6406532775127. ✔ neg_mean_squared_error

6406532775128. ✔ r2

6406532775129. ✖ neg_r2

6406532775130. ✖ accuracy

6406532775131. ✖ neg_accuracy

System Commands

Section Id :	64065359217
Section Number :	10
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	16
Number of Questions to be attempted :	16
Section Marks :	100
Display Number Panel :	Yes
Section Negative Marks :	0
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	No
Section Maximum Duration :	0
Section Minimum Duration :	0
Section Time In :	Minutes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	640653122770
Question Shuffling Allowed :	No

Question Number : 158 Question Id : 640653825159 Question Type : MCQ

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "DIPLOMA LEVEL : SYSTEM COMMANDS (COMPUTER BASED EXAM)"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?
CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS REGISTERED BY YOU)

Options :

6406532775132. ✔ YES

6406532775133. ✖ NO

Sub-Section Number : 2

Sub-Section Id : 640653122771

Question Shuffling Allowed : Yes

Question Number : 159 Question Id : 640653825160 Question Type : MCQ

Correct Marks : 6

Question Label : Multiple Choice Question

```
mkdir mydir
touch mydir/file1.txt; touch mydir/file2.txt
mkdir mydir/subdir mydir/subdir1;  touch mydir/subdir1/file3.txt
rmdir mydir/subdir
```

Select the output from the above script.

Options :

6406532775134. ✖ remove directory subdir

6406532775135. ✖ remove directory `dir` and `subdir`

6406532775136. ✔ remove directory `subdir`

6406532775137. ✖ exit with error code

Question Number : 160 Question Id : 640653825168 Question Type : MCQ

Correct Marks : 6

Question Label : Multiple Choice Question

You encounter a "Permission denied (publickey)" error when trying to SSH into a remote VM. Which `ssh-keygen` command would you use to ensure your SSH key has the correct permissions?

Hint

Excerpts from MAN page of `ssh-keygen` command

```
DESCRIPTION
     ssh-keygen generates, manages and converts authentication keys for
ssh(1).  ssh-keygen can create keys for use by SSH protocol version
     2.

     The type of key to be generated is specified with the -t option.  If
invoked without any arguments, ssh-keygen will generate an RSA
     key.

     ssh-keygen is also used to generate groups for use in Diffie-Hellman
group exchange (DH-GEX).  See the MODULI GENERATION section for
     details.

     Finally, ssh-keygen can be used to generate and update Key Revocation
Lists, and to test whether given keys have been revoked by one.
     See the KEY REVOCATION LISTS section for details.

     Normally each user wishing to use SSH with public key authentication runs
this once to create the authentication key in ~/.ssh/id_dsa,
     ~/.ssh/id_ecdsa, ~/.ssh/id_ecdsa_sk, ~/.ssh/id_ed25519,
~/.ssh/id_ed25519_sk or ~/.ssh/id_rsa.  Additionally, the system administrator
     may use this to generate host keys.

     Normally this program generates the key and asks for a file in which to
store the private key.  The public key is stored in a file with
     the same name but ".pub" appended.  The program also asks for a
passphrase.  The passphrase may be empty to indicate no passphrase
     (host keys must have an empty passphrase), or it may be a string of
arbitrary length.  A passphrase is similar to a password, except it
     can be a phrase with a series of words, punctuation, numbers, whitespace,
or any string of characters you want.  Good passphrases are
     10-30 characters long, are not simple sentences or otherwise easily
guessable (English prose has only 1-2 bits of entropy per charac-
     ter, and provides very bad passphrases), and contain a mix of upper and
lowercase letters, numbers, and non-alphanumeric characters.
```

```
     The passphrase can be changed later by using the -p option.

     There is no way to recover a lost passphrase.  If the passphrase is lost
or forgotten, a new key must be generated and the correspond-
     ing public key copied to other machines.

     ssh-keygen will by default write keys in an OpenSSH-specific format.
This format is preferred as it offers better protection for keys
     at rest as well as allowing storage of key comments within the private
key file itself.  The key comment may be useful to help identify
     the key.  The comment is initialized to "user@host" when the key is
created, but can be changed using the -c option.

     It is still possible for ssh-keygen to write the previously-used PEM
format private keys using the -m flag.  This may be used when gen-
     erating new keys, and existing new-format keys may be converted using
this option in conjunction with the -p (change passphrase) flag.

     After a key is generated, ssh-keygen will ask where the keys should be
placed to be activated.
...
     -t dsa | ecdsa | ecdsa-sk | ed25519 | ed25519-sk | rsa
             Specifies the type of key to create.  The possible values are
"dsa", "ecdsa", "ecdsa-sk", "ed25519", "ed25519-sk", or "rsa".

    -b bits
             Specifies the number of bits in the key to create.  For RSA keys,
the minimum size is 1024 bits and the default is 3072 bits.
             Generally, 3072 bits is considered sufficient.  DSA keys must be
exactly 1024 bits as specified by FIPS 186-2.  For ECDSA keys,
             the -b flag determines the key length by selecting from one of
three elliptic curve sizes: 256, 384 or 521 bits.  Attempting to
             use bit lengths other than these three values for ECDSA keys will
fail.  ECDSA-SK, Ed25519 and Ed25519-SK keys have a fixed
             length and the -b flag will be ignored.
...
     -f filename
             Specifies the filename of the key file.

    -R hostname | [hostname]:port
             Removes all keys belonging to the specified hostname (with
optional port number) from a known_hosts file.  This option is use-
             ful to delete hashed hosts (see the -H option above).
...
```

Options :

6406532775163. ✖ `ssh-keygen -t rsa -b 4096`

6406532775164. ✔ `chmod 600 ~/.ssh/id_rsa`

6406532775165. ✖ `ssh-keygen -f ~/.ssh/id_rsa -y`

6406532775166. ✖ `ssh-keygen -R remote-vm`

Question Number : 161 Question Id : 640653825169 Question Type : MCQ
Correct Marks : 6
Question Label : Multiple Choice Question

What will be the output of the following command?

```
echo {A,B{1,2},C}
```

Options :

6406532775167. ✔ `A B1 B2 C`

6406532775168. ✖ `A B 1 2 C`

6406532775169. ✖ `A {B1 B2} C`

6406532775170. ✖ `{A B1 B2 C}`

Question Number : 162 Question Id : 640653825170 Question Type : MCQ
Correct Marks : 6
Question Label : Multiple Choice Question

Which of the following actions will delete the 7th line and **save and exit** in a `vi` editor or `emacs` editor?

Options :

6406532775171. ✔

```
$ vi filename.txt
:7 # all following commands in vi editor
dd #delete the line
:wq
```

```
$ emacs filename.txt
M-g g 7 # go to the 7th line
C-k # delete the line
C-x C-s # save the file
C-x C-c # exit Emacs
```

6406532775172. ✖

```
$ vi filename.txt
7 # all following commands in vi editor
D #delete the line
:wq
```

```
$ emacs filename.txt
C-x 7 # go to the 7th line
C-k # delete the line
C-x C-s # save the file
C-x C-c # exit Emacs
```

```
$ vi filename.txt
:7 # all following commands in vi editor
D #delete the line
:wq!
```

```
$ emacs filename.txt
M-7 # go to the 7th line
C-d # delete the line
C-x C-s # save the file
C-x C-c # exit Emacs
```

6406532775173. ✖

```
$ vi filename.txt
:7 # all following commands in vi editor
dd #delete the line
:w
```

```
$ emacs filename.txt
M-g g 7 # go to the 7th line
C-d # delete the line
C-x C-s # save the file
C-x C-c # exit Emacs
```

6406532775174. ✖

Sub-Section Number : 3
Sub-Section Id : 640653122772
Question Shuffling Allowed : Yes

Question Number : 163 Question Id : 640653825166 Question Type : MSQ

Correct Marks : 6 Max. Selectable Options : 0

Question Label : Multiple Select Question

You try to SSH into a remote VM using the command `ssh user@remote-vm` and receive the following error:

```
Permission denied (publickey).
```

Which of the following option(s) are likely the cause?

Options :

6406532775155. ✔ The SSH key is not added to the SSH agent.

6406532775156. ✖ The remote VM's SSH server is down.

6406532775157. ✔ The permissions on the SSH key file are too open.

6406532775158. ✔ The username is incorrect.

Question Number : 164 Question Id : 640653825167 Question Type : MSQ

Correct Marks : 6 Max. Selectable Options : 0

Question Label : Multiple Select Question

You try to SSH into a remote VM using the command `ssh user@remote-vm` and receive the following error:

```
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
@    WARNING: REMOTE HOST IDENTIFICATION HAS CHANGED!     @
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
IT IS POSSIBLE THAT SOMEONE IS DOING SOMETHING NASTY!
```

Which of the following option(s) are likely the cause?

Options :

6406532775159. ✔ The remote VM's SSH host key has changed.

6406532775160. ✔ The remote VM's IP address has changed and is now associated with a different host key.

6406532775161. ✖ The local `~/.ssh/known_hosts` file is corrupted.

6406532775162. ✖ The remote VM's SSH server is down.

Question Number : 165 Question Id : 640653825171 Question Type : MSQ

Correct Marks : 6 Max. Selectable Options : 0

Question Label : Multiple Select Question

Which command will display the inode number of the file `myfile` ?

Options :

6406532775175. ✔ `ls -i myfile`

6406532775176. ✖ `ls -l myfile`

6406532775177. ✔ `stat myfile`

6406532775178. ✖ `file myfile`

Question Number : 166 Question Id : 640653825172 Question Type : MSQ
Correct Marks : 6 Max. Selectable Options : 0
Question Label : Multiple Select Question

Which of the following commands will create a directory `projects` with a subdirectory `2024`, then create a symbolic link named `current` pointing to `2024`, and finally verify the link?

Hint

```
MKDIR(1)                                                    User Commands
MKDIR(1)

NAME
       mkdir - make directories

SYNOPSIS
       mkdir [OPTION]... DIRECTORY...

DESCRIPTION
       Create the DIRECTORY(ies), if they do not already exist.

...
       -p, --parents
              no error if existing, make parent directories as needed
...
LN(1)                                                       User Commands
LN(1)

NAME
       ln - make links between files

SYNOPSIS
       ln [OPTION]... [-T] TARGET LINK_NAME
       ln [OPTION]... TARGET
       ln [OPTION]... TARGET... DIRECTORY
       ln [OPTION]... -t DIRECTORY TARGET...

DESCRIPTION
       In the 1st form, create a link to TARGET with the name LINK_NAME.  In
the 2nd form, create a link to TARGET in the current directory.
       In the 3rd and 4th forms, create links to each TARGET in DIRECTORY.
Create hard links by default, symbolic  links  with  --symbolic.
       By  default,  each  destination (name of new link) should not already
exist.  When creating hard links, each TARGET must exist.  Sym-
       bolic links can hold arbitrary text; if later resolved, a relative link
is interpreted in relation to its parent directory.
```

```
...
       -s, --symbolic
              make symbolic links instead of hard links

...

LS(1)                                                          User Commands
LS(1)

NAME
       ls - list directory contents

SYNOPSIS
       ls [OPTION]... [FILE]...

DESCRIPTION
       List  information about the FILEs (the current directory by default).
Sort entries alphabetically if none of -cftuvSUX nor --sort is
       specified.

       Mandatory arguments to long options are mandatory for short options
too.
...
       -l     use a long listing format
...
```

Options :

```
mkdir -p projects/2024
ln -s projects/2024 projects/current
ls -l projects
```

6406532775179. ✔

```
mkdir projects projects/2024
ln -s projects/2024 projects/current
ls -l projects
```

6406532775180. ✔

```
mkdir -p projects/2024
ln -s 2024 projects/current
ls -l projects
```

6406532775181. ✖

```
mkdir -p projects/2024
ln -s projects/2024 current
ls -l projects
```

6406532775182. ✖

Sub-Section Number : 4
Sub-Section Id : 640653122773
Question Shuffling Allowed : Yes

Question Number : 167 Question Id : 640653825163 Question Type : MCQ
Correct Marks : 7
Question Label : Multiple Choice Question
Which of the following commands will show its process ID (PID) and run in the background?
Options :

6406532775146. ✔ `command & echo $!`

6406532775147. ✖ `command && echo $!`

6406532775148. ✖ `command &; echo $!`

6406532775149. ✖ `command &`

Question Number : 168 Question Id : 640653825173 Question Type : MCQ
Correct Marks : 7
Question Label : Multiple Choice Question

You have a file `sample.txt` and its SHA1 checksum stored in `sample.sha1`. You want to ensure the checksum matches but only print a message if it fails. Which command sequence will achieve this?

```
SHA1SUM(1)                                                    User Commands
SHA1SUM(1)

NAME
       sha1sum - compute and check SHA1 message digest

SYNOPSIS
       sha1sum [OPTION]... [FILE]...

DESCRIPTION
       Print or check SHA1 (160-bit) checksums.

       With no FILE, or when FILE is -, read standard input.

       -b, --binary
              read in binary mode

       -c, --check
              read SHA1 sums from the FILEs and check them

       --tag  create a BSD-style checksum
       -t, --text
              read in text mode (default)

       -z, --zero
              end each output line with NUL, not newline, and disable file
name escaping
...
```

Options :

6406532775183. ✔

```
sha1sum -c sample.sha1 > /dev/null || echo "Checksum does not match"
```

6406532775184. ✖

```
sha1sum sample.txt -c sample.sha1 > /dev/null || echo "Checksum does not
match"
```

6406532775185. ✖

```
sha1sum -c sample.sha1 > /dev/null && echo "Checksum does not match"
```

```
sha1sum sample.txt -c sample.sha1 > /dev/null && echo "Checksum does not match"
```

6406532775186. ✖

Sub-Section Number : 5
Sub-Section Id : 640653122774
Question Shuffling Allowed : Yes

Question Number : 169 Question Id : 640653825161 Question Type : MSQ
Correct Marks : 7 Max. Selectable Options : 0
Question Label : Multiple Select Question

Select the **Regular Expression** to match the complete string of "email" (e.g. "email": "nulla.dignissim.maecenas@hotmail.org") from the below JSON file names as test.json.

```
[
        {
                "name": "Chadwick Cummings",
                "email": "nulla.dignissim.maecenas@hotmail.org",
                "address": "326-2072 Sagittis Road",
                "numberrange": 9,
                "alphanumeric": "ESM17JCJ7NR"
        },
        {
                "name": "Isaac Whitaker",
                "email": "vitae.semper.egestas@icloud.ca",
                "address": "589-9277 Vivamus St.",
                "numberrange": 3,
                "alphanumeric": "CTI05YDP7BX"
        },
        {
                "name": "Bethany Potter",
                "email": "enim.gravida@protonmail.com",
                "address": "P.O. Box 807, 2790 Ut, Ave",
                "numberrange": 7,
                "alphanumeric": "VOE77ZLE0OJ"
        }
]
```

Options :

6406532775138. ✔ `"email": "([^"]+)"`

6406532775139. ✖ `"email": \["(.+)"\]`

6406532775140. ✔

`"email"[[:space:]]*:[[:space:]]*"([^"]*)"`

6406532775141. ✖ `"email"[[:space:]]+:[[:space:]]+"([^"]*)"`

Question Number : 170 Question Id : 640653825162 Question Type : MSQ
Correct Marks : 7 Max. Selectable Options : 0
Question Label : Multiple Select Question
Which of the following commands will ensure that **both stdout and stderr** of a command are written to the same file?
Options :

6406532775142. ✔ `command > output.txt 2>&1`

6406532775143. ✖ `command 2>&1 > output.txt`

6406532775144. ✔ `command &> output.txt`

6406532775145. ✖ `command 1>&2 > output.txt`

Sub-Section Number :	6
Sub-Section Id :	640653122775
Question Shuffling Allowed :	Yes

Question Number : 171 Question Id : 640653825164 Question Type : MSQ
Correct Marks : 8 Max. Selectable Options : 0
Question Label : Multiple Select Question
You have a large log file, `server.log`, and you want the total count of the number of occurrences of the words "ERROR" and "WARNING" in the file. Which of the following command sequences will accomplish this?

Hint

- For command `grep`
  -c, --count
  Suppress normal output; instead print a count of matching lines for each input file. With the -v, --invert-match option (see
  below), count non-matching lines.
- In command `wc`
  -l, --lines
  print the newline counts

Options :

6406532775150. ✔ `grep -E "ERROR|WARNING" server.log | wc -l`

6406532775151. ✖ `cat server.log | grep "ERROR" | grep "WARNING" | wc -l`

6406532775152. ✖ `grep -c "ERROR" server.log && grep -c "WARNING" server.log`

6406532775153. ✔ `grep -E "ERROR|WARNING" server.log | wc -w`

Question Number : 172 Question Id : 640653825174 Question Type : MSQ
Correct Marks : 8 Max. Selectable Options : 0

Question Label : Multiple Select Question

An IP (Internet Protocol) address is a unique identifier assigned to each device connected to a network that uses the Internet Protocol for communication. An IPv4 address is typically represented in the format `A.B.C.D`, where each part (A, B, C, D) is an integer between 0 and 255.

There are specific ranges of IP addresses reserved for private networks:

- **Class A**: 10.0.0.0 to 10.255.255.255
- **Class B**: 172.16.0.0 to 172.31.255.255
- **Class C**: 192.168.0.0 to 192.168.255.255

Given the following list of IP addresses:

1. 10.0.0.1
2. 10.255.255.254
3. 172.16.0.1
4. 172.31.255.254
5. 192.168.0.1
6. 192.168.255.254
7. 8.8.8.8
8. 169.254.1.1
9. 198.51.100.1
10. 203.0.113.1

Which of the following regular expressions (BRE) will match IP addresses from the Class A (10.x.x.x) and Class C (192.168.x.x) private network ranges?

Options :

6406532775187. ✖ `\(10\.\|192\.168\.\)[0-9]\{1,3\}\.[0-9]\{1,3\}`

6406532775188. ✔ `10\.[0-9]\{1,3\}\.[0-9]\{1,3\}\.[0-9]\{1,3\}\|192\.168\.[0-9]\{1,3\}\.[0-9]\{1,3\}`

6406532775189. ✖ `10\.\([0-9]\{1,3\}\.\)\{2\}[0-9]\{1,3\}\|192\.168\.\([0-9]\{1,3\}\.\)\{2\}`

6406532775190. ✔ `10\.\([0-9]\{1,3\}\.\)\{2\}[0-9]\{1,3\}\|192\.168\.\([0-9]\{1,3\}\.\)\{2\}`

Sub-Section Number : 7
Sub-Section Id : 640653122776
Question Shuffling Allowed : Yes

Question Number : 173 Question Id : 640653825165 Question Type : SA
Correct Marks : 8
Question Label : Short Answer Question

Given the following contents of a file `websites.txt`, what will be the output of the command `cat websites.txt | cut -d/ -f3 | grep -v 'www\.'|tail -1`?

Hint

- For command `grep`
  -v, --invert-match
  Invert the sense of matching, to select non-matching lines.
- For command `cut`
  -d, --delimiter=DELIM
  use DELIM instead of TAB for field delimiter
  -f, --fields=LIST
  select only these fields; also print any line that contains no delimiter character, unless the -s option is specified

```
https://www.example.com/page1
http://www.test.org/page2
https://sub.domain.net/page3
http://anotherexample.com/page4
https://www.site.co.uk/page5
http://example.org/page6
```

Response Type : Alphanumeric
Evaluation Required For SA : Yes
Show Word Count : Yes
Answers Type : Equal
Answers Case Sensitive : No

Text Areas : PlainText

Possible Answers :

example.org

CT

Section Id :	64065359218
Section Number :	11
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	14
Number of Questions to be attempted :	14
Section Marks :	50
Display Number Panel :	Yes
Section Negative Marks :	0
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	No
Section Maximum Duration :	0
Section Minimum Duration :	0
Section Time In :	Minutes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	640653122777
Question Shuffling Allowed :	No

Question Number : 174 Question Id : 640653825175 Question Type : MCQ

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "FOUNDATION LEVEL : COMPUTATIONAL THINKING (COMPUTER BASED EXAM)"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?
CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS REGISTERED BY YOU)

Options :

6406532775191. ✔ YES

6406532775192. ✖ NO

Question Number : 175 Question Id : 640653825176 Question Type : MCQ