

**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)**

**B.C.A. Sem-VI : WINTER- 2022**

**SUBJECT : DATA WAREHOUSING & DATA MINING**

Day : Tuesday

Time : 10:00 AM-01:00 PM

Date : 29-11-2022

**W-18798-2022**

Max. Marks : 60

**N.B.**

- 1) **Q.4 is COMPULSORY.**
- 2) Attempt any **TWO** questions from Q.1 to Q.3 in Section – I
- 3) Attempt any **TWO** questions from Q.5 to Q.7 in Section – II .
- 4) Figures to the right indicate **FULL** marks.
- 5) Answers to both the section should be written in the **SAME** answer book.

**SECTION – I**

- Q.1** Explain applications of Data Mining in the Retail Industry . (12)
- Q.2** What is Data Warehouse? Discuss OLAP and OLTP operations in detail. (12)
- Q.3** What is Data Mining? Discuss KDD steps in detail. (12)
- Q.4** Write short notes on **ANY THREE** of the following: (12)
- a) Data Mart
  - b) Cluster Analysis
  - c) Data Mining Functionalities
  - d) Outlier Analysis
  - e) Classification and Prediction

**SECTION – II**

- Q.5** What is Market Basket Analysis? Explain Apriori Algorithm in detail. (12)
- Q.6** What is classification? Explain with an example how to solve Classification problem using Decision Tree. (12)
- Q.7** What is Schema? Elaborate Star and Snow Flake Schema in detail. (12)

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**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)**

**B.C.A. Sem-VI : WINTER- 2022**

**SUBJECT : WEB PROGRAMMING**

Day : Thursday

Time : 10:00 AM-01:00 PM

Date : 1/12/2022

**W-18799-2022**

Max. Marks : 60

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**N.B.**

- 1) Attempt any **THREE** questions from section – I and any **TWO** questions from Section – II. **Q. No. 4 is COMPULSORY.**
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Answers to both sections should be written in **SAME** answer book.
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**SECTION – I**

- Q.1** a) Explain any six PHP tags. (12)
- b) Explain switch control statement with example.
- Q.2** a) Explain PHP logical operators in detail. (12)
- b) What is function? Describe any five built-in functions in PHP.
- Q.3** a) Describe the concept of class and object in PHP. (12)
- b) What do you mean by session in PHP? Explain the procedure to start and destroy a session in PHP.
- Q.4** Write short notes on any **TWO** of the following: (12)
- a) Cookies
  - b) Web database architecture
  - c) Reading files in PHP

**SECTION - II**

- Q.5** Write a PHP script to display GCD of two numbers. (12)
- Q.6** Design a contact form in PHP and store the data using MYSQL. (12)
- Q.7** Write a PHP code to set and access the value of username variable through cookies. (12)

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**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)**

**B.C.A. Sem-VI : WINTER- 2022**

**SUBJECT : SOFTWARE PROJECT MANAGEMENT**

Day : Saturday

Time : 10:00 AM-01:00 PM

Date : 3/12/2022

**W-18800-2022**

Max. Marks : 60

**N.B.**

- 1) **Q. No. 4** from Section-I is **COMPULSORY**.
- 2) Attempt **ANY TWO** questions from Q.No. 1 to Q. No. 3 in Section – I.
- 3) Attempt **ANY TWO** questions from Q.No. 5 to Q. No. 7 in Section – II.
- 4) Figures to the **RIGHT** indicate **FULL** marks.
- 5) Answers to both the sections should be written in **SAME** answer book.

**SECTION – I**

- Q.1** a) Differentiate between: Software projects and other types of projects. (06)  
b) Explain any two methods of project selection in brief. (06)
- Q.2** a) What do you mean by project schedule? Give the importance of it. (06)  
b) Discuss the factors affecting the software cost. (06)
- Q.3** a) What is quality? Describe various stages of quality management. (06)  
b) Discuss people related classical mistakes in software projects. (06)
- Q.4** Write short notes on **ANY THREE** of the following : (12)  
a) Microsoft project  
b) CMM  
c) Scope management  
d) Team leader  
e) Work breakdown structure

**SECTION – II**

- Q.5** Construct the activity network diagram and find critical path, earliest start time and earliest finish time. (12)

| Activity | Name | Time duration<br>(days) |
|----------|------|-------------------------|
| 1-2      | A    | 4                       |
| 1-3      | B    | 1                       |
| 2-4      | C    | 1                       |
| 3-4      | D    | 1                       |
| 3-5      | E    | 6                       |
| 4-9      | F    | 5                       |
| 5-6      | G    | 4                       |
| 5-7      | H    | 8                       |
| 6-8      | I    | 1                       |
| 7-8      | J    | 2                       |
| 8-10     | K    | 5                       |
| 9-10     | L    | 7                       |

- Q.6** Project A is to be 56,000 DSI semi-detached software. It is in a mission critical area, so the reliability is high (RELY=very high=1.35). Using intermediate COCOMO, calculate total efforts, schedule, productivity of programmer and average staff required to complete this project. (12)
- Q.7** Calculate the total function point value from the following data: (12)  
Number of programmers – 12, Number of algorithms-23, Number of inputs-15, Number of outputs – 21, Number of internal files – 19, Number of external files-19, Number of enquiries – 30 and Number of programs-23.  
Compute for all the three types of complexities.(Consider  $\sum fi$  or DI = 1 )

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**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)**

**B.C.A. Sem-VI : WINTER- 2022**

**SUBJECT : BUSINESS ANALYTICS**

Day : Tuesday

Time : 10:00 AM-01:00 PM

Date : 6/12/2022

**W-18801-2022**

Max. Marks : 60

**N.B.**

- 1) **Q.No. 4** from Section-I is **COMPULSORY**.
- 2) Attempt **ANY TWO** questions from Q.No. 1 to Q. No. 3 in Section – I.
- 3) Attempt **ANY TWO** questions from Q.No. 5 to Q. No. 7 in Section – II.
- 4) Figures to the **RIGHT** indicate **FULL** marks.
- 5) Answers to both the sections should be written in **SAME** answer book.

**SECTION – I**

**Q.1** Answer the following : (12)

- a) Discuss the scope of Business Analytics with areas of applications.
- b) What are Data Mining tools and techniques explain in brief?

**Q.2** Answer the following : (12)

- a) Write brief note on OLAP.
- b) Explain in brief Automated Decision Support System with suitable example.

**Q.3** Answer the following : (12)

- a) What is meaning of Visualization? Explain various tools and techniques of visualization.
- b) Discuss various missing value treatments and its importance.

**Q.4** Write short notes on **ANY THREE** of the following : (12)

- a) Data classification
- b) Retention analytics
- c) Compensation analytics
- d) Competitive intelligence

**SECTION – II**

**Q.5** Answer the following : (12)

- a) Explain functioning of Geographical Information System with example.
- b) Write brief note on Market Share Estimation and Sensitivity Analytics.

**Q.6** Answer the following : (12)

- a) Write brief note on Text Mining and Web Mining.
- b) Write brief note on Talent Analytics.

**Q.7** Explain the following : (12)

- a) Explain in brief XL-MINER.
- b) Explain in short about Importance of Data Quality.

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**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)**

**B.C.A. Sem-VI : WINTER- 2022**

**SUBJECT : INFORMATION SECURITY ADMINISTRATION**

Day : Thursday

Time : 10:00 AM-01:00 PM

Date : 8/12/2022

**W-22705-2022**

Max. Marks : 60

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**N.B.**

- 1) **Q.No.4** from Section – I is **COMPULSORY**.
- 2) Answer **ANY TWO** from Q, 1, 2, 3 in Section – I.
- 3) Answer **ANY TWO** from Q, 5, 6, 7 in Section – II.
- 4) Figure to the right indicate **FULL** marks.
- 5) Answers to both the sections should be written in **SAME** answer book.
- 6) Draw neat and labelled diagram **WHEREVER** necessary.

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**SECTION - I**

**Q.1** Answer the following:

- a) What is proxy server? Discuss proxy server setup process. (06)
- b) Explain different security issues in WAN. (06)

**Q.2** Answer the following:

- a) Describe internet security in detail. (06)
- b) Explain print server security measures (06)

**Q.3** Answer the following:

- a) What are various devices which are used to set up a client side network? (06)
- b) Discuss how to share internet connection with other devices connected is a network. (06)

**Q.4** Write short notes on any **THREE** of the following (12)

- a) Boot server
- b) Website hosting
- c) DNS server
- d) Internet connection sharing (ICS)
- e) Mail server

**SECTION - II**

**Q.5** Answer the following:

- a) Explain steps to share a folder from file server. (06)
- b) What are different devices used in LAN? How IP is assigned to different devices manually? (06)

**Q.6** Answer the following:

- a) How to manage and secure a Desktop PC? (06)
- b) Explain Web server security measures. (06)

**Q.7** Answer the following:

- a) Describe NAT and PAT settings. (06)
- b) Why you need to keep your website secure? (06)

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**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)**  
**B.C.A. Sem-VI : WINTER- 2022**  
**SUBJECT : HADOOP**

Day : Thursday

Time : 10:00 AM-01:00 PM

Date : 8/12/2022

**W-22706-2022**

Max. Marks : 60

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**N.B.:**

1. Attempt **ANY THREE** Questions from Section-I and attempt **ANY TWO** Questions from Section **II**
  2. Figure to right indicate **FULL** Marks
  3. Answers to **BOTH** Sections should be written in **SAME** answer book.
  4. Draw neat and labelled diagrams **WHEREVER** necessary
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**SECTION-1**

|    |  |    |
|----|--|----|
| Q1 | What are the characteristics of Big data?                  | 10 |
| Q2 | What are the big data challenges?                          | 10 |
| Q3 | Explain the architecture of Hadoop                         | 10 |
| Q4 | What are the advantages of Hadoop?                         | 10 |
| Q5 | Explain the tasks of Map and Reduce of MapReduce Algorithm | 10 |
| Q6 | Write steps to inset data into HDFS                        | 10 |

**SECTION-2**

|    |                                      |    |
|----|--------------------------------------|----|
| Q7 | Explain the architecture of HIVE     | 15 |
| Q8 | Differentiate between HDFS and HBase | 15 |
| Q9 | Explain the Apache Pig in detail     | 15 |

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**BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)**

**B.C.A. Sem-VI : WINTER- 2022**

**SUBJECT : KNOWLEDGE MANAGEMENT**

Day : Thursday

Time : 10:00 AM-01:00 PM

Date : 8/12/2022

**W-22707-2022**

Max. Marks : 60

**N.B.**

- 1) **Q.No. 4** from Section-I is **COMPULSORY**.
- 2) Attempt **ANY TWO** questions from Q.No. 1 to Q. No. 3 in Section – I.
- 3) Attempt **ANY TWO** questions from Q.No. 5 to Q. No. 7 in Section – II.
- 4) Figures to the **RIGHT** indicate **FULL** marks.
- 5) Answers to both the sections should be written in **SAME** answer book.

**SECTION – I**

- Q.1** Explain Knowledge Management framework in detail. (12)
- Q.2** a) How Knowledge Management can improve E-commerce? (06)  
b) Discuss Bench Marking. (06)
- Q.3** Elaborate on Supply Chain of Knowledge Management. (12)
- Q.4** Write short notes on **ANY THREE** of the following : (12)
- a) Total Quality Management
  - b) Pillars of Knowledge Management
  - c) Organizational knowledge
  - d) Significance of Knowledge Management
  - e) Corporate transformation

**SECTION – II**

- Q.5** A leading Health Insurance company wants to build Knowledge Management System. (12)
- a) Explain step by step process to design the Knowledge Management System.
  - b) What are the road blocks in the successful implementation of Knowledge Management System.
- Q.6** How Knowledge Management will help in the organizational restructuring? (12)
- Q.7** Rajas Pvt. Ltd. decided to implement Knowledge Management System for its Human Resource Department. (12)
- a. Formulate strategy for its implementation.
  - b. Identify various techniques to implement Knowledge Management.

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