



VIT[®]

Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

Continuous Assessment Test - II, September 2008

Fall Semester 2018 -19

Course Code : CSE 3024

Duration : 90 Minutes

Course Name : Web Mining

Max Marks : 50

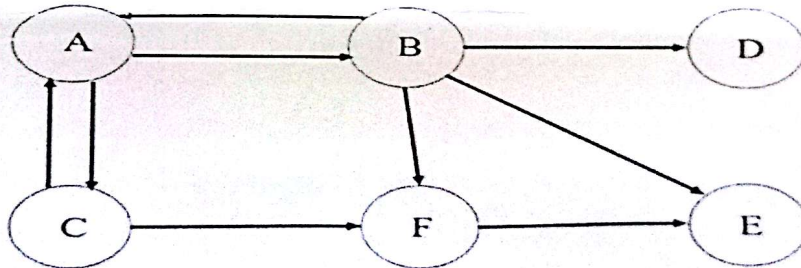
Slot : F2 + TF2

Answer ALL the questions

1. Consider the following term-frequency matrix. Rank the document for the given query "Sea Voyage" using Latent Semantic Index. [15]

DOC#	Ship	Sea	Voyage
D1	0	2	5
D2	3	1	4

2. Find the page rank of the given below web page linkage graph using power-iteration method. Consider damping factor (d) = 0.8 and number of iteration = 2 [10]



3. Considering the following document set. Classify the documents D4, D5 and D6 into class is A or B or C using Naïve Bayes classifier. (use multinomial distribution) [15]

Doc #	Content	Class
D1	ant ant bee	A
D2	dog bee dog ant	B
D3	cat dog ant dog	C
D4	dog bee ant bee	?? (B)
D5	dog ant cat ant	?? (A)
D6	ant dog bee	?? (B)

Prepare the confusion matrix and evaluate the performance of the model using F-measure.

4. Suppose we have the following set of five documents

[10]

D1: Romeo Juliet sad.

D2: happy dagger happy

D3: Romeo died dagger.

D4: Juliet free died free.

D5: Romeo Juliet happy dagger.

Apply the hierarchical clustering on the above document set considering term-frequency matrix and draw the dendrogram using complete linkage method.
