```c
#include <stdio.h>
int main()
{
    union values
    {
        unsigned char a;
        unsigned char b;
        unsigned int  c;
    };

    union values val;
    val.a=0;
    val.b=0;
    val.c=1;

    printf("%d,%d,%d",val.a,val.b,val.c);
    return 0;
}
```

- 0,0,1
- Error
- 1,1,1
- 1,0,0

```c
#include <stdio.h>
int main()
{
    union test
    {
        int i;
        int j;
    };

    union test var=10;
    printf("%d,%d\n",var.i,var.j);
}
```

- 10,10
- 10,0
- 0,10
- Error

What will be the output of following program ?

```c
#include <stdio.h>
struct student
{
 int no;
 char name[10];
}
main()
{
  struct student s;
  s.no = 12;
  printf("hello");
  return s;
}
```

- Compile time error
- Nothing
- hello
- exit value 12

The correct syntax to access the member of the ith structure in the array Of structures is?

```
struct temp
{
int b;
}s[50];
```

- s.b.[i];
- s.[i].b;
- s.b[i];
- s[i].b;

What is the correct syntax to declare bit-field in structure?

- struct temp { unsigned int a : 1; }s;
- struct temp { unsigned int a = 1; }s;
- struct temp { unsigned float a : 1; }s;
- None of the mentioned

What is output of c code?

```
struct test
{
  unsigned int x[10] : 5;
};
int main()
{
printf("%d",x[10]);
}
```

- 0
- Compile time error
- Undefined behavior
- 5

What will be output below the given code. Consider a 32bit compiler.

```
#include<stdio.h>
struct s2
{
        char *cp;
        union s1
        {
                unsigned a:31;
                char b[2];
                char *p;
        }o1;
}o2;

int main(void)
{
        printf("%d %d %d\n",sizeof(struct s2) , sizeof(o2) ,sizeof(o2.o1));

        return 0;
}
```

- 24 24 16
- 12 12 8
- 16 16 8
- 8 8 4

What will be the output?

```
#include <stdio.h>
union test
{
        unsigned int x: 3;
        unsigned int y: 3;
        int z;
};
int main(void)
{
        union test t;
        t.x = 5;
        t.y = 4;
        t.z = 18;
        printf("%4d %4d %4d\n", t.x, t.y, t.z);
        return 0;
}
```

- ○ 5 5 18
- ○ 2 2 18
- ○ 4 4 18
- ○ 5 4 18

What will be the Output?

```
#include<stdio.h>

int main()
{
    typedef struct
    {
        int id;
        float price;
    }DEMO;
    DEMO d[3]={11,56.00,22,45.00,33,78.00};
    fun(d+1);
}
void fun(DEMO *d)
{
    printf("%d %.2f",d->id,d->price)
}
```

- ○ 22 45.00
- ○ 11 56.00
- ○ Compile Time Error
- ○ printf should be replaced with d[0].id,d[0].price

```
#include<stdio.h>
struct employee
{
    char name[20];
    int emp_id;
    double salary;
};

int main()
{
    struct employee emp = {"Abc"};

}
```

which of the following scanf statements is incorrect for the above code :

- scanf("%s%d%lf",emp.name,&emp.emp_id,&emp.salary);
- scanf("%s%d%lf",&emp.name,&emp.emp_id,&emp.salary);
- scanf("%d%lf",&emp.emp_id,&emp.salary);
- scanf("%s%d%lf",emp.name,emp.emp_id,emp.salary);

1.
```
#include <stdio.h>
int main()
{
    union values
    {
        unsigned char a;
        unsigned char b;
        unsigned int  c;
    };

    union values val;
    val.a=0;
    val.b=0;
    val.c=1;

    printf("%d,%d,%d",val.a,val.b,val.c);
    return 0;
}
```

Answers

1. 0,0,1

2. Error

3. 1,1,1

4. 1,0,0

2.
```
#include <stdio.h>
int main()
{
    union test
    {
        int i;
        int j;
    };

    union test var=10;
    printf("%d,%d\n",var.i,var.j);
}
```

Answers

1. 10,10

2. 10,0

3. 0,10

4. Error

3. What will be the output of following program ?
```
#include <stdio.h>
struct student
{
 int no;
 char name[10];
}
main()
{
  struct student s;
  s.no = 12;
  printf("hello");
  return s;
}
```

Answers

1. Compile time error

2. Nothing

3. hello

4. exit value 12

4. The correct syntax to access the member of the ith structure in the array Of structures is?

```
struct temp
{
int b;
}s[50];
```

Answers

1. s.b.[i];

2. s.[i].b;

3. s.b[i];

4. s[i].b;

5. What is the correct syntax to declare bit-field in structure?

Answers

1.
```
struct temp
    {
        unsigned int a : 1;
    }s;
```

2.
```
struct temp
    {
        unsigned int a = 1;
    }s;
```

3.
```
struct temp
    {
        unsigned float a : 1;
    }s;
```

4. None of the mentioned

6. What is output of c code?

```
struct test
{
  unsigned int x[10] : 5;
};
int main()
{
printf("%d",x[10]);
}
```

Answers

1. 0

2. Compile time error

3. Undefined behavior

4. 5

7. What will be output below the given code. Consider a 32bit compiler.

```
#include<stdio.h>
struct s2
{
        char *cp;
        union s1
        {
                unsigned a:31;
                char b[2];
                char *p;
        }o1;
}o2;

int main(void)
{
        printf("%d %d %d\n",sizeof(struct s2) , sizeof(o2) ,sizeof(o2.o1));

        return 0;
}
```

Answers

1. 24 24 16

2. 12 12 8

3. 16 16 8

4. 8 8 4

8. What will be the output?

```
#include <stdio.h>
union test
{
        unsigned int x: 3;
        unsigned int y: 3;
        int z;
};
int main(void)
{
        union test t;
        t.x = 5;
        t.y = 4;
        t.z = 18;
        printf("%4d %4d %4d\n", t.x, t.y, t.z);
        return 0;
}
```

Answers

1. 5 5 18

2. 2 2 18

3. 4 4 18

4. 5 4 18

9. What will be the Output?

```
#include<stdio.h>

int main()
{
    typedef struct
    {
        int id;
        float price;
    }DEMO;
    DEMO d[3]={11,56.00,22,45.00,33,78.00};
    fun(d+1);
}
void fun(DEMO *d)
{
    printf("%d %.2f",d->id,d->price)
}
```

Answers

1. 22 45.00

2. 11 56.00

3. Compile Time Error

4. printf should be replaced with d[0].id,d[0].price

10.
```
#include<stdio.h>
struct employee
{
    char name[20];
    int emp_id;
    double salary;
};

int main()
{
    struct employee emp = {"Abc"};

}
```

which of the following scanf statements is incorrect for the above code :

Answers

1. scanf("%s%d%lf",emp.name,&emp.emp_id,&emp.salary);

2. scanf("%s%d%lf",&emp.name,&emp.emp_id,&emp.salary);

3. scanf("%d%lf",&emp.emp_id,&emp.salary);

4. scanf("%s%d%lf",emp.name,emp.emp_id,emp.salary);