LIST OF PROGRAMS

1. While purchasing certain items, a discount of 10% is offered if the quantity purchased is more than 1000. If quantity and price per item are input through the keyboard, write a program to calculate the total expenses.

2. The marks obtained by a student in 5 different subjects are input through the keyboard. The student gets a division as per the following rules: Percentage above or equal to 60 - First division Percentage between 50 and 59 - Second division Percentage between 40 and 49 - Third division Percentage less than 40 - Fail Write a program to calculate the division   
obtained by the student.

3. Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered through the keyboard. A triangle is valid if the sum of all the three angles is equal to 180 degrees.

4. Write a program in C to read the age and display whether the candidate is eligible to vote or not.  
Definition of Done:  
• The program should ask the user to enter an integer. If it is floating, ask the user to enter appropriate number  
• The program should use if-else statement

1. What is the usage of nested if statements?  
2. What will be the output of the C program?  
#include<stdio.h>  
int main()  
{  
 int i = 5, j = 6, k = 7;  
 if(i > j == k)  
 printf("%d %d %d", i++, ++j, --k);  
 else   
 printf("%d %d %d", i, j, k);  
 return 0;  
}  
3. What will be the output of the C program?  
#include<stdio.h>  
int main()  
{  
 int i = 2;  
 if(i == (1, 2))  
 printf("Hai");  
 else  
 printf("No Hai");  
 return 0;  
}  
a) Compilation error  
b) Runtime error  
c) Hai  
d) No Hai

4. What will be the output of the C program?  
#include<stdio.h>  
int main()  
{  
 if(sizeof(0))  
 printf("Hai");

else  
 printf("Bye");  
 return 0;  
}  
a) Hai  
b) Bye  
c) Compilation Error  
d) None  
Practical No: 4

LIST OF PROGRAMS  
2. A character is entered through keyboard. Write a C program and its algorithm to determine whether the   
character entered is a capital letter, a small case letter, a digit or a special symbol using switch case. The following table shows the range of ASCII values for various characters.   
Characters ASCII values   
A – Z 65 – 90  
 a – z 97 – 122   
0 – 9 48 – 57   
Special symbols 0 – 47, 58 – 64, 91 – 96, 123 – 127

3. Write a C program using switch case to display grade of students based on the total marks obtained by   
the student in five subjects   
Here is the range of Grades:  
Marks >= 90 : Grade A  
Marks >= 70 && < 90 : Grade B  
Marks >= 50 && < 70 : Grade C  
Marks < 50 : Grade D  
Marks<50 : Fail

Program Outcome

Enter marks of 5 subjects  
97 89 78 87 68  
Grade : B  
Code

Output: (with Screenshots)

LIST OF FLIP EXPERIMENTS  
1. What will be the output of the following C code? (Assuming that we have entered the value 1   
in the standard input)  
 #include <stdio.h>  
 void main()  
 {  
 double ch;  
 printf("enter a value between 1 to 2:");  
 scanf("%lf", &ch);  
 switch (ch)  
 {  
 case 1:  
 printf("1");

break;  
 case 2:  
 printf("2");  
 break;  
 }  
 }  
2) What will be the output of the following C code? (Assuming that we have entered the value 1   
in the standard input)  
 #include <stdio.h>  
 void main()  
 {  
 int ch;  
 printf("enter a value between 1 to 2:");  
 scanf("%d", &ch);  
 switch (ch)  
 {  
 case 1:  
 printf("1\n");  
 default:  
 printf("2\n");  
 }  
 }  
3) What will be the output of the following C code?  
 #include <stdio.h>  
 int main()  
 {  
 int a = 1, b = 1;  
 switch (a)  
 {  
 case a\*b:  
 printf("yes ");  
 case a-b:  
 printf("no\n");  
 break;  
 }  
 }

4) What is the output of the below program?  
#include <stdio.h>  
int main()  
{  
 int i = 0;  
 switch (i)  
 {  
 case '0': printf("Geeks");  
 break;  
 case '1': printf("Quiz");  
 break;  
 default: printf("GeeksQuiz");  
 }  
 return 0;  
}

5) What will be the output of the following C program segment? (GATE CS 2012)  
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") ;  
}

1. Find factorial of a number using while loop  
2. Program to add numbers until the user enters zero  
3. Program to print the sum of 10 natural numbers using while loop  
Suggested Question Bank  
2. What will be the output of the C program?  
a) void main( )   
{  
 int j =1;   
while ( j <= 10 )   
{   
 printf ( "\n%d", j ) ;   
 j = j + 1 ; } }  
b) void main( )   
 {   
 float x = 1.1 ;   
 while ( x == 1.1 )   
 {   
 printf ( "\n%f", x ) ;   
 x = x – 0.1 ; } }   
LIST OF FLIP EXPERIMENTS  
1. What will be the output of the following?

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a) #include <stdio.h>   
 int main()   
 { int i = 0;   
 while (i = 0)   
 printf("True\n");   
 printf("False\n");   
 }   
b) #include<stdio.h>   
 int main()   
 { int i = 0;   
 while(i < 3, i = 0, i < 5)   
 { printf("Loop ");   
 i++; }   
 return 0; }  
c) #include<stdio.h>   
 int main()   
 { int i = 0;   
 while(i++)   
 {   
 printf("Loop ");   
 if(i == 3) break; }   
 return 0; }

Practical No: 6

LIST OF PROGRAMS  
1. Write a program to find the factorial of a number using for loop  
2. Write a program to print the following pattern:  
a) 1  
1 2  
 1 2 3  
 1 2 3 4  
 DoD 1: The number should be given by the user.   
 DoD 2: The program should check if the number is a positive natural number.  
 DoD 3: The factorial of that number should be printed as the output.  
b) 55555  
4444  
333  
22  
1  
DoD 1: The program does not take any input.   
DoD 2: The above mentioned pattern should be printed as the output.  
3. Write a program in C to print the table of a given number which is multiplied from 1 to   
10 using for loop

SUGGESTED QUESTION BANK  
1. To find the sum of individual digits of a positive integer and test given number is   
palindrome.  
2. That will read in a positive integer value and determine whether its prime or Fibonacci.  
3. WAP to calculate the sum of every third integer, beginning with i=2 ( i.e. calculate the sum   
2+5+8+11+.........) for all values of i less than 100.  
4. WAP to convert a positive integer quantity to a roman numeral (i.e. 12 will be converted   
to XIV).  
LIST OF FLIP EXPERIMENTS  
1. How many times "FOCP" is get printed?  
#include<stdio.h>  
int main()  
{  
 int x;  
 for(x=-1; x<=10; x++)  
 {  
 if(x < 5)  
 continue;  
 else  
 break;  
 printf("FOCP");  
 }  
 return 0;  
}  
2 What will be the output of the program?  
#include<stdio.h>  
int main()  
{  
 int i=0;

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 for(; i<=5; i++);  
 printf("%d", i);  
 return 0;  
}  
3. Point out the error, if any in the for loop.  
#include<stdio.h>  
int main()  
{  
 int i=1;  
 for(;;)  
 {  
 printf("%d\n", i++);  
 if(i>10)  
 break;  
 }  
 return 0;