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Assignment - 1

Introduction to Computers And Programming:-

Draw the block diagram of Computer & discuss

Various components of Computer

How does a computer system work?

What are the different types of computer?

Central Processing Unit (CPU)

Memory

Input

Output

Secondary Storage device

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Introduction to Computers Programming

in C

Assignments

* Assignment-2 (Operators)

1. Explain results of following statements in C-program

	int a, b, c; a = 15; b = 4; i) c = a % b; ii) c = a / b;	int a, b; float c; a = 15; b = 4; i) c = a % b; ii) c = a / b;	int a, b; float c; a = 15; b = 4; i) c = (float) a % b; ii) c = a / b;
<u>O/p</u>	i) 3 ii) 3	i) 3.000000 ii) 3.000000	i) error: invalid operand to binary % (Have 'float' & 'int') ii) 3.000000

2. State whether output of following logical expressions are true or false:-

x = 5 y = 2 z = 10

i) x > y	vi) (x > y + 2) && y > 3 z > 15
ii) (x > y) && z == 10	vii) (x > y y < 1) && (x < z && y != 3)
iii) x == (3 + 2) z != 10	viii) 5 && 8 && 1 != 8 1 < 6
iv) !(x > y) && y < 5	ix) x == 9 z < 6
v) !(x < 10)	x) !(c == 0)

OIP

(i) True

(ii) True

(iii) True

(iv) False

(v) False

(vi) True

(vii) True

(viii) True

(ix) False

(x) False

3. What will be the output of following program:-

void main()

{

int a=100, b, c;

if (a >= 50)

b=300;

c=200;

printf("%d %d", b, c);

}

void main()

{

int a=10, b, c;

if (a >= 50)

b=300;

c=20;

printf("%d %d", b, c);

}

void main()

{

int a=1, b=2;

if (a == 1)

printf("%d", a);

else;

printf("%d", b);

}

OIP

(Space will come)

300 200

(Space will come)

0 200 (Garbage value)

(Space will come)

1
2

<pre> void main() { int a=1, float b=1.0; if (a==b) printf("both are equal"); else printf("unequal"); } </pre>	<pre> void main() { int a=10, b, c; a=b=1; c=a<1; printf("In a %d\n b %d c %d", a, b, c); } </pre>	<pre> void main() { int a=100, b=200; if (a==b) printf("In %d %d", a, b); } </pre>
--	---	--

O/P

both are equal

(Space will come)
a=1 b=1 c=0

error: expected
identifiers or '(' before 'if'

4. What will be the output of following programs:

<pre> void main() { int a=4, b=5; if (a=5 b>2) printf("true"); else printf("false"); } </pre>	<pre> void main() { int i=4, j=-1, k=0, x, y, z; w=i j k; x=i && j && k; y=i j && k; z=i && j k; printf("i %d j %d k %d\n", w, x, y, z); } </pre>	<pre> void main() { int i=4, j=-1, k=0, y, z; y=i+5 j+1 && k+2; z=i+5 && j+1 k+2; printf("i %d j %d", y, z); } </pre>
---	---	---

O/P

true

1011

11


```
void main()
```

```
{
```

```
int i=10, j=10;
```

```
if (i & j == 10)
```

```
printf("equal");
```

```
else
```

```
printf("unequal");
```

```
}
```

```
void main()
```

```
{
```

```
int i=10, j=20;
```

```
if (i=10) && if(j=20)
```

```
printf("equal");
```

```
else
```

```
printf("unequal");
```

```
}
```

```
void main()
```

```
{
```

```
int i=10;
```

```
if (i>10 || i<10)
```

```
printf("equal");
```

```
else
```

```
printf("unequal");
```

```
}
```

O/P

equal

error: expected

identifiers before 'if'

unequal

5. What will be the output of following programs:-

```
void main()
```

```
{
```

```
int x=5, y=10, z=10;
```

```
x=y==z;
```

```
printf("%d", x);
```

```
}
```

```
void main()
```

```
{
```

```
int x=5, y=10, z=10;
```

```
x=y!=z;
```

```
printf("%d", x);
```

```
}
```

```
void main()
```

```
{
```

```
int x=5, y=10, z=20;
```

```
x=y==z;
```

```
printf("%d", x);
```

```
}
```

O/P

1

0

0

void main()

```
{
    int x=5, y=10, z=20;
    x=y!=z;
    printf("%d", x);
}
```

O/P

1

void main()

```
{
    int x=100, y=127;
    printf("%d", (x>y)?
    (x=y);
}
```

127

void main()

```
{
    int x=100, y=128;
    printf("%d", (x>y)?
    x=y);
}
```

128

void main()

```
{
    char x=100, y=127;
    printf("%d", (x>y)?x:y);
}
```

O/P

127

void main()

```
{
    char x=100, y=128;
    printf("%d", (x>y)?x:y);
}
```

100

void main()

```
{
    int x=1, y=2, z;
    z=x++ + ++x + y-- - x;
    printf("%d %d %d", x, y,
    z);
}
```

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void main()

```
{
    int x=1, y=2, z;
    z=++y - ++x + y - -y;
    printf("%d %d %d", x, y,
    z);
}
```

O/P

213

void main()

```
{
    int x=1, y=2, z;
    z=x++ - -x + y - ++y;
    printf("%d %d %d", x, y,
    z);
}
```

120

void main()

```
{
    int x=1, y=2, z;
    z=y++ - ++x + -x - y--;
    printf("%d %d %d", x, y,
    z);
}
```

12-2

<pre>void main() { int x=1, y=2, z; z=x++ + y--; printf("%d %d %d", x++, --y, x=2); }</pre>	<pre>void main() { int x=1, y=2, z; z=x++ - y--; printf("%d %d %d %d", x, ++y, --y, z++); }</pre>	<pre>void main() { int x=1, y=2, z; z=--y + ++x; printf("%d %d %d %d", x++, x, --y, z+y--); }</pre>
--	--	--

OIP

304

211-1

23-14

<pre>void main() { int x=1, y=2, z, p; z=--y - x++; printf("%d %d %d", --p, p++, p=y+x); }</pre>	<pre>void main() { int j=5; printf("j>=5? %d: %d", j); }</pre>	<pre>void main() { int j=5, i; j>=5? (i=10):(i=20); }</pre>
---	--	--

OIP

333

j>=5?5:

(It will print blank
in output)


```
void main()
```

```
{
```

```
int j=5, i;
```

```
j >= 5 ? i = 10; i = 20;
```

```
}
```

```
void main()
```

```
{
```

```
int j=5, k;
```

```
k = (j < 8 ? (j > 8 ? 1 : 2) :
```

```
(j > 8 ? 2 : 1);
```

```
}
```

```
void main()
```

```
{
```

```
int i;
```

```
char x;
```

```
scanf("%c", &x);
```

```
i = (x >= '5' && x <= '9')
```

```
? 1 : 0;
```

```
}
```

O/P

error: 1 value ~~operand~~
required as left
operand of assignment

(It will print
blank in output)

(It will appear
cursor blinking in
output)

```
void main()
```

```
{
```

```
char a = 'x';
```

```
printf("%c", (a >= 'i' ?
```

```
a = x));
```

```
}
```

```
void main()
```

```
{
```

```
int i = 10, j = 20, p;
```

```
p = i || j == 20;
```

```
p ? printf("T") :
```

```
printf("F");
```

```
}
```

```
void main()
```

```
{
```

```
int i = 10, j = 20, k = 20;
```

```
x, y;
```

```
x = i || j && k;
```

```
y = x = 0;
```

```
printf("%d %d",
```

```
x, y);
```

```
}
```

O/P

error: 'i' undeclared
error: 'j' undeclared

T

0 0