**Government College for Women, Bawani Khera (Bhiwani)**

**Department of Computer Science**

Academic year: 2023-24

Paper Title: **Data Mining**

Marks allotted: 50

Internal assessment: 10

External examination: 40

**Objectives of Teaching the Paper:**

In this course, the learners will be able to develop expertise related to the following:-

1. To get an understanding of the general properties of data in large databases.
2. Understand a variety of real world applications that require data mining
3. How to discover useful patterns and associations in huge quantities of data

**Mode of Transaction for the Paper:**

• Discussions

• Lectures and class assignments

• YouTube Lectures and Presentations

**Course Outcomes:**

After completion of this course, the learners will be able to:-

1. Different data mining techniques on pre-processed data set for extracting hidden patterns from data.
2. Data mining algorithms to solve real world problems
3. Different data mining techniques like classification, prediction, clustering etc.

**Suggested Readings:**

TEXT BOOKS:

1. Han J. And Kamber M., Data Mining Concepts and Techniques, Morgan Kufmann Pub., USA
2. Berson 2004, Data Warehousing, Data Mining and OLAP, Tata Mcgraw Hill Ltd, Delhi

**Teaching Plan for the Academic Session 2023-24**

**Teacher: Amit Khirbat ,Class: B.Sc., Semester: 5th**

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| **Week** | **Concept Breakdown** |
| **Week 1**  **01.02.2024**  **to**  **03.02.2024** | Data Warehouse Introduction, DWH description, Need of DWH, Need for strategic information |
| **Week 2**  **05.02.2024**  **To**  **10.02.2024** | Failures of past decision support systems, OLTP vs DWH, DWH Requirements |
| **Week 3**  **12.02.2024**  **to**  **17.02.2024** | Trends in DWH- Applications of DWH, DWH Architecture, Components of Referece Arch |
| **Week 4**  **19.02.2024**  **to**  **24.02.2024** | DWH building blocks, implementations, physical design process and DWH deployment process. A multidimential data |
| **Week 5**  **26.02.2024**  **to**  **02.03.2024** | DWH architecture, Data Mining introduction, DM vs KDD |
| **Week 6**  **04.03.2024**  **To**  **09.03.2024** | Issues in DM, Metrics, DM Architecture, Data Cleaning, transformation, reduction, DM primitives |
| **Week 7**  **11.03.2024**  **to**  **16.03.2024** | Association rule mining introduction, Mining single dimensional Boolean association rules from transitional databases- Mining Multidimensional association rule |
| **Week 8**  **18.03.2024**  **to**  **22.03.2024** | Classification and prediction introduction, Techniques |
| **Week 9**  **01.04.2024**  **To**  **06.04.2024** | Issues regarding classification and prediction- decision tree, Bayesian classification, classification accuracy, clustering |
| **Week 10**  **08.04.2024**  **to**  **13.04.2024** | Clusterin methods, outlier analysis, DM applications, DM methods |
| **Week 11**  **15.04.2024**  **to**  **20.04.2024** | Distributed and parallel DM Algorithms |
| **Week 12**  **22.04.2024**  **to**  **27.04.2024** | Text mining, Web mining |
| **Week 13**  **29.04.2024**  **to**  **30.04.2024** | Revision |

**Government College for Women, Bawani Khera (Bhiwani)**

**Department of Computer Science**

Academic year: 2023-24

Paper Title: **Management Information System**

Marks allotted: 50

Internal assessment: 10

External examination: 40

**Objectives of Teaching the Paper:** This course will equip with skills to analysis information requirements for managerial decision making

**Mode of Transaction for the Paper:**

• Discussions

• Lectures and class assignments

• YouTube Lectures and Presentations

**Course Outcomes:**

Understand the leadership role of MIS in achieving business competitive advantage through informed decision making. Analyze and synthesize business information and systems to facilitate evaluation of strategic alternative. Effectively communicate strategic alternative to facilitate decision making.

**Suggested Readings:**

TEXT BOOKS:

. Brien, James, Management Information System, Tata McGraw Hill, Delhi

. Strair, Principles of Management System, Thomson Learning, Bombay

**Teaching Plan for the Academic Session 2023-24**

**Teacher: Amit Khirbat ,Class: B.Sc., Semester: 5th**

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| **Week** | **Concept Breakdown** |
| **Week 1**  **01.02.2024**  **to**  **03.02.2024** | Data and information introduction, MIS- need and concepts, factor influencing MIS |
| **Week 2**  **05.02.2024**  **To**  **10.02.2024** | Characteristics of MIS, technology of MIS, Structure of MIS, Decision making and role of MIS, Data communication, Basic H/W required, Channel features and concepts of Distributed Database support system |
| **Week 3**  **12.02.2024**  **to**  **17.02.2024** | Components and classification, steps in constructing a DSS, role in business, group decision support system |
| **Week 4**  **19.02.2024**  **to**  **24.02.2024** | Information system for strategic advantage, strategic role for information system |
| **Week 5**  **26.02.2024**  **to**  **02.03.2024** | Breaking business barriers, business process reengineering |
| **Week 6**  **04.03.2024**  **To**  **09.03.2024** | Improving business qualities, Planning for MIS |
| **Week 7**  **11.03.2024**  **to**  **16.03.2024** | System Development methodologies, Conceptual and detailed designs of MIS |
| **Week 8**  **18.03.2024**  **to**  **22.03.2024** | Information system analysis and design, Information SDLC, hardware and software acquisition, system testing |
| **Week 9**  **01.04.2024**  **To**  **06.04.2024** | Documentation and its tools, conversion methods, System implementation, strategies and process |
| **Week 10**  **08.04.2024**  **to**  **13.04.2024** | System evaluation and maintenance, Applications cross functional , MIWS, ERP, CRM |
| **Week 11**  **15.04.2024**  **to**  **20.04.2024** | Transaction processing. AI technology in business, neural network |
| **Week 12**  **22.04.2024**  **to**  **27.04.2024** | Fuzzy logic, virtual reality, Executive information system |
| **Week 13**  **29.04.2024**  **to**  **30.04.2024** | Revision |