Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No

Statistics1

Section Id :	640653142688
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	14
Number of Questions to be attempted :	14
Section Marks :	40
Display Number Panel :	Yes
Section Negative Marks :	0
Group All Questions :	No
Section Maximum Duration :	0
Section Minimum Duration :	0
Section Time In :	Minutes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	640653401931
Question Shuffling Allowed :	No

Question Number : 1 Question Id : 6406532180800 Question Type : MCQ

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "FOUNDATION LEVEL : STATISTICS FOR DATA

SCIENCE I (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 :

6406537087670. ✔ Yes

6406537087671. ✖ No

Sub-Section Number : 2

Sub-Section Id : 640653401932

Question Shuffling Allowed : Yes

Question Number : 2 Question Id : 6406532180801 Question Type : MCQ

Correct Marks : 3

Question Label : Multiple Choice Question

In how many ways can the letters of the word "MATHEMATICS" be arranged such that all the vowels appear together?

Options :

6406537087672. ✖ 60480

6406537087673. ✖ 30240

6406537087674. ✖ 241920

6406537087675. ✔ 120960

Sub-Section Number : 3

Sub-Section Id : 640653401933

Question Shuffling Allowed : Yes

Question Number : 3 Question Id : 6406532180802 Question Type : MCQ

Correct Marks : 4

Question Label : Multiple Choice Question

Eight people, among whom are three friends $A, B,$ and C, are to be arranged around a circular table.

Find the number of distinct seating arrangements if A and B sit together, but C does not sit next to either A or B.

Options :

6406537087676. ✖ 720

6406537087677. ✖ 1440

6406537087678. ✖ 480

6406537087679. ✔ 960

Question Number : 4 Question Id : 6406532180806 Question Type : MCQ

Correct Marks : 4

Question Label : Multiple Choice Question

A committee of 3 members is selected at random from 5 men and 4 women. Given that at least one woman is selected, what is the probability that exactly one woman is selected?

Options :

6406537087683. ✖ $\frac{40}{84}$

6406537087684. ✖ $\frac{4}{9}$

6406537087685. ✔ $\frac{20}{37}$

6406537087686. ✖ $\frac{10}{21}$

Sub-Section Number :	4
Sub-Section Id :	640653401934
Question Shuffling Allowed :	Yes

Question Number : 5 Question Id : 6406532180803 Question Type : SA Keyboard Layout : Inscript

Correct Marks : 2

Question Label : Short Answer Question

A mobile phone lock uses a 4-character code. The first two characters are letters selected from $A, B, C,$ and D, where repetition of letters is allowed. The last two characters are digits selected from 1, 2, 3, 4, and 5, where repetition of digits is not allowed. How many different lock codes can be formed?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

320

Question Number : 6 Question Id : 6406532180808 Question Type : SA Keyboard Layout : Inscript

Correct Marks : 2

Question Label : Short Answer Question

Ten friends are seated randomly around a circular table. Two particular friends, Rahul and Priya, wish to sit next to each other. Find the probability that Rahul and Priya are seated adjacent to each other. Enter your answer correct to two decimal places.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.20 to 0.24

Question Number : 7 Question Id : 6406532180810 Question Type : SA Keyboard Layout : Inscript

Correct Marks : 2

Question Label : Short Answer Question

A bag contains 5 red balls and 7 blue balls. Two balls are drawn one after the other without replacement. Find the probability that both balls drawn are red. Enter the answer correct to two decimal places.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.13 to 0.17

Question Number : 8 Question Id : 6406532180812 Question Type : SA Keyboard Layout : Inscript

Correct Marks : 2

Question Label : Short Answer Question

An escape room contains 7 unique keys. How many different 4-key sequences can be formed using these keys without repetition?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

840

Sub-Section Number : 5

Sub-Section Id : 640653401935

Question Shuffling Allowed : Yes

Question Number : 9 Question Id : 6406532180804 Question Type : SA Keyboard Layout : Inscript

Correct Marks : 4

Question Label : Short Answer Question

A library contains 7 different Mathematics books and 6 different Statistics books. A student selects 3 Mathematics books and 2 Statistics books. The selected books are then arranged on a shelf such that no two Statistics books are placed next to each other. Find the number of ways in which the selected books can be arranged under the given condition.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

37800

Question Number : 10 Question Id : 6406532180813 Question Type : SA Keyboard Layout : Inscript

Correct Marks : 4

Question Label : Short Answer Question

A 6-digit security code is formed using digits from the set {0, 1, 2, 3, 4, 5, 6, 7, 8}, without repetition. Determine the number of valid security codes in which:
-- the first digit is not zero,
-- the digits are either in strictly increasing order or strictly decreasing order, and
-- the digit 8 is included in the code.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

77

Sub-Section Number : 6

Sub-Section Id : 640653401936

Question Shuffling Allowed : Yes

Question Number : 11 Question Id : 6406532180805 Question Type : SA Keyboard Layout :

Inscript

Correct Marks : 5

Question Label : Short Answer Question

At a school, two teachers share the responsibility of creating quiz papers for students. Mr. Chandra creates 35% of all quiz papers, while Ms. Sharma creates the remaining 65% of all quiz papers. The passing rates differ between the two teachers, with only 20% of students passing quizzes created by Mr. Chandra, whereas 80% of students pass quizzes created by Ms. Sharma. Given that the student passed the quiz, what is the probability that the quiz was prepared by Mr. Chandra? Enter the answer correct to two decimal places.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.09 to 0.15

Sub-Section Number :	7
Sub-Section Id :	640653401937
Question Shuffling Allowed :	Yes

Question Number : 12 Question Id : 6406532180807 Question Type : MCQ

Correct Marks : 2

Question Label : Multiple Choice Question

A card is drawn at random from a standard deck of 52 playing cards. Find the probability that the card drawn is a King or a Heart.

Options :

6406537087687. ✖ $\frac{17}{52}$

6406537087688. ✔ $\frac{16}{52}$

6406537087689. ✖ $\frac{1}{52}$

6406537087690. ✖ $\frac{12}{52}$

Sub-Section Number :	8
Sub-Section Id :	640653401938

Question Shuffling Allowed : Yes

Question Number : 13 Question Id : 6406532180809 Question Type : MSQ

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

A fair six-sided die is rolled once. Let A be the event that the outcome is even, and B be the event that the outcome is strictly greater than 3. Which of the following statements are correct?

Options :

6406537087692. ✔ $P(A) = \frac{1}{2}$

6406537087693. ✖ $P(A \cup B) = \frac{5}{6}$

6406537087694. ✔ $P(A \cap B) = \frac{1}{3}$

6406537087695. ✔ $P(A) + P(B) = 1$

Sub-Section Number : 9

Sub-Section Id : 640653401939

Question Shuffling Allowed : Yes

Question Number : 14 Question Id : 6406532180811 Question Type : SA Keyboard Layout : Inscript

Correct Marks : 3

Question Label : Short Answer Question

A movie streaming platform records that the probability a user watches a comedy movie is 0.45, the probability the user watches an action movie is 0.50, and the probability that the user watches neither a comedy movie nor an action movie is 0.18. Find the probability that the user watches both a comedy movie and an action movie. Enter the answer correct to two decimal places.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

0.13