


## 1. 2016-1

Circle or cross: "T" if True – "F" if False.

**T / F** A service-mark is a mark to identify a service rather than a product. For example MGM (Metro-Goldwyn-Mayer) uses the sound of a lion's roar. 

**T / F** Regular Expression:

```
^[aiueo].[aiueo]$
```

will match this following string:

```
sate satu
```

**T / F** Free software is always free of charge.

**T / F** Open Source Software is not always free of charge.

**T / F** There are many Free Software licenses, however, there is only one copyleft license, i.e. the GNU / General Public Licenses.

**T / F** The output of script:

```
echo a b c d | echo a b c d
```

is

```
a b c d  
a b c d
```

**T / F** The output of script:

```
for II in A B C  
do  
    echo X$II  
done
```

is

```
A  
B  
C
```

**2. 2016-2a**

Circle or cross: "T" if True – "F" if False.

- T / F** EULA (End User License Agreement) is an example of a non-free software license.
- T / F** You don't own the propriety software you have bought.
- T / F** Public Domain software is not Free Software.
- T / F** Free Software is not always Copy-left.
- T / F** "[^c]at" matches all strings matched by "\_at" except "cat".
- T / F** "[a-z0-9]" matches any single letter or any single digit.

**3. 2016-2b**

These following are some scripting examples. Fill remaining empty "output" cells.

Script (date=19 Oct 2016)	Output
<code>echo "1 2 3 4 5"   awk '{print \$1 " " \$5}'</code>	
<code>date +"%d %b %Y"</code>	
<code>echo abc   tr '[a-z]' '[A-Z]'</code>	
<code>echo 0123456789   cut -c5-9</code>	
<code>VAR="hallo" case "\$VAR" in   hallo) echo "Hallo too!"         ;;   *)    echo "What?"         ;; esac exit 0</code>	
<code>date +"%d %b %Y"   awk '{print \$2 " " \$1 ", " \$3}'</code>	
<code>% ID=VWXYZ % echo "\$ID"   cut -c1-3   tr '[a-z]' '[A-Z]'</code>	
<code>VAR="hello" case "\$VAR" in   hallo) echo "Hallo too!"         ;;   *)    echo "What?"         ;; esac exit 0</code>	

## 4. 2017-1

Circle or cross: "T" if True – "F" if False.

- T / F** Free Software means software you can get for free (gratis).
- T / F** According to the Free Software Movement, free software developers should never be paid.
- T / F** Free Software never has a license.
- T / F** The Open Source Initiative (OSI) agrees with the Free Software Foundation (FSF) about how to promote the (Free or Open Source) software.
- T / F** Both Free Software Licenses and Open Source Licenses may not discriminate against anyone. Giving everyone freedom means giving evil people freedom, too.
- T / F** You don't own software, you just get a license to use software.
- T / F** Public Domain Software is Free Software.
- T / F** The Free Software Movement hates Microsoft and consider it the Great Satan.
- T / F** Copyleft is method to keep a free-software – and its modification – to be free.
- T / F** Most free software projects are developed by a single developer (or with no contributor).

Shell Script	
<pre>001 #!/bin/bash 002 # (c) 2017 Rahmat M. Samik-Ibrahim 003 # This is a free script, lah! 004 # REV01: Thu Mar 30 17:29:35 WIB 2017 005 # START: Wed Mar 29 17:28:20 WIB 2017 006 # ===== 007 # cut      remove sections from each line of files 008 # cut -c   select only these characters 009 # sha1sum compute and check SHA1 message digest 010 # tr      translate or delete characters 012 isADigit() { 013     [[ \$VARIABLE =~ \$REGEX ]]    { 014         TEXT1="VARIABLE \$VARIABLE is not a digit." 015         return 016     } 017     [[ \${#VARIABLE} =~ \$TEN ]] &amp;&amp; { 018         TEXT1="VARIABLE \$VARIABLE has 10 digits." 019         return 020     } 021     TEXT1="VARIABLE \$VARIABLE has no 10 digits." 022 }</pre>	<pre>023 024 ONE='1' 025 TEN='10' 026 REGEX='^[0-9]+\$' 027 VARIABLE='1234567892' 028 HASH='echo "\$VARIABLE"   sha1sum' 029 echo      "\$HASH" 030 isADigit 031 TEXT2='echo "\$HASH"   cut -c1-3' 032 TEXT3='echo "\$TEXT2"   tr '[a-z]' '[A-Z]',' 033 echo "\$TEXT1" 034 echo "\$TEXT2" 035 echo "\$TEXT3" 036 exit 0</pre>
<b>Script Output (Line 029, 033, 034, 035):</b>	
5a3ce516f19aa888e8fd3e80e7d7cb0320253d25 -	