KUMARAGURU college of technology
character is life

Register Number:……

MCA DEGREE EXAMINATIONS: MAY 2017

(Regulation 2015)

Fourth Semester

MASTER OF COMPUTER APPLICATIONS

P15CAT402**:** Business Intelligence

COURSE OUTCOMES

CO1: Understand the foundations in BI for business analysis.

CO2: Know the data analyzing and mining techniques in BI.

CO3: Develop skills for solving business related problems by taking intelligent decision.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Consider the following steps of managers usually make decisions: CO1 [K_2]

   i. Construct a model

   ii. Define the problem

   iii. Compare, choose and recommend a potential solution

   iv. Identify possible solutions

   The correct sequences of steps are _____.

   a) iii, i, iv, ii b) ii, iv, i, iii

   c) i, ii, iv, iii d) ii, i, iv, iii

2. _____ is an umbrella term that combines architectures, tools, databases, analytical tools, applications and methodologies. CO1 [K_1]

   a) Data Mining b) Business Intelligence

   c) Decision Support d) Data Analytics

3. The category of model that finds the best solution from a number of alternatives is _____. CO1 [K_2]

   a) heuristics b) simulation

   c) optimization d) predictive model

4. Match list I(Steps of decision support) with list II(Action taken) and select the correct answer using the codes given below. CO3 [K_2]

List I	List II
A. Intelligence	i. Finding alternatives
B. Design	ii. Adapt the selected course of action
C. Choice	iii. Environment scanning
D. Implementation	iv. Compare and select the best solution

	A	B	C	D
a)	ii	i	iii	iv
b)	iii	iv	ii	i
c)	ii	iv	iii	i
d)	iii	i	iv	ii

5. Assertion(A) : The mined data can be analyzed and deployed quickly and easily. CO2 [K_4]
Reason (R): Data mining tools are readily available with spreadsheets and other software development tools.

a) Both A and R are Individually true and R is the correct explanation of A
b) Both A and R are Individually true but R is not the correct explanation of A
c) A is true but R is false
d) A is false but R is true

6. _____ is the data mining method used to learn patterns from past data in order to place new instances into their respective groups or classes. CO2 [K_1]

a) Clustering
b) Classification
c) Regression
d) Association

7. Consider the following statements. CO3 [K_4]

1. Software as a service
2. In house BI
3. Utility computing
4. Software maintained within users system

Which of the above statements are true about On demand BI?

a) 1,3
b) 1,4
c) 1,2
d) 2,3

8. A _____ is a broad statement or general course of action that prescribes targeted directions for an organization. CO1 [K_1]

a) strategic objective
b) strategic vision
c) strategic goal
d) strategic gap

9. Consider the following subtasks: CO2 [K_4]

1. Normalize the data
2. Identify and reduce noise in the data
3. Discretize or aggregate the data
4. Handle missing values in the data

Which of the above subtasks come under the data cleaning process of data mining?

a) 1,2
b) 2,3
c) 1,3
d) 2,4

10. Consider the following processes. CO2 [K_2]

P1: Data cleaning.

P2: Data transformation.

P3: Data Reduction.

P4: Data consolidation

The correct sequence of the data preprocessing steps to be carried out are_____.

a) P2-P3-P4-P1
b) P1-P3-P2-P4
c) P4-P1-P2-P3
d) P4-P1-P3-P2

PART B (10 x 2 = 20 Marks)

11. List the four major benefits of BI. CO1 [K_1]
12. What is meant by problem decomposition? CO1 [K_2]
13. Why is it so important to include a model in a decision support system? CO1 [K_4]
14. Compare Custom-made DSS with Ready-made DSS. CO3 [K_4]
15. How can a knowledge component assist in model selection? CO3 [K_2]
16. Give with an example situation in which classification would be an appropriate technique. CO2 [K_3]
17. What is a Data Warehouse? CO2 [K_1]
18. Differentiate between data mart and meta data. CO2 [K_2]
19. What is a KPI and what are its distinguishing characteristics? CO3 [K_2]
20. What is the purpose of the information hub layer in a BPM system? CO3 [K_2]

PART C (6 x 5 = 30 Marks)

21.	Identify and describe the major components of BI with a neat diagram.	CO1	[K_2]
22.	Explain the Simon's four phases of the decision-making process.	CO1	[K_1]
23.	List the major components of DSS and briefly explain each component.	CO1	[K_1]
24.	Explain the three steps of the ETL (Extraction, Transformation and Loading) process.	CO2	[K_2]
25.	Analyze the fundamental differences among main data mining methods.	CO2	[K_4]
26.	Identify and discuss the managerial issues related to BI implementation.	CO3	[K_4]

Answer any FOUR Questions

PART D (4 x 10 = 40 Marks)

27.	A company has many different types of products and factories. Each of those factories will have its own warehouse. A supermarket customer may order products from both factories. For a company, the way that semi-trailers are loaded with different products for distribution could make a difference of millions of dollars a year in cost efficiencies. Analyze the different models of a decision support system and suggest a model that would solve the above given problem.	CO3	[K_6]
28.	Illustrate the major application areas for data mining in detail with examples.	CO2	[K_3]
29.	A car insurance company is planning to introduce the Data warehousing system. Explain the three types of data warehouse architecture which can be implemented by the company.	CO2	[K_3]
30.	Analyze the legal, privacy, and ethical issues that are related to BI implementation.	CO3	[K_4]
31.	Explain the major business performance management processes with a neat diagram.	CO1	[K_2]

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