Code No: MB1911/R19

MBA I Semester Regular/Supplementary Examinations, February-2024

MANAGEMENT AND ORGANIZATIONAL BEHAVIOUR

Time: 3 Hours **Max. Marks: 75**

Answer Any* FIVE *Questions one from each unit
Question No. 11 is Compulsory

UNIT-I

1.	a)	Define management and explain functions of management.	6M
	b)	Explain the concept and process of Management by objectives (MBO).	6M
		(OR)	
2.	a)	Explain the features of scientific management in detail.	6M
	b)	Enumerate on types of plans.	6M

UNIT-II

3.	a)	What is an organization structure? What are the factors determining organization structure?	6M
	b)	Explain the principles of organization.	6M
		(OR)	
4.	a)	Define controlling and explain controlling techniques.	6M
	b)	What are the factors affecting delegation of authority? Explain.	6M

UNIT-III

5.	a)	Define the term personality. How personality does affect the behavior of person?	6M
	b)	Differentiate between values, beliefs and attitudes in organization.	6M
		(OR)	
6.		Describe the concept of learning and Explain learning theories and process.	12M

UNIT-IV

7.	a)	Explain the various stages of group development.	6M
	b)	Discuss about types of groups.	6M
		(OR)	
8.	a)	Briefly explain about various styles of leadership.	6M
	b)	Define motivation. Explain Herzberg's of motivational theory.	6M

UNIT-V

9.	a)	Why does inter-group conflict raise? How can you prevent inter-group conflict?	6M
	b)	Explain about Conflict process.	6M
		(OR)	
10.	a)	Define organization change and explain change process.	6M
	b)	Write a note on Creating an Ethical Organization.	6M

11. **CASE STUDY** 15M

Kavery Limited publishes fortnightly magazine titled Kavery. The magazine is published in four regional languages. The company has its own printing press with M.S. Subramaniam as press manager. He is responsible for the overall working of the press. The press runs on two-shift basis for six days per week perform all activities related to magazine printing that is, starting from typesetting stage to binding stage. For making magazine successful, its timely publication is one of the crucial factors. The press manager has total employee strength of nearly 300 with six persons at the senior management level who work in the day shift and 25 supervisors and 120 operators for each of two shifts. Each supervisor has 4 to 10 operators directly reporting to him. The number of operators reporting directly to a supervisor varies according to nature of work involved in different sections.

One day, the press manager attended a seminar on management by objectives organized by the local management association and addressed by a consultant on management by objectives. He was highly inspired by the theme of management by objectives and intended to install this system in the press. He was very much sure that he would make performance evaluation of the employees easier and improve their productivity.

Subramaniam worked several days on what the output objective of the press would be. After finishing this work, he called a meeting of his senior staff. He gave a written statement containing the objectives of each functional area of the press to senior staff members and requested each member to review the objectives, ask questions for clarification, and then prepare specific operational plans and quotas for his respective departments, supervisors, and operators.

Questions:

i. Is this a workable MBO system? Explain your stand.
ii. Had you been the press manager, would you have proceeded to install MBO differently? Why?
iii. As the press manager, how will you proceed to define press's objectives?

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Code No: QAH03/R20

M. Tech. I Semester Regular/Supplementary Examinations, February-2024

DATA MINING

Common to AI&DS (AH), AI&ML (AI), AI (AF) and DS (88)

Time: 3 Hours **Max. Marks: 75**

Answer any FIVE Questions One Question From Each Unit
All Questions Carry Equal Marks

UNIT-I

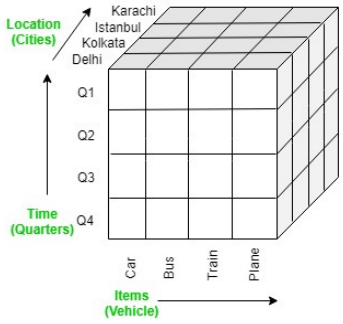
1. a "Traditional techniques are infeasible for mining the raw data"-Justify this statement with commercial and scientific view points. 8M

   b Write about the concepts of sampling, discretization and types of sampling techniques with examples. 7M

OR

2. a Explain the role of data mining in the given applications: Direct Marketing, Fraud Detection, Customer Attrition and Classifying Galaxies. 8M

   b Write about Online Analytical Processing and perform various operations on the given multidimensional data model. 7M



UNIT-II

3. a Perform induction and deduction operations on the given training and testing data with decision tree induction algorithm. 8M

Tid	Attrib1	Attrib2	Attrib3	Class
1	Yes	Large	125K	No
2	No	Medium	100K	No
3	No	Small	70K	No
4	Yes	Medium	120K	No
5	No	Large	95K	Yes
6	No	Medium	60K	No
7	Yes	Large	220K	No
8	No	Small	85K	Yes
9	No	Medium	75K	No
10	No	Small	90K	Yes

Training Set

Tid	Attrib1	Attrib2	Attrib3	Class
11	No	Small	55K	?
12	Yes	Medium	80K	?
13	Yes	Large	110K	?
14	No	Small	95K	?
15	No	Large	67K	?

Test Set

b Discuss about Classifying data using Support Vector Machines (SVMs) and Major Kernel Functions used for linearly separable and inseparable data. 7M

OR

4. a Explain the working of Naïve Bayes classifier and assign the class label for any unknown data. 8M

Outlook	Temp	Humidity	Windy	Play Golf
Rainy	Hot	High	False	No
Rainy	Hot	High	True	No
Overcast	Hot	High	False	Yes
Sunny	Mild	High	False	Yes
Sunny	Cool	Normal	False	Yes
Sunny	Cool	Normal	True	No
Overcast	Cool	Normal	True	Yes
Rainy	Mild	High	False	No
Rainy	Cool	Normal	False	Yes
Sunny	Mild	Normal	False	Yes
Rainy	Mild	Normal	True	Yes
Overcast	Mild	High	True	Yes
Overcast	Hot	Normal	False	Yes
Sunny	Mild	High	True	No

b For the given data in Q.No: 3(a), Explain the scenario of over fitting and under fitting and methods to handle these two problems of decision tree. 7M

UNIT-III

5. a What is sequential pattern mining? Explain the process of generating complete set of frequent subsequences for the given transactions. 8M

SID	Sequence
1	$\langle\{a,b\},\{c\},\{f,g\},\{g\},\{e\}\rangle$
2	$\langle\{a,d\},\{c\},\{b\},\{a,b,e,f\}\rangle$
3	$\langle\{a\},\{b\},\{f,g\},\{e\}$
4	$\langle\{b\},\{f,g\}\rangle$

b Explain the rule generation and rule evaluation process in Apriori Algorithm with example. 7M

OR

6. a For the given set of transactions construct the strong association rules with FP growth tree principle and assume that minimum support threshold is 30% and minimum confidence threshold is 75%. 8M

Transaction Id	Item Bought
001	T-Shirts, Shorts, Shoes, Hoodies, Jackets
002	Hoodies, Backpacks, Socks, Pants, Jersey
003	T-Shirts, Shorts, Running Shoes, Hoodies
004	Hoodies, Shorts, Socks, Pants, Jersey
005	T-Shirts, Shorts, Shoes, Hoodies, Jersey
006	Hoodies, Shorts, Socks, Pants
007	T-Shirts, Backpacks, Running Shoes, Hoodies, Pants
008	Hoodies, Backpacks, Socks, Jackets, Shoes
009	T-Shirts, Shorts, Shoes, Hoodies
010	Hoodies, Backpacks, Socks, Pants, Jersey
011	Hoodies, Backpacks, Socks, Jersey
012	T-Shirts, Shorts, Running Shoes, Hoodies, Pants
013	Jackets, Pants, Socks, Shoes, Jersey

	b	How to achieve data reduction by replacing low level concepts with high level concepts? Explain with concept hierarchy generation process.	7M

UNIT-IV

7.	a	What is the basic principle of clustering based on density of the data? Explain in detail.	8M
	b	How can we evaluate the performance of clustering algorithms? Explain internal and external measures used for this.	7M

OR

8.	a	How to determine all clusters at once? Explain any one algorithm of this type and discuss the limitations.	8M
	b	Write about type of clusters and clustering techniques in detail.	7M

UNIT-V

9.	a	Explain about different types of Outliers in data mining.	8M
	b	Explain the Statistical Approaches: Parametric Methods and Nonparametric Methods.	7M

OR

10.		Explain the following Proximity based approaches: a) Distance-Based Outlier Detection and a Nested Loop Method b) A Grid-Based Method	15M

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Code No: M5802/R19

M. Tech. I Semester Regular/Supplementary Examinations, February-2024

ADVANCED DATA STRUCTURES & ALGORITHMS/ADVANCED DATA STRUCTURES

Common to CS&E (58) and SE (25)

Time: 3 Hours **Max. Marks: 75**

Answer any FIVE Questions One Question From Each Unit
All Questions Carry Equal Marks

UNIT-I

1. a With neat diagrams, explain the following operations in Singly Linked List data structure. 8M
   i) Insert element at the end ii) Delete the specified element
   b Write an algorithm for Push and Pop operations of Stack and list out its applications. 7M

OR

2. a Which operation is more efficient in Doubly Linked List over Singly Linked List? 5M
   b Explain in detail the list of operations that can be performed on a Circular Linked Lists with appropriate diagrams. 10M

UNIT-II

3. a Write the Insertion sort algorithm and explain the step by step procedure of Insertion Sort method for sorting the following unordered list of elements 25,67,56,32,12,96,82,44. Trace the steps to search for the element 82 using Binary search. 8M
   b Write the BFS algorithm and derive its complexity. 7M

OR

4. a Write and explain the Quick sort algorithm and derive its best, worst and average case time complexities. 12M
   b Briefly discuss various Tree traversal techniques. 3M

UNIT-III

5. a Explain the operations of List ADT. And also specify their applications in real time. 8M
   b What is meant by Hashing in data structure? Why do we need Hashing? Explain about various types of Hash functions. 7M

OR

6. a Explain the operations of Queue ADT. And also specify their applications in real time. 8M
   b Explain Double Hashing with an example. 7M

UNIT-IV

7. a Explain the implementation of Priority Queue with an example. 8M
   b Explain the delete and search operations in a Binary Search Tree with examples. 7M

OR

8. a Write the properties of Binary Search Trees. 3M
   b Explain the construction of a Binary Search Tree by inserting the elements 13, 3, 4, 12, 14, 10, 5, 1, 8, 2, 7, 9, 11, 6, 18 in the same order, starting from an empty tree. 12M

Code No: M5802/R19

UNIT-V

9.	a	Explain how the AVL tree insertion process makes it balanced through various rotations.	8M
	b	Explain the properties of Red-Black trees with a neat diagram and discuss its advantages.	7M

OR

10.		Construct a B-tree of order 4 for the following list of elements. 1,4, 7, 10, 17, 21, 31, 25, 19, 20, 28, 42 i) Assume the initial B- tree is empty ii) Insertion should take place in the given order iii) Show the tree after deleting the three elements 28, 31, 21, 25, and 19 in sequence.	15M

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