1) Which keyword is used to define a structure in C?

a) typedef

**b) struct**

c) define

d) declare

2) What is the purpose of typedef in C?

**a) To define a new data type**

b) To declare a structure

c) To allocate memory dynamically

d) To define a constant value

3) Which of the following is true about structures in C?

a) Structures can only contain variables of the same data type

b) Structures cannot be passed as function arguments

**c) Structures can contain variables of different data types**

d) Structures are limited to a maximum of three variables

4) What is the size of an empty structure in C?

**a) 0 bytes**

b) 1 byte

c) 4 bytes

d) Depends on the compiler implementation

5) Which operator is used to access members of a structure in C?

a) \*

b) &

**c) .**

d) ->

6) What is the purpose of typedef struct in C?

**a) To define a new data type using an existing structure definition**

b) To declare a structure and define its members

c) To define a structure with a typedef name

d) To allocate memory for a structure

7) Which of the following statements is true about typedef in C?

a) typedef is used to create a new structure

b) typedef is used to declare variables of different data types

**c) typedef is used to create a new name for an existing data type**

d) typedef is used to define constants

8) Which of the following structure declaration will throw an error?

a)

struct temp{

}s;

main(){

}

b)

struct temp{

};

structtemp s;

main(){

}

c)

struct temp s;

struct temp{

};

main(){

}

**d) None of the mentioned**

9) What are the types of data allowed inside a structure?

a) int, float, double, long double

b) char, enum, union

c) pointers and Same structure type members

**d) All the above**

10) What is actually passed if you pass a structure variable to a function?

**a) Copy of structure variable**

b) Reference of structure variable

c) Starting address of structure variable

d) Ending address of structure variable

11) Which of the following statements is true about typedef in C?

a) typedef is used to declare variables of different data types

b) typedef is used to define a structure with a typedef name

c) typedef is used to define constants

**d) typedef is used to create a new name for an existing data type**

12) Which keyword is used to define a structure in C?

a) typedef

**b) struct**

c) define

d) declare

13) What will happen when the structure is declared?

a) it will allocate the memory

b) it will be declared and initialized

**c) it will not allocate any memory**

d) none of the mentioned

14) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

int main() {

Point p;

printf("%d", p.x);

return 0;

}

**a) 0**

b) Garbage value

c) Error: Undefined structure type

d) Error: Invalid use of typedef

15) Which of the following is true about structures in C?

a) Structures can only contain variables of the same data type

b) Structures cannot be passed as function arguments

**c) Structures can contain variables of different data types**

d) Structures are limited to a maximum of three variables

16) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

int main() {

Point p = {10, 5};

printf("%d", p.x);

return 0;

}

**a) 10**

b) 5

c) Error: Undefined structure type

d) Error: Invalid use of typedef

17) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

int main() {

Point p = {0};

printf("%d", p.x);

return 0;

}

**a) 0**

b) Garbage value

c) Error: Undefined structure type

d) Error: Invalid use of typedef

18) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

void initializePoint(Point\* p, int x, int y) {

p->x = x;

p->y = y;

}

int main() {

Point p;

initializePoint(&p, 5, 10);

printf("%d %d", p.x, p.y);

return 0;

}

**a) 5 10**

b) 10 5

c) Error: Undefined structure type

d) Error: Invalid use of typedef

19) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

void initializePoint(Point\* p, int x, int y) {

p = (Point\*)malloc(sizeof(Point));

p->x = x;

p->y = y;

}

int main() {

Point p;

initializePoint(&p, 5, 10);

printf("%d %d", p.x, p.y);

return 0;

}

a) 5 10

b) 10 5

**c) Garbage value**

d) Error: Undefined structure type

20) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

Point\* createPoint(int x, int y) {

Point\* p = (Point\*)malloc(sizeof(Point));

p->x = x;

p->y = y;

return p;

}

int main() {

Point\* p = createPoint(5, 10);

printf("%d %d", p->x, p->y);

free(p);

return 0;

}

**a) 5 10**

b) 10 5

c) Garbage value

d) Error: Undefined structure type

21) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

void swapPoints(Point\* p1, Point\* p2) {

Point temp = \*p1;

\*p1 = \*p2;

\*p2 = temp;

}

int main() {

Point p1 = {5, 10};

Point p2 = {15, 20};

swapPoints(&p1, &p2);

printf("%d %d", p1.x, p1.y);

printf("%d %d", p2.x, p2.y);

return 0;

}

a) 15 20 5 10

**b) 5 10 15 20**

c) 10 5 20 15

d) 20 15 10 5

22) What is the output of the following code snippet?

typedef struct {

int x;

int y;

} Point;

void modifyPoint(Point\* p) {

p->x = 10;

p->y = 20;

}

int main() {

Point p = {5, 10};

modifyPoint(&p);

printf("%d %d", p.x, p.y);

return 0;

}

a) 5 10

**b) 10 20**

c) Garbage value

d) Error: Undefined structure type

23) Guess the output

#include <stdio.h>

struct test {

int x;

char y;

float z;

};

int main() {

struct test t;

printf("%d", sizeof(t));

return 0;

}

a) 4

b) 8

**c) 9**

d) Compiler-dependent

24) What is the output of the following code snippet?

#include <stdio.h>

struct point {

int x;

int y;

};

int main() {

struct point p = {5};

printf("%d %d", p.x, p.y);

return 0;

}

**a) 5 0**

b) 5 Random Value

c) Random Value Random Value

d) Compiler-dependent

25) What is the output of the following code snippet?

#include <stdio.h>

struct person {

char name[20];

int age;

};

void changeAge(struct person p) {

p.age = 30;

}

int main() {

struct person p = {"Alice", 25};

changeAge(p);

printf("%d", p.age);

return 0;

}

**a) 25**

b) 30

c) Compiler Error

d) None of the above

26) What will be the size of the following structure?

#include <stdio.h>

struct temp {

int a[10];

char p;

};

a) 5

b) 11

c) 41

**d) 44**

27) What is the size of a C structure?

a) C structure is always 128 bytes

**b) Size of C structure is the total bytes of all elements of structure**

c) Size of C structure is the size of largest elements

d) None of the above

28) Choose a correct statement about C structure?

int main() {

struct ship {

};

return 0;

}

a) It is wrong to define an empty structure

**b) Member variables can be added to a structure even after its first definition**

c) There is no use of defining an empty structure

d) None of the above

29) A C structure or User defined datatype is also called \_\_\_\_\_\_\_\_.

a) Derived data type

b) Secondary data type

c) Aggregate data type

**d) All the above**

30) Which of the following return-type cannot be used for a function in C?

a) char \*

b) struct

c) void

**d) none of the mentioned**

31) Which of the following is not possible under any scenario?

a) s1 = &s2;

b) s1 = s2;

c) (\*s1).number = 10;

**d) None of the mentioned**

32) Which of the following cannot be a structure member?

a) Another structure

**b) Function**

c) Array

d) None of the mentioned