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| Image result for adamas university logo | **ADAMAS UNIVERSITY**  **END SEMESTER EXAMINATION**  (Academic Session: 2020 – 21) | | |
| **Name of the Program:** | B.Sc | **Semester:** | I |
| **Paper Title:** | Computer Programming | **Paper Code:** | ECS31191 |
| **Maximum Marks:** | 50 | **Time Duration:** | 3 Hrs |
| **Total No. of Questions:** | **17** | **Total No of Pages:** |  |
| *(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 program? How it is different from instruction? | **R** | **CO1** |
| 2 | What are C character set? | **R** | **CO2** |
| 3 | Name the keyword which is used to find the size of any datatype. | **R** | **CO3** |
| 4 | What is the role of modulus operator? | **U** | **CO4** |
| 5 | What is wrong in the statement?  scanf(“%d”, number); | **Ap** | **CO5** |
| **Group B**  **Answer All the Questions (5 x 2 = 10)** | | | |
| 6 a) | i)In C programming language write code to determine if a number is even or odd using ternary operator?  ii)Does C procedure-oriented language or object oriented? Justify. | **U** | **CO1** |
| **(OR)** | | | |
| 6 b) | i)Write the difference between = and == symbols.  ii)What are the basic datatypes supported in C language? | **U** | **CO1** |
| 7 a) | Solve the problem to find the maximum among 3 numbers. | **Ap** | **CO2** |
| **(OR)** | | | |
| 7 b) | Find factorial of a number given be user using the concept of function. | **Ap** | **CO2** |
| 8 a) | Apply the concept of array to find the average of 5 numbers. | **Ap** | **CO3** |
| **(OR)** | | | |
| 8 b) | Explain switch statements. Apply switch to check whether the given alphabet is consonant or vowel. | **R** | **CO3** |
| 9 a) | Explain how the pointer variable allocate memory using some code. | **R** | **CO4** |
| **(OR)** | | | |
| 9 b) | Explain the concept of formal parameter and actual parameter using some code on addition of two numbers. | **R** | **CO4** |
| 10 a) | What is dynamic memory allocation? | **R** | **CO5** |
| **(OR)** | | | |
| 10 b) | Explain the role of preprocessors. | **R** | **CO5** |
| **Group C**  **Answer All the Questions (7 x 5 = 35)** | | | |
| 11 a) | i) What is the output of C Program.?  int main()  {  int a=5;    while(a >= 3);  {  printf("RABBIT\n");  break;  }  printf("GREEN");    return 0;  }  ii) What is the output of C Program.?  int main()  {  int a=25;    while(a <= 27)  {  printf("%d ", a);  a++;  }  return 0;  } | **U** | **CO1** |
| **(OR)** | | | |
| 11 b) | i) What is the output of C Program.?  int main()  {  int k;    for(k=1; k <= 5; k++);  {  printf("%d ", k);  }  return 0;  }  ii)Write down all types of loops are available in C language. | **U** | **CO1** |
| 12 a) | Describe the concept of nested loops with example. | **U** | **CO2** |
| **(OR)** | | | |
| 12 b) | Write a code to sort an array in any specific order. | **Ap** | **CO2** |
| 13 a) | Using while and do-while loop write the code in C to check whether a given number is palindrome or not. | **U** | **CO3** |
| **(OR)** | | | |
| 13 b) | Identify the concept in array where the system will display the elements of an array directly (without user input). Explain with the help of example. | **R** | **CO3** |
| 14 a) | What happens if the array subscript exceeds the size of memory? | **U** | **CO4** |
| **(OR)** | | | |
| 14 b) | Consider an array with characters ‘P’,’A’,’S’,’C’,’A’,’L’. Write a code to print the address of the character array. | **U** | **CO4** |
| 15 a) | Write steps of insertion sort and explain with the help of an example. | **U** | **CO4** |
| **(OR)** | | | |
| 15 b) | Write some code to check whether an inputted number is positive, negative or zero using conditional operator. | **U** | **CO4** |
| 16 a) | What are the types of function available in C? Explain any two of the types with proper example. | **U** | **CO5** |
| **(OR)** | | | |
| 16 b) | Write a code to demonstrate the use of & and \* operator. | **Ap** | **CO5** |
| 17 a) | Define variables.What do you mean by scope of a variable? | **U** | **CO5** |
| **(OR)** | | | |
| 17 b) | What do you mean by file handling? What are its advantages? | **U** | **CO5** |