

F-4624

Sub. Code

7BCA6C1

**B.C.A DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Sixth Semester

Computer Applications

DATA MINING AND WAREHOUSING

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is OLAP?
2. What is association rule mining?
3. Define confusion matrix.
4. Define pruning.
5. Define Euclidean distance
6. Write a note on SNOB.
7. Define URL.
8. Write a note on cookie.
9. What is centralized data ware house?
10. What is a data cube?

Part B

(5 × 5 = 25)

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

11. (a) Explain briefly any five data mining software.

Or

- (b) Explain the performance evaluation of algorithms in association rule mining.

12. (a) Explain naive bayes method in classification.

Or

- (b) Explain other evaluation criteria for classification methods.

13. (a) Discuss about types of data in cluster analysis.

Or

- (b) Explain different methods for computing distance in cluster analysis.

14. (a) Write about locality and hierarchy in the web.

Or

- (b) Explain search engine functionality.

15. (a) Describe the guidelines for data warehouse implementation.

Or

- (b) Explain the guidelines for OLAP implementation.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain apriori algorithm.
 17. Describe about estimating predictive accuracy of classification methods.
 18. Discuss briefly on partitional methods in cluster analysis.
 19. Explain web terminology and Characteristics.
 20. Describe about data cube implementations.
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F-4625

Sub. Code

7BCA6C2

**B.C.A DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Sixth Semester

Computer Applications

COMPUTER NETWORKS

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the uses of computer networks?
2. What are the types of transmission media?
3. What is a error detection code?
4. What are the elementary datalink protocols?
5. What is the purpose of RARP protocols?
6. What is meant by Fragmentation?
7. What is mean by crash recovery?
8. What are the elements of Transport protocols?
9. What is meant by DNS?
10. What is meant by JPEG,MPEG standards?

Part B

(5 × 5 = 25)

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

11. (a) Explain about reference models in detail.

Or

- (b) Explain the network standardization.

12. (a) Describe about ALOHA

Or

- (b) Describe the HDLC protocol.

13. (a) Explain about firewalls in detail.

Or

- (b) Describe about subnet.

14. (a) Explain the multiplexing mechanism in detail.

Or

- (b) Explain the UDP protocol.

15. (a) Explain the electronic mail.

Or

- (b) Explain about the data compression.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Describe about the communication satellites.
17. Describe about the telephone system.

18. Describe about finite state models.
 19. How will you measure network performance?
 20. Describe about the secret key mechanism.
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F-4626

Sub. Code

7BCA6C3

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Sixth Semester

Computer Applications

SOFTWARE ENGINEERING

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the characteristics of a software product?
2. What is software Engineering?
3. What are the major factors that influence software cost?
4. What is meant by product complexity?
5. Tabulate the design techniques classified by application area.
6. Define: Milestone.
7. What is meant by integration testing?
8. What are the analysis activities that enhance the software maintainability?
9. What is meant by SQA plan?
10. What are the factors determine the quality of a software product?

Part B

(5 × 5 = 25)

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

11. (a) Explain the project size categories in detail.

Or

- (b) Explain about the phased Life-cycle Model.

12. (a) Describe the Delphi cost estimation method.

Or

- (b) Describe the Relational notations in detail.

13. (a) Explain about dataflow diagrams.

Or

- (b) Describe about structured design technique.

14. (a) How will you process the change request in Software maintenance? Explain

Or

- (b) Explain the quality assurance activities in detail.

15. (a) Explain about the statistical quality Assurance in detail.

Or

- (b) Explain about the software review in detail.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the prototype Life-cycle Model.
 17. Explain about Algorithmic cost model.
 18. Describe the configuration management in detail.
 19. Describe about the real-time system design.
 20. Describe the ISO-9000 quality standards in detail.
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F-4881

Sub. Code

7BCAA3

U.G. DEGREE EXAMINATION, APRIL 2021 &

Supplementary / Improvement / Arrear Examinations

Computer Applications

**Allied – FUNDAMENTALS OF COMPUTERS AND
INFORMATION TECHNOLOGY**

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Write the names of Output devices.
2. What are the parts of a digital computer?
3. Write the names of object-oriented programming language.
4. How a database structure is created?
5. Which Language is used in Web design? Explain WWW.
6. Write the syntax of a E-mail id? Which protocols and used?
7. What are the applications of Data mining mechanism?
8. Define : Datamart.
9. Mention the applications of computer in Industry.
10. How computers are used in Tracing?

Part B

(5 × 5 = 25)

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

11. (a) Explain the classification of Digital Computer System.

Or

- (b) Explain any two auxiliary storage devices.
12. (a) What are the components of Database? Explain.

Or

- (b) Explain the Database Management System.
13. (a) Explain about the communication system.

Or

- (b) Describe the Distributed Systems.
14. (a) Explain about the Datawarehouse in detail.

Or

- (b) How computer are used in Medicine? Explain.
15. (a) Explain about OLAP.

Or

- (b) Explain the applications of computer in Business.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Describe about Computer Architecture.
17. What is an operating system? Explain the functions of operating system.

18. Explain the applications of Computer Networks.
 19. Explain about Hyper media in detail.
 20. Explain the applications of computer in Education and Training.
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F-4882

Sub. Code

7BCAA4

**U.G. DEGREE EXAMINATION, APRIL 2021 &
Supplementary / Improvement/ Arrear Examinations**

Computer Application

Allied : DATA MINING AND WAREHOUSING

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is data mining?
2. Define data cube.
3. What is the importance of data preprocessing?
4. Define 2-score normalization.
5. Define Bayes theorem.
6. What is linear regression?
7. What is outlier?
8. What is density based clustering?
9. What is data security?
10. What is web mining?

Part B

(5 × 5 = 25)

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

11. (a) Describe the data mining functionalities.

Or

- (b) Explain the architecture of data warehouse with a neat sketch

12. (a) Explain Data cleaning.

Or

- (b) Describe Data mining primitives.

13. (a) Explain mining frequent patterns without candidate generation.

Or

- (b) Write down the issues regarding classification and prediction.

14. (a) Explain BIRCH.

Or

- (b) Explain OPTICS.

15. (a) Explain Trends in Data mining.

Or

- (b) Discuss the mining of World Wide Web.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the multidimensional data model.

17. Discuss about Data Reduction.

18. Explain the classification based on concepts from association rule mining.
 19. Explain Grid based methods.
 20. Explain Data mining system products and research prototypes.
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F-4962

Sub. Code

7BCA4C1

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Fourth Semester

Computer Applications

JAVA PROGRAMMING

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the basic concepts of Object Oriented Programming?
2. What is a Web Browser? Give an example.
3. What do you mean by labeled loops?
4. What are the bitwise operators available in Java?
5. How will you define a Class?
6. What is a Vector class?
7. What is the use of a Package?
8. Define Exception.

9. What is the difference between Applet and Application?
10. Write the syntax of the method which is used to draw a Circle.

Part B (5 × 5 = 25)

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

11. (a) Explain the Java Data types with example.
Or
(b) Explain the Command line argument with an example.
12. (a) Explain the type conversion in java with example.
Or
(b) Explain switch statement with an example.
13. (a) Explain the static members with an example.
Or
(b) What is an Interface? How will you implement an Interface?
14. (a) Explain Package Creation and Accessing a package with an example.
Or
(b) Explain the multiple catch statements in exception handling with example.
15. (a) Explain the Applet tag with all options with an example.
Or
(b) Write a java program to draw a Polygon with four sides.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain
 - (a) WWW
 - (b) Java Tokens.
17. Write a Java program to print the first twenty Fibonacci series.
18. Write a Java program to add two matrices.
19. Explain the Thread priority with a program.
20. How will you pass parameters to an Applet? Explain with an example.

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7BCA5C1

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Fifth Semester

Computer Applications

. NET PROGRAMMING

(CBCS – 2017 Onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all the** questions.

1. What is CLR?
2. What is a Namespace?
3. Define event driven programming.
4. What is the use of message box() function.
5. Write a note on 'Auto post back' property of list box.
6. What are the tools available in tool box?
7. What is sub procedure?
8. Differentiate SDI and MDI.
9. How will you make a cenection?
10. What are the advantages of ADO.NET?

Part B

(5 × 5 = 25)

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

11. (a) Explain . net framework in brief.

Or

- (b) Explain the various data types in vb.net.

12. (a) Explain the Radio button and check box control.

Or

- (b) Explain the properties of textbox and label control.

13. (a) Explain data time picker control with example.

Or

- (b) Explain progress bar control with example.

14. (a) Explain exception handling with example.

Or

- (b) Describe about MDI

15. (a) Explain about dataset with example.

Or

- (b) Explain datagrid view.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the control structures in vb. Net.

17. Differentiate procedure oriented, object oriented and event driven programming.

18. Explain list box and combo box with example.

19. Explain the built functions with example.
 20. How do you edit, add, delete the records in datagrid view?
Explain with example.
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F-4964

Sub. Code

7BCAE1A

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary / Improvement/ Arrear Examinations**

Fifth Semester

Computer Applications

Elective : WEB DESIGN TECHNOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Write the HTML code to link the two web pages.
2. What is a Frame?
3. What is the need of a Scripting Language?
4. Define function in Javascript.
5. Write the syntax for Do-while structure.
6. What is meant by multi-subscripted array?
7. Write the methods of the Math object.
8. What is meant by Global Function?
9. Write the code to create input boxes.
10. What is the use of msgbox in VB script?

Part B

(5 × 5 = 25)

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

11. (a) Explain how cells are merged in HTML table?

Or

- (b) Write the special characters entry in a HTML document.

12. (a) How will you declare variables in Javascript? Explain with an example.

Or

- (b) Explain about the multi-subscripted array in Javascript.

13. (a) What are the logical operators used in Javascript? Explain with example.

Or

- (b) Explain the while loop structure with example in Javascript.

14. (a) Explain the scope rules.

Or

- (b) Describe about math object in Javascript.

15. (a) What are the datatypes used VB script?

Or

- (b) Explain about the string manipulation process in VB script.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Create a HTML document using list types.
 17. Explain about the passing arrays to functions.
 18. Explain about the For structure with example.
 19. Describe about Boolean objects with example.
 20. Explain about VB script functions with example.
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F-5070

Sub. Code

7BCAA1

U.G. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

Computer Applications

**ALLIED – OFFICE AUTOMATION
(Offered by the Department of BCA)**

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is a folder?
2. What is the use of Recycle bin?
3. How can you replace a text in a word document?
4. State the use of 'undo' command.
5. What is a Spreadsheet?
6. What do you mean by cell references in MS-Excel?
7. What is a Presentation?
8. What is Clip Art?
9. Define Database.
10. What is a table?

Part B

(5 × 5 = 25)

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

11. (a) Explain the features of Ms-Windows.

Or

- (b) Write a note on Character Map.

12. (a) Write the applications of MS-Word.

Or

- (b) How do you insert a picture in MS-Word?

13. (a) Explain any ten mathematical functions available in Excel.

Or

- (b) Explain the steps in preparing a Pie Chart in Ms-Excel.

14. (a) Explain the following in Ms-PowerPoint

(i) Template

(ii) Auto Content Wizard

Or

- (b) Write the steps for inserting different shapes in a power point.

15. (a) Explain the various parts of an Access Window.

Or

- (b) How do you save a database?

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain about Windows explorer.
 17. Describe the various steps to create the Mail Merge in a word document.
 18. How do you edit the text in MS-Excel? Explain the 'Sort' command in MS-Excel.
 19. Explain the uses of MS-Powerpoint.
 20. How do you create the table using Design view?
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F-5071

Sub. Code

7BCAA2

**U.G. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Computer Application

Allied – PROGRAMMING IN C

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define constant and variable.
2. What are the types of programming languages?
3. What is an Array?
4. Write any Four String handling functions in C.
5. What is a recursive function?
6. What is the difference between a Structure and Union?
7. How will you declare a Pointer?
8. Write the scaling factors for int and float type data.
9. What is a file?
10. Define Macro.

Part B

(5 × 5 = 25)

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

11. (a) Explain the fundamental data types available in C with example.

Or

- (b) Explain while loop statement with example.

12. (a) Explain any Ten mathematical functions in C with example.

Or

- (b) Write a C program to count the number of odd numbers and number of even numbers in an array.

13. (a) Explain function with argument and no return type with a program.

Or

- (b) Explain nesting of functions with an example.

14. (a) What is a Pointer? What are the advantages of Pointer

Or

- (b) Write a C program to find the sum of the elements of an array using pointers.

15. (a) Explain various file opening modes.

Or

- (b) Explain any five File handling functions in C with example.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write a C program to print the numbers that are divisible by four and not divisible by six, between 100 and 200.
17. How will you declare and initialize two dimensional array? Explain with an example.
18. Write a C program to calculate the net pay of an employee using array of structures. (Assume your own data)
19. Write a C program to find whether the given number is present in the array using pointers.
20. Write a C program to copy th content of one file into another file.

F-5090

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7BCA1C1

**B.C.A.DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations
First Semester**

Commerce with Computer Applications

C AND DATA STRUCTURE

(CBCS – 2017 onwards)

Time: 3 Hours

Maximum: 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Variable in C.
2. What are the decision-making statements available in C?
3. How will you declare two-dimensional array in C?
4. How are strings initialized?
5. What is a Function prototype?
6. Define a Union.
7. How does a pointer variable differ from an ordinary variable?
8. State the syntax of opening a file.
9. What are the basic operations on a data structure?
10. Define linked list.

Part B

(5 × 5 = 25)

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

11. (a) Describe the data types available in C with example.

Or

- (b) Differentiate between the While and do- while loop in C.

12. (a) Explain the String handling functions in C with examples.

Or

- (b) Discuss about Reading Strings from terminal.

13. (a) Explain structure within structure with an example.

Or

- (b) Explain arrays of structures with an example.

14. (a) How will you access a variable through its pointer?

Or

- (b) Explain opening and closing a file.

15. (a) Explain the Basic Terminology of trees.

Or

- (b) How will you add an item and delete an item to/from a stack? Explain.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the Operators available in C.
17. Write a 'C' Program to arrange the given set of number in an array in descending order.
18. List the categories of Functions. Explain any two.
19. Write a C program to illustrate error handling in file operations.
20. Explain Deletion into Linked List with algorithm and example.

F-5091

Sub. Code

7BCA2C1

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations
Second Semester**

Commerce with Computer Applications

PROGRAMMING IN C++

(CBCS – 2017 onwards)

Time: 3 Hours

Maximum: 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is data abstraction?
2. What is a token? Give an example.
3. Define class and object.
4. What is Constructor?
5. What is meant by nesting of classes?
6. What are the advantages of pointers?
7. What is a File?
8. What is the purpose of seekp() and seekg() functions?
9. What is the use of Template?
10. Define Exceptions.

Part B

(5 × 5 = 25)

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

11. (a) Explain the Data types available in C++.

Or

- (b) Explain while loop statement with an example.

12. (a) Explain parametrized constructor with an example.

Or

- (b) Explain Copy constructor with an example.

13. (a) Explain Multilevel inheritance with an example.

Or

- (b) Explain abstract class with an example.

14. (a) Explain the various operations on a file with example.

Or

- (b) Explain command line argument with a an example.

15. (a) Explain the Exception handling model with an example.

Or

- (b) Explain the rules for handling exceptions successfully.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Write a C++ program to print the first 30 prime numbers.
17. How will you pass object as argument? Explain with a program.
18. Explain Pure virtual function with a program.
19. Write a C++ program to prepare the payroll of the employees in an university using file. The result must be stored in a file. Assume your own data.
20. Explain function template with a program.

F-5092

Sub. Code

7BCA3C1

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Third Semester

Commerce with Computer Applications

DATABASE MANAGEMENT SYSTEMS

(CBCS – 2017 onwards)

Time: 3 Hours

Maximum: 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is database?
2. Define entity.
3. What is atomic domain?
4. What are the database anomalies?
5. What is meant by query optimization?
6. Define the term Query.
7. What is foreign key?
8. What is DDL?
9. What are the various types of cursors?
10. What is a transaction?

Part B

(5 × 5 = 25)

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

11. (a) Explain the database users.

Or

- (b) Describe about Semi structured databases.

12. (a) Explain the First Normal Form with example.

Or

- (b) Explain about constraints with example.

13. (a) Explain about Homogeneous and Heterogeneous databases.

Or

- (b) Explain the Client Server Architecture.

14. (a) Explain the Creation and deleting the views with an example.

Or

- (b) Describe about Synonyms.

15. (a) What is stored procedure? Explain how to create a stored procedure with example.

Or

- (b) Explain about Triggers with example.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the purpose of database system.

17. What is Normalization? Explain 2NF and 3NF with example.

18. Explain about Distributed and Parallel systems.
 19. Explain about Data Integrity.
 20. Describe about Explicit cursor with example.
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F-5258

Sub. Code

7BCA5C2

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Fifth Semester

Computer Applications

COMPUTER SYSTEM ARCHITECTURE

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Convert the $(736.4)_8$ into decimal number.
2. What are the basic symbols used for register transfers?
3. What is meant by symbolic address?
4. What are the shift operators used in the basic computer?
5. Define: Control word.
6. What are the polish notations used in arithmetic expressions?
7. What is an interrupt?
8. Draw the 2-bit by 2-bit array multiplier circuit.
9. What is meant by Content Addressable Memory (CAM)?
10. What is meant by locality of reference?

Part B

(5 × 5 = 25)

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

11. (a) What is a computer register? Explain its functions.

Or

- (b) Explain about timing and control unit.

12. (a) Write the micro operations for the following.

(i) AND to AC

(ii) LDA

Or

- (b) Explain about first pass assembler.

13. (a) Write the steps for evaluation of arithmetic expressions using stack.

Or

- (b) Explain the types of instruction formats.

14. (a) Explain about DMA controller.

Or

- (b) Write the Booth's Multiplication Algorithm.

15. (a) Explain any two auxiliary devices.

Or

- (b) Describe about the RAM and its types.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Describe about register reference instructions.

17. Describe about Input–Output configuration in detail.

18. Explain about the types of addressing modes.
 19. Describe the strobe control and handshaking method of data transfer.
 20. Explain about Page Replacement in virtual memory.
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F-5260

Sub. Code

7BCAE2A

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Fifth Semester

Computer Applications

Elective: COMPUTER GRAPHICS

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is Display Buffer?
2. Define Resolution.
3. What is Geometric Transformation?
4. Define shearing transformation.
5. Define Aspect Ratio.
6. What is Point clipping?
7. What is the use of 3D transformation?
8. What is 3D mirror Reflection transformation?
9. What is User Interface?
10. What is Feedback?

Part B

(5 × 5 = 25)

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

11. (a) Explain the DDA line drawing algorithm.

Or

- (b) Explain the applications of Computer Graphics.

12. (a) What is Composite transformation? Explain with example.

Or

- (b) Explain the matrix representation of the 2D transformations.

13. (a) Explain the line segment clipping with an example.

Or

- (b) Explain the Viewing transformation with diagram.

14. (a) Explain 3D Translation transformation with an example.

Or

- (b) Explain 3D Scaling transformation with an example.

15. (a) Explain the components of user Interface.

Or

- (b) Write short notes on Information Display.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the various Hard copy output devices.
17. Explain the 2D basic transformations with example.
18. Explain Convex polygon clipping with example.
19. Explain 3D composite transformation with example.
20. Explain the styles of Command Language.

F-5261

Sub. Code

7BCAE2B

**B.C.A. DEGREE EXAMINATION, APRIL 2021 &
Supplementary/Improvement/Arrear Examinations**

Fifth Semester

Computer Applications

Elective: OPERATING SYSTEM

(CBCS – 2017 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the views of Operating System?
2. What is a Virtual machine?
3. What is a Semaphore?
4. What is a Monitor?
5. What is meant by Address binding?
6. What is meant by internal Fragmentation?
7. Define Thrashing.
8. What do you mean by Random access?
9. What are the applications of I/O interface?
10. What is Encryption?

Part B

(5 × 5 = 25)

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

11. (a) Explain the various scheduling criteria used for algorithm evaluation.

Or

- (b) Explain the Round Robin scheduling algorithm.

12. (a) Explain the methods to handle deadlocks.

Or

- (b) Explain any one deadlock avoidance algorithm.

13. (a) Explain Logical and Physical address space.

Or

- (b) Explain the Hardware protection with diagram.

14. (a) Explain the Directory structure with diagram.

Or

- (b) Explain the various types of Files.

15. (a) Explain the Kernal I/O Hardware.

Or

- (b) Explain the Threat monitoring methods.

Part C

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the various types of Operating System.
17. How Monitors are used in Critical region? Explain with an example.

18. Explain the Paging method with diagram.
 19. Explain any two page replacement algorithms with example.
 20. Explain
 - (a) Authentication
 - (b) Access Matrix.
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