Examination	: M.C.A. - Semester - I	**Seat No.**	:
Date	: 28/12/2020	**Day**	: Monday
Time	: 02:15 PM To 03:30 PM	**Max. Marks**	: 36

INSTRUCTIONS:
1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.1 Do as directed. [12]

1 Which of the following is not a valid variable name declaration?
a) int _h8;
b) int h_8;
c) int 8_h;
d) int _8h

2 All keywords in C are in _____
a) Lower Case letters
b) Upper Case letters
c) Camel Case letters
d) None of the mentioned

3 What will be the output of the following C code?

```c
#include <stdio.h>
int main()
{
    printf("Hello World! %d \n", x);
    return 0;
}
```

a) Hello World! x;
b) Hello World! followed by a junk value
c) Compile time error
d) Hello World!

4 The format identifier '%i' is also used for _____ data type.
a)int
b)double
c)float
d)none if the above

5 What will be the output of the following C code?

```c
#include  <stdio.h>
int main()
{
    signed char chr;
    chr = 133;
    printf("%d\n", chr);
    return 0;
}
```

A)123
b)-123
c)-122
d)133

6 What is short in C programming?
a) basic data type
b) Qualifier
c) Identifier
d) All of the mentioned

7 What will be the output of the following C code?

```c
#include <stdio.h>
int main()
{
    const int a = 5;
    a = a * 5;
    printf("a = %d\n", a);
}
```

a) a = 25
b) a = 5
c) Compilation error
d) Runtime error

8 What will be the output of the following C code?

```c
#include <stdio.h>
int main()
{
    int i = 3;
    int l = i / -2;
    int k = i % -2;
    printf("%d %d\n", l, k);
    return 0;
}
```

a) Compile time error
b) -1 1
c) 1 -1
d) Implementation defined

9 What will be the output of the following C code?

```c
#include <stdio.h>
void main()
{
    int x = 1, y = 0, z = 5;
    int a = x && y || z++;
    printf("%d", z);
}
```

a) 0
b) 5
c) 6
d) None of the above

10 What will be the output of the following C code?

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

a) a = 1, b = 1, c = 2
b) a = 2, b = 1, c = 2
c) a = 1, b = 2, c = 3
d) a = 2, b = 1, c = 3

11   What will be the output of the following C code?

```c
#include <stdio.h>
int main()
{
    int a = 10, b = 10;
    if (a = 5)
    b--;
    printf("a = %d, b = %d", a, b--);
}
```

a) a = 10, b = 9
b) a = 10, b = 8
c) a = 5, b = 8
d) a = 5, b = 9

12   Which data type is most suitable for storing a number 65000 in a 32-bit system?
a) signed short
b) unsigned short
c) long
d) int

Q.2   Attempt Any Three of the following questions.   [12]

(a)   Explain differences between a complier and interpreter.
(b)   Explain basic structure of C program.
(c)   Explain two-way decision using selection statement in C language. Provide appropriate example.
(d)   Explain exit controlled loops in C language with help of an example.

Q.3   Do as Directed: [12]

(a)   Explain program development life cycle in detail.   [6]
(b)   Write a C program to take an integer input from user to display the appropriate month name. Put necessary checks in the program.   [4]
(c)   What is the difference between *#include <stdio.h>* and *#include "stdio.h"*   [2]

<div align="center">OR</div>

Q.3   Do as Directed: [12]

(a)   Explain Preprocessing, Compilation and Linking stage in C language.   [6]
(b)   Write a C program to take an integer input from user and display if the number is even or odd.   [4]
(c)   State the dangling else problem in C.   [2]