051BCA011 – F – 23 – 8414

FIRST SEMESTER B.C.A. (NEP) DEGREE EXAMINATION, MARCH 2023

INTRODUCTION TO ALGORITHM (DSC – 1)

Time : 2 Hours] [Max. Marks : 60

Instruction : *Answer Part – **A**, Part – **B**, Part – **C** questions.*

PART – A

Answer **any 5** questions. **Each** carries **2** marks. **(5×2=10)**

1. What is Algorithm ? List the characteristics of algorithm.
2. What is compiler and Loader ?
3. What is array ? How to declare array ?
4. What is local and global variable ?
5. What is C token ? List the C token.
6. What is computer ? List the characteristics.

PART – B

Answer **any four** questions. **Each** carries **5** marks. **(4×5=20)**

7. What is flow chart ? List the symbols used for drawing flowchart.
8. Write a C program to find GCD of two integer.
9. Explain scanf () and printf () with example.
10. What is loop ? Explain while and dowhile loop.
11. Explain logical operators with example.

[P.T.O.

PART – C

Answer **any 3** questions. **Each** carries **10** marks. **(3×10=30)**

12. What is function ? Explain categories of function with example.

13. What is string ? Explain string handling functions with example.

14. Draw and explain the block diagram of computer.

15. a) What is recursion ? Write a program to find factorial of given number.
    b) Explain Nested-if statement with example.

---

051 BCA 011—APRIL—22—322

FIRST SEMESTER B.C.A. DEGREE EXAMINATION, APRIL 2022

(NEP)

INTRODUCTION TO ALGORITHMS (DSCC–1)

Time : Two Hours Maximum : 60 Marks

Part A

Answer any **five** *questions.*
Each question carries 2 *marks.*

1. Define Computer. List the characteristics of computer.
2. Define Linker and Loader.
3. What is flowchart ?
4. What is conditional operator ?
5. What is multidimensional array ? Give example.
6. What is global variables and local variables ?

(5 × 2 = 10 marks)

Part B

Answer any **four** *questions.*
Each question carries 5 *marks.*

7. What is variable ? Write a rules for forming variables.
8. What is algorithm ? Write algorithm for largest of three numbers.
9. What is C tokens ? Mention their types.
10. Explain formatted Input/output statements.
11. Difference between While and Do-while statement.

(4 × 5 = 20 marks)

Part C

Answer any **three** *questions.*
Each question carries 10 *marks.*

12. Explain any five types of operators.
13. What is string ? Explain strcmp(), strcpy(), strrev(), strcat().
14. Draw and explain block diagram of computer.
15. (a) Write a C program to computing *n*th Fibonacci number.
    (b) Write a C program to find summation of set of numbers.

(3 × 10 = 30 marks)

2036 – A21 – IS BCA – N – 19

FIRST SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2019

COMPUTER CONCEPTS AND C-PROGRAMMING

Time : 3 Hours] [Max. Marks : 80

Answer any **five** *full questions.*

Draw diagrams wherever necessary.

1. a) Explain the generations of computer.
   b) Explain any two output device with diagram.
   c) Define Software and Hardware. [8 + 6 + 2 = 16]
2. a) Difference between machine-level language and high-level language.
   b) Explain the characteristics of C-program.
   c) Draw the Flowchart to find simple interest. [6 + 6 + 4 = 16]
3. a) Explain Tokens used in C-Language.
   b) Define keyword. Mention all keywords available in C.
   c) List Basic datatypes used in C. [8 + 6 + 2 = 16]
4. a) Explain formatted Input, Output statements with syntax and example.
   b) Discuss operators with their priority. [8 + 8 = 16]
5. a) Define the following with syntax and flowchart.
      i) if-else statement
      ii) for-statement.
   b) Write a C program to find addition and subtraction of two matrices. [8 + 8 = 16]
6. a) Define Character Array. How to declare and Initialize two-dimensional Array?
   b) Differentiate between the following:
      i) Arguments & Parameter
      ii) Local variable & global variable
   c) Write function for sum of even ( ) & sum of odd ( ). [6 + 4 + 6 = 16]
7. a) Define string. Explain any three string Handling functions.
   b) What is structure? Write structure for student information.
   c) What is pointer? How to declare pointer? [8 + 4 + 4 = 16]

[P.T.O.

8. Write short notes on any **four**:

a) Block Diagram of computer

b) Nested-for with example

c) Jumps in loops

d) Factorial program using function

e) Unions

f) Basic structure of C-program.

5058 – A21 – IS BCA – N – 18

FIRST SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2018

COMPUTER CONCEPT & C PROGRAMMING

Paper I

Time : 3 Hours] [Max. Marks : 80

Answer any **five** *full questions.*
Draw neat diagram wherever necessary.

1. a) Explain von-Neumann concept of computer system.
   b) What do you mean by memory unit? Explain primary memory, secondary memory and cache memory. [8 + 8]

2. a) What do you mean by Input Unit? Explain the working of keyboard and mouse.
   b) Compare Assemblers and Compilers.
   c) What is system software? [8 + 6 + 2]

3. a) Write flowchart to find smallest of three numbers.
   b) Explain basic structure of 'C' program.
   c) Write various rules available for declaring variable in 'C'. [6 + 8 + 2 = 16]

4. a) Explain Keywords and identifiers in c.
   b) Explain Ternary operator with suitable example.
   c) Explain bitwise operators in detail with examples. [4 + 4 + 8 =16]

5 a) Write a 'C' program to print the following pattern.

```
*
* *
* * *
* * * *
```

   b) Write a 'C' program to read marks in 3 subjects and calculate average. Determine the class, when average>=75 Distinction, >60 First class, otherwise pass. [8 + 8 = 16]

6 a) What is array? Explain 2 Dimensional array with syntax and example.
   b) Write a c program to read string and reverse it, without using built-in function.
   c) What is union in 'C'? [8 + 6 + 2 = 16]

[P.T.O.

7. a) Explain the declaration of function with suitable 'C' program.
   b) Explain declaration and initializing pointer variable.
   c) Define recursion function. [8 + 6 + 2 = 1

8. Write short notes on **any four**:
   a) Operating system.
   b) Algorithm.
   c) Tokens in 'C'.
   d) Else-if Ladder.
   e) String handling functions.
   f) Header files in 'C'. [4 × 4 = 16

1135 – A21 – ISBCA – M – 22

FIRST SEMESTER B.C.A. (OLD) (NON-CBCS) DEGREE EXAMINATION,
MARCH/APRIL 2022

COMPUTER CONCEPTS AND C-PROGRAMMING (Old and OTM)

Time : 3 Hours] [Max. Marks : 80

***Instruction** : Answer **any five full** questions.*

1. a) Discuss the different generation of computer.
   b) Discuss the operations of following devices.
      i) Light pen
      ii) Joystick
      iii) Keyboard
      iv) Digitizer. **(8+8=16)**

2. a) Differentiate between machine level language and high level language.
   b) What is operating system ? Explain the function of operating system.
   c) What is flowchart ? Draw the flowchart to find Biggest of 3 numbers. **(4+6+6=16)**

3. a) What is 'C' token ? List the different C token and give example for each.
   b) What is operator ? Explain relational and logical operators. **(8+8=16)**

4. a) Discuss in detail the formatted input/output statements.
   b) Write general form and the flowchart for the following :
      i) Simple if statement
      ii) If ..... else statement
      iii) Nested if ..... else statement. **(8+8=16)**

[P.T.O.

5. a) What is algorithm ? What are the characteristics of an algorithm ?
   b) What are identifiers ? Write the rules for forming 'C' identifiers.
   c) List the basic datatypes with their sizes in bytes. (6+6+4=16)

6. a) What is array ? How to declare and initializing arrays ?
   b) What is function ? Write a program to swap two numbers using function.
   c) What is pointer variable ? How do you declare the pointer variable. (6+6+4=16)

7. a) Explain following with example.
      i) Strcpy()
      ii) Strcat()
      iii) Strcmp()
      iv) Strlen()
   b) What is recursion ? Explain with example.
   c) Define structure. (8+6+2=16)

8. Write a short note on **any four** :
   a) Basic structure of C program.
   b) Classification of printers.
   c) Characteristics of computer.
   d) Unions.
   e) While loop.
   f) Compiler and interpreter. (4+4+4+4=16)

3033 – A21 – IS BCA – N – 17

FIRST SEMESTER B.C.A. DEGREE EXAMINATION, NOVEMBER 2017

COMPUTER CONCEPT & C PROGRAMMING

Paper I

Time : 3 Hours] [Max. Marks : 80

Answer any **five** *full questions.*
Draw diagram wherever necessary.

1. a) What is Computer? With a neat diagram explain functional units of a Computer.
   b) Write a note on generation of Computers.
   c) Explain any two input/output devices. 6 + 6 + 4 = 16

2. a) What is a Software? Differentiate Machine level Language & High level Language.
   b) Differentiate Compiler & interpreter. 6 + 4 + 6 = 16
   c) Draw flow chart to find biggest of 3 numbers.

3. a) What do you mean by Token? Give the types of tokens & explain rules for forming identifier name.
   b) Explain basic data types in C. 8 + 8 = 16

4. a) What is expression? Explain Logical & Relational operators with example.
   b) Explain Scanf, Printf, gets & puts. 8 + 8 = 16

5. a) Explain switch statement with an example.
   b) Explain for loop with an example. 8 + 8 = 16
   c) Write a C program to check whether the given number is prime or not.

6. a) Define an array. Explain declaration & initialization of one dimensional arrays.
   b) Explain any three string handling functions. 8 + 8 = 16

[P.T.O.

7. a) Explain category of user defined functions with an example.
   b) What is Structure? Give one example.
   c) What is Pointer? How to declare pointer Variable?

$8 + 4 + 4 = 16$

8. Write short notes on any **four**:
   a) Secondary storage.
   b) Algorithm.
   c) Ternary Operator.
   d) While Loop.
   e) Unions.

$4 \times 4 = 16$

E102

051BCA011 – F – 24 – 6365

FIRST SEMESTER B.C.A. (NEP) DEGREE EXAMINATION, FEBRUARY 2024

INTRODUCTION TO ALGORITHMS (DSC – 1)

Time : 2 Hours] [Max. Marks : 60

***Instruction** : Answer Part – **A**, Part – **B**, Part – **C** questions.*

PART – A

Answer **any 5** questions. **Each** carries **2** marks. **(5×2=10)**

1. List the characteristics of computer.
2. What is compilers and linker ?
3. What is array ? How to declare array ?
4. What is local variable and global variable ?
5. List the basic data types in C language.
6. Mention any four header files.

PART – B

Answer **any 4** questions. **Each** carries **5** marks. **(4×5=20)**

7. What is flowchart ? Draw a flowchart for largest of 3 numbers.
8. What is algorithm ? Write a C program to find the factorial of a given number.
9. Explain scanf() and printf() with example.
10. What is loop ? Explain while and do-while loop.
11. Explain the basic structure of C language.

[P.T.O.

PART – C

(3×10=30)

Answer **any 3** questions. **Each** carries **10** marks.

12. What is function ? Explain categories of function with example.

13. What is string ? Explain string handling function with example.

14. Draw and explain block diagram of computer.

15. a) What is recursion ? Exchange the value of two variables.

    b) Explain Nested-if statement with example.
