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| --- | --- | --- | --- |
| 1. | a) | Replace *‘for’* loop of the following code by *‘while’* and then replace it with *‘do..while’* loop.  *#include <stdio.h>*  *#include <stdlib.h>*  *//count characters..*  *int main()*  *{*  *long nc;*  *nc=0;*  *for(nc=0;getchar() != EOF; ++nc)*  *;*  *printf("%ld\n",nc);*  *return 0;*  *}* |  |
|  | b) | Correct the following if there is any syntax error and calculate the output  *#include <stdio.h>*  *#include <stdlib.h>*  *int power(int base, int n);*  *int main()*  *{*  *int i;*  *for(i=0;i<10;i+=3)*  *printf("%d %d %d\n", i,power(2,i),power(-2,i));*  *return 0;*  *}*  *int power(int base, int n)*  *{*  *int i,p;*  *p=1;*  *for(i=1;i<=n; ++i)*  *p= p\*base;*  *return p;*  *}* |  |
|  | c) | For the following function ‘atoi11’ which converts string to integer, complete the code  int atoi11(char s[])  {  int i,n;  n=0;  for(i=0; s[i]>='0' && s[i] <= '9';++i)  {  ………………………………………………  ………………………………………………  }  return n;  } |  |
| 2. | a) | Calculate the output of the following program  #include <stdio.h>  #include <stdlib.h>  int main()  {  int i=0, x=0, y=0, z[]= {1,2,3,4,5,6,7,8,9};  printf("x=%d \t y=%d\n\n", ++x,y++);  printf("x=%d \t y=%d\n\n\n", x,y);  z[x++]=++x;  z[++y]=++y;  for(i=0; i<9; i++)  {  printf("z[%d] = %d\n", i, z[i]);  }  return 0;  } |  |
|  | b) | Complete the following code function to count the number of ‘1’ in binary form of a number.  int bitCount(unsigned x)  {  int b;  for(b=0; x!= 0; x>>=1)  {  ……………………………………..  ……………………………………..  }  return b;  } |  |
|  | c) | Evaluate and write down the output of the following program  #include <stdio.h>  #include <stdlib.h>  int main()  {  int i=0, n=55;  for(i=0;i<n;i++)  {  printf("%6d%c", i,(i%10==9 || i==n-1) ? '\n': ' ');  }  printf("Hello world!\n");  return 0;  } |  |