Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, April/May 2018

Course: Banking Database & Structures **Semester: VI**
Program: B.Tech CSE+BFSI
Time: 03 hrs. **Max. Marks: 100**

Instructions:

SECTION A
Note: All 5 questions are compulsory. Each question of Section A carries 4 marks.

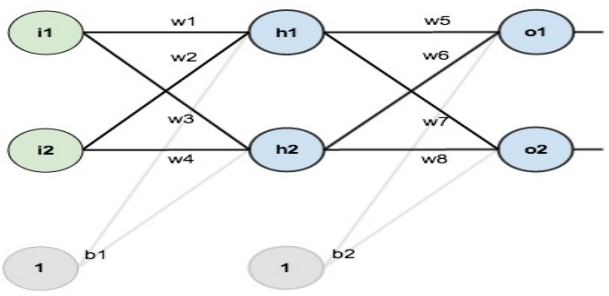
S. No.		Marks	CO
Q 1	Discuss the components and characteristics of DBMS.	4	CO1
Q 2	Describe Master Data Management (MDM) and its different types.	4	CO1
Q 3	Define Data Model and its usage. List down the types of data models.	4	CO1
Q 4	Discuss the challenges of a Core banking Solution and how it can be resolved?	4	CO2
Q 5	Write down data protection principles.	4	CO4

SECTION B
Note: Answer all the questions. Each question of section B carries 10 marks.

Q 6	Explain the importance of data modelling in core banking solutions. How it is useful to expand the banking business?	7+3=10	CO3
Q 7	Explain architecture of Core banking Enterprise System view and its components with diagram.	10	CO2
Q 8	Explain IBM SPSS predictive analytics functionality and components.	10	CO5
Q 9	Explain key technologies involved in storing big data. What is legal requirements of data storage? OR Describe importance of data archiving and backup. Explain data protection law in India.	10	CO 3 CO4

SECTION-C

Note: Answer the questions. Each question of Section C carries 20 marks.

Q 10	(a) Define batch processing. How it is useful in BFSI domain? Explain Info Sphere MDM Custom Domain Hub J2SE batch Processor framework and architecture. (5+10) (b) Write down short notes on data retention. (5) OR Explain Market basket Analysis. Implement Apriori Algorithm for given data set and find the most frequent data item set for maximum data set pairs. It is given that Min_Support=4	**15+5=20**	**CO1, CO3, CO5**
Q 11	 Initial weights w1=.15, w2=.20, w3=.25, w4=.30, w5=.40, w6=.45, w7=.50, w8=.55. The bias values are b1=.35 and b2=.60. Learning rate is .50. The outputs are o1=.01 and o2=.99. How many iterations are required to achieve the expected output. Try and solve it for two iterations.	**20**	**CO5**

Transaction ID	milk	Bread	butter	beer
1	1	1	0	0
2	0	1	1	0
3	0	0	0	1
4	1	1	1	0
5	0	1	0	0
6	1	0	0	0
7	0	1	1	1
8	1	1	1	1
9	0	1	0	1
10	1	1	0	0
11	1	0	0	0
12	0	0	0	1
13	1	1	1	0
14	1	0	1	0
15	1	1	1	1