

**B.Sc. DEGREE EXAMINATION, APRIL 2011****First Semester****Software****UNIX AND C PROGRAMMING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is a Shell ?
2. Write a Command to create a text file in UNIX.
3. What are Unary operators ?
4. What is the purpose of getchar function ?
5. What is C preprocessor ?

6. Define Recursion and Macro.
7. What is a Malloc ( ) function ?
8. What is single dimensional Array ?
9. How can you find the size of Structure ?
10. What is a bit field ?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are the shell built - in variables ? Explain them.

*(Or)*

- (b) Briefly explain Directory commands with example.

12. (a) Discuss on gets and puts function with example.

*(Or)*

(b) Explain switch-break-and continue statement.

13. (a) Briefly explain storage classes.

*(Or)*

(b) Explain various Library functions in C.

14. (a) How do you define a string in array.

*(Or)*

(b) Write a 'C' program to pass a Pointer to a function.

15. (a) What is Enumeration ? Briefly explain.

(Or)

(b) Declare the structure for employee details and write a method to access data members.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Discuss on File permissions and File security.

17. Discuss on if-then-else nested structure with suitable program.

18. Explain a function with its definition and calling method by passing argument.

19. Explain the method to declare dynamic memory allocation with suitable program.

20. Discuss in detail a method how to pass the structure to a function.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Second Semester****Software****PROGRAMMING IN C++ AND ALGORITHMS**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** the questions.

1. Define Class.
2. What is Array of objects ?
3. Give an example for two-dimensional array.
4. When will the constructors are executed ?
5. Define Inheritance.

6. What is this pointer ?.
7. Define Topological sort.
8. What is finding the closest pairs of points ?
9. Define Huffmann code.
10. What is coin changing ?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write a C++ program to search a number in a set of a numbers.

*(Or)*

- (b) Write a note on pointer to member.

12. (a) Discuss constructors in detail.

*(Or)*

(b) Write note on Dynamic Initialization of objects in detail.

13. (a) Write a note on Type conversion in detail.

*(Or)*

(b) Discuss polymorphism.

14. (a) Write note on merge sort in detail.

*(Or)*

(b) Discuss Insertion sort in detail

15. (a) Explain the Prim's algorithm.

(Or)

(b) Write an algorithm for multiplying two matrices.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Discuss the control structures in C++ in detail with examples.

17. Write note on :

(a) Copy constructors

(b) Destructors

18. Discuss pointers to objects in detail with example.

19. Explain the Breadth-First search in detail.

20. Explain the longest-common-subsequence problem.

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**AF-3511**

**BSO3C1**

**B.Sc. DEGREE EXAMINATION, APRIL 2011**

**Third Semester**

**Software**

**JAVA PROGRAMMING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is meant by Class ?
2. What is meant by applet ?
3. What is meant by casting a value ?
4. Write the general format of else if statement.
5. What is destructor ?

6. What is an Array ?
7. What is static import ?
8. How do you declare the class in extending the thread method ?
9. Write any two attributes and its meaning of Applet Tag.
10. Write any two Tag and its function of HTML tag.

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Write any five features of Java.

(Or)

- (b) Write short notes on JDK.

12. (a) Explain assignment Operator.

*(Or)*

(b) Explain Nesting for loop statements ? Give an example ?

13. (a) What is Constructor ? What are its special properties ?

*(Or)*

(b) How can you access interface variables ? Give an example.

14. (a) Explain the naming Conventions.

*(Or)*

(b) Explain the Thread Exceptions.

15. (a) How does Applets differ from Applications ?

(Or)

(b) What is remote applet ?

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the following :

(a) Data abstraction and data encapsulation.

(b) Inheritance and Polymorphism.

17. Explain the following statement.

(a) Simple if.

(b) If else.

(c) While statement.

18. Discuss the different levels of access protection available in Java.
  
19. Briefly explain life cycle of a thread.
  
20. Write applets to draw the following shape :
  - (a) Cone.
  - (b) Cube.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Fourth Semester****Software****VISUAL BASIC PROGRAMMING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** the questions.

1. List the three methods of collection object.
2. What is the purpose of named arguments ?
3. What is access keys ?
4. What is shortcut keys ?
5. What are the two methods commonly used to align a text on a form ?

6. What is the purpose of Auto Redraw properties ?
7. How items are called in a tree structure ?
8. What is MDI ?
9. Define Foreign key.
10. Give the syntax of left outer join.

**Part B**

(5 × 5= 25)

Answer **all** the questions choosing **either** (a) **or** (b).

11. (a) Explain Visual Basic numeric data types.

*(Or)*

- (b) Explain variable's scope in detail.

12. (a) Explain the show method of a form.

*(Or)*

(b) What is pop-up menu ? Explain.

13. (a) What are the file format supported by picture box and how will you load pictures into a picture box ?

*(Or)*

(b) What is the use of device context ? Explain in detail.

14. (a) Explain Treeview control and its structures in detail.

*(Or)*

(b) Explain the text formatting properties of Richtext-box control.



15. (a) Explain the methods to locate a record in the recordset.

(Or)

(b) Explain SQL joins in detail.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain procedures and functions in Visual Basic.

17. How will you create menus ? Explain with examples.

18. Explain different types of lines and shapes in VB Graphics.

19. Explain about MSFlexgrid controls in details.

20. How will you connect database using ADO ? Explain with examples.

**B.Sc. DEGREE EXAMINATION, APRIL 2011****Fifth Semester****Software****SOFTWARE TESTING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** the questions.

1. What is static testing ?
2. Define Cyclomatic Complexity.
3. What is exported interfaces ?
4. Differentiate reliability with reliability testing.
5. Define throughput.

6. Define Smoke testing.
7. Define style sheets.
8. What is Usability Validation ?
9. What is Risk identification ?
10. What is Configuration file ?

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) State the Challenges in White Box testing.

*(Or)*

- (b) Explain decision tables.

12. (a) Explain Top-down Integration.

*(Or)*

(b) State the guidelines that help in improving interoperability.

13. (a) Explain the tools for performance testing.

*(Or)*

(b) Explain the types of Regression testing.

14. (a) State the use of activity diagram.

*(Or)*

(b) Explain the quality factors for usability.

15. (a) Discuss Test Summary Report.

(Or)

(b) Explain the skills needed for Automation.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Discuss the functionality of Black Box testing and explain when to do Black Box testing.

17. Explain in detail Acceptance testing.

18. How to do Regression testing ? Explain.

19. Explain the basic Concepts of OO System that are relevant for testing ?

20. Explain the design and Architecture for automation.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Fifth Semester****Software****MULTIMEDIA**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What do you mean by flash movie ?
2. List any two uses of insert menu in Flash MX.
3. How do you create overlay objects ?
4. What is a text label ?
5. What is meant by tweening ?

6. What are the three sound formats that can be used in Flash ?
7. What do you mean by the term screen modes ?
8. Define : Layer effects.
9. What do you mean by blur ?
10. Define : Liquify filter.

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain : Panels.

(Or)

(b) Write short note on Contextual menus.

12. (a) What do you mean by Free transformation tool ?  
How it works ?

*(Or)*

(b) Discuss the various properties available Frames  
in Flash.

13. (a) What are the ways to use sounds in Flash ?

*(Or)*

(b) What are the characteristics of Digital Sound ?  
Explain.



14. (a) Write note on Color picker palettes.

(Or)

(b) Which is the most commonly used tool for retouching old images ? Explain.

15. (a) Explain : Layers palette.

(Or)

(b) Briefly discuss Distort filters.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the evolution of Flash and its uses.

17. Explain the advanced editing techniques in Flash.

18. Describe the following

(a) Text animation.

(b) 3D animation.

19. Discuss the various drawing tools included in Photoshop.

20. What is layer ? Explain different types of layers.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Fifth Semester****Software****Elective : DATABASE MANAGEMENT SYSTEMS**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is Database Management system ?
2. Describe Foreign key.
3. Define Data Independence.
4. What is specialization ?
5. List out the characteristics of centralized databases.

6. What do you mean by database integrity ?
7. What is meant by an instance of the database and schema ?
8. What is SQL ? What are the characteristics of SQL ?
9. Distinguish between Static and Dynamic SQL.
10. What is Transaction Manager ?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are the responsibilities of a Database Administrator in an organization ?

*(Or)*

(b) What is a view ? How it is related to data independence ?

12. (a) What do you meant by a key ? Explain the difference between various keys.

*(Or)*

(b) Define Network database model.

13. (a) Explain about the architecture of database system.

*(Or)*

(b) What are the types of transparencies that a distributed database must support ? Why ?

14. (a) What are the steps involved in query processing ?  
How would you estimate the cost of the query ?

*(Or)*

- (b) What is the use of Integrity constraints ? Compare with Domain constraints.

15. (a) What is database Trigger ? Give example.

*(Or)*

- (b) What are stored-procedures ? What are the advantages of using them ?

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. What are various components of Database System ?  
Explain in detail.
  
17. What is meant by the term relationship between entities ? Explain the different types of relationships that can exist with examples.
  
18. What are the main differences between a Parallel and a Distributed system ? Explain.
  
19. What is indexing and what are the different kinds of indexing ?
  
20. How are exceptions handled in PL/SQL ? Give example.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Fifth Semester****Software****Elective : COMPUTER GRAPHICS**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Expand DDA.
2. Write any two input devices and output devices.
3. Define Rotation.
4. What is the difference between Basic transformation and Composite transformation ?
5. Define : Clipping.



6. Define : Shield.
7. Define : Mirror reflection.
8. Define : Translation in 3 D.
9. What is Feedback ?
10. Define : User Model.

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain Color CRT Monitors.

(Or)

- (b) Write short notes on plasma - panel displays.

12. (a) Discuss on the two - dimensional viewing functions.

*(Or)*

(b) Explain Scaling transformation with neat diagram.

13. (a) Explain Parallel Projection and Perspective Projection.

*(Or)*

(b) Explain Polygon surfaces and Polygon tables.

14. (a) Explain three-dimensional translation.

*(Or)*

(b) Write short note on three-dimensional transformation functions.

15. (a) Explain the User's Model.

(Or)

(b) Write short note on Information display.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain DDA line drawing algorithm.

17. Explain in detail about Composite transformations.

18. Explain Spline representations of curves.

19. Discuss on three - dimensional rotation.

20. Discuss on styles of Command language.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Fifth Semester****Software****Elective : DIGITAL IMAGE PROCESSING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** the questions.

1. What is Digital Image Processing ?
2. Define Sampling.
3. Define Fourier Transform.
4. Define Discrete Fourier Transform.
5. What is meant by Smoothing filters ?

6. What is meant by Degradation model ?
7. Write about Error free Compression.
8. What is meant by Run-length Code ?
9. Define Texture.
10. What is meant by Image Recognition ?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write the fundamental steps for DIP.

(Or)

- (b) Discuss about Sampling and Quantization.

12. (a) Discuss about any two properties of Fourier Transform.

*(Or)*

(b) Discuss about any two other separable image Transforms.

13. (a) Write short notes on Spatial filtering.

*(Or)*

(b) Discuss about Inverse filtering.

14. (a) Write about Lossy Compression in detail.

*(Or)*

(b) Discuss about Point-Processing in image Segmentation.

15. (a) Discuss about Regional Descriptors.

(Or)

(b) Write about the elements of Image Analysis.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain about the fundamental steps in Image Processing.

17. Explain with example the Discrete Fourier Transform.

18. Discuss in detail about the Color Image Processing.

19. Distinguish between the Lossless compression and Lossy compression in detail.

20. Explain about Morphology with suitable examples.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Fifth Semester****Software****Elective : MANAGEMENT INFORMATION  
SYSTEMS**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What are the various activity subsystem in Information System ?
2. List out all operating elements of an Information System.
3. Define Data model. What are the two major classes of data models ?
4. What is meant by document filling ?



5. What is the use of decision tree ? Give an example.
6. What is cognitive style ?
7. Define Expert system.
8. What are the various activities of knowledge work ?
9. Define Database.
10. What are the elements in E - R model ?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the various Organizational Function Subsystems of an MIS.

(Or)

(b) Explain the information systems for strategic planning.

12. (a) Briefly explain the Hardware and Software needed for Information System.

*(Or)*

(b) Explain the various methods for processing Transactions.

13. (a) What are the three phases of decision making process? Explain.

*(Or)*

(b) Explain the various components of the Human Information Processing System.

14. (a) Explain the classes of Decision Support Systems.

*(Or)*

(b) Explain the various technology in support of Knowledge work.

15. (a) What are the three levels of Information Requirements ? Explain.

*(Or)*

(b) Explain the various components of user Interface.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Describe the purpose and organization of this Text.
  
17. Briefly explain the types of communication Networks in Information System.
  
18. Briefly explain the value of information in Decision Making.
  
19. What are the various approaches to development of Decision Support Systems ? Explain.
  
20. Define Normalization. Explain Normalization process in Database design.

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**AF-3519**

**BSO6C1**

**B.Sc. DEGREE EXAMINATION, APRIL 2011**

**Sixth Semester**

**Software**

**WEB DESIGN TECHNOLOGY**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What are the important components of header section in HTML ?
2. What is the use of Caption element ?
3. What is dangling – else problem ?
4. What is the use of break statement in Javascript ?
5. What is recursion ?

6. What is tokenization ?
7. What do you mean by dynamic positioning ?
8. What are the three parameters of on error event ?
9. What is the function of EOF ( ) property ?
10. What is the use of TDC ?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) How to insert an image in the document ? Give example.

(Or)

- (b) Explain ordered and unordered lists in HTML.

12. (a) Explain the If selection statement with suitable example.

*(Or)*

(b) Explain the header components of for statement.

13. (a) Explain with example how to initialize a single eliminational and multidimensional array.

*(Or)*

(b) Explain the character processing methods in Javascript in detail.

14. (a) What is the use of frames collection ? Explain with example.

*(Or)*

(b) What is the use of Chroma filter ? Explain.

15. (a) How to bind data to img element ? Explain.

(Or)

(b) Explain how to do scaling in shapes with suitable example.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Design a HTML page of Arts and Science faculty in your University by considering minimum of three departments.
17. With a javascript coding explain the switch structure.
18. Write a program using javascript to sort an array with sort.



19. Explain any five event models that respond to user actions with simple examples.
  
20. Explain the different path controls available in dynamic HTML with suitable examples.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Sixth Semester****Software****SOFTWARE ENGINEERING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** the questions.

1. What is Software Engineering ?
2. Define : Planning.
3. What is a cost estimation ?
4. Define : Software.
5. Name some modules in software design.

6. Define : Code.
7. What is meant by System Testing ?
8. Name any two tools to maintain the software.
9. What is SQA ?
10. Name any two SQA plan.

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Mention the managerial issues in Software Engineering.

(Or)

- (b) Discuss about other planning activities.

12. (a) How can you estimate the software maintenance cost ?

*(Or)*

(b) Discuss about the software requirement specifications.

13. (a) Write all the guidelines for System Design.

*(Or)*

(b) Write about the guidelines for Software Implementation.

14. (a) Mention any four strategic issues in Software Testing.

*(Or)*

(b) Write about the source code matrices in Software Maintenance.

15. (a) Discuss about the concepts of Quality.

*(Or)*

(b) Discuss about the ISO 9000 Quality Standards.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain about the Size, Production and Quality Factors.

17. Explain about the Software Requirements and the specification Techniques.

18. Explain about the System Design.
19. Explain the maintenance of a Software.
20. Explain the Formal Technical review and Software review.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Sixth Semester****Software****CLIENT/ SERVER COMPUTING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Client / Server computing.
2. Define Co-operative processing.
3. What is GUI ? Give any two usage.
4. What is the use of Automatic Testing facility ?
5. What is Disk mirroring and Disk duplexing ?

6. What are the various features in Server Data Management Software ?
7. What are the various types of Network topologies ?
8. What is the use of Routers ?
9. Write any two training advantages of GUI applications.
10. What is reliability in Client/Server system ?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the various components of Client/Server Applications.

(Or)

- (b) Explain the various categories of Client/Server Applications.



12. (a) Explain the various components of Client.

*(Or)*

(b) Write a short notes on Database access tools.

13. (a) What are the features of Server Machine ?  
Explain.

*(Or)*

(b) Briefly explain the requirements of server.

14. (a) Explain OSI Model with diagram.

*(Or)*

(b) Explain the various ways to interconnect LAN.

15. (a) Briefly explain LAN and Network Management issues.

(Or)

- (b) Explain System administrator and Database administrator Training.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the benefits of Client/ Server Computing.
17. Explain the GUI Environments in Client/ Server Computing.
18. Explain the common features of Server Data Management Software.

19. Explain the following :-

- (a) Netware.
- (b) LAN Manager.
- (c) VINES.

20. Write short notes on :-

- (a) Software distribution.
- (b) Network Management.
- (c) Help desk.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Sixth Semester****Software****Elective : COMPUTER NETWORKS**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** the questions.

1. Define Software.
2. What is the use of Computer Networks ?
3. What is meant by Error detection and Error correction code ?
4. What is a CSMA Protocol ?
5. What is a Firewall ?

6. Define Multicasting.
7. What is the use of Transport Service ?
8. What is the use of TCP ?
9. Define WWW.
10. Define Cryptography.

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Discuss about the Network Standards.

*(Or)*

- (b) Mention the advantages of Satellites.

12. (a) Describe “PPP” Protocol.

*(Or)*

(b) Discuss about the Collision free Protocol.

13. (a) Write about the Subnet ?

*(Or)*

(b) Differentiate Routing, Switching and Gateway.

14. (a) How can you measure the performance of a Network ?

*(Or)*

(b) Discuss about the TCP/IP.

15. (a) Mention any four MPEG standards.

(Or)

(b) Write about Electronic Mail Privacy.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain about the Physical layer.

17. Discuss in detail about the Dlink Protocol.

18. Explain about the ATM Network.

19. Explain about the Transport layer.

20. Explain about the Data Compression and its standards.

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**B.Sc. DEGREE EXAMINATION, APRIL 2011****Sixth Semester****Software****Elective : DATA MINING AND DATA WARE  
HOUSING**

(CBCS—2008 onwards)

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** the questions.

1. What is Data Mining ?
2. What is meant by Query Manager ?
3. What is the role of System manager ?
4. Define Process.
5. Mention the metrics of Data Mining ?



6. How can you represent the Data mining from the Data base ?
7. Define OLTP.
8. Define Neural Networks.
9. What is meant by Incremental Rule ?
10. How can you measure the Quality of a Rule ?

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Discuss the delivery process in Data Warehouse.

*(Or)*

- (b) Write about Extract and Load Process.

12. (a) Differentiate between the Data Warehouse Process Manager and Warehouse Manager.

*(Or)*

(b) How can you estimate the Load ?

13. (a) Write about knowledge Discovery Database.

*(Or)*

(b) Describe the issues of Data Mining.

14. (a) Write about Decision Support Systems.

*(Or)*

(b) Describe any two Data Mining Techniques.

15. (a) Write a short note on Parallel and Distributed algorithms.

(Or)

(b) Discuss about the Association Rules.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain about the process Architecture.

17. Explain the Tuning of Data Warehousing.

18. Discuss about the issues and Metrics in Data Mining.

19. Explain about the Information Retrieval in Data Mining and Warehousing.

20. Explain the Advanced Techniques in an Association Rule.

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