**Jyothy Institute of Technology**

**Tataguni, Bangalore – 560 082**

**First Internal Test**

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| **Course** | **:** |  |  |  |  | **Time** | **:** | **1Hour** |
| **Course Name** | **:** | **Programming in C & Data Structures** | **Course Code** | **:** | **15PCD13** | **Maximum Marks** | **:** | **20** |

**Answer the following questions.**

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| **Q No** | **Question** | **COs** | **Marks** |
| Q 1 a  Q 1 b | i) What is pseudo code? Write a pseudo code for finding sum and average of three numbers.  ii) How operators can classified. List all the operators with their precedence and associativity.  OR  i) What is data type? How it can be classified? List all primitive data types with format specifiers and memory occupied by them. ii) What are printf() and scanf() functions. Explain with one example. | CO 1  CO 1  CO 1  CO 1 | 5  5  5  5 |
| Q 2 a  Q 2 b | i) Write the output for the following code:  void main()  {  int a = 5, b=2, res1;  float f1=5.0, f2=2.0, res2;  res1=5/2.0+a/2+a/b;  res2=f1/2\*f1-f2;  printf(“ res1=%d res2=%f ”, res1, res2);  }  ii) Write a program to find area and perimeter of a rectangle. Write test cases and output.  OR  i) Write the output for the following code:  void main()  {  int i=5, j=6, m,n;  m=++i+j++;  n=--i+j--;  printf(“ m=%d n=%d ”, m, n);  }  ii) Write a program to swap two numbers using third variable. Write test cases and output. | CO 1  CO 1  CO 1  CO 1 | 5  5  5  5 |

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| **Department** | **:** |  |  |  |  | **Time** | **:** | **1Hour** |
| **Subject Name** | **:** | **Programming in C & Data Structures** | **Subject Code** | **:** | **15PCD13** | **Maximum Marks** | **:** | **20** |

**Answer the following questions.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q No** | **Question** | **COs** | **Marks** | **RBT Level** |
| Q 1a  Q 1b | i) What is pseudo code? Write a pseudo code for finding sum and average of three numbers.  ii) How operators can classified. List all the operators with their precedence and associativity.  OR  i) What is data type? How it can be classified? List all primitive data types with format specifiers and memory occupied by them. ii) What are printf() and scanf() functions. Explain with one example. | CO 1  CO 1  CO 1  CO 1 | 5  5  5  5 | 1,2  1,2  1,2  1,2 |
| Q 2a  Q 2b | i) Write the output for the following code:  void main()  {  int a = 5, b=2, res1;  float f1=5.0, f2=2.0, res2;  res1=5/2.0+a/2+a/b;  res2=f1/2\*f1-f2;  printf(“ res1=%d res2=%f ”, res1, res2);  }  ii) Write a program to find area and perimeter of a rectangle. Write test cases and output.  OR  i) Write the output for the following code:  void main()  {  int i=5, j=6, m,n;  m=++i+j++;  n=--i+j--;  printf(“ m=%d n=%d ”, m, n);  }  ii) Write a program to swap two numbers using third variable. Write test cases and output. | CO 1  CO 1  CO 1  CO 1 | 5  5  5  5 | 4  5  4  5 |

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|  | **CO 1** | **CO 2** | **CO 3** | **CO 4** |  |
| **Q1 a (i)** |  |  |  |  |  |
| **Q1 a (ii)** |  |  |  |  |  |
| **Q1 b (i)** |  |  |  |  |  |
| **Q1 b (ii)** |  |  |  |  |  |
| **Q2 a (i)** |  |  |  |  |  |
| **Q2 a (ii)** |  |  |  |  |  |
| **Q2 b (i)** |  |  |  |  |  |
| **Q2 b (ii)** |  |  |  |  |  |