Assignment 7

The data for this submission for this assignment has passed. As per our records you have not submitted this assignment.

Due on 2023-03-16, 23:59 IST.

1) Consider the code given below. In this code, the function pointer and function are, respectively, and ______. 1 point

```c
while (scanf("%c", &ch))
{
    switch (ch)
    {
        case 'a':
        case 'b':
        case 'c':
    
        case 'x':
        case 'y':
        case 'z':
    
        case 'A':
        case 'B':
        case 'C':
    
        case 'X':
        case 'Y':
        case 'Z':
    
        case ':'
        case '='
    
        break;
    }
```

no, the answer is incorrect. 

2) The given options contain a few tables when executing function call commands. Identify the tables which will be executed when a function is called. 2 points.

- Pushing return value onto the stack.
- Pushing return address onto the stack.
- Pushing the pointer CLS, ARP, TR, PSW.
- Pushing the pointer CLS, ARP, TR, PSW.
- Pushing return address onto the stack.

Determining Stack Pointer to allocate space for local variables.

No, the answer is incorrect.

3) Which of the following option pairs of the frame of a subroutine, present in the stack? 1 point

- Arguments
- Local variables
- Instructions of a function pointer in the EDM
- Current swopping stack in which temporary values are stored.

Yes, the answer is correct.

4) Which of the following block contains code when a function is called. Identify the correct order in which they will be executed. 1 point.

- allocating stack space for local variables of called subroutine
- saving calling frame on the stack
- Jumping to the caller's code for execution.

- 1, 2, 3
- 2, 1, 3
- 3, 2, 1
- 2, 3, 1

No, the answer is incorrect.

5) Identify the C code which best matches the given VM code. 1 point

```c
push n
push b
push k
add
```

- `a + "c" = 6`
- `a + "b" = 7`
- `a + "d" = 6`

No, the answer is incorrect.

6) Function in command denotes the start of function 1, call f1 command calls the function 1. The values a and e are, respectively. 1 point.

- number of arguments, number of locals
- number of gos statements, number of locals
- number of locals, number of arguments
- number of locals, number of gos statements

No, the answer is incorrect.

7) What of the following statements PUNCH EXACTLY ONE value from the stack? 1 point

- `reg`
- `x`
- `add`
- `mul`
- `polo`
- `f goto`

No, the answer is incorrect.

8) When a called function starts execution, what will be the value of ARG? 1 point

- SP = 0
- SP = 4
- SP = 0
- SP = 4

No, the answer is incorrect.

9) Which of the following statements is CORRECT about static variables? 1 point

- Unlike local variables, static variables are remembered throughout the program execution.
- They are stored from address 16 to 255 in RAM.
- push address (4) command always writes to address 3 in RAM.
- Static variables across different .o files are assigned different addresses in RAM by assembler.

No, the answer is incorrect.

Accepted Answers:
- Unlike local variables, static variables are remembered throughout the program execution.
- They are stored from address 0 to 255 in RAM.