REVISED UG SYLLABUS UNDER CBCS  
(Implemented from Academic Year, 2020-21)  
PROGRAMME: FOUR YEAR B.Sc.(Hons)  

Domain Subject: **B.SC (ARTIFICIAL INTELLIGENCE & ROBOTICS)**  
Skill Enhancement Courses (SECs) for Semester V, from 2022-23 (Syllabus with Learning Outcomes, References, Co-curricular Activities & Model Q.P. Pattern)  

Structure of SECs for Semester – V  
*(To choose One pair from the three alternate pairs of SECs)*

<table>
<thead>
<tr>
<th>Univ. Code</th>
<th>Courses 6&amp;7</th>
<th>Name of Course</th>
<th>Th. Hrs. / Week</th>
<th>IE Marks</th>
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<td>ARTIFICIAL NEURAL NETWORK</td>
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<td>7A</td>
<td>NEURAL NETWORK AND FUZZY LOGIC</td>
<td>3</td>
<td>25</td>
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<td>6B</td>
<td>CRYPTOGRAPHY AND NETWORK SECURITY</td>
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<td>7B</td>
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<td>7C</td>
<td>DATA WAREHOUSING AND MINING</td>
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Note-1: For Semester–V, for the domain subject ARTIFICIAL INTELLIGENCE & ROBOTICS, any one of the three pairs of SECs shall be chosen as courses 6 and 7, i.e., 6A & 7A or 6B & 7B or 6C & 7C. The pair shall not be broken (ABC allotment is random, not on any priority basis).

Note-2: One of the main objectives of Skill Enhancement Courses (SEC) is to inculcate field skills related to the domain subject in students. The syllabus of SEC will be partially skill oriented. Hence, teachers shall also impart practical training to students on the field skills embedded in the syllabus citing related real field situations.
VTH SEMESTER

SKILL ENHANCEMENT COURSES

SKILL ENHANCEMENT COURSE-I

6A. ARTIFICIAL NEURAL NETWORK - LINUX LAB
7A. NEURAL NETWORK AND FUZZY LOGIC – ADVANCED PYTHON LAB

SKILL ENHANCEMENT COURSE-II

6B. CRYPTOGRAPHY AND NETWORK SECURITY – CRYPTOGRAPHY LAB
7B. CYBER SECURITY - CYBER SECURITY LAB

SKILL ENHANCEMENT COURSE-III

6C. DATA ANALYTICS WITH R - R LAB
7C. DATA WAREHOUSING AND MINING - DW AND MINING LAB
Domain Subject: B.SC (ARTIFICIAL INTELLIGENCE & ROBOTICS)

Course-6A: ARTIFICIAL NEURAL NETWORK
(Skill Enhancement Course (Elective), Credits: 03, Max.Marks:100

Goal: This course will disseminate the student with the most fundamental knowledge for understanding AI and some basic search algorithms for problem solving; knowledge representation and reasoning; pattern recognition; fuzzy logic; and neural networks.

Course Objective: By the end of this course, a student will

- To introduce the student’s fundamentals concepts of Neural network and its various application in computer science. To perform cognitive functions as problem solving and machine learning.

Teaching Learning Methodology:

Lectures, Class discussions, Demonstrations using various tools, Practical and Simulation Student Presentation, Problem solving or case studies. Use of flip chart board by instructor as aid in teaching.

UNIT I: Artificial Neural Networks (ANN) and biological neural networks, supervised and unsupervised learning rules, neural network applications.


UNIT III: Feed forward neural network, feed backward neural network, Perception and its learning law, singlelayer perception, multi-layer perception.


UNIT V: Associative memory, auto-associative memory, bi-directional associative memory

TEXT BOOKS:


Semester-wise Revised Syllabus under CBCS, 2020-21

Four-year B.Sc. (Hons)

Domain Subject: B.SC (ARTIFICIAL INTELLIGENCE & ROBOTICS)
LIST OF EXPERIMENTS:

1. Study and Practice on various commands like man, passwd, tty, script, clear, date, cal, cp, mv, ln, rm, unlink, mkdir, rmdir, du, df, mount, umount, find, unmask, ulimit, ps, who.

2. Study and Practice on various commands like cat, tail, head, sort, nl, uniq, grep, egrep, fgrep, cut, paste, join, tee, pg, comm, cmp, diff, tr, awk, tar, cpio.

3. a) Write a Shell Program to print all .txt files and .c files.
   b) Write a Shell program to move a set of files to a specified directory.
   c) Write a Shell program to display all the users who are currently logged in after a specified time.
   d) Write a Shell Program to wish the user based on the login time.

4. a) Simulate cat command.
    b) Simulate cp command.

5. a) Simulate head command.
    b) Simulate tail command.

6. a) Simulate mv command.
    b) Simulate nl command.

7. Write a program to handle the signals like SIGINT, SIGQUIT, SIGFPE.

8. Implement the following IPC forms
   a) FIFO
   b) PIPE.

9. Implement message queue form of IPC.

10. Implement shared memory form of IPC.

11. Write a Socket program to print system date and time (Using TCP/IP).

Semester-wise Revised Syllabus under CBCS, 2020-21

Four-year B.Sc. (Hons)

Domain Subject: B.SC (ARTIFICIAL INTELLIGENCE & ROBOTICS)

Course-7A: NEURAL NETWORK AND FUZZY LOGIC
(Skill Enhancement Course (Elective), Credits: 03, Max.Marks:100
Course Objective:
Fuzzy sets and fuzzy logic find many applications in the areas of stability theory, pattern recognition, controls etc. Neural Networks offer fundamentally alternative approaches to procedural programming. These systems proved their applicability to the problems where there are missing data or information or the problems which could not be defined in an algorithm. The integration of fuzzy systems and neural networks gives a tremendous potential which can be applied to many complicated problems of Artificial Intelligence and other applications in Real World Computing. This course provides a comprehensive treatment of neural network architectures and learning algorithms, with an in-depth look at problems in data mining and in knowledge discovery.

Course Contents:

UNIT-I:

UNIT-II:

UNIT-III:

UNIT-IV:

UNIT-V:
Non linear simulation using Fuzzy rule-based systems, Fuzzy associative memories. Decision making under Fuzzy states and Fuzzy actions. Fuzzy grammar and syntactic recognition. General Fuzzy logic controllers, special forms of Fuzzy logic control system models, examples of Fuzzy control system design and control problems, industrial applications.

TEXT BOOKS & REFERENCES:
1. Dictionary:
   a) Write a program to count the numbers of characters in the string and store them in a dictionary data structure.
   b) Write a program to use split and join methods in the string and trace a birthday with a dictionary data structure.
2. **NESTED LISTS:**
   a) Write a program to read a 3 X 3 matrix and find the transpose.
   b) Write a program to perform addition, subtraction of two 3 X 3 matrices.

3. **USER DEFINED FUNCTIONS:**
   a) Write a function ball collide that takes two balls as parameters and computes if they are colliding. Your function should return a Boolean representing whether or not the balls are colliding.
      **Hint:** Represent a ball on a plane as a tuple of (x, y, r), r being the radius. If (distance between two balls centers) <= (sum of their radii) then (they are colliding).
   b) Write a function to find mean, median, mode for the given set of numbers in a list.

4. **MODULES:**
   a) Install packages requests, flask and explore using (pip).
   b) Write a Python program that imports requests and fetch content from wiki page.

5. **DATE AND TIME:**
   a) Demonstrate Basic date and time classes, Different time formats, Converting between formats, Formatting dates and times, Parsing date/time information.
   b) Write a script that reads the current time and converts it to a time of day in hours, minutes, and seconds, plus the number of days since the epoch.

6. **CLASS AND OBJECTS:**
   a) Create a class ATM and define ATM operations to create account, deposit, check balance, withdraw and delete account. Use constructor to initialize members.
   b) Make a class Employee with a name and salary. Make a class Manager inherit from Employee. Add an instance variable, named department. Write a method that prints manager's name, department and salary. Make a class Executive inherit from Manager. Write a method that prints the string "Executive" followed by the information stored in the Manager super class object.

Semester-wise Revised Syllabus under CBCS, 2020-21

**Four-year B.Sc. (Hons)**

**Domain Subject: B. SC (ARTIFICIAL INTELLIGENCE & ROBOTICS)**

**Course-6B: CRYPTOGRAPHY AND NETWORK SECURITY**
(Skill Enhancement Course (Elective), Credits: 03, Max.Marks:100)

**Course Objective:**
The objective here is to acquaint the students with the application of networking. Detail description of the various TCP/IP protocols and the working of ATM and its performance, Network security and authentication, and various algorithms related to it has been dealt, to get a practical approach.
Course Contents:

UNIT –I:

Cryptography: Concepts and Techniques: Introduction, plain text and cipher text, substitution techniques, transposition techniques, encryption and decryption, symmetric and asymmetric key cryptography, stenography, key range and key size, possible types of attacks.

UNIT – II:
Symmetric key Ciphers: Block Cipher principles & Algorithms(DES, AES, Blowfish), Differential and Linear Crypt analysis, Block cipher modes of operation, Stream ciphers, RC4. Location and placement of encryption function, Key distribution.
Asymmetric key Ciphers: Principles of public key cryp to systems, Algorithms(RSA, Diffie Hellman, ECC), Key Distribution.

UNIT – III:

UNIT – IV:
E-Mail Security: Pretty Good Privacy, S/MIME

UNIT – V:
Intruders, virus and Firewalls: Intruders, Intrusion detection, password management, virus and related threats, Countermeasures, Firewall design principles, types of firewalls.

TEXT BOOKS:

REFERENCE BOOKS:
1. Cryptography and Network Security: C K Shyamala, N Harin i, Dr T R Padmanabhan, Wiley India, 1"
Semester-wise Revised Syllabus under CBCS, 2020-21

Four-year B.Sc. (Hons)
Domain Subject: B.SC (ARTIFICIAL INTELLIGENCE & ROBOTICS)

Course-6B: CRYPTOGRAPHY LAB
(Skill Enhancement Course (Elective), Credits: 02, Max.Marks:50)

LIST OF EXPERIMENTS:

Lab 1: Implementation of Caesar Cipher technique
Lab 2: Implement the Play fair Cipher
Lab 3: Implement the Pure Transposition Cipher
Lab 4: Implement DES Encryption and Decryption
Lab 5: Implement the AES Encryption and decryption
Lab 6: Implement RSA Encryption Algorithm
Lab 7: Implementation of Hash Functions
Objectives:
- The Cyber security course will provide the students with foundational Cyber Security principles, Security architecture, risk management, attacks, incidents and emerging IT and IS technologies.
- Students will gain insight into the importance of Cyber Security and the integral role of Cyber Security professionals.

Outcomes:
- Cyber Security architecture principles
- Identifying System and application security threats and vulnerabilities
- Identifying different classes of attacks
- Cyber Security incidents to apply appropriate response
- Describing risk management processes and practices
- Evaluation of decision making outcomes of Cyber Security scenarios

UNIT-I: Introduction to Cybercrime:

UNIT-II: Cyber offenses:

UNIT-III : Cybercrime mobile and Wireless Devices:

UNIT-IV: Tools and Methods used in Cybercrime:
Introduction, Proxy Servers and Anonymizers, Phishing, Password Cracking, Key loggers and Spywares, Virus and Worms, Trojan Horses and Backdoors, Stegography, DoS and DDoS Attacks, SQL Injection, Buffer Overflow, Attacks on Wireless Networks, Phishing and Identity Theft: Introduction, Phishing, Identity Theft (IDTheft)
UNIT-V: Cybercrimes and Cyber security:

TEXTBOOKS:
3. Information Security, Mark Rhodes, Ousley, MGH
LIST OF EXPERIMENTS:
1. Study of steps to protect your personal computer system by creating User Accounts with Passwords and types of User Accounts for safety and security.

2. Study the steps to protect a Microsoft Word Document of different version with different operating system.

3. Study the steps to remove Passwords from Microsoft Word.
4. Study various methods of protecting and securing databases.
5. Study “How to make strong passwords” and “passwords cracking techniques”.
6. Study the steps to hack a strong password.
Learning Objectives: In this course students will learn R. Programming language, data analytics, data visualisation and statistical model for data analytics. By completion of this course, students will be able to become data analyst.


UNIT II: R Programming Basics: Overview of R programming, Environment setup with R Studio, R Commands, Variables and Data Types, Control Structures, Array, Matrix, Vectors, Factors, Functions, R packages.


UNIT IV: Statistics with R: Random Forest, Decision Tree, Normal and Binomial distributions, Time Series Analysis, Linear and Multiple Regression, Logistic Regression, Survival Analysis.

UNIT V: Prescriptive Analytics: Creating data for analytics through designed experiments, Creating data for analytics through active learning, Creating data for analytics through reinforcement learning.

TEXT BOOKS:

REFERENCE BOOKS:
5. Michael Berthold, David J. Hand, Intelligent Data Analysis, Springer

Semester-wise Revised Syllabus under CBCS, 2020-21

Four-year B.Sc. (Hons)
Domain Subject: B.Sc (ARTIFICIAL INTELLIGENCE & ROBOTICS)
Course-6C: R LAB
(Skill Enhancement Course (Elective), Credits: 02, Max.Marks:50)

LIST OF PROGRAMS:
1. Download and install R-Programming environment and install basic packages using install.packages() command in R.

2. Learn all the basics of R-Programming (Data types, Variables, Operators etc.)

3. Implement R-Loops with different examples.

4. Learn the basics of functions in R and implement with examples.

5. Implement data frames in R. Write a program to join columns and rows in a data frame using cbind() and rbind() in R.

6. Implement different String Manipulation functions in R.

7. Implement different data structures in R (Vectors, Lists, Data Frames)

8. Write a program to read a csv file and analyze the data in the file in R

9. Create pie charts and bar charts using R.

10. Create a data set and do statistical analysis on the data using R

Semester-wise Revised Syllabus under CBCS, 2020-21

Four-year B.Sc. (Hons)
Domain Subject: B.Sc (ARTIFICIAL INTELLIGENCE & ROBOTICS)

Course-7C: DATA WARE HOUSING AND MINING
(Skill Enhancement Course (Elective), Credits: 03, Max.Marks:100)

Objectives:
Students will be enabled to understand and implement classical models and algorithms in data warehousing and data mining.

They will learn how to analyze the data, identify the problems, and choose the relevant models and algorithms to apply.

They will further be able to assess the strengths and weaknesses of various methods and algorithms and to analyze their behaviour.

Outcomes:

- Understand stages in building a Data Warehouse
- Understand the need and importance of preprocessing techniques.
- Understand the need and importance of Similarity and dissimilarity techniques
- Analyze and evaluate performance of algorithms for Association Rules
- Analyze Classification and Clustering algorithms.

UNIT-I:
Introduction: Why Data Mining? What is Data mining? What kinds of data can be mined? - What kinds of patterns can be mind? Which Technologies are used? Which kinds of Applications are targeted? Major Issues in Data Mining. Data Objects and Attribute Types, Basic Statistical Descriptions of Data, Data Visualization, Measuring Data Similarity and Dissimilarity.

UNIT-II:
Data Pre-processing: Data Preprocessing : An Overview, Data Cleaning, Data Integration, Data Reduction, Data Transformation and Data Discretization.

UNIT-III:
Classification: Basic Concepts, General Approach to solving a classification problem, Decision Tree Induction: Working of Decision Tree, building a decision tree, methods for expressing an attribute test conditions, measures for selecting the best split, Algorithm for decision tree induction.

UNIT-IV:
Classification: Alterative Techniques, Bayes Theorem, Naive Bayesian Classification, Bayesian Belief Networks.

UNIT-V:
Association Analysis: Basic Concepts and Algorithms : Problem Defecation, Frequent Item Set generation, Rule generation, compact representation of frequent item sets.

TEXT BOOKS:
1. Introduction to Data Mining : Pang-Ning Tan & Michael Steinbach, Vipin Kumar, Pearson
2. Data Mining concepts and Techniques, 3/e, Jiawei Han, Michel Kamber, Elsevier.

Four-year B.Sc. (Hons)
Domain Subject: B.SC (ARTIFICIAL INTELLIGENCE & ROBOTICS)
Course-7C: DW AND MINING LAB
(Skill Enhancement Course (Elective), Credits: 02, Max.Marks:50

SQL LAB:
A. Consider the following schema for a LibraryDatabase:

BOOK (Book_id, Title, Publisher_Name, Pub_Year)
BOOK_AUTHORS (Book_id, Author_Name)
PUBLISHER (Name, Address, Phone)
BOOK_COPIES (Book_id, Branch_id, No-of_Copies)
BOOK_LENDING (Book_id, Branch_id, Card_No, Date_Out, Due_Date)
LIBRARY_BRANCH (Branch_id, Branch_Name, Address)

Write SQL queries to:
1. Retrieve details of all books in the library – id, title, name of publisher, authors, number of copies in each branch, etc.
2. Get the particulars of borrowers who have borrowed more than 3 books, but from Jan 2017 to Jun 2017
3. Delete a book in BOOK table. Update the contents of other tables to reflect this data manipulation operation.
4. Partition the BOOK table based on year of publication. Demonstrate its working with a simple query.
5. Create a view of all books and its number of copies that are currently available in the Library.

B. Consider the following schema for OrderDatabase:

SALESMAN (Salesman_id, Name, City, Commission)
CUSTOMER (Customer_id, Cust_Name, City, Grade, Salesman_id)
ORDERS (Ord_No, Purchase_Amt, Ord_Date, Customer_id, Salesman_id)

Write SQL queries to:
1. Count the customers with grades above Bangalore’s average.
2. Find the name and numbers of all salesmen who had more than one customer.
3. List all salesmen and indicate those who have and don’t have customers in their cities (Use UNION operation.)
4. Create a view that finds the salesman who has the customer with the highest order of a day.
5. Demonstrate the DELETE operation by removing salesman with id 1000. All his orders must also be deleted

WEKA LAB:
2. Demonstration of Association rule process on data-set contact lenses.arff /supermarket using apriori algorithm.
5. Demonstration of clustering rule process on data-set iris.arff using simple k-means.
MODEL QUESTION PAPER (Sem-end. Exam)
B. Sc DEGREE EXAMINATION
SEMESTER –V
Course 6A: Artificial Neural Network

Time:3Hrs                                             Max.marks:75

Section - A

I. Answer all the following                          5x10=50

1. A) Explain the biological prototype of neuron. Also explain the characteristics of neuron.
OR

B) Explain how neural network principles are useful in control applications.

2. A) Explain the Widrow-Hoff learning rule for supervised learning in neural networks with help of an example?

(OR)

B) Explain Back propagation with algorithm?

3. A) Explain Feed forward neural network?

(OR)

B) Explain Feed backward neural network?

4. A) Discuss algorithm for storage of conformation in Hopfield network.

(OR)

B) Explain the architectures of popular self-organizing maps?

5. A) Explain Bi-directional associative memory?

(OR)

B) Explain auto-associative memory with example?

Section - B

II. Answer any 5 from the following 5x5=25

1. Explain Application of neural network?

2. What is Supervised learning?

3. Explain Delta learning?

4. What is Perception?

5. Explain difference between Single layer perception and Multi-layer perception?

6. Explain Kohonen algorithm?

7. Explain learning rules?

8. Explain Associative memory?

MODEL QUESTION PAPER (Sem-end. Exam)
B. Sc DEGREE EXAMINATION
SEMESTER –V
Course 7A: Neural Network and Fuzzy Logic

Time:3Hrs Max.marks:75

Section - A

I. Answer all the following 5x10=50

1. A) Explain network and node properties?

(OR)

B) Explain Unsupervised learning with an example model?
2. A) Explain bi-directional associative memory?  
   (OR)  
   B) Explain Hopfield network algorithm?

3. A) Explain Fuzzy Set Operation and properties?  
   (OR)  
   B) Explain Cluster analysis and validity?

4. A) Explain Fuzzification interface?  
   (OR)  
   B) Explain Graphical techniques of inference?

5. A) Explain Non linear simulation  
   (OR)  
   B) Explain Decision making under Fuzzy states and Fuzzy actions?

Section - B  
II. Answer any 5 from the following  
5x5=25

1. Explain Competitive learning?

2. What is Back propagation?

3. Explain Kohonen algorithm?

4. Explain Neural network applications

5. What is Fuzzy Relation Cardinality?

6. Explain Cluster analysis?

7. Explain Fuzzy associative memory?

8. Explain example of Fuzzy control system?

MODEL QUESTION PAPER (Sem-end. Exam)  
B. Sc DEGREE EXAMINATION  
SEMESTER –V  
Course 6B: Cryptography and Network Security

Time:3Hrs Max.marks:75

Section – A

I. Answer all the following  
5x10=50

1. A) Explain principles of Security?  
   (OR)  
   B) Explain Symmetric and asymmetric key Cryptography?

2. A) Explain Block Cipher along with an Algorithm?
(OR)
B) Explain Principles of Public Key Cryptography?

3. A) Explain Hash Function?
   (OR)
   B) Explain Authentication Applications?

4. A) Explain E-Mail Security?
   (OR)
   B) Explain IP security architecture?

5. A) Explain Web Security?
   (OR)
   B) Explain types of Firewalls?

Section – B

II. Answer any 5 from the following

1. Explain Security Service?
2. Explain need for security?
3. Explain stenography?
4. Explain Stream ciphers?
5. Explain Asymmetrix key Ciphers?
6. Explain Knapsack Algorithm?
7. Explain Security payload?
8. Explain security socket layer?

MODEL QUESTION PAPER (Sem-end. Exam)
B. Sc DEGREE EXAMINATION
SEMESTER –V
Course 7B: Cyber Security

Time:3Hrs
Max.marks:75

Section - A

I. Answer all the following

1. A) What is Cybercrime and explain Information security?
   (OR)
   B) Discuss the global perspective on cybercrimes?

2. A) What is Cyber Stalking? Explain various types of Stalkers with a case study?
   (OR)
B) Define Social Engineering? Describe the classification of Social Engineering with examples?

3. A) Explain the trends in mobile credit card frauds in wireless computing
   (OR)
   B) Explain Organizational Measures for Handling Mobiles?

4. A) Explain about Trojan Horses and Backdoors in detail with examples.
   (OR)
   B) Differentiate between computer Virus and Worms with two examples each?

5. A) Explain about Digital Signatures?
   (OR)
   B) Explain Challenges to Indian Law and Cyber crimes Scenario?

Section - B

II. Answer any 5 from the following 5x5=25

1. What is Cyber Crime? List the types of cybercriminals.

2. Define the public key certificate

3. How to prevent SQL Injection Attacks?

4. How to prevent SQL Injection Attacks?

5. Explain about Phishing Attacks?

6. Explain information Blue Print?

7. Explain Information Security Policy Standards?

8. Explain Stegnography?

MODEL QUESTION PAPER (Sem-end. Exam)

B. Sc DEGREE EXAMINATION
SEMMESTER –V
Course – 6C Data Analytics Using R

Time:3Hrs Max.marks:75

Section - A

I. Answer all the following 5x10=50

1. A) Explain Applications of Data Analytics?
   (OR)
   B) Explain Classifications of Data?

2. A) Explain the environment of R Language?
   (OR)
   B) Explain control statements of R Language?
3. A) Explain Reading and Getting Data from R Language?
   (OR)
   B) Explain Working with R charts and Graphs?

4. A) Explain Decision Tree with Example?
   (OR)
   B) Explain different types of Regression Models?

5. A) Explain briefly reinforcement learning
   (OR)
   B) Explain Creating data for analytics through active learning?

Section – B

II. Answer any 5 from the following 5x5=25

1. Explain Characteristics of Data?

2. What is Data Analytics?

3. Explain Data types of R?

4. Explain Boxplots, Bar Charts?

5. Explain Survival Analysis?

6. Explain Prescriptive Analytics?

7. Explain Random Forest?

8. Explain Normal and Binomial distributions?

MODEL QUESTION PAPER (Sem-end. Exam)
B. Sc DEGREE EXAMINATION
SEMESTER –V
Course – 7C Data Ware Housing and Mining

Time:3Hrs  Max.marks:75

Section - A

I. Answer all the following 5x10=50

1. A) Explain briefly about Data Mining?
   (OR)
   B) Explain Major Issues in Data Mining?

2. A) Explain Data Preprocessing?
   (OR)
   B) Explain briefly Data Transformation and Data Discretization?

3. A) Explain Decision Tree Induction?
B) Explain about Data Classification?

4. A) Explain Bayes Theorem?
(OR)
B) Explain Bayesian Belief Networks?

5. A) What is Association and Explain Association Analysis?
(OR)
B) Explain compact representation of frequent item sets?

Section - B

Answer any 5 from the following \hspace{10cm} 5 \times 5 = 25

1. What is Data Visualization?
2. Explain Data Cleaning?
3. Explain Data integration?
4. Explain Working of Decision Tree?
5. Explain Naive Bayesian Classification?
6. Explain Rule Generation?
7. Explain Market Basket Analysis?
8. Explain Applications of Data Mining?