**POORNIMA UNIVERSITY, JAIPUR**

**END SEMESTER EXAMINATION, December 2022**

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|  | **1BC1013** | Roll No. | Total Printed Pages: 2 |
| **1BC1013** |  |
| BCA I Year I-Semester (Main/Back) End Semester Examination, December 2022  **(All Spl.)** | |
| **BCACCA1102 : Programming Fundamentals using C** | | | |

# Time: **3** Hours. Total Marks: **60**

Min. Passing Marks: **21**

Attempt **five** questions selecting one question from each Unit. There is internal choice from Unit I to Unit V. Marks of each question or its parts are indicated against each question / parts. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Use of following supporting material is permitted during examination for this subject.

# **1.--------------------------Nil--------------------** **2.------------------Nil-----------------------**

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|  |  | **UNIT-I (CO1)** | **Marks** | **Bloom Level** |
| **Q.1** | **(a)** | Differentiate between Assembler, Compiler and Interpreter in tabular form? | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | What are different categories of operators? Write the output of the following program segment.  Void main(){  int m =10;  int n,n1;  n = ++m;  n1 = m++;  n -= n1;  printf(“%d”,n);  } | **(6)** | **Applying** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
|  |  |  |  |  |
| **Q.2** | **(a)** | Write a short note on computer based problem solving. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | A survey of the computer market shows that personal computers are sold at varying cost by vendors. The following is the list of costs (in hundreds) quoted by the same vendors.  35.00, 40.50, 25.00, 31.25, 68.15  Write an algorithm and draw flowchart to determine the average cost. | **(6)** | **Analyze** |
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|  |  | **UNIT-II (CO2)** |  |  |
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| **Q.3** | **(a)** | Differentiate between While, Do while and for loop using an example. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Write a program to compute and display the sum of all integers that are divisible by 6 but not divisible by 4 and lie between 0 and 100. The program should also count and display the number of such values. | **(6)** | **Analyze** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.4** | **(a)** | Explain Break, Continue and Goto Statement with an example. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a C program to display the n terms of even and odd numbers and their sum. | **(6)** | **Analyze** |
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|  |  | **UNIT-III (CO3)** |  |  |
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| **Q.5** | **(a)** | Write a short note on strings in C and also write 5 string library functions. | **(6)** |  |
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|  | **(b)** | Define functions. Explain the 3 elements of user defined functions with an example. | **(6)** | **Remebering** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.6** | **(a)** | Define 1Dimensional and 2 Dimensional arrays? Identify errors in each of the following initialization statements.   1. int m[2,4] = {(0,0,0,0)(1,1,1,1)}; 2. char word[2] = “ARRAY”; 3. float matrix[3],[2] = {22,88,11,16}; | **(6)** | **Analyze** |
|  |  |  |  |  |
|  | **(b)** | Aman is confused where to use local and where to use global variable in a program. Give an explanation with the help of a program. | **(6)** | **Analyze** |
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|  |  | **UNIT-IV (CO4)** |  |  |
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| **Q.7** | **(a)** | Explain pointers in C using an example. | **(6)** | **Remembering** |
|  |  |  |  |  |
|  | **(b)** | Differentiate between Structure and Union. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.8** | **(a)** | Explain Comparing of two structure variable using a program. | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a short note on pointer arithmetic. | **(6)** | **Remembering** |
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|  |  | **UNIT V (CO5)** |  |  |
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| **Q.9** | **(a)** | Explain Dynamic Memory allocation? | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a short note on C pre-processor? | **(6)** | **Remembering** |
|  |  |  |  |  |
|  |  | **OR** |  |  |
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| **Q.10** | **(a)** | Write 3 file accessing functions? | **(6)** | **Understanding** |
|  |  |  |  |  |
|  | **(b)** | Write a short note on reading and writing into a file. | **(6)** | **Remembering** |