.	2
8	a	Read iris.csv dataset.	1
	b	Encode the species column with numerical values. And replace label 'setosa' with '0', 'versicolor' with '1' and 'virginica' with '2'.	2
	c	Build multiclass SVM.	2
9	a	Consider the Q. 8 dataset and find is there any null value? If yes, deal with it.	1
	b	Create a new column in the dataframe (v_nv), that distinguishes the species - 'versicolor'(marked by 0) from rest.	2
	c	Visualize data using seaborn - pairplot.	2
10	a	Read mobile.csv dataset.	1
	b	Apply MinMaxScaler( ) on Age and EstimatedSalary.	2
	c	Split the dataset into training and testing and build KNN model.	2

*******ALL THE BEST*********