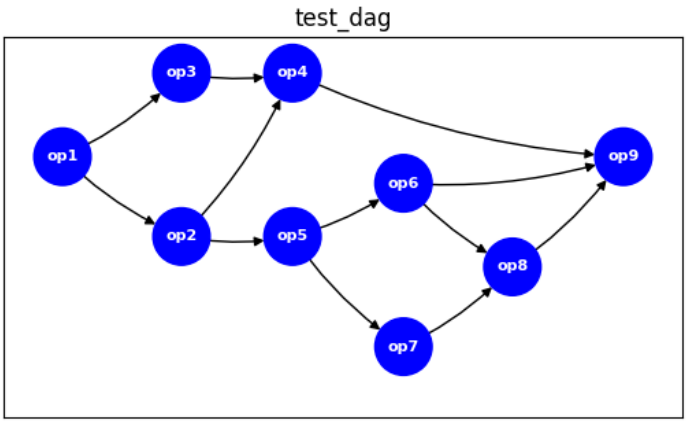
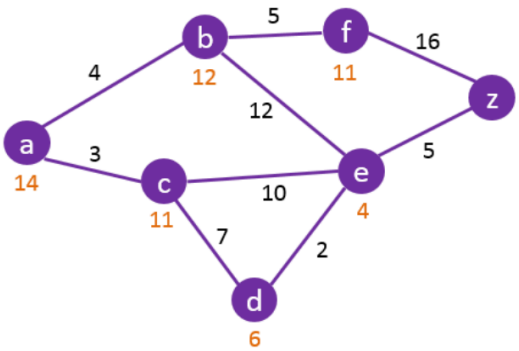
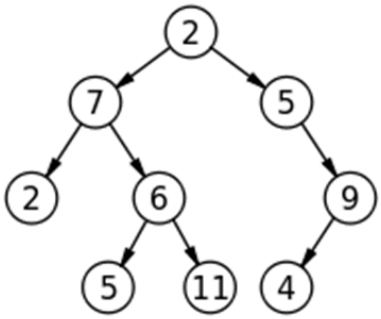
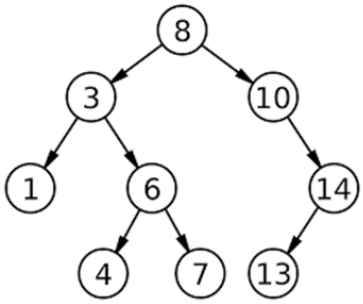
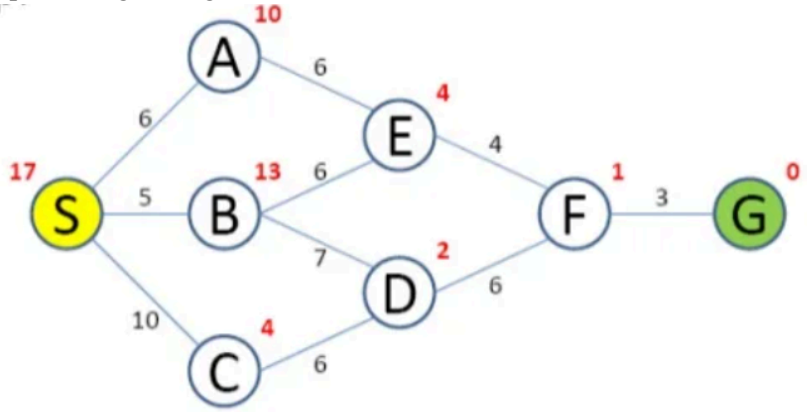
RK UNIVERSITY
SCHOOL OF ENGINEERING
SEE (April-2024)

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-1**

Q. No		Do as directed.	Marks
1	a	Implement BFS and DFS for a given graph. 	2 5
	b	Implement A* algorithm for a given graph. 	
2	a	Implement BFS for given 2 graphs.	5

		 Image 1  Image 2	
	b	Find path using A* algorithm. 	
3	a	Create a numpy 1D array with 10 elements of random values between 5 to 10.	1
	b	Create a numpy 2D array with size 3 by 3. Element values are random numbers. Print 2D array.	2
	c	Find minimum value and mean value from above 1D array (Que. 3a)	2
4	a	Read iris.csv dataset.	1
	b	Fetch first 5 and last 5 rows dataset.	2
	c	Extract data having spices as "virginica" with "Petal_Length" more than 6.	2
5	a	Read dataset “Clean_Dataset”.	1
	b	Find categories of ‘source_city’	2
	c	Draw Count plot for ‘source_city’.	2
6	a	Read iris.csv file and give the name of categorical columns.	1

	b	Apply label encoding using scikit-learn library.	2
	c	Find different classes of encoded columns.	2
7	a	Read dataset “spambase.csv”	1
	b	Split the data into a train and test set with suitable size.	2
	c	Implement Bagging using Random Forest Algorithm.	2
8	a	Read the “mobile.csv” dataset.	1
	b	Draw scatter plot of purchased and not_purchased value with respect to Age and EstimatedSalary.	2
	c	Do Feature engineering (normalize the Age and EstimatedSalary columns)	2
9	a	Read “chd_data.csv” dataset.	1
	b	Specifying the columns as predictor and target variable and Split the data in training and test set in 70:30 ratio.	2
	c	Built model using appropriate ML algorithm.	2
10	a	Train the model using the training data. (with reference of que. 9)	1
	b	Fetch the intercept and the coefficients of the model. List different cost matrices can be used for a given data set.	2
	c	Evaluate the model's performance on training and test data. Model is well fitted or an overfitting model?	2

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