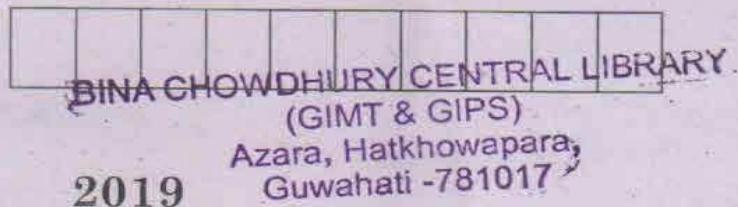


Total No. of printed pages = 6

CS 171105

12/1/19

Roll No. of candidate



B.Tech. 1st Semester End-Term Examination

INTRODUCTION TO COMPUTING

(New Regulation & New Syllabus)

(w.e.f. 2017-2018)

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer Q.No. 1 and any *four* from the rest.

1. Answer the following : $(10 \times 1 = 10)$

- (i) All keywords in C are in _____ English letters.
- (ii) Variable name resolving depends on _____.
- (iii) int 3_a; is a valid variable name declaration in C language (True or False?) _____.
- (iv) Variable names beginning with the underscore is not encouraged to avoid conflicts since _____ routines use such names.

[Turn over

(v) Fill in the value of PEACH

```
#include <stdio.h>
int main()
{
    enum {ORANGE = 5, MANGO, BANANA =
        4, PEACH};
    printf ("PEACH = %d\n", PEACH);
}
```

(vi) char *str = "Engineering"; is a _____ declaration.

(vii) Keyword used to prevent any changes in the variable within a C program is _____.

(viii) Type of the assignment expression $y = x + y$ if x is of type float, y is of type int is _____.

(ix) for(;;) represents an infinite loop which can be terminated by _____ statement.

(x) return-type function-name (argument type); format for declaration of a function is correct.
(True or False?) _____.

Answer any four questions : $(4 \times 15 = 60)$

2. (a) Write down the common standard output stream and standard input stream functions that can be used with any data types in C. Give example with all basic data types. (7)

- (b) Mention the format specifiers for character, unsigned character, signed integer, unsigned integer, short integer, floating point, double and long double. (8)
3. (a) Write down the ASCII code for character digits 0-9, A-Z, a-z. (9)
- (b) Mention all the logical operators with specifying example to illustrate each operator. (6)
4. (a) Find and explain the output of the following function if n=10. (8)
- ```
A(n)
{
 if(n>=1)
 {
 A(n-1);
 printf("%d",n);
 A(n-1);
 }
}
```
- (b) Explain the compilation process of a c code with diagram. (7)
5. (a) Explain the c code of the following program: (8)
- ```
#include<stdio.h>
int main()
{
    float d,q,n,e;
    scanf("%f",&n);
```

```

e=1.0;
while(e > 0.000001 || e < -0.00001) .
{
    q=n/d;
    e=d-q;
    d=(d+q)/q;
}
printf("\n %d",q);
return 0;
}

```

- (b) Write a c program to reverse a given no. (7)
6. (a) Correct the syntax and logical errors of the following program: (6)

```

#include<stdio.h>
int main()
{
    int a[15],i,p;
    for(i=0;i < 15,i++)
    {
        scanf("%d",&a);
    }
    p=0;
    i=1;
    while(i<15)
    {
        if(a[p]<a[i])
        {
            p=i;
        }
        print ("result : %d");
    }
    return
}

```

- (b) Write a c program with user defined function using pass by reference to find smallest divisor of a number. (9)

7. (a) Write the output of the following program: (5)

```
#include<stdio.h>
int main()
{
    int a,b,c,i=0;
    a=0;
    b=1;
    while(i<20)
    {
        c=a+b;
        printf("%d \t",c);
        a=b;
        b=c;
    }
    return 0;
}
```

(b) Write the output of the following program: (5)

```
#include<stdio.h>
int main()
{
    int i,j;
    for (i=1;i<=8;i++)
    {
        for(j=0;j<i;j++)
        {
            printf(" * \t");
        }
    }
}
```

```
    }
    printf("\n");
}
return 0;
}
```

- (c) Correct the errors in the following program: (5)

```
#include<stdio.h>
int main
{
    int a,b,c
    scanf("%d%d%d", &a);
    c=a+b;
    printf("\n %d %d %d", a,b,c)
    return 1
}
```
