

Quiz 1

OPERATING SYSTEMS, FALL 2019
Iran University of Science and Technology

STUDENT NO.:

NAME:

Problem 0: I have written a simple C code as it is shown below. What could be the result of running this code?

Will it terminate successfully or there is some error?

```
1 #include <stdio.h>
2
3
4 int* func1()
5 {
6     const int size = 10;
7     int arr[size];
8     for (int i = 0; i < size; i++)
9         arr[i] = i * i;
10    return arr;
11 }
12
13 int main(int argc, char* argv[])
14 {
15     printf("Hello World!\n");
16     int *arr;
17     arr = func1();
18     printf("8^2 = %d\n", arr[8]);
19     return 0;
20 }
```

p1.c

Problem 1: After running the code shown below, what is going to be printed on the screen. Assume system architecture is 32-bits.
Will using a 64-bits architecture change the output?

```
1 #include <stdio.h>
2
3
4 int main(int argc, char * argv[]) {
5     int a = 584;
6     int *ptr = &a ;
7     printf("value is : %d\n", *ptr);
8     printf("sizeof: %d\n", sizeof(ptr));
9     return 0;
10 }
```

p2.c

Problem 2: What happens if I run this program and give 'farbod' as input?

```
1 #include <stdio.h>
2
3
4
5 int main(int argc, char *argv[])
6 {
7     char name[5];
8     printf("name: ");
9     scanf("%s", (char *)name);
10    return 0;
11 }
```

p3.c