

### MANIPAL ACADEMY OF HIGHER EDUCATION

#### **SCHOOL OF INFORMATION SCIENCES**

## THIRD SEMESTER MASTER OF SCIENCE - M.Sc.(INFORMATION SCIENCE) Data Mining and Warehousing [MIS 603]

Marks: 100 Duration: 180 mins.

# END SEMESTER DEGREE EXAMINATION NOVEMBER 2018 Answer all the questions.

- Draw and explain the typical framework of a data (10) warehouse
- 2) List the major issues in datamining and describe it. (10)
- What is ETL? Discuss it with proper explanation. (10)
- 4) Differentiate data warehouse versus datamining. (10)
- Explain top down induction of decision tree with suitable example and extract the rules out of it
- 6) Elaborate loss leader analysis in detain (10)
- Find the frequent item set from the following transaction (10) by using Apriori algorithm.

Transaction ID	Item bought					
T100	M	0	Ν	Κ	Ε	Υ
T200	D	Ο	Ν	Κ	Ε	Y`
T300	M	Α	Κ	Ε		
T400	M	U	C	Κ	Υ	
T500	С	0	Ο	K	I	Ε

Solve the following transactions by using FP-Growth data (10) mining algorithm and draw the FP-Growth tree.

Transaction ID	ltem bought						
1	f	а	С	d	g	m	р
2	a	b	С	f	1	m	0
3	b	f	n	0			
4	b	k	С	р			

### Where minimum support = 3

9)	Identify the outlier in a given set of data'	(10)
	2,4,4,5,7,9,11,11,13,14,41	

<sup>10)</sup> Briefly explain spatial datamining (10)

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