

**F-0398**

**Sub. Code**

**7BCE1C1**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**First Semester**

**Computer Science**

**PROGRAMMING IN C**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define tokens in C
2. What is over flow of data in C?
3. What are the conditional statements in C?
4. Why we need jumps in loops?
5. Give the syntax of two-dimensional integer array in C.
6. How will you declare strings in C?
7. What is the need of functions in C?
8. Define Structures.
9. What is the importance of pointers in C?
10. What is zero pointer?

**Part B**

(5 × 5 = 25)

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

11. (a) Describe in detail about the structure of C program.

Or

- (b) Write a short note on mathematical functions in C.

12. (a) What is ternary operator in C? Write a C program using ternary operator?

Or

- (b) How will you read and write a character in C?

13. (a) Write a short note on dynamic arrays.

Or

- (b) Write a C program which has two-dimensional array to get 3 × 3 matrix as input from user.

14. (a) Write a function in C which finds whether the given number is odd or even. The function should return "Even" if the number is even else it should return "Odd".

Or

- (b) How will you access structure members? Explain.

15. (a) Write a short note on chain of pointers.

Or

- (b) Explain various IO operations in file.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Describe in detail about various operators in C?
  17. Describe in detail about nested if else and else if ladder. Write two programs, one with nested if and the other with else if ladder.
  18. Write a C program which gets string as input from user and calculate the number of vowels in the input string.
  19. How recursion function works in C? Write a recursive function in C to print first 50 natural numbers?
  20. How will you pass pointers as function arguments? Write a C program illustrate the same.
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**F-0399**

**Sub. Code**

**7BCE2C1**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Second Semester**

**Computer Science**

**OBJECT ORIENTED PROGRAMMING WITH C++**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Give syntax for converting integer number to floating number.
2. What are symbolic constants? Give example.
3. Define copy constructors in C++.
4. Define class for the real-life object “Dog”.
5. Define derived class? Give its syntax.
6. What is hybrid inheritance?
7. What is virtual function?
8. What is this pointers?
9. What is the role of templates in C++?
10. What is unformatted I/O functions in C++?

**Part B**

(5 × 5 = 25)

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

11. (a) Describe all basic datatypes in C++.

Or

- (b) What are all the various operators available in C++? Explain.

12. (a) How to pass objects as parameters in function? Explain it with code.

Or

- (b) Write a code for class “Animal” and related function. Add constructors and destructors for the class and declare object for the class.

13. (a) Describe friend function and explain its importance with code.

Or

- (b) Explain in detail about nested class with suitable code.

14. (a) Write about the significance of abstract class in inheritance with suitable code.

Or

- (b) Describe in detail about managing output with manipulators.

15. (a) Write a short note on command line arguments in C++.

Or

- (b) Write a C++ code to write sentence in a file which is obtained as input from user.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Describe about various control structure in C++ with suitable code for each.
  17. Describe in detail the dynamic initialization of code with suitable code.
  18. Describe the about multiple, hierarchical and hybrid inheritance with suitable code for each.
  19. Discuss in detail about unformatted I/O operations.
  20. Explain in detail about class and function templates.
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**F-0400**

**Sub. Code**

**7BCE3C1**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Third Semester**

**Computer Science**

**DATA STRUCTURES AND COMPUTER ALGORITHMS**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Declare a two-dimensional array which contains floating values.
2. List the limitations of linked list.
3. Define Queue
4. What is underflow and overflow in Stack?
5. Draw a complete binary tree and define it.
6. Give couple of real time examples where the tree data structures are used?
7. What methodology does the quick sort adopt to sort the numbers?
8. Give the best and worst case of selection sort algorithm.
9. What is spanning tree?
10. Define connected graph and give an example.

**Part B**

(5 × 5 = 25)

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

11. (a) Why we need circular linked list? Give its data structure and explain it in detail.

Or

- (b) Give the code snippet to traverse all elements in two dimensional arrays.

12. (a) Explain in detail the enqueue and dequeue operation in Queue.

Or

- (b) Describe in brief two applications where stacks are used with example.

13. (a) Give the data structure for binary trees. Explain it in detail.

Or

- (b) Describe the various traversal methods in trees with an example.

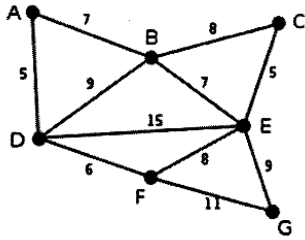
14. (a) Discuss in detail the Strassen's matrix multiplication.

Or

- (b) How the best case, worst case and average case for the selection sort algorithm is calculated? Discuss.



15. (a) Solve the following for minimum cost spanning tree using Kruskal algorithm:



Or

- (b) Describe in detail the optimal merge pattern algorithm.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Describe in elaborate need for circular linked list and its operations with appropriate algorithms.
17. Explain the data structure for circular queue and its operations.
18. How trees are represented in memory? Give its data structures and explain its application in detail.
19. Describe the merge sort algorithm and sort the given number step by step using merge sort: 55,21,64,39,26,9,76,50,6,88,42.
20. Define greedy method and explain job sequencing with deadlines and optimal storage on tapes in brief.

**F-0401**

**Sub. Code**

**7BCE4C1**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Fourth Semester**

**Computer Science**

**JAVA PROGRAMMING**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What are the hardware and software requirements of Java?
2. What are tokens in Java?
3. What are labelled loops in Java?
4. Give the syntax in java to convert float variable 'a' to integer datatype.
5. Define Class.
6. What are constructors in Java?
7. What is package in Java?
8. Define thread.
9. Why we need applets in Java?
10. How will we add applet to html file?

**Part B**

(5 × 5 = 25)

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

11. (a) Explain in detail about the structure of Java program.

Or

- (b) How will you execute Java program? Explain the role of JVM in brief.

12. (a) Write a short note on evaluation of expressions in Java.

Or

- (b) Describe in brief about operator precedence and associativity.

13. (a) Explain the significance of final methods and variables in Java.

Or

- (b) What is wrapper class in Java? Explain.

14. (a) How packages are created? Describe their naming conventions and how will we access packages?

Or

- (b) How threads will be created and it will be blocked? Write Java code wherever possible.

15. (a) How parameters are passed in Applet? Explain.

Or

- (b) Explain how will we get inputs from user in applet.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain in detail about the features of Java.
  17. Describe various arithmetic and special operators in Java.
  18. Explain the significance of inheritance in Java? Write a Java program to illustrate multiple inheritance.
  19. Write a short note on multiple catch statements and throwing own exceptions.
  20. Explain in detail about the life cycle of applet with neat diagram.
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**F-0402**

**Sub. Code**

**7BCE5C1**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Fifth Semester**

**Computer Science**

**OPERATING SYSTEM**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Why we need operating system?
2. What is interrupt?
3. Define semaphores.
4. What is concurrent programming in operating system?
5. Give a real-life example for deadlock.
6. What is pre-emptive scheduling algorithm? Give examples.
7. Define internal fragmentation.
8. What is virtual memory?
9. Define file system?
10. Why we need disk scheduling algorithms?

**Part B**

(5 × 5 = 25)

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

11. (a) Explain in detail about process management.

Or

- (b) Describe the significance of Process Control Block and its role in operating system.

12. (a) Discuss mutual exclusion primitives and implementation in brief.

Or

- (b) A Counting Semaphore was initialized to 12 then 10P (wait) and 4V (Signal) operations were computed on this semaphore. What is the result?

13. (a) Explain the necessary and sufficient conditions for deadlock prevention with diagrams.

Or

- (b) Discuss various methods for handling deadlocks.

14. (a) Explain the segmentation memory management in detail with its pros and cons.

Or

- (b) Discuss fixed partition multiprogramming and variable partition multiprogramming.

15. (a) Describe about file organisation.

Or

- (b) What is data hierarchy in file system? Explain.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

- 16. Explain Inter-process communication in detail with neat diagram wherever possible.
- 17. Describe various software solution for mutual exclusion.
- 18. Using Shortest Job First (SJF) scheduling algorithm and the priority given in the below table, draw the Gantt chart for SJF with priority also discuss the merits and demerits of SJF.

Process	Burst Time	Priority
P1	7	2
P2	10	5
P3	4	1
P4	2	4
P5	6	3

- 19. Given page reference string: 1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6 Compare the number of page faults for LRU, FIFO and Optimal page replacement algorithm with three frames.
- 20. Explain in detail about file free space management and file organization in detail.

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**F-0403**

**Sub. Code**

**7BCE5C2**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Fifth Semester**

**Computer Science**

**RELATIONAL DATABASE MANAGEMENT SYSTEMS**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Why we need database management system?
2. What is weak entity?
3. Define temporal data?
4. What are multivalued dependencies?
5. What are the limitations of centralised database system?
6. Why we need parallel system?
7. What are sequences in database?
8. What is the role of views in database system?
9. Define cursors in PL/SQL.
10. What are the advantages of using PL/SQL?



**Part B**

(5 × 5 = 25)

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

11. (a) What are the different components of ER diagram?

Or

- (b) Explain different views of database.

12. (a) Discuss in brief about the features of good relational designs.

Or

- (b) Explain functional dependencies with suitable examples.

13. (a) Differentiate interquery and intraquery parallelism.

Or

- (b) How query processing works in distributed database. Explain.

14. (a) What is privilege in DBMS? Explain its types.

Or

- (b) Explain how data integrity is maintained in DBMS?

15. (a) What is the difference between stored procedures and triggers? List the merits and demerits of stored procedures and triggers.

Or

- (b) Write any stored procedure which takes two input parameters and one output parameter.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Discuss in detail about the architecture of database with neat diagram.
  17. Explain all the normal forms in detail with suitable examples.
  18. Describe in detail about distributed data storage and distributed transactions.
  19. Elucidate in detail about how tables, indexes and sequences are maintained in DBMS.
  20. Explain in detail about packages and its advantages.
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**F-0404**

**Sub. Code**

**7BCEE1A**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Fifth Semester**

**Computer Science**

**Elective – DATA MINING AND DATA WAREHOUSING**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Data Warehouse.
2. Why we need to clean the data in data mining?
3. List two data warehouse tools.
4. What is the need for query manager in data warehouse?
5. What is KDD?
6. Define Data Mining.
7. Define fuzzy sets.
8. Write the significance of dimensionality reduction in data mining.
9. Define parallel and distributed algorithms.
10. What is incremental rule?

**Part B**

(5 × 5 = 25)

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

11. (a) Discuss in detail about process flow in data warehouse.

Or

- (b) Describe cleaning and transformation of data.

12. (a) Explain the function of data warehouse manager.

Or

- (b) Write a short note on capacity planning and tuning.

13. (a) Explain the Knowledge Discovery process in detail.

Or

- (b) What are the various issues in data mining? Elaborate.

14. (a) Write a short note of decision support system.

Or

- (b) What is OLTP? Explain it in brief.

15. (a) Explain the significance of incremental rules in association rules.

Or

- (b) Define support and confidence with example and their formulas.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain in detail the data warehouse architecture with diagram.
  17. What are the different ways by which you can tune the databases and how to access the performance of data warehouse? Explain in detail.
  18. Describe data mining from a database perspective.
  19. Describe genetic algorithm and neural networks in detail with appropriate diagrams.
  20. What are the different ways available to check the quality of association rules? Explain.
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**F-0405**

**Sub. Code**

**7BCEE1B**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Fifth Semester**

**Computer Science**

**Elective — WEB DESIGN**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Do all html tags have end tag? Give examples to your answer.
2. What is formatting in html?
3. Why we need CSS?
4. How comments can be added in CSS?
5. Why we need java script?
6. Differentiate between “= =” and “= = =” operators in Java script.
7. What is the duration of identifiers in java script?
8. What is Java script string object?
9. What is DOM?
10. What are the advantages of XML?

**Part B**

(5 × 5 = 25)

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

11. (a) Explain about various layout in html.

Or

- (b) Discuss on various html tags used in tables and formatting.

12. (a) Explain in how many ways CSS can be integrated in webpage? Give html code wherever necessary.

Or

- (b) Discuss CSS Box model and its elements in detail.

13. (a) Explain while loop in java script with piece of code.

Or

- (b) Discuss different data types in java script with examples.

14. (a) Write a short note on arrays in java script? Explain how arrays are sorted?

Or

- (b) Discuss in detail the scope rules of java script.

15. (a) Discuss in brief about XML vocabularies and XSLT.

Or

- (b) Write a short note on DOM collections and Dynamic styles.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Discuss in detail about various HTML tag is used to display the data in the tabular form.
  17. Describe in detail how dropdown menu can be created using CSS? Give the code.
  18. Explain about various operators available in java script?
  19. Discuss in detail about various java script objects.
  20. Elaborate in detail about various event handling using DOM.
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**F-0406**

**Sub. Code**

**7BCEE2A**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Fifth Semester**

**Computer Science**

**Elective – DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is ASCII code?
2. Why are NAND and NOR gates are popular?
3. What do you mean by quad and octet in karnaugh map?
4. What is parity bit?
5. Perform the 2's complement subtraction of smaller number (101011) from larger number (111001).
6. Define binary adder.
7. Define micro routine.
8. What is nano control memory?
9. Write down the operation of control unit.
10. Define Addressing modes.

**Part B**

(5 × 5 = 25)

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

11. (a) Explain Excess-3 code and Gray code with example.

Or

- (b) Explain the principle of operation of NAND gate.

12. (a) What is multiplexer? Explain about 16 to 1 multiplexer with neat diagram.

Or

- (b) Briefly explain the Basic Duality principle of Boolean algebra.

13. (a) Explain briefly the principle of operation of parallel binary adder.

Or

- (b) Explain in detail about half adder.

14. (a) Explain instruction set Architecture. Give examples.

Or

- (b) Write short notes on control memory organization.

15. (a) Discuss about different types of addressing modes.

Or

- (b) Explain the operations of stacks and queues.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the basic gates with truth table and diagram.
17. Discuss about parity generation and checkers with an example.

18. Describe arithmetic circuits with diagram.
  19. Explain about the design of basic computer organization.
  20. Give the difference between RISC and CISC.
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**F-0407**

**Sub. Code**

**7BCEE2B**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023.**

**Fifth Semester**

**Computer Science**

**Elective – MICROPROCESSOR AND  
MICROCONTROLLER**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. How String Manipulation works?
2. List out the Types of Addressing modes.
3. Define System Bus Timing.
4. What is meant by Multiprogramming?
5. Write a note on Timer.
6. Expand DMA and give a note.
7. Draw the Block Diagram of I/O Pins Ports.
8. List out the two features of 8051 Microcontroller.
9. Define DAC.
10. What is meant by Waveform generation?

**Part B**

(5 × 5 = 25)

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

11. (a) Explain the Microprocessor Architecture.

Or

- (b) Describe the Assembler Directives.

12. (a) Give a short note on IO Programming.

Or

- (b) Explain the 8086 Signals.

13. (a) Describe the Keyboard / display controller.

Or

- (b) Give a short on Serial Communication Interface.

14. (a) Describe the Special Function Registers.

Or

- (b) Explain the Instruction Set in 8051.

15. (a) Describe the Interrupts Programming.

Or

- (b) Write a short note on Sensor Interfacing.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the Assembly Language Programming.
17. Discuss on Closely Coupled and Loosely coupled configurations.
18. Illustrate the Memory Interfacing and IO Interfacing.

19. Explain the 8051 Architecture.
  20. Describe the Programming 8051 Timers.
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**F-0408**

**Sub. Code**

**7BCE6C1**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Sixth Semester**

**Computer Science**

**COMPUTER NETWORKS**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What are metropolitan area networks?
2. List any 4 uses of computer networks.
3. What are the limitations of radio transmission?
4. What is a geostationary satellite?
5. State the need for flow control.
6. What is the use of ALOHA?
7. Define multicast routing.
8. List the functions of transport layer.
9. Define DNS and state the purpose of DNS.
10. What is meant by cryptanalysis.

**Part B**

(5 × 5 = 25)

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

11. (a) Compare LAN, MAN and WAN.

Or

- (b) Discuss the design issues for the network layers.

12. (a) Explain any three types of communication cables used in physical layer.

Or

- (b) Explain the salient features of second and third generation mobile phones.

13. (a) Compare Go-Back-N and selective Repeat protocols.

Or

- (b) Explain the working of static channel allocation scheme.

14. (a) Explain store-and-forward packet switching.

Or

- (b) Write a note on Berkeley sockets.

15. (a) Describe the features of electronic mail.

Or

- (b) Explain DES algorithm.



**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Discuss the similarities and differences between the OSI and TCP/IP model.
  17. Describe the features of the public switched telephone network.
  18. Explain the elementary data link protocols.
  19. Describe shortest path algorithm and link state routing algorithms.
  20. Explain RSA algorithm.
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**F-0409**

**Sub. Code**

**7BCE6C2**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Sixth Semester**

**Computer Science**

**COMPUTER GRAPHICS**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. State the difference between point and line.
2. What is a line segment? How does it differ from line?
3. List the primitives for drawing a line segment.
4. What are the patterns used in filling polygons.
5. Define translation.
6. What is a segment? List the advantages of using segments.
7. Define window to viewport transformation.
8. What is line clipping? Define clipped line.
9. What is echoing?
10. Define attributes and events.

**Part B**

(5 × 5 = 25)

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

11. (a) Explain antialiasing.

Or

- (b) Explain the role of frame buffer.

12. (a) Explain the display file structure and interpreter.

Or

- (b) Describe the representation method used for polygon and explain the Inside-outside test.

13. (a) Explain scaling and translation with equations.

Or

- (b) Describe the various operations that can be performed on segment tables.

14. (a) Explain the steps in line clipping.

Or

- (b) Discuss the challenges in multiple windowing.

15. (a) Explain how events are handled in interactive environment.

Or

- (b) Describe the functions of a locator.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Explain the line drawing algorithm with illustration.
  17. Explain the algorithms for filling polygons.
  18. Describe rotation with relevant matrices.
  19. Explain Sutherland – Hodgman algorithm.
  20. Discuss the salient features of input devices used in interactive environment.
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**F-0410**

**Sub. Code**

**7BCE6C3**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Sixth Semester**

**Computer Science**

**SOFTWARE ENGINEERING**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Software Engineering by IEEE.
2. What are all the tasks to be performed in the organizational structure?
3. List out the major factors that influence the software cost.
4. Draw the structure of the problem statement analyzer.
5. Write the Objectives of Software Design
6. What are the Phases of JSD?
7. What are the various testing activities?
8. Define the term Asynchronous.
9. What are the challenges in Software Maintenance?
10. Write about maintenance tools.

**Part B**

(5 × 5 = 25)

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

11. (a) Explain about the Prototype Life Cycle Model.

Or

- (b) How can plan an organizational structure? Discuss in detail.

12. (a) Explain the Staffing Level Estimation.

Or

- (b) Write short notes on Problem Solving Language (PSL).

13. (a) Explain about modules and modularization.

Or

- (b) Discuss in detail about the test plan.

14. (a) What are the activities of System Testing and explain in detail?

Or

- (b) Discuss in detail about Unit testing and Debugging.

15. (a) Explain in detail about Concurrency mechanisms.

Or

- (b) Write a short note on Configuration management.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Discuss in detail about Quality and Productivity factors.
  17. Explain in detail about the cost factors of software
  18. Describe the fundamental software design concepts.
  19. Discuss in detail about Structured Coding Techniques.
  20. Explain the development activities that enhance the Software maintainability.
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**F-0411**

**Sub. Code**

**7BCEE3A**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Sixth Semester**

**Computer Science**

**Elective – VB.NET AND ASP.NET PROGRAMMING**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define CLS.
2. What is Exception handling?
3. What is label control?
4. Write about list view.
5. Define inheritance.
6. What is brush class?
7. How to import the namespaces? Give an example
8. What is the purpose of Ad-Rotator control?
9. Compare and contrast between Data List and Data Grid.
10. Write a SQL query for update statement.



**Part B**

(5 × 5 = 25)

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

11. (a) Describe the various VB.Net operators with example.

Or

- (b) Discuss the various conditional and looping statements with example.

12. (a) Write a short notes on Rich textbox, Panel.

Or

- (b) Describe about the Tree and List view.

13. (a) Explain about object oriented programming concepts.

Or

- (b) Discuss the File mode enumeration.

14. (a) What is the use of Global.aspx application file?

Or

- (b) Write short notes on Validation Controls.

15. (a) Explain in details about SQL Insertion and updating statements.

Or

- (b) Explain the various types of Declarative data binding with suitable example.

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. Describe the .NET framework.
  17. Write a simple program - window form for user login form.
  18. Explain the following with example:
    - (a) Class
    - (b) Inheritance
    - (c) Polymorphism.
  19. What is the purpose of Ad-Rotator control? Explain in detail.
  20. Explain in detail about ADO.Net Data binding.
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**F-0412**

**Sub. Code**

**7BCEE3B**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

**Sixth Semester**

**Computer Science**

**Elective – PROGRAMMING WITH LINUX, APACHE,  
MYSQL AND PHP(LAMP)**

**(CBCS – 2017 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is virtual hosting?
2. What does PEAR stands for?
3. Write different programs using for and foreach for each statement.
4. What is server side scripting?
5. Write Short Notes on cookies.
6. What is the use of hidden field?
7. What the difference between get and post method?
8. What is SQL injection?
9. What is the function name in PHP to delete an element from the array?
10. What is Google caffeine in PHP?

**Part B**

(5 × 5 = 25)

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

11. (a) What is PHP? What are the data types in PHP? Explain with examples.

Or

- (b) Explain array with example.

12. (a) Write a program in PHP to find the length of the following statement “this is my first program”.

Or

- (b) Explain the debugging process of PHP.

13. (a) Explain file operations in detail.

Or

- (b) Define cookies and session and write the different between cookie and session.

14. (a) What are the various type of joins available in SQL?

Or

- (b) What is function overloading and overriding explain with examples.

15. (a) Explain the following Super variable ternary operator break and continue literals echo vs print.

Or

- (b) Write about the Following built-in functions:

(i) Stroupper ( )

(ii) Join ( )

(iii) Strnotcmp ( )

(iv) Auto-append-file ( )

(v) nl2br ( )

**Part C**

(3 × 10 = 30)

Answer any **three** questions.

16. What is SQL? How to update the controls from table a to table b?
  17. Explain various date and time functions in PHP.
  18. Design a form and connect with database to perform insert select and delete operators.
  19. What is the difference type of sorting functions in PHP? Explain in detail with suitable example.
  20. Explain the different types of operators used in PHP.
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