



Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sanathimi, Bhaktapur

Regular/Back/Scholarship Exam – 2081/2082 Chaitra/Baishakh

Program: Diploma in Computer Engineering/
Information Technology **Full Marks: 80**

Year/Part: II/I (2022) **© Arjun** **Pass Marks: 32**

Subject: C Programming **Time: 3 hrs.**

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks



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Attempt any FIVE questions.

1. a. Define flowchart and algorithm with suitable example. [4+4]
b. Explain formatted and unformatted input/output function with syntax. Write the advantages of C programming. [2+2+2]
2. a. Explain the unary and binary operator with examples. [5+3]
How can you explain the data type in C?
b. Explain all three types of looping structure with proper syntax. [8]
3. a. Write a program in C to input any integer values and display the corresponding days of a week using switch statement. [8]
b. Describe the purpose of array in C. WAP to input mxn order matrix and find the sum of all even and odd numbers. [2+6]
4. a. Define function and explain the purpose of function in C. WAP to generate Fibonacci series 0, 1, 1, 2, 3, 5, 8, 13, 21, 34 using function. [2+6]
b. Compare structure and union with example. WAP in C using structure to display the name, address, roll no., marks and gender. [2+8]
5. a. Why do we use a pointer in C? WAP in C to add two number using pointer. [2+8]

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Cont.

b. WAP in C to read the roll, name, address and telephone number of student and write in the data file until user say "Yes". Also, read all the content of the file and display them on the screen. [8]

6. Write short notes on: (any FOUR) [4×4]

- a. Recursive function
- b. String handling function
- c. Break and continue statement
- d. Escape sequence
- e. Dynamic memory allocation

Good Luck !



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Council for Technical Education and Vocational Training

Office of the Controller of Examinations

Sanothimi, Bhaktapur

Regular/Back/Scholarship Exam-2080/2081, Chaitra/Baishakh

Program: Diploma in Computer Engineering/
Diploma in Information Technology

Full Marks: 80

Year/Part: II/I (2022) © Arjun

Pass Marks: 32

Subject: C Programming

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks



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Attempt any FIVE questions.

1. a. What are the different types of errors that can occur in the C programming language? Explain the types of programming language. [5+3]
b. Define keyword. Describe the compiling process C code into an executable program. Write the rules to define identifier. [2+3+3]
2. a. Explain the ternary and logical operator with examples. How can formatted input/output functions be used in C? [5+3]
b. Define loop and switch statement. Write a C program to find the sum of $1+2+3+\dots+100$. [4+4]
3. a. Write a code in C to print the following pattern. [4+4]

```

1
1 0
1 0 1 0
1 0 1 0 1
1 0 1 0 1 0
1
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1

```
- b. Define array. Write a program to input $m \times n$ order matrix and find the sum of all even and odd numbers. [1+7]
4. a. Explain call by value and call by reference with suitable examples. [8]
b. What is structure? Write a C program to take input from user having Student_ID, Student_Name, Student_Address and display those Student_Name whose address is "Kathmandu" using structure. [2+6]

Cont.

5. a. What is pointer? Write a C program to swap two integers using pointer. Explain any 3 string handling function. [2+3+3]
b. What are the different modes of opening files? Explain. [4+4]
Write a program in C to read the content of file name "CTEVT.txt".
6. Write short notes on: (any **TWO**) [2×4]
a. Break and continue
b. Recursive function
c. Dynamic memory allocation

Good Luck,!



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Council for Technical Education and Vocational Training
Office of the Controller of Examinations
Sanothimi, Bhaktapur
Regular/Scholarship Exam-2080, Bhadra

Program: Diploma in IT / Computer Engg.

Full Marks: 80

Year/Part: II/I (2022) © Arjun

Pass Marks: 32

Subject: C Programming

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate marks.



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Attempt Any Eight Questions.

1. Define Algorithm and Flowchart with an example. [5+5]
Differentiate between compiler and Interpreter.
2. What is data types? Explain about the formatted and [4+6]
unformatted input/output functions with examples.
3. Define Operator. Mention about the types of operators [2+8]
used in C with suitable example.
4. What is looping? Differentiate between while loop and [2+8]
do while loop with example.
5. What is switch statement? Write a program in C to [2+8]
determine greatest number among three numbers.
6. Define an array. Write a program in C to input 10 integer [2+8]
number in an array and calculate the average number
among them.
7. Define function. What are the advantage of using [2+2+6]
function? How can we declare function? Write down its
syntax.
8. What is structure? Write a program in C to store records [2+8]
of 20 employee and display the record in appropriate
format. (data members of the employee are id, name and
salary)
9. What are the different modes of opening file? Write a [3+7]
program in C to write the character into a text file
"CTEVT.txt" enter by the user.
10. Write short notes on : **(Any Two)** [2x5=10]
 - a) Pointer
 - b) Dynamic memory allocation
 - c) Recursive function

.Good Luck !

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Regular/Back Exam-2080, Baishakh / Jestha

Program: Diploma in Computer Engineering

Full Marks: 80

Year/Part: I/I (2018)

Pass Marks: 32

Subject: Computer Programming in C

Time: 3 hrs.

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate the marks.

Attempt Any Five questions.



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1. a) What is Programming Language? Differentiate between compiler and Interpreter with an example. [2+6]
b) Explain the keywords used in C. Write a program in C to input three number and print the Larger number. [3+5]
2. a) How do we declare and initialize variable? Write down the rules for naming variables. Write a program to input two numbers and find the quotient and remainder. [2+2+4]
b) What is an escape sequence? Explain different types of operators in C with examples. [2+6]
3. a) Differentiate between while loop and do while loop with example. [8]
b) What is for loop? Write a program to find the sum of all natural number from 1 to 20. [2+6]
4. a) What is function? Write down the a advantages of function? Write a program to input a number and check if it is even or odd using function. [2+6]
b) What do you mean by recursive function? WAP in C to input a number and calculate the factorial of that number. [2+6]
5. a) What is an array? Write a program to sort n numbers in an array in ascending order. [2+6]
b) What is string? Explain string handling functions with examples. [2+6]
6. a) Explain structure with its syntax. Write a program using structure to display name, address and salary of two employees. [2+6]
b) Write short notes on : **(Any Two)** [2x4=8]
 - i) Break and continue statements
 - ii) Dynamic memory allocation
 - iii) Modes of opening files

Good Luck !

Program: Diploma in Computer Engineering

Full Marks: 80

Year/Part: I/I (2018 New Course) © Arjun

Pass Marks: 32

Subject: Computer Programming in C

Time: 3 hrs

Candidates are required to give their answers in their own words as far as practicable. The figures in the

Attempt Any Five questions.



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1. a) What is programming language? Explain assembler, compiler and interpreter in brief. [2+6]
b) Define the terms Variable, Constant, keyword and pre-processor directive. [8]
2. a) What is data type? Explain any four basic data types along with its memory size and range. [2+6]
b) What do you mean by operator? Explain various types of operators used in C on the basis of operation. [2+6]
3. a) Write a program to find roots of quadratic equation $(ax^2 + bx + c = 0 \quad r_1, r_2 = (-b \pm \sqrt{b^2 - 4ac})/2a)$ [8]
b) Differentiate between while and do-while loop. Write a program to find sum of digits of given number. [3+5]
4. a) What is array? Explain any four string handling functions in brief. [2+6]
b) Write a program in C to arrange any ten numbers in ascending order. [8]
5. a) Explain call by value and call by reference with suitable examples. [8]
b) Define the terms function and recursion. Write a program in C to find the factorial of an entered number Using recursion [2+6]
6. a) Differentiate between structure and Union with example. [8]
b) Write short notes on : (Any Two) [2x4=8]
 - i) File opening modes
 - ii) Formatted Input / Output function
 - iii) Pointer

Good Luck !

Program: Diploma in Computer Engineering /
Information Technology

Full Marks: 80

Year/Part: I/I (New+ Old Course) © Arjun

Pass Marks: 32

Subject: Computer Programming in C &
C- Programming.

Time: 3 hrs

Candidates are required to give practicable. The figures in the n



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Attempt Any Eight Questions

1. Define algorithm and flowchart with example. Differentiate between compiler and Interpreter. [5+5]
2. What do you mean by data type in C? Mention about the types of operators used in C with suitable examples. [3+7]
3. Write a syntax of switch statement. Write a program in C to display respective day depending upon the number entered i-e input 1 for Sunday 7 for Saturday using control statement. [2+8]
4. Differentiate between while and do while loop with reference to their syntax. WAP in C to read number from keyboard and check if it is palindrome or not. [3+7]
5. What do you mean by break & continue statement? WAP in C to input a number & calculate the factorial of that number using recursive function. [3+7]
6. Define constant and keyword. Explain about nested loop statement with suitable example. [4+6]
7. Define an array. WAP in C to calculate the sum of five different numbers with using array. [2+8]
8. Compare structure & union with example. WAP in C using structure to display the name, address, roll no., marks & gender. [3+7]
9. Write short notes on: (Any Two) [2*5=10]
 - a) Pointer
 - b) String handling function
 - c) Recursive function

Good Luck!

Council for Technical Education and Vocational Training
Office of the Controller of Examinations

Sanothimi, Bhaktapur

Regular/Back Exam-2075, Falgun/Chaitra

Program: Diploma in Information Technology/
Computer Engineering

Year/Part: I/I (2008+2010+2018)

Subject: Computer Programming in C

Full Marks: 80

Pass Marks: 32

Time: 3 hrs

Candidates are required to give
practicable. The figures in the mai



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Attempt (Any Five) questions.

1. a) What is programming? Explain different types of language translators. [2+6]
b) Define algorithm and flowchart. Write an algorithm and draw a flowchart to find the greater number among any two numbers. [2+6]
2. a) Define keywords and variables with examples. Write rules for naming variables. [4+4]
b) Explain different types of operators in C with examples. What is an escape sequence? [6+2]
3. a) Explain operator precedence and associativity. Write a program in C to find the simple interest. [4+4]
b) What is control structure? Explain all 3 types of loop structure with proper syntax. [2+6]
4. a) What is control structure? Write a program in C to find if given number is prime number or not using a function. [2+6]
b) Define Array. What is a string? Explain in brief any 4 string handling functions with examples. [2+2+6]
5. a) Differentiate between structure and union with example. [8]
b) Write a program in C to ask any ten numbers and arrange them in ascending order. [8]
6. a) What are the different modes of opening file? Explain. Write a program in C to read the content of file named "info.txt". [4+4]
b) Write short notes on (Any Two) [4+4]
 - i. Pointers
 - ii. break and continue statements
 - iii. Dynamic memory allocation

Good Luck

Program: Diploma in Computer/IT Engineering

Full Marks: 80

Year/Part: II (New+ IT Old) © Arjun

Pass Marks: 32

Subject: Computer Programming in C

Time: 3 hrs

Candidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate marks.



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Attempt Any Five questions.

1. (a) Draw block diagram of digital computer. Explain. [5]
(b) Explain the types of programming language. [5]
(c) Define algorithm and flowchart with example. [6]
2. (a) What is data type? Describe different types of operator used in c-programming. [6]
(b) WAP that will convert temperature in centigrade into Fahrenheit. [6]
(c) What are formatted and unformatted input and output function? Why are they called formatted and unformatted? Explain. [4]
3. (a) Explain types of loop. [4]
(b) What will be the output of the following program? void [7]
main ()
{
 int i, j, n =4
 for (i=1, i <=n; i++)
 {
 for (j=1; j<i; j++)
 Printf ("\t % d", i);
 Print f ("\n");
 }
}
- (c) Explain function with example. [5]
4. (a) WAP in C to read any three integer number and Find greatest number. [5]

- (b) WAP to generate the Fibonacci series 0, 1, 1, 2, 3, 5, 8, 13, 21, 34 using function. [5]
- (c) What is an array? WAP in C to read any five students name and display on the screen. [6]
5. (a) What is structure? WAP to read employee name, department, Salary of 2 employees and display on the screen using structure. [8]
- (b) What are different modes of opening file? Explain. WAP to create a file name "Student.txt" and write name, roll no. and marks of a student to this file. [8]
6. Write short notes on: Any Four [4x4=16]
- (a) Switch statement
 - (b) Union
 - (c) Pointer
 - (d) Types of array
 - (e) dynamic memory allocation
 - (f) Recursion

Good Luck



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