1. How will you free the allocated memory ?

   A. remove(var-name);

   B. free(var-name);

   C. delete(var-name);

   D. dalloc(var-name);

   Answer: Option **B**
   Explanation:
   No answer description available for this question. Let us discuss.
   View Answer Discuss in Forum Workspace Report

---

2. What is the similarity between a structure, union and enumeration?

   A. All of them let you define new values

   B. All of them let you define new data types

   C. All of them let you define new pointers

   D. All of them let you define new structures

   Answer: Option **B**

1. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    union a
    {
        int i;
        char ch[2];
    };
    union a u;
    u.ch[0]=3;
    u.ch[1]=2;
    printf("%d, %d, %d\n", u.ch[0], u.ch[1], u.i);
    return 0;
}
```

   A. 3, 2, 515

   B. 515, 2, 3

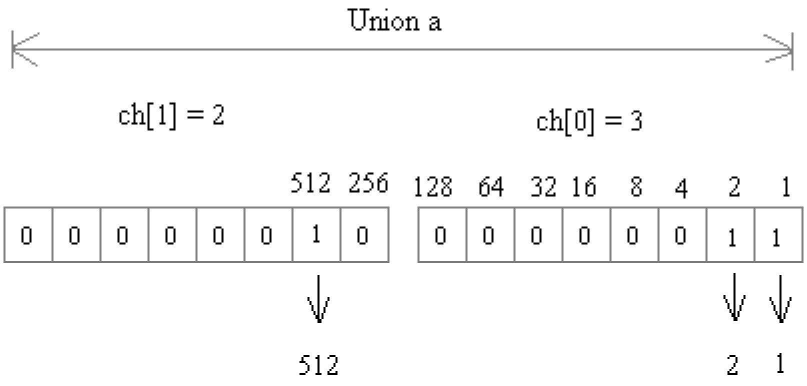
   C. 3, 2, 5

   D. 515, 515, 4

   Answer: Option **A**
   Explanation:

The system will allocate 2 bytes for the union.

The statements `u.ch[0]=3; u.ch[1]=2;` store data in memory as given below.



So, 512 + 2 + 1 = 515

i = 515

View Answer Discuss in Forum Workspace Report

2. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    union var
    {
        int a, b;
    };
    union var v;
    v.a=10;
    v.b=20;
    printf("%d\n", v.a);
    return 0;
}
```

A. 10

B. 20

C. 30

D. 0

Answer: Option **B**

Explanation:

No answer description available for this question. Let us discuss.

View Answer Discuss in Forum Workspace Report

3. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    struct value
    {
        int bit1:1;
        int bit3:4;
        int bit4:4;
    }bit={1, 2, 13};

    printf("%d, %d, %d\n", bit.bit1, bit.bit3, bit.bit4);
    return 0;
}
```

A. 1, 2, 13

B. 1, 4, 4

C. -1, 2, -3

D. -1, -2, -13

Answer: Option **C**

Explanation:

Note the below statement inside the struct:

`int bit1:1;` --> 'int' indicates that it is a SIGNED integer.

For signed integers the leftmost bit will be taken for +/- sign.

If you store 1 in 1-bit field:

The left most bit is 1, so the system will treat the value as negative number.

The 2's complement method is used by the system to handle the negative values.

Therefore, the data stored is 1. The 2's complement of 1 is also 1 (negative).

Therefore **-1** is printed.

If you store 2 in 4-bits field:

Binary 2: 0010 (left most bit is 0, so system will treat it as positive value)

0010 is 2

Therefore **2** is printed.

If you store 13 in 4-bits field:

Binary 13: 1101 (left most bit is 1, so system will treat it as negative value)

Find 2's complement of 1101:

1's complement of 1101 : 0010
2's complement of 1101 : 0011 (Add 1 to the result of 1's complement)

0011 is 3 (but negative value)

Therefore **-3** is printed.
View Answer Discuss in Forum Workspace Report

4. What will be the output of the program in 16 bit platform (Turbo C under DOS) ?

```
#include<stdio.h>

int main()
{
    struct value
    {
        int bit1:1;
        int bit3:4;
        int bit4:4;
    }bit;
    printf("%d\n", sizeof(bit));
    return 0;
}
```

A. 1

B. 2

C. 4

D. 9

Answer: Option **B**
Explanation:

Since C is a compiler dependent language, in Turbo C (DOS) the output will be 2, but in GCC (Linux) the output will be 4.

View Answer Discuss in Forum Workspace Report

5. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    enum days {MON=-1, TUE, WED=6, THU, FRI, SAT};
    printf("%d, %d, %d, %d, %d, %d\n", MON, TUE, WED, THU, FRI, SAT);
    return 0;
}
```

A. -1, 0, 1, 2, 3, 4

B. -1, 2, 6, 3, 4, 5

C. -1, 0, 6, 2, 3, 4

D. -1, 0, 6, 7, 8, 9

Answer: Option **D**

6. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    enum status {pass, fail, absent};
    enum status stud1, stud2, stud3;
    stud1 = pass;
    stud2 = absent;
    stud3 = fail;
    printf("%d %d %d\n", stud1, stud2, stud3);
    return 0;
}
```

A. 0, 1, 2

B. 1, 2, 3

C. 0, 2, 1

D. 1, 3, 2

Answer: Option **C**

Explanation:

No answer description available for this question. Let us discuss.

View Answer Discuss in Forum Workspace Report

7. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    int i=4, j=8;
    printf("%d, %d, %d\n", i|j&j|i, i|j&j|i, i^j);
    return 0;
}
```

A. 12, 12, 12

B. 112, 1, 12

C. 32, 1, 12

D. -64, 1, 12

Answer: Option **A**
Explanation:
No answer description available for this question. Let us discuss.
View Answer Discuss in Forum Workspace Report

8. What will be the output of the program in Turbo C (under DOS)?

```
#include<stdio.h>

int main()
{
    struct emp
    {
        char *n;
        int age;
    };
    struct emp e1 = {"Dravid", 23};
    struct emp e2 = e1;
    strupr(e2.n);
    printf("%s\n", e1.n);
    return 0;
}
```

A. Error: Invalid structure assignment

B. DRAVID

C. Dravid

D. No output

Answer: Option **B**
Explanation:
No answer description available for this question. Let us discuss.
View Answer Discuss in Forum Workspace Report

9. What will be the output of the program in 16-bit platform (under DOS)?

```
#include<stdio.h>

int main()
{
    struct node
    {
        int data;
        struct node *link;
    };
    struct node *p, *q;
    p = (struct node *) malloc(sizeof(struct node));
    q = (struct node *) malloc(sizeof(struct node));
    printf("%d, %d\n", sizeof(p), sizeof(q));
    return 0;
}
```

A. 2, 2

B. 8, 8

C. 5, 5

D. 4, 4

Answer: Option **A**
Explanation:
No answer description available for this question. Let us discuss.
View Answer Discuss in Forum Workspace Report

10. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    struct byte
    {
        int one:1;
    };
    struct byte var = {1};
    printf("%d\n", var.one);
    return 0;
}
```

A. 1

B. -1

C. 0

D. Error

Answer: Option **B**

11. What will be the output of the program ?

```
#include<stdio.h>

int main()
{
    enum days {MON=-1, TUE, WED=6, THU, FRI, SAT};
    printf("%d, %d, %d, %d, %d, %d\n", ++MON, TUE, WED, THU, FRI, SAT);
    return 0;
}
```

A. -1, 0, 1, 2, 3, 4

B. Error

C. 0, 1, 6, 3, 4, 5

D. 0, 0, 6, 7, 8, 9

Answer: Option **B**
Explanation:
Because `++` or `--` cannot be done on `enum` value.
View Answer Discuss in Forum Workspace Report

12. What will be the output of the program ?

```
#include<stdio.h>

    struct course
    {
        int courseno;
        char coursename[25];
    };
int main()
{
    struct course c[] = { {102, "Java"},
                          {103, "PHP"},
                          {104, "DotNet"}     };

    printf("%d ", c[1].courseno);
    printf("%s\n", (*(c+2)).coursename);
    return 0;
}
```

A. 103 DotNet

B. 102 Java

C. 103 PHP

D. 104 DotNet

Answer: Option **A**
Explanation:
No answer description available for this question. Let us discuss.
View Answer Discuss in Forum Workspace Report

13. What will be the output of the program given below in 16-bit platform ?

```
#include<stdio.h>

int main()
{
    enum value{VAL1=0, VAL2, VAL3, VAL4, VAL5} var;
    printf("%d\n", sizeof(var));
    return 0;
}
```

A. 1

B. 2

C. 4

D. 10

Answer: Option **B**

1. Point out the error in the program?

```
struct emp
{
    int ecode;
    struct emp *e;
};
```

A. Error: in structure declaration

B. Linker Error

C. No Error

D. None of above

Answer: Option **C**

Explanation:

This type of declaration is called as self-referential structure. Here `*e` is pointer to a `struct emp`.

View Answer Discuss in Forum Workspace Report

2. Point out the error in the program?

```
typedef struct data mystruct;
struct data
{
    int x;
    mystruct *b;
};
```

A. Error: in structure declaration

B. Linker Error

C. No Error

D. None of above

Answer: Option **C**

Explanation:

Here the type name `mystruct` is known at the point of declaring the structure, as it is already defined.

View Answer Discuss in Forum Workspace Report

3. Point out the error in the program?

```
#include<stdio.h>

int main()
{
    struct a
    {
        float category:5;
        char scheme:4;
    };
    printf("size=%d", sizeof(struct a));
    return 0;
}
```

A. Error: invalid structure member in `printf`

B. Error in this `float category:5;` statement

C. No error

D. None of above

Answer: Option **B**

Explanation:

Bit field type must be `signed int` or `unsigned int`.

The char type: `char scheme:4;` is also a valid statement.

View Answer Discuss in Forum Workspace Report

4. Point out the error in the program?

```
struct emp
{
    int ecode;
    struct emp e;
};
```

A. Error: in structure declaration

B. Linker Error

C. No Error

D. None of above

Answer: Option **A**

Explanation:

The structure `emp` contains a member `e` of the same type.(i.e) `struct emp`. At this stage compiler does not know the size of sttructure.

View Answer Discuss in Forum Workspace Report

5. Point out the error in the program?

```
#include<stdio.h>

int main()
{
    struct emp
    {
        char name[20];
        float sal;
    };
    struct emp e[10];
    int i;
    for(i=0; i<=9; i++)
        scanf("%s %f", e[i].name, &e[i].sal);
    return 0;
}
```

A. Error: invalid structure member

B. Error: Floating point formats not linked

C. No error

D. None of above

Answer: Option **B**
Explanation:

At run time it will show an error then program will be terminated.

Sample output: Turbo C (Windows)

```
c:\>myprogram

Sample
12.123

scanf : floating point formats not linked
Abnormal program termination
```

6. Point out the error in the program?

```
#include<stdio.h>
#include<string.h>
void modify(struct emp*);
struct emp
{
    char name[20];
    int age;
};
int main()
{
    struct emp e = {"Sanjay", 35};
    modify(&e);
    printf("%s %d", e.name, e.age);
    return 0;
}
void modify(struct emp *p)
{
     p ->age=p->age+2;
}
```

A. Error: in structure

B. Error: in prototype declaration unknown struct emp

C. No error

D. None of above

Answer: Option **B**
Explanation:
The `struct emp` is mentioned in the prototype of the function `modify()` before declaring the structure.To solve this problem declare `struct emp` before the `modify()` prototype.
View Answer Discuss in Forum Workspace Report

7. Point out the error in the program in 16-bit platform?

```
#include<stdio.h>

int main()
{
    struct bits
    {
        int i:40;
    }bit;

    printf("%d\n", sizeof(bit));
    return 0;
}
```

A. 4

B. 2

C. Error: Bit field too large

D. Error: Invalid member access in structure

Answer: Option **C**
Explanation:
No answer description available for this question. Let us discuss.
View Answer Discuss in Forum Workspace Report

8. Point out the error in the program?

```
#include<stdio.h>

int main()
{
    union a
    {
        int i;
        char ch[2];
    };
    union a z1 = {512};
    union a z2 = {0, 2};
    return 0;
}
```

A. Error: invalid `union` declaration

B. Error: in Initializing `z2`

C. No error

D. None of above

Answer: Option **B**

Explanation:

No answer description available for this question. Let us discuss.

View Answer Discuss in Forum Workspace Report

9. Point out the error in the program?

```
#include<stdio.h>

int main()
{
    struct emp
    {
        char n[20];
        int age;
    };
    struct emp e1 = {"Dravid", 23};
    struct emp e2 = e1;
    if(e1 == e2)
        printf("The structure are equal");
    return 0;
}
```

A. Prints: The structure are equal

B. Error: Structure cannot be compared using '`==`'

C. No output

D. None of above

Answer: Option **B**

Explanation:

No answer description available for this question. Let us discuss.

View Answer Discuss in Forum Workspace Report

10. Point out the error in the program?

```
#include<stdio.h>

int main()
{
    struct bits
    {
        float f:2;
    }bit;

    printf("%d\n", sizeof(bit));
    return 0;
}
```

A. 4

B. 2

C. Error: cannot set bit field for `float`

D. Error: Invalid member access in structure

Answer: Option **C**

11. Point out the error in the program?

```
#include<stdio.h>

int main()
{
    struct emp
    {
        char name[25];
        int age;
        float bs;
    };
    struct emp e;
    e.name = "Suresh";
    e.age = 25;
    printf("%s %d\n", e.name, e.age);
    return 0;
}
```

A. Error: Lvalue required/incompatible types in assignment

B. Error: invalid constant expression

C. Error: Rvalue required

D. No error, Output: Suresh 25

Answer: Option **A**

Explanation:

We cannot assign a string to a struct variable like `e.name = "Suresh";` in C.

We have to use `strcpy(char *dest, const char *source)` function to assign a string.

Ex: `strcpy(e.name, "Suresh");`

1. Which of the following statements correct about the below program?

```
#include<stdio.h>

int main()
{
    struct emp
    {
        char name[25];
        int age;
        float sal;
    };
    struct emp e[2];
    int i=0;
    for(i=0; i<2; i++)
        scanf("%s %d %f", e[i].name, &e[i].age, &e[i].sal);

    for(i=0; i<2; i++)
        scanf("%s %d %f", e[i].name, e[i].age, e[i].sal);
    return 0;
}
```

A. Error: `scanf()` function cannot be used for structures elements.

B. The code runs successfully.

C. Error: Floating point formats not linked Abnormal program termination.

D. Error: structure variable must be initialized.

Answer: Option **C**
Explanation:

Refer the explanation given for another problem:

http://www.indiabix.com/c-programming/floating-point-issues/discussion-136
View Answer Discuss in Forum Workspace Report

2. Which of the following statements correct about the below program?

```
#include<stdio.h>

int main()
{
    union a
    {
        int i;
        char ch[2];
    };
    union a u1 = {512};
    union a u2 = {0, 2};
    return 0;
}
```

1: u2 CANNOT be initialized as shown.

2: u1 can be initialized as shown.

3: To initialize char ch[] of u2 '.' operator should be used.

4: The code causes an error 'Declaration syntax error'

A. 1, 2

B. 2, 3

C. 1, 2, 3

D. 1, 3, 4

Answer: Option **C**

Explanation:

No answer description available for this question. Let us discuss.

View Answer Discuss in Forum Workspace Report

3. Which of the following statements correctly assigns 12 to month using pointer variable pdt?

```
#include<stdio.h>

    struct date
    {
        int day;
        int month;
        int year;
    };
int main()
{
    struct date d;
    struct date *pdt;
    pdt = &d;
    return 0;
}
```

A. pdt.month = 12

B. &pdt.month = 12

C. d.month = 12

D. pdt->month = 12

Answer: Option **D**

Explanation:

No answer description available for this question. Let us discuss.

View Answer Discuss in Forum Workspace Report

4. Which of the following statements correct about the below code?
`maruti.engine.bolts=25;`

A. Structure `bolts` is nested within structure `engine`.

B. Structure `engine` is nested within structure `maruti`.

C. Structure `maruti` is nested within structure `engine`.

D. Structure `maruti` is nested within structure `bolts`.

Answer: Option **B**