

Question Number : 425 Question Id : 6406531043507 Question Type : MCQ

Correct Marks : 1

Question Label : Multiple Choice Question

The objective function of the linear programming model using pair-wise judgments:

Options :

6406533523690. ✓ Minimize the poorness of fit

6406533523691. ✗ Maximize the distance from the ideal point

6406533523692. ✗ Minimize the distance from the ideal point

6406533523693. ✗ Both Minimize the poorness of fit & Minimize the distance from the ideal point

6406533523694. ✗ Both Maximize the distance from the ideal point & Minimize the distance from the ideal point

Question Number : 426 Question Id : 6406531043510 Question Type : MCQ

Correct Marks : 1

Question Label : Multiple Choice Question

If the attribute values in the conjoint analysis is a continuous variable and the data is collected in a pairwise order, then what approach can be used:

Options :

6406533523703. ✓ Optimization approach

6406533523704. ✗ Regression approach

6406533523705. ✗ Statistical approach

6406533523706. ✗ Optimization approach or Statistical approach

Sub-Section Number :

10

Sub-Section Id :

640653160759

Question Shuffling Allowed :

Yes

Question Number : 427 Question Id : 6406531043509 Question Type : MCQ

Correct Marks : 2

Question Label : Multiple Choice Question

In a conjoint problem with 4 products and 2 attributes, how many pair-wise preferences are possible?

Options :

6406533523699. ✗ 4

6406533523700. ✗ 14

6406533523701. ✗ 10

6406533523702. ✓ 6

System commands

Section Id :

64065375512

Section Number :	15
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	16
Number of Questions to be attempted :	16
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 :	640653160760
Question Shuffling Allowed :	No

Question Number : 428 Question Id : 6406531043511 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 :

6406533523707.  YES

6406533523708.  NO

Sub-Section Number :	2
Sub-Section Id :	640653160761
Question Shuffling Allowed :	Yes

Question Number : 429 Question Id : 6406531043512 Question Type : MCQ

Correct Marks : 3

Question Label : Multiple Choice Question

Following command is ran in shell. Which of the following option is the correct output of the command.

```
echo fol1/{fol2,{fol3,fol4}}{a..c}}
```

Options :

6406533523709. ✖ fol1/fol2 fol1/fol3 fol1/fol4 fol1/a fol1/b fol1/c

6406533523710. ✔ fol1/fol2 fol1/fol3a fol1/fol3b fol1/fol3c fol1/fol4a fol1/fol4b fol1/fol4c

6406533523711. ✖ fol1/fol2 fol1/fol3a fol1/fol3b fol1/fol3c

6406533523712. ✖ fol1/fol2{a..c} fol1/fol3{a..c} fol1/fol4{a..c}

6406533523713. ✖ fol1/{fol2,{fol3,fol4}}{a..c}}

Question Number : 430 Question Id : 6406531043518 Question Type : MCQ

Correct Marks : 3

Question Label : Multiple Choice Question

Given the following command:

```
'$ sort -k1,3 -k4rn file | awk '{prev=key; key=$1 FS $2 FS $3} key!=prev'
```

Where `file` has the following content

```
text1 a1 a2 10
text1 a1 a2 5
text2 b2 b8 15
text3 b9 b4 25
text4 g1 k5 80
text4 g1 k5 50
text5 y5 p3 100
text5 y5 p3 25
```

Which among the following options will be the output of the command?

Hint

The `sort -k1,3 -k4rn` command:

- Sorts lines by the **first three fields** in **alphabetical order**.
- Then sorts by the **fourth field** (numbers) in **reverse order**.

Options :

```
text1 a1 a2 10
text1 a1 a2 5
text2 b2 b8 15
text3 b9 b4 25
text4 g1 k5 80
text4 g1 k5 50
text5 y5 p3 25
text5 y5 p3 100
```

6406533523728. ✖

```
text1 a1 a2 10
text2 b2 b8 15
text3 b9 b4 25
text4 g1 k5 80
text5 y5 p3 100
```

6406533523729. ✔

6406533523730. ✖

text1	a1	a2	10
text1	a1	a2	5
text2	b2	b8	15
text3	b9	b4	25
text4	g1	k5	50
text4	g1	k5	80
text5	y5	p3	100
text5	y5	p3	25

text1	a1	a2	5
text1	a1	a2	10
text2	b2	b8	15
text3	b9	b4	25
text4	g1	k5	80
text4	g1	k5	50
text5	y5	p3	25
text5	y5	p3	100

6406533523731. ✖

Question Number : 431 Question Id : 6406531043521 Question Type : MCQ

Correct Marks : 3

Question Label : Multiple Choice Question

Using **POSIX Extended Regular Expressions (ERE)**, write a pattern that matches lines where:

1. The first field consists of **only uppercase letters**.
2. The second field contains **exactly 5 digits**.
3. The third field consists of **exactly 2 lowercase letters**.
4. The fourth field is a **floating-point number** (with exactly one decimal point and at least one digit before and after the decimal point).

Choose the correct pattern from the following options:

Options :

6406533523740. ✔ `^[A-Z]+\s+[0-9]{5}\s+[a-z]{2}\s+[0-9]+\.[0-9]+$`

6406533523741. ✖ `^[A-Z]+\s+[0-9]{5}\s+[a-z]{2}\s+[0-9]{1,}\.[0-9]{1,}$`

6406533523742. ✖ `^[A-Z]+\s+[0-9]+\s+[a-z]+\s+[0-9]+\.[0-9]{2}$`

6406533523743. ✖ `^[A-Z]+\s+[0-9]{4,5}\s+[a-z]{2}\s+[0-9]*\.[0-9]+$`

Sub-Section Number :

3

Sub-Section Id :

640653160762

Question Shuffling Allowed :

Yes

Question Number : 432 Question Id : 6406531043523 Question Type : MCQ

Correct Marks : 4

Question Label : Multiple Choice Question

When will the script `/home/Anupam/backup.sh` get executed?

```
#backup.sh
30 2 * 6 1 /home/rohit/backup.sh
```

Hint: Please refer to the following:

```
* * * * * <Command(s) with argument>
| | | | |
| | | | | Command or Script to Execute
| | | | |
| | | | +-- Day of the Week (0 - 6) [Sunday = 0, Monday = 1, ..., Saturday
| | | +----- Month of the Year (1 - 12) [January = 1, ..., December = 12]
| | +----- Day of the Month (1 - 31)
| +----- Hour (0 - 23)
+----- Minute (0 - 59)
```

Options :

6406533523748. ✖ Every Monday at 02:30 in June

6406533523749. ✔ Every Tuesday at 02:30 in June

6406533523750. ✖ Every Monday at 06:30 in June

6406533523751. ✖ Every Tuesday at 06:30 in July

Sub-Section Number :

4

Sub-Section Id :

640653160763

Question Shuffling Allowed :

Yes

Question Number : 433 Question Id : 6406531043513 Question Type : MSQ

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

Choose the corner case(s) from stdin that would cause this `find` command to fail in listing all files in the given directory with a `.txt` extension.

```
#!/bin/bash

find /home/user -name "*.txt"
```

Options :

6406533523714. ✖ `/home/user/file.txt`

6406533523715. ✔ `/home/user/file.TXT`

6406533523716. ✖ `/home/user/docs/file_text.txt`

6406533523717. ✔ `/home/user/docs/file.txt.bak`

6406533523718. ✔ `/home/user/docs/textfile`

Question Number : 434 Question Id : 6406531043519 Question Type : MSQ

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

You are given the following data in a file:

```
apple 12 banana 100
grape 300 orange 150
apple 12 banana 120
mango 15 peach 200
grape 300 orange 180
mango 15 peach 220
```

which of the following script/method from the option(s) that filters out **duplicate lines** based on the first three fields, keeping only the **first occurrence** of each unique combination.

Options :

```
while read line; do
    first_three=$(echo "$line" | cut -d' ' -f1-3)
    if [[ ! " ${seen[@]} " =~ " ${first_three} " ]]; then
        echo "$line"
        seen+=("${first_three}")
    fi
done < file
```

6406533523732. ✔

```
cat file | while read -r a b c d; do
    if ! grep -q "$a $b $c" <<< "${seen[@]}"; then # <<< is standard input
        echo "$a $b $c $d"
        seen+=("$a $b $c")
    fi
done
```

6406533523733. ✔

```
cut -d' ' -f1-3 file | uniq | while read first_three; do
    grep "^$first_three" file | head -n1
done
```

6406533523734. ✖

6406533523735. ✔ `cat file | sort -u -k1,3 | uniq`

Question Number : 435 Question Id : 6406531043520 Question Type : MSQ

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

Which of the following `sed` commands from the options will replace **all occurrences** of the word "apple" with "orange" **only on even-numbered lines** in the `fruits.txt` file?

Options :

6406533523736. ✓ `sed '2~2s/apple/orange/g' fruits.txt`

6406533523737. ✗ `sed '2n;s/apple/orange/g' fruits.txt`

6406533523738. ✓ `sed 'n;s/apple/orange/g' fruits.txt`

6406533523739. ✗ `sed 's/apple/orange/2' fruits.txt`

Question Number : 436 Question Id : 6406531043522 Question Type : MSQ

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

A MAC address is typically represented in the format "XX:XX:XX:XX:XX:XX", where X can be a hexadecimal digit (0-9, A-F, or a-f).

Identify the correct extended or basic regular expression from the following, which will match a MAC address.

Note: All the regular expressions are either BRE or ERE

Options :

6406533523744. ✓ `\([0-9A-Fa-f]\{2\}:\)\{5\}[0-9A-Fa-f]\{2\}`

6406533523745. ✓ `[0-9A-Fa-f]\{2\}:[0-9A-Fa-f]\{2\}:[0-9A-Fa-f]\{2\}:[0-9A-Fa-f]\{2\}:[0-9A-Fa-f]\{2\}:[0-9A-Fa-f]\{2\}`

6406533523746. ✗ `..\(\:..\)\{5\}`

6406533523747. ✗ `([[:digit:]]{2}:){5}([[:digit:]]{2})`

Question Number : 437 Question Id : 6406531043525 Question Type : MSQ

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

Select the command that prints the lines from 4 to 7 of file `myfile`. Assume that the `myfile` contains at least 7 lines.

Options :

6406533523758. ✓ `head -7 myfile | tail -4`

6406533523759. ✗ `tail -4 myfile | tail -7`

6406533523760. ✓ `sed -n '4,7 p' myfile`

6406533523761. ✓ `awk 'NR >= 4 && NR <= 7 {print;}' myfile`

Question Number : 438 Question Id : 6406531043526 Question Type : MSQ

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

Select the command(s) that find the file/directory names that starts with `a` and ends with `e` (case-sensitive).

Options :

6406533523762. ✗ `ls | grep 'a.*e'`

6406533523763. ✗ `grep 'a.*e'`

6406533523764. ✓ `echo a*e`

6406533523765. ✗ `echo *a*e*`

Sub-Section Number :

5

Sub-Section Id :

640653160764

Question Shuffling Allowed :

Yes

Question Number : 439 Question Id : 6406531043517 Question Type : MSQ

Correct Marks : 4 Max. Selectable Options : 0

Question Label : Multiple Select Question

Given the following code is present in `script.sh`, which of the following option(s) will result in the script `echo "false"` or exiting with an error code 1?

```
#!/usr/bin/env bash
if [[ $# -ne 1 ]] || ! [[ $1 =~ ^[0-9]+$ ]]; then
    exit 1
fi (( $1 % 4 == 0 && $1 % 100 != 0 || $1 % 400 == 0 )) && echo true || echo false
```

Options :

6406533523722. ✖ `./script.sh 2020`

6406533523723. ✔ `./script.sh "A2022"`

6406533523724. ✔ `./script.sh 2400 2200`

6406533523725. ✔ `./script.sh -400`

6406533523726. ✖ `./script.sh 2024`

6406533523727. ✔ `./script.sh 2021`

Question Number : 440 Question Id : 6406531043524 Question Type : MSQ

Correct Marks : 4 Max. Selectable Options : 0

Question Label : Multiple Select Question

Given the following **Basic Regular Expression (BRE)** pattern, which of the following strings will match the pattern?

```
`^\[a-zA-Z0-9\]\([a-zA-Z0-9\]\)[a-zA-Z0-9]\2\1$`
```

Options :

6406533523752. ✔ 12321

6406533523753. ✖ 12345

6406533523754. ✔ A1B1A

6406533523755. ✔ 9zXz9

6406533523756. ✖ A1BA1

6406533523757. ✔ ARIRA

Sub-Section Number :

6

Sub-Section Id :

640653160765

Question Shuffling Allowed :

Yes

Question Number : 441 Question Id : 6406531043516 Question Type : SA

Correct Marks : 3

Question Label : Short Answer Question

```
$ ./script.sh "linux_is-awesome-and_powerful"
```

Following script is saved as `script.sh` in current working directory. Above commands are run in the bash in the current working directory. What will be the output of the command.

Hint

(Use case of `tr` will be added)

```
#!/usr/bin/bash

string=$(echo "$1" | sed -r 's/\*/ /g' | tr "-" " " | tr -d "_" | tr [a-z] [A-Z])
IFS=" "
for i in ${string}; do
    echo -n ${i:0:1}
done
```

NOTE: Enter the exact answer without any extra space in the beginning or at the end.

Response Type : Alphanumeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Answers Case Sensitive : Yes

Text Areas : PlainText

Possible Answers :

LAA

Sub-Section Number : 7

Sub-Section Id : 640653160766

Question Shuffling Allowed : Yes

Question Number : 442 **Question Id :** 6406531043514 **Question Type :** SA

Correct Marks : 4

Question Label : Short Answer Question

```
#!/bin/bash

toggle(){
    for i in {1..4}; do
        if [  $$(i \% 2)$  -eq 0 ]; then
            echo -n "1"
        else
            echo -n "0"
        fi
        sleep 0.3
    done
}

for i in {1..3}; do #first loop
    toggle
done

for _ in {1..2}; do #second loop
    toggle &
done
wait #Command issued to finish process
```

How many **1's** are printed after the **first loop** has completed execution?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

6

Question Number : 443 **Question Id :** 6406531043515 **Question Type :** SA

Correct Marks : 4

Question Label : Short Answer Question

How many **0's** are printed after the **second loop** (excluding first loop) has completed execution?

```
#!/bin/bash

toggle(){
    for i in {1..4}; do
        if [ $((i % 2)) -eq 0 ]; then
            echo -n "1"
        else
            echo -n "0"
        fi
        sleep 0.3
    done
}

for i in {1..3}; do #first loop
    toggle
done

for _ in {1..2}; do #second loop
    toggle &
done
wait #Command issued to finish process
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

4