Please check that this question paper contains 9 questions and 2 printed pages within first ten minutes.

[Total No. of Questions: 09]   [Total No. of Pages: 2]

Uni. Roll No. ....

Program: B.Tech. (Batch 2018 onward)
Semester: 2
Name of Subject: Programming for Problem Solving
Subject Code: ESC-104
Paper ID: 15935

Time Allowed: 03 Hours   Max. Marks: 60

NOTE:

1) Parts A and B are compulsory
2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
3) Any missing data may be assumed appropriately

Part – A   [Marks: 02 each]

Q1.

  a) Which operator is used to compare two variables? Write its syntax.

  b) What are Tokens?

  c) Write a syntax to show the comments in C.

  d) List the components of a computer system and discuss its working.

  e) Elaborate the concept of default in switch statement.

  f) What will be the output of the following code:

```
#include <stdio.h>
int main()
{
while(1)
printf("bye");
printf("sorry");
}
```

Part – B   [Marks: 04 each]

Q2. Write a code to show the branching in C.

Q3. Compare break and continue statement with example.

Q4. Draw a flow chart for the bubble sort and write its algorithm.

Q5. Where to write, store and execute a C program? Which compiler is used.

Q6. Write the command to see object code and executable code. How to see assembly code in command line?

Q7. Tailor the following code by removing syntax errors and print the output.

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P.T.O.

```
#include <stdio.h>
int main( )
{
   for( i=0; i<=2 , i++)
  { if( i == 1 )
      while(i){
         printf(" \ncorrect");
         break;}
   else
   print("sorry ");
    }
 }
```

Part – C   [Marks: 12 each]

Q8.   a) List the types of arrays and discuss each with example.

b) Define Operating system with diagram. List the operating systems, its definition, its example and its functions.

OR

Q9.   a) Compare call by value and call by reference with syntax.

b) Write a code for fibonacci series using recursion.

OR

a) Correct the following code and writes its output:

```
#include <stdio.h>
int main()
{
   int i;
   int j = 10;
   for( i = 0; i <= j+1; i ++ )
     if( i == 5 )
         continue;
   printf("Hello %d\n", i );
}
```

b) Write a Linear and binary search algorithm and its pseudo-code.

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