

Assignment-3 (operators) (each question carries 5 marks).

1. What is binary equivalent of

i) char ch='5'; ii) short int s = -520; iii) int i = -2; iv) float f=45.6 ; v) double d= -45.6;

2. What is the range of char, short int, int , long int, float.

```
3. main() {  
    unsigned char a;  
    a = 0xFF + 1;  
    printf("%u\n", a);  
}
```

```
4. main() { int x=10, y=20, z=5, i;  
           i =x<y<z;  
           printf("%d\n", i);}
```

```
5. main(){ unsigned int x=022,y=0x22, z=022; printf("%d",x+y+z); }
```

```
6. main() { int a = 123, b = 456;  
           a ^= b ^= a ^= b;  
           printf(" %d %d" , a,b); }
```

7. List 6 number of unary operators.

```
8. main() {           int a=10,b;  
                   b=a>=5?100:200;  
                   printf("%d",b);           }
```

```
9. main(){  
    printf("%d\n", -1<<4);  
    printf(" %d\n", -1 >>2);  
    printf("%x\n", 1<<10);  
    printf("%x\n", 0xFF<<4);  
    printf("%o\n", 034<<2); }
```

```
10. main()  
    {           printf("%d\n", 1<<4>>4);  
               printf("%d\n", 1<<31>>30); }
```

```
11. main() { double f = 33.3; int x;  
           x= ( f > 33.3) + (f == 33.3); printf("%d",x);}
```

```
12. main() { unsigned int res;  
           res = (64 >>(2+1-2)) & ~(1<<2);  
           printf("%d", res); }
```

```
13. main() {           int z,x=5,y=-10,a=4,b=2;  
                   z=x++ - --y * --b / a;  
                   printf("%d\n",z); }
```

```
14. main(){           printf("%lu\n",sizeof('\n'));  
                   printf("%lu\n",sizeof("5"));  
                   printf("%lu\n",sizeof(5.0));  
                   printf("%lu\n",sizeof(23.4f));  
                   printf("%lu\n",sizeof("23.4f")); }
```

```
15. main() {           printf("%d\n",(0x11>11) && (11>011));  
                   printf("%d\n", sizeof(-1) > 10); printf("%d\n", 23.0>23); }
```

```

16. main() {
    int a=-1,b=0, c=5;
    char ch='a';
    printf("%d\n", (ch>=97)&&(ch<=122));
    printf("%d\n", (a==0) || (b==0) || (c==0));
    printf("%d\n", (a<b)&&(b<c));
}

17. main(){
    printf("%d\n", -1&3456);
    printf("%d\n", -1| 456);
    printf("%d\n", -1 ^ 789);
    printf("%d\n", 0&789);
    printf("%d\n", 0&234);
}

18. main(){ int bitMask=1;
    printf("%d\n", 50 & bitMask);
    bitMask=32;printf("%d\n",50 & bitMask);
    printf("%d\n",60 & bitMask);
    printf("%d\n",70 & bitMask);
    bitMask=512;
    printf("%d\n",525&bitMask); }

19.
main(){
    int var=50,bit=3;
    printf("%d\n",var&(1<<3));
    printf("%d\n",var&(1<<4));
    printf("%d\n",var&(1<<5));
}

20. main(){ int a=2,b=4,c=5;
a+=b*=c-=10;
printf("%d %d %d\n",a,b,c);
}

```