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| Image result for adamas university logo | **ADAMAS UNIVERSITY**  **END SEMESTER EXAMINATION**  (Academic Session: 2020 – 21) | | |
| **Name of the Program:** | B.Tech(CSE,ME,EE,ECE,CE) | **Semester:** | II |
| **Paper Title:** | Introduction to Programming | **Paper Code:** | CSE11001 |
| **Maximum Marks:** | 50 | **Time Duration:** | 3 Hrs |
| **Total No. of Questions:** | 17 | **Total No of Pages:** | 03 |
| *(Any other information for the student may be mentioned here)* | 1. At top sheet, clearly mention Name, Univ. Roll No., Enrolment No., Paper Name & Code, Date of Exam. 2. All parts of a Question should be answered consecutively. Each Answer should start from a fresh page. 3. Assumptions made if any, should be stated clearly at the beginning of your answer. | | |

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| **Group A**  **Answer All the Questions (5 x 1 = 5)** | | | |
| 1 | What is the return type of strcmp ( ) function? | **R** | **CO4** |
| 2 | What is the purpose of comma operator in C? | **R** | **CO1** |
| 3 | How does the type float differ from double in C language? | **R** | **CO1** |
| 4 | How pointer will reduce the program execution time. | **R** | **CO3** |
| 5 | Find out the errors, if any, in the following programs:  main( ) { int array[6] = { 1, 2, 3, 4, 5, 6 } ; int i ; for ( i = 0 ; i <= 25 ; i++ ) printf ( "\n%d", array[i] ) ; } | **R** | **CO4** |
| **Group B**  **Answer Allthe Questions (5 x 2 = 10)** | | | |
| 6 a) | i) What is an array variable and how it is different from ordinary variable? [1]  ii) How does a structure differ from a union? [1] | **R** | **CO4** |
| **(OR)** | | | |
| 6 b) | i) Explain implicit and explicit type conversions with examples.  ii) Develop a C program to accept an integer number and print the digits using words (for example 356 is printed as Three Five Six)  [1+1] | **E, Creating** | **CO2** |
| 7 a) | Design the flowchart which depicts the admission procedure in B.Tech. | **Creating** | **CO1** |
| **(OR)** | | | |
| 7 b) | Create the algorithm for the admission procedure in B.Tech. | **Creating** | **CO1** |
| 8 a) | Which of the following expressions are valid? Give reasons.  (i) +a +b (ii) a++ - - b (iii) a % 10 / - b (iv) a++ + ++b | **R** | **CO1** |
| **(OR)** | | | |
| 8 b) | Utilize continue keyword writes the program in C to find the even numbers. | **Applying** | **CO2** |
| 9 a) | What is the meaning of 3<j && j<5? Is it equivalent to (3<j )&& (j<5)? Explain | **R** | **CO1** |
| **(OR)** | | | |
| 9 b) | Distinguish between entry- control and exit-control loops with an example. | **Analyzing** | **CO2** |
| 10 a) | Develop a ‘C’ program to remove duplicate elements from a given array. | **Applying** | **CO4** |
| **(OR)** | | | |
| 10 b) | What are the values of control variables and number of the iterations in the following for loops?  (i) for( x=1.0 ; x>=0.5; x - = 0.1) (ii) for( ch= ‘A’ ; ch != ‘F’ ; ++ch) | **R** | **CO2** |
| **Group C**  **Answer Allthe Questions (7 x 5 = 35)** | | | |
| 11 a) | i) What is the importance of # include? Explain.  ii) Give various modes of operating a file.  [3+2] | **R, U** | **CO1,CO5** |
| **(OR)** | | | |
| 11 b) | i) What are the two types of operators used for accessing members of a structure?  ii) Develop a C program to print file contents on the screen.  [3+2] | **R, Applying** | **CO4,CO5** |
| 12 a) | Develop a C program to copy the contents of one array into another in the reverse order using function. | **Applying** | **CO4** |
| **(OR)** | | | |
| 12 b) | How to compile and execute a C program explain using a block diagram? | **R** | **CO1** |
| 13 a) | A library charges a fine for every book returned late. For first 5 days the fine is 50 paise, for 6-10 days fine is one rupee and above 10 days fine is 5 rupees. If you return the book after 30 days your membership will be cancelled. Create a C program to accept the number of days the member is late to return the book and display the fine or the appropriate message. | **Creating** | **CO2** |
| **(OR)** | | | |
| 13 b) | What is flow chart? How it is useful in writing the programs? Explain about different symbols in flow chart. | **R** | **CO1** |
| 14 a) | Design a menu driven program which has following options:  1. Factorial of a number.  2. Prime or not  3. Odd or even  4. Exit | **Creating** | **CO2** |
| **(OR)** | | | |
| 14 b) | What is fall through problem in switch case and how to solve it show with an example. | **R** | **CO2** |
| 15 a) | A cashier has currency notes of denominations 10, 50 and 100. If the amount to be withdrawn is input through the keyboard in hundreds, **Determine** the total number of currency notes of each denomination the cashier will have to give to the withdrawer. | **Evaluating** | **CO2** |
| **(OR)** | | | |
| 15 b) | What is the need of the iterations and selection? Explain each of the statements with examples. | **R** | **CO2** |
| 16 a) | Create a structure to specify data on students given below: Roll number, Name, Department, Course, Year of joining. Assume that there are not more than 450 students in the collage. (a) Write a function to print names of all students who joined in a particular year.  (b) Write a function to print the data of a student whose roll number is given. | **Creating** | **CO5** |
| **(OR)** | | | |
| 16 b) | What is the main reason for using structure? What special keyword is used in defining a structure? Give syntax for structure | **R** | **CO5** |
| 17 a) | What is algorithm? Explain the steps involved in the development of C algorithms. | **R** | **CO1** |
| **(OR)** | | | |
| 17 b) | Distinguish between local and global variable. How to return multiple values in function using global variable show with an example. | **Analyzing** | **CO1** |

Note: The Sample prepared by assuming 5 COs in a course, considering one CO for one Module.

1. If the COs are higher in numbers that can be managed by equating sub-divisional questions
2. If the COs are lower in numbers, the questions can be increased by equating the number of COs