

**I B. Tech I Semester Regular Examinations, January, 2015**  
**Computer Programming**  
(Common to BME, ECE, EEE, CSE, IT)

Time: 3 hours

Max Marks: 70

**PART – A**  
**Answer ALL questions**  
**All questions carry equal marks**  
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2 \* 10 = 20 Marks

1). a What will be the output when you execute following C code? [2]

```
#include<stdio.h>
int main(){
printf("%d\t",sizeof(6.5));
printf("%d\t",sizeof(90000));
printf("%d",sizeof('A'));
return 0;
}
```

b Differentiate between an Algorithm and a Flowchart. [2]

c Differentiate between While and Do While Loop. [2]

d Explain the use of Continue Statement with an example. [2]

e Write the code to swap two variables without using third variable. [2]

f Give the syntax of fwrite( ) and fread( ) functions. [2]

g Differentiate between calloc( ) and malloc( ) functions. [2]

h What is Recursion? Give an example. [2]

i What is the value of x in below code [2]

```
#include<stdio.h>
void main()
{
int x=5*9/3+9;
}
```

j Explain the Storage Classes with examples. [2]

PTO...

**PART – B**

**Answer any FIVE questions**  
**All questions carry equal marks**

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**10 \* 5 = 50 Marks**

2. (a) What is a Variable? What are the rules for naming the Variable? (3) [10]  
 (b) Differentiate between pre increment and post increment Operators with example. (7)
3. (a) Write general syntax of the formatted input and output statement with example. [10]  
 (5)  
 (b) Write a program that reads in a five-digit integer and determine whether or not it is a Palindrome. (5)
4. (a) What is an Array? Explain one dimensional Array with an example. (3) [10]  
 (b) Write a program to find the saddle points in a Matrix. It is computed as follows: Find out the smallest element in a row. The saddle point exists in a row if an element is the largest element in that corresponding column. For instance, consider the following matrix:
- |    |   |   |
|----|---|---|
| 7  | 5 | 6 |
| 10 | 2 | 3 |
| 1  | 3 | 3 |
- The saddle point result is as listed below:  
 In row 1, saddle point exists at column 2.  
 In row 2, saddle point does not exist.  
 In row 3, saddle point does not exist. (7)
5. (a) Write the general syntax for the declaration of a function. Also discuss the parameter passing methods with an example. [10]  
 (5)  
 (b) Write a Recursive Function to find the factorial of a number. (5)
6. (a) Differentiate between Structure and Union with example. (4) [10]  
 (b) Create a Structure Employee with employee number, name, basic, allowances and deductions. Define a Structure Variable to read an Array of 'N' employee details and print the gross and net pay of each employee. (6)
7. (a) Give an example program for performing Loop Operation using IF statement. (4) [10]  
 (b) Explain any five functions of <stdlib.h> library. (6)
8. Write a short note on any two of the following: [10]  
 (a) Random access to Files  
 (b) Array of Pointers  
 (c) Program Development Steps (5+5)

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