**Jaypee University of Engineering and Technology**

**B. Tech. (CSE) - II Semester**

**Object Oriented Programming (18B11CI211)**

**Tutorial – 1(Review of C)**

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| **1.** Assume that objects of the type short, float and, long occupy 2 bytes, 4 bytes and 8 bytes, respectively. How much memory is required for variable t, if we ignore alignment considerations?  struct {      short s [5];      union {           float y;           long z;      }u;  } t; |

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| **2. Consider the following C program segment:**  char p[20];  char \*s = "string";  int length = strlen(s);  int i;  for (i = 0; i < length; i++)       p[i] = s[length - i];  printf("%s",p); |

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| **3. For f(1) what will be the output of the below function?**  int f(int n){     static int i = 1;     if (n >= 5)        return n;     n = n+i;     i++;     return f(n);  } |

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| **4. What does the following program print?**  #include<stdio.h>  void f(int \*p, int \*q)  {    p = q;   \*p = 2;  }  int i = 0, j = 1;  int main()  {    f(&i, &j);    printf("%d %d \n", i, j);    getchar();    return 0;  } |

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| **5. What does the following fragment of C-program print?**  char c[] = "GATE2011";  char \*p =c;  printf("%s", p + p[3] - p[1]) ; |

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| **6.**unsigned long int fun(unsigned long int n) {          unsigned long int i, j=0, sum = 0;          for( i = n; i > 1; i = i/2)  j++;          for( ; j > 1; j = j/2)  sum++;          return sum;  }The value returned when we call fun with the input 240 is \_\_\_\_\_\_\_. |

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| **8. Consider the following C program.**  #include <stdio.h>  struct Ournode {    char x, y, z;  };  int main() {    struct Ournode p = {'1', '0', 'a' + 2};    struct Ournode \*q = &p;    printf("%c, %c", \*((char \*)q + 1), \*((char \*)q + 2));    return 0;  }  The output of this program is:\_\_\_\_\_\_\_\_\_\_\_ |

**7.What will be the output of the following C program segment?**

#include <stdlib.h>

#include <stdio.h>

enum {false, true};

int main()

{

   int i = 1;

   do

   {

      printf("%d\n", i);

      i++;

      if (i < 15)

        continue;

   } while (false);

   getchar();

   return 0;

}

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| **9. What will be the output of the following C program segment?**  char inchar = 'A';  switch (inchar)  {  case 'A' :      printf ("choice A \n") ;  case 'B' :      printf ("choice B ") ;  case 'C' :  case 'D' :  case 'E' :  default:      printf ("No Choice") ;  } |

**10.Consider the following C program.**

#include<stdio.h>

#include<string.h>

int main() {

char\* c=”GATECSIT2017”;

char\* p=c;

printf(“%d”, (int)strlen(c+2[p]-6[p]-1));

return 0;

}

The output of the program is \_\_\_\_\_\_\_