Talent Transformation (2019)

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Time taken	9 mins 34 secs
Grade	**4.00** out of 10.00 (**40**%)

Question 1

Correct

Mark 1.00 out of 1.00

Macro calls and function calls work exactly similarly.

Select one:

- a. True
- b. False ✓

Explanation:

False, A macro just replaces each occurrence with the code assigned to it.
e.g.SQUARE(3) with ((3)*(3)) in the program.
A function is compiled once and can be called from anywhere that has visibility to the funciton.

The correct answer is: False

Question 2

Incorrect

Mark 0.00 out of 1.00

A preprocessor directive is a message from compiler to a linker.

Select one:

- a. True ✗
- b. False

Explanation:

FALSE
Example: #define symbol replacement

When the preprocessor encounters #define directive, it replaces any occurrence ofsymbol in the rest of the code by replacement. This replacement can be an statement or expression or a block or simple text.

The correct answer is: False

Question 3

Correct

Mark 1.00 out of 1.00

What will be the output of the program?

```
#include<stdio.h>
#define SQR(x)(x*x)
int main()
{
int a, b=3;
a = SQR(b+2);
printf("%d\n", a);
return 0;
}
```

Select one:

- a. 11 ✓
- b. Garbage value
- c. 25
- d. Error

Explanation:

The macro function SQR(x)(x*x) calculate the square of the given number 'x'. (Eg: 102)
Step 1: int a, b=3; Here the variable a, b are declared as an integer type and the variable b is initialized to 3.
Step 2: a = SQR(b+2); becomes,
=> a = b+2 * b+2; Here SQR(x) is replaced by macro to x*x .
=> a = 3+2 * 3+2;
=> a = 3 + 6 + 2;
=> a = 11;
Step 3: printf("%d\n", a); It prints the value of variable 'a'.
Hence the output of the program is 11

The correct answer is: 11

Question 4

Incorrect

Mark 0.00 out of 1.00

What will be the output of the program?

```
#include<stdio.h>
#define FUN(arg) do\
{\
if(arg)\
printf("IndiaBIX...", "\n");\
```

```
}while(--i)
int main()
{
int i=2;
FUN(i<3);
return 0;
}
```

Select one:

- a. No output
- b. IndiaBIX... IndiaBIX...
- c. IndiaBIX...
  IndiaBIX...
  IndiaBIX ✗
- d. Error: cannot use control instructions in macro

Explanation:

The macro FUN(arg) prints the statement "IndiaBIX..." untill the while condition is satisfie
Step 1: int i=2; The variable i is declared as an integer type and initialized to 2.
Step 2: FUN(i<3); becomes,

```
do
{
if(2 < 3)
printf("IndiaBIX...", "\n");
}while(--2)
```

After the 2 while loops the value of i becomes '0'(zero). Hence the while loop breaks.
Hence the output of the program is "IndiaBIX... IndiaBIX..."

The correct answer is: IndiaBIX... IndiaBIX...

Question 5

Incorrect

Mark 0.00 out of 1.00

A header file contains macros, structure declaration and function prototypes.

Select one:

- a. False ✗
- b. True

Explanation:

True, the header file contains classes, function prototypes, structure declaration, macros.

The correct answer is: True

Question 6

Correct

Mark 1.00 out of 1.00

What will be the output of the program ?

```
#include<stdio.h>
int main()
{
void *vp;
char ch=74, *cp="JACK";
int j=65;
vp=&ch;
printf("%c", *(char*)vp);
vp=&j;
printf("%c", *(int*)vp);
vp=cp;
printf("%s", (char*)vp+2);
return 0;
}
```

Select one:

- a. JACK ✓
- b. JCK
- c. J65K
- d. JAK

The correct answer is: JACK

Question 7

Incorrect

Mark 0.00 out of 1.00

What will be the output of the program?

```
#include<stdio.h>
int main()
{
int arr[3] = {2, 3, 4};
char *p;
p = arr;
p = (char*)((int*)(p));
printf("%d, ", *p);
p = (int*)(p+1);
printf("%d", *p);
return 0;
}
```

Select one:

- a. 2, Garbage value
- b. 2, 0
- c. 2, 3 ✗

d. 0, 0

The correct answer is: 2, 0

Question 8

Incorrect

Mark 0.00 out of 1.00

Will the program compile in Turbo C?

```
#include<stdio.h>
int main()
{
int a=10, *j;
void *k;
j=k=&a;
j++;
k++;
printf("%u %u\n", j, k);
return 0;
}
```

Select one:

a. Yes ✗

b. No

Explanation:

Error in statement k++. We cannot perform arithmetic on void pointers.
The following error will be displayed while compiling above program in Turbo
Compiling PROGRAM.C:
Error PROGRAM.C 8: Size of the type is unknown or zero.

The correct answer is: No

Question 9

Incorrect

Mark 0.00 out of 1.00

Are the three declarations char **apple, char *apple[], and char apple[][] same?

Select one:

a. True ✗

b. False

The correct answer is: False

Question 10

Correct

Which of the following statements correctly declare a function that receives a pointer to pointer to a pointer to a float and returns a pointer to a pointer to a pointer to a

Mark 1.00 out of 1.00

pointer to a float?

Select one:

- a. float **fun(float***);
- b. float fun(float***);
- c. float *fun(float**);
- d. float ****fun(float***); ✓

The correct answer is: float ****fun(float***);