

Palestine Technical University - Kadoorie

Course's Name: Assembly
and microprocessor language

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Midterm Exam

second Semester 2020-2021

Instructor's Name:

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Student's Name: _____

Student's Number: _____

Section's Number: _____

Exam's Date: 04/4/2021

Q1) Write an assembly program that prompts a user to enter a number and checks if the number is a prime.

If the number is not prime, the program prints the number of factors of a number except 1 and same number. (10 marks)

Note: Enter numbers less than 10.

```
SCR emulator screen (80x25 chars)
Enter a number: 5
Yes it is Prime Number
```

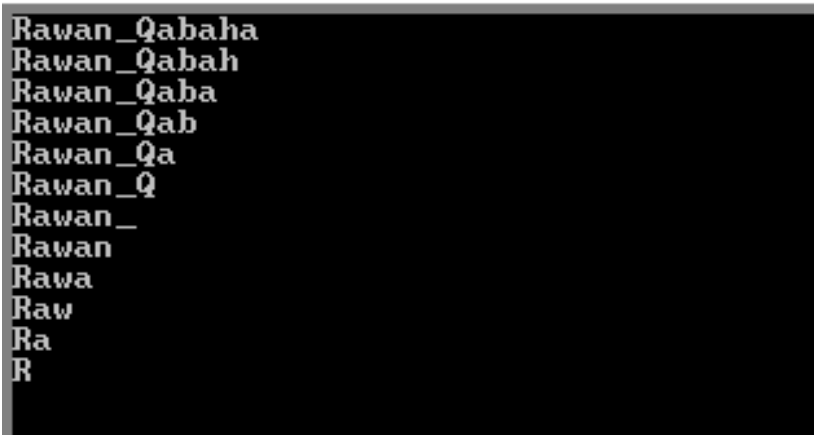
```
SCR emulator screen (80x25 chars)
Enter a number: 8
No it is Not Prime Number. It has 2 factor except 1 and same number.
```

```
SCR emulator screen (80x25 chars)
Enter a number: 9
No it is Not Prime Number. It has 1 factor except 1 and same number.
```

Q2)

- (A) Write an assembly program that print your Full Name as shown below : (5 marks)

Scr emulator screen (80x25 chars)



```
Rawan_Qabaha
Rawan_Qabah
Rawan_Qaba
Rawan_Qab
Rawan_Qa
Rawan_Q
Rawan_
Rawan
Rawa
Raw
Ra
R
```

Note: Define the string as a variable

- (B) Write an Assembly Language program that allows the user to enter a 3 numbers and prints the minimum number between them . (5 marks)

Note: Assume the numbers less than 10.

Q3) Write an 8086 program to check whether a given string is palindrome or not. (10 marks)



Note: Define the string as a variable

```
01 org 100h
02
03 .data
04 str db 'acdca$'
05
06 SCH emulator screen (80x25 chars)
07
08 palindrom
09
10
11
12
13
```

```
01 org 100h
02
03 .data
04 str db 'acdccv$'
05
06 SCH emulator screen (80x25 chars)
07
08 not palindrom
09
10
11
12
13
14
```