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F.E. Semester-II (Revised Course 2007-2008) EXAMINATION Nov/Dec 2019 Information Technology

[Duration: Three Hours]

[Total Marks: 100]

Instructions:

- 1. Attempt any five questions by selecting at least one question from each module.
- 2. Make suitable assumptions if required.

| No. | | Module 1 | |
|-----|---|--|----|
| 1 | a | Explain different input devices with example | 6 |
| | b | Compare the following operating system s: i) DOS ii) Windows iii) Linux | -6 |
| | c | Describe ring topology with diagram | 6 |
| | d | Distinguish between DRAM and SRAM | 2 |
| 2 | a | Describe the working of e-mail. Explain spamming in that context. | 10 |
| | b | Explain the client server architecture with the help of a diagram. State advantages and limitations of the same. | 6 |
| | c | What is domain name and IP address | 4 |
| 7 | | Module II | |
| 3 | a | Explain the database models. | 7 |
| | b | Describe steps involved in compilation with diagram. | 7 |
| | c | Different between assembly level languages and high level languages. | 6 |
| 4 | a | Describe the functions of an assembler, interpreter and compiler. | 8 |
| | b | What are the benefits of using database management system | 4 |
| | С | Write an algorithm and draw a flowchart to find functional of a number | 8 |

Module III

5 a Describe different data types supported in C language

5

b Write a program to find smallest among three numbers using nested if-else.

c Write a C program to check if number entered is prime number or not.

5

d Find the output of the following codes:

```
#include<stdio.h>
int main ()

{
    int a=2,b=1;
    a*=a+b;
    printf("%d\n", a);
}

b=--a;

c=a--;

printf("%d %d %d\n", a, b, c);

return 0;
}
```

6 a Differentiate between break and continue giving an example.

- 4
- b Write a C program to accept 'n' numbers from the user and count how many of them are divisible by 2
- -

c Write a C program to design a calculator with basic operations using switch.

.

d Find the output of the following codes:

| | #include <stdio.h></stdio.h> | #include <stdio.h></stdio.h> |
|--------|------------------------------|------------------------------|
| | void main () | int main () |
| | | |
| 18,000 | int a; | int a=4,b=3, c=2, d=1; |

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FE213

```
for(a=0;a<10;a++)

{
    printf("%d", a*b/c-d);
    printf("%d", a * b/(c - d));

    return 0;
}

    continue;

printf("%d", a*b/c-d);
    printf("%d", a * b/(c - d));

return 0;
}

printf("%d", a * b/(c - d));

return 0;
}
```

Module IV

```
Explain the following with examples:
7
                                                                                                           5
                  Function declaration
           ii)
                  Function definition and function call
        Write a C program to insert element at a given position in 1D array
   b
                                                                                                           6
   c
        Write a C program to multiply two matrices
                                                                                                           6
   d
       Find the output of the following:
                                                                                                           3
        #include<stdio.h>
        void abc()
        int x=4;
        int y;
         y=++x*x*2;
        printf("%d\n", y);
        void main ()
              int x=5;
              X=++X;
              abc();
              printf("%d", x);
```

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| | | | FE21 |
|---|---|--|------|
| 8 | a | Write a C program to create a user defined function called square to find square of a number | 5 |
| | b | Write a C program to delete an element in a 1D array | 5 |
| | c | Differentiate between call by value and call by reference | |
| | d | Illustrate reading from a file using C program | 5 |