Banaras Hindu University

Notations :

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

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

Question Paper Name :	896 905 11th April 2021 Shift 2
Subject Name :	896 905
Creation Date :	2021-04-11 19:03:34
Duration :	120
Total Marks :	300
Display Marks:	Yes
Share Answer Key With Delivery Engine :	Yes
Actual Answer Key :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
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Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	No
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No

CRET_Statistics

Group Number :	1
Group Id :	509398164
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	300
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Research_Methodology

Section Id :	509398266
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	40
Number of Questions to be attempted :	40
Section Marks :	120
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	509398293
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 50939818623 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Generalised conclusion on the basis of a sample is technically known as :
एक नमूने के आधार पर सामान्यीकृत निष्कर्ष तकनीकी रूप से जाना जाता है :

Options :

1. ✔ Statistical inference
सांख्यिकीय निष्कर्ष

2. ✖ Descriptive statistic
वर्णनात्मक आँकड़ा

3. ✖ Data analysis and interpretation
डेटा विश्लेषण और व्याख्या

4. ✖ All of the three
तीनों में सभी

Question Number : 2 Question Id : 50939818624 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The protocol of asking pre-meditated questions in instruments of data collection is :
समंक संग्रह के उपकरणों में पूर्व-मध्यस्थता प्रश्न पूछने का प्रोटोकॉल है :

Options :

1. ✔ Structured
संरचनात्मक

2. ✖ Unstructured
असंरचित

3. ✖ Free-rein
फ्री-रेन

4. ✖ Systematic
व्यवस्थित

Question Number : 3 Question Id : 50939818625 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Survey research is cross-sectional and therefore :
सर्वेक्षण अनुसंधान पार-अनुभागीय है और इसलिए :

Options :

1. ✔ High in replicability but low in internal validity
प्रतिकृति में उच्च लेकिन आंतरिक वैधता में कम

2. ✖ High in internal validity but low in reliability
आंतरिक वैधता में उच्च लेकिन विश्वसनीयता में कम

3. ✖ High in ecological validity but low in external validity
पारिस्थितिक वैधता में उच्च लेकिन बाहरी वैधता में कम

4. ✖ None of the three
तीनों में से कोई नहीं

Question Number : 4 Question Id : 50939818626 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Testing hypothesis is a ..... .
परिकल्पना परीक्षण है ..... ।

Options :

1. ✔ Inferential statistics
आनुमानिक सांख्यिकी

2. ✖ Descriptive statistics
वर्णनात्मक सांख्यिकी

3. ✖ Data preparation
समंक का अयोजन

4. ✖ Data analysis
समंक का विश्लेषण

Question Number : 5 Question Id : 50939818627 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Inductive logic proceeds from :
आगमनात्मक तर्क अग्रसर होता है :

Options :

1. ✖ General to General
सामान्य से सामान्य

2. ✔ Particular to General
विशेष से सामान्य

3. ✖ General to Particular
सामान्य से विशेष

4. ✖ Particular to Particular
विशेष से विशेष

Question Number : 6 Question Id : 50939818628 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The sampling technique based on referral system of respondents is known as :
उत्तरदाताओं की रेफरल प्रणाली पर आधारित प्रतिचयन तकनीक को जाना जाता है :

Options :

1. ✖ Convenience Sampling
सुविधा प्रतिचयन

2. ✔ Snowball Sampling
स्नोबॉल प्रतिचयन

3. ✖ Cluster Sampling
समूह प्रतिचयन

4. ✖ Stratified Sampling
स्तरीकृत प्रतिचयन

Question Number : 7 Question Id : 50939818629 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Analysing the impact of demonetization on economic growth falls under which category of research ?
आर्थिक विकास पर नोटबंदी के प्रभाव का विश्लेषण किस शोध या अनुसंधान श्रेणी के अन्तर्गत आता है ?

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. Descriptive Research
वर्णनात्मक शोध

2. Fundamental Research
मौलिक शोध

3. Pure Research
शुद्ध शोध

4. Casual Research
कारणात्मक शोध

Question Number : 8 Question Id : 50939818630 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Likert scaling is based on :
लिकर्ट पैमाना आधारित है :

Options :

1. ✔ Item-wise scale
पद-क्रम पैमाने पर

2. ✖ Summative scale
योगात्मक पैमाने पर

3. ✖ Reflective scale
परावर्तक पैमाने पर

4. ✖ Formative scale
प्रारंभिक पैमाने पर

Question Number : 9 Question Id : 50939818631 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A research design appropriate for a particular research problem, usually involves the consideration of the following factors :
एक शोध रूपरेखा एक विशेष शोध समस्या के लिए उपयुक्त होती है, जिसमें सामान्यतया निम्नलिखित कारकों पर विचार किया जाता है :

(a) The means of obtaining information
सूचना प्राप्त करने का साधन

(b) The availability and skills of the researcher
शोधकर्ता की उपलब्धता और कौशल

(c) The nature of the problem to be studied
अध्ययन की जाने वाली समस्या की प्रकृति

(d) The availability of time and money for the research work
शोध कार्य के लिए समय और धन की उपलब्धता

Options :

1. ✖ (a), (b) and (d)
(a), (b) और (d)

2. ✖ (a), (b) and (c)
(a), (b) और (c)

3. ✔ (a), (b), (c) and (d)
(a), (b), (c) और (d)

4. ✖ (b), (c) and (d)
(b), (c) और (d)

Question Number : 10 Question Id : 50939818632 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

SHODHGANGOTRI is :
SHODHGANGOTRI है :

Options :

1. ✖ Database of articles
लेखों का डेटाबेस

2. ✖ Database of thesis & dissertation
थीसिस और शोध प्रबंध का डेटाबेस

3. ✔ Database of research synopsis
रिसर्च सिनोप्सिस का डेटाबेस

4. ✖ Database of experts
विशेषज्ञों का डेटाबेस

Question Number : 11 Question Id : 50939818633 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following statements about random sampling method is ***not*** true ?
यादृच्छिक न्यादर्श पद्धति के बारे में निम्नलिखित में से क्या सत्य ***नहीं*** है ?

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. In this methods, each unit has equal chance to be selected.
इस पद्धति में प्रत्येक इकाई के चयनित होने का समान अवसर होता है।

2. Each sample has equal chance of selection.
प्रत्येक प्रतिदर्श के चयन की सम्भावना समान होती है।

3. It is free from personal prejudices and bias
यह व्यक्तिगत पूर्वधारणाओं और पक्षपातों से रहित होता है।

4. This method is very simple to use
यह पद्धति प्रयोग करने में बेहद आसान है।

Question Number : 12 Question Id : 50939818634 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The English word 'Research' derives its origin from :
अंग्रेजी शब्द 'रिसर्च' (शोध) की व्युत्पत्ति है :

Options :

1. ✖ Latin
लैटिन

2. ✔ French
फ्रेंच

3. ✖ German
जर्मन

4. ✖ Italian
इटालियन

Question Number : 13 Question Id : 50939818635 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following approach uses the study of groups to identify general laws that apply to a large group of people ?
इनमें से कौन-सा दृष्टिकोण लोगों के बड़े समूह पर लागू होने वाले सामान्य नियमों की पहचान करने के लिए 'समूहों के अध्ययन' का उपयोग करता है ?

Options :

1. ✖ Idiographic Approach
इडियोग्राफिक (वस्तुपरक) दृष्टिकोण

2. ✔ Nomothetic Approach
नोमोथेटिक (सिद्धान्तपरक) दृष्टिकोण

3. ✖ Empirical Approach
अनुभवजन्य दृष्टिकोण

4. ✖ Pragmatic Approach
यथार्थवादी दृष्टिकोण

Question Number : 14 Question Id : 50939818636 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In the context of Research Process, the following operational steps are taken in certain order :
अनुसंधान प्रक्रिया के संदर्भ में, निम्नलिखित परिचालन चरण एक निश्चित क्रम में उठाए जाते हैं :

(A) Conceptualising the research design
अनुसंधान अभिकल्प की अवधारणा।

(B) Formulating a research problem
शोध समस्या का गठन।

(C) Selecting a sample
प्रतिदर्श का चयन।

(D) Constructing an instrument for data collection
डेटा संग्रह के लिए अनुसंधान साधन का निर्माण।

Which of the following options represents the correct order ?
निम्नलिखित में से कौन-सा विकल्प सही क्रम का प्रतिनिधित्व करता है ?

Options :

1. ✔ B, A, D, C

2. ✖ B, D, A, C

3. ✖ B, C, A, D

4. ✖ B, C, D, A

Question Number : 15 Question Id : 50939818637 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Impact factor of a journal is defined as :
किसी जर्नल के प्रभाव कारक (Impact factor) को इस प्रकार परिभाषित किया गया है :

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. It is the monthly average number of citations that articles published in the last twelve months in a given journal received
यह किसी दिए गए जर्नल में पिछले बारह महीनों में प्रकाशित लेखों की मासिक औसत उद्धरण संख्या है

2. It is the yearly average number of citations that articles published in the last four years in a given journal received
यह दी गइ पत्रिका में पिछले चार वर्षों में प्रकाशित लेखों की वार्षिक औसत उद्धरण संख्या है

3. It is the yearly average number of citations that articles published in the last two years in a given journal received
यह किसी दिए गए जर्नल में पिछले दो वर्षों में प्रकाशित लेखों की वार्षिक औसत उद्धरण संख्या है

4. It is the yearly average number of citations that articles published in the last five years in a given journal received
यह दी गई पत्रिका में पिछले पाँच वर्षों में प्रकाशित लेखों की वार्षिक औसत उद्धरण संख्या है

Question Number : 16 Question Id : 50939818638 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The three basic principles of experimental design are :
प्रयोगात्मक योजना के तीन मूलभूत सिद्धान्त हैं :

Options :

1. ✖ Replication, randomization and Substitution
रेप्लीकेशन, रेन्डेमाइजेशन एवं सब्स्टीट्यूशन

2. ✔ Replication, randomization, and local control
रेप्लीकेशन, रेन्डेमाइजेशन एवं लोकल कन्ट्रोल

3. ✖ Substitution, replication and local control
सब्स्टीट्यूशन, रेप्लीकेशन एवं लोकल कन्ट्रोल

4. ✖ Substitution, randomization and local control
सब्स्टीट्यूशन, रेन्डेमाइजेशन एवं लोकल कन्ट्रोल

Question Number : 17 Question Id : 50939818639 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Differences in the means of more than two treatments are analysed by :
दो से अधिक उपचारों के माध्य में विभेद का विश्लेषण किया जाता है :

Options :

1. ✖ Simple t-test
साधारण टी-परीक्षण

2. ✖ Chi square test
काई स्क्वायर परीक्षण

3. ✔ F-test
एफ-परीक्षण

4. ✖ Paired sample t-test
युग्मित सैम्पल टी-टेस्ट

Question Number : 18 Question Id : 50939818640 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is ***not*** a method of research ?
निम्नलिखित में से कौन शोध की एक विधि ***नहीं*** है ?

Options :

1. ✖ Survey
सर्वेक्षण

2. ✖ Historical
ऐतिहासिकता

3. ✔ Observation
अवलोकन

4. ✖ Philosophical
दार्शनिकता

Question Number : 19 Question Id : 50939818641 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following graphical presentation is two dimensional ?
निम्न में से कौन आरेखीय प्रस्तुतीकरण **दो** अक्षीय है ?

Options :

1. ✖ Pie chart
पाई चार्ट

2. ✖ Bar chart
दण्ड आरेख

3. ✔ Histogram
आयत चित्र

4. ✖ Box plot
बॉक्स प्लाट

Question Number : 20 Question Id : 50939818642 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Correlational Research can be classified from the perspectives of :
सह-संबंध अनुसंधान को किस दृष्टिकोण के आधार पर वर्गीकृत किया जा सकता है ?

Options :

1. ✖ Applications of the findings of the research study.
शोध अध्ययन के निष्कर्षों के अनुप्रयोग के आधार पर।

2. ✔ Objectives of the research study.
शोध अध्ययन के उद्देश्य के आधार पर।

3. ✖ Mode of enquiry used in conducting the study.
अध्ययन के संचालन में उपयोग की जाने वाली जांच के तरीके के आधार पर।

4. ✖ Outcome of the research.
शोध के परिणाम के आधार पर।

Question Number : 21 Question Id : 50939818643 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A researcher might want to examine the reactions of the general population towards people in wheelchairs. He/She can study their reactions by sitting in a wheelchair himself/herself. Such method of collecting data is known as :
एक शोधकर्ता व्हीलचेयर में बैठे लोगों के प्रति सामान्य आबादी की प्रतिक्रियाओं की जांच करना चाहता है। वह स्वयं व्हीलचेयर में बैठकर उनकी प्रतिक्रियाओं का अध्ययन कर सकता है। डेटा एकत्र करने की इस विधि को किस रूप में जाना जाता है ?

Options :

1. ✖ Disguised Observation
प्रच्छन्न अवलोकन

2. ✔ Participant Observation
प्रतिभागी अवलोकन

3. ✖ Non-Participant Observation
गैर-प्रतिभागी अवलोकन

4. ✖ Self Recording Observation
स्वयं रिकॉर्डिंग अवलोकन

Question Number : 22 Question Id : 50939818644 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is are citation/reference style(s) ?
निम्नलिखित में से कौन उद्धरण/संदर्भ विधि (विधियाँ) है/हैं ?

(A) American Physical Association
अमेरिकन फिजिकल एसोसिएशन

(B) Modern Linguistic Association
मॉडर्न लिंग्विस्टिक एसोसिएशन

(C) Oxford Standard for the Citation of Language Association
ऑक्सफोर्ड स्टैण्डर्ड फॉर द साइटेशन ऑफ लेंग्वेज एसोसिएशन

(D) Vancouver
वैंकूवर

Choose the correct answer from the codes given below :
निम्नलिखित में से कौन-सा सही कूट है :

Options :

1. ✖ (a), (b), (c) and (d)
(a), (b), (c) और (d)

2. ✖ (a), (b) and (c)
(a), (b) और (c)

3. ✖ (a) and (d)
(a) और (d)

4. ✔ (d) only
केवल (d)

Question Number : 23 Question Id : 50939818645 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

One-way ANOVA is used to :
एक-तरफा एनोवा का उपयोग किया जाता है :

Options :

1. ✖ Determine whether there is any statistically significant difference between the means of single independent group before and after intervention
यह निर्धारित करता है कि क्या एक स्वतंत्र समूह में हस्तक्षेप के पहले और बाद के माध्य (mean) के बीच कोई सांख्यिकीय महत्त्वपूर्ण अंतर है

2. ✖ Determine whether there are any statistically significant differences between the medians of two or more independent groups
यह निर्धारित करता है कि क्या दो या अधिक स्वतंत्र समूहों के मध्यस्थों के बीच कोई सांख्यिकीय महत्त्वपूर्ण अन्तर है

3. ✔ Determine whether there are any statistically significant differences between the means of two or more independent/unrelated groups
यह निर्धारित करता है कि क्या दो या अधिक स्वतंत्र/असंबंधित समूहों के माध्य (mean) के बीच कोई सांख्यिकीय महत्त्वपूर्ण अन्तर है या नहीं

Determine whether there are any statistically significant differences between the squared means of two or more independent group
निर्धारित करता है कि क्या दो या अधिक स्वतंत्र समूहों के वर्ग माध्य (squared mean) के बीच कोई सांख्यिकीय महत्त्वपूर्ण अन्तर है या नहीं

4. ✖

Question Number : 24 Question Id : 50939818646 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following principles of experimental design have been enumerated by Professor R. A. Fisher ?
प्रायोगिक डिजाइन के निम्नलिखित सिद्धान्तों में से कौन-कौन से सिद्धान्त प्रोफेसर आर० ए० फिशर द्वारा गिनाए गए हैं ?

(a) Principle of Revision
संशोधन का सिद्धान्त

(b) Principle of Replication
प्रतिकृति का सिद्धान्त

(c) Principle of Randomization
यादृच्छिकीकरण का सिद्धान्त

(d) Principle of Local Control
स्थानीय नियंत्रण का सिद्धान्त

Choose the correct answer from the codes given below :
नीचे दिए गए कोड में से सही उत्तर चुनें :

Options :

(a), (b) and (c)
(a), (b) और (c)

1. ✖

(a), (b) and (d)
(a), (b) और (d)

2. ✖

(b) (c) and (d)
(b) (c) और (d)

3. ✔

(a), (c) and (d)
(a), (c) और (d)

4. ✖

Question Number : 25 Question Id : 50939818647 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Read the statements A and B and choose the correct option :
कथन A और B पढ़ें और सही विकल्प चनें :

Statement A : Exploratory research studies are also termed as formulative research studies.
कथन A : अन्वेषणात्मक शोध अध्ययनों को प्रारंभिक शोध अध्ययन भी कहा जाता है।

Statement B : Exploratory research study is undertaken with the objective either to explore an area where little is known or to investigate the possibilities of undertaking a particular research study.
कथन B : अन्वेषणात्मक शोध अध्ययन का उद्देश्य किसी ऐसे विषय में शोध करना जिसके बारे में बेहद कम जानकारी उपलब्ध हो या किसी ख़ास विषय के बारे में शोध अध्ययन करने की संभावनाओं का पता लगाना होता है।

Options :

Both the statements are true.
दोनों कथन सत्य हैं।

1. ✔

Both the statements are false.
दोनों कथन असत्य हैं।

2. ✖

Statement A is true but B is false.
3. ✖ कथन A सत्य है लेकिन B गलत है।

Statement B is true but A is false.
4. ✖ कथन B सत्य है लेकिन A गलत है।

Question Number : 26 Question Id : 50939818648 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following are the online anti-plagiarism software ?
निम्नलिखित में से कौन-से ऑनलाइन एंटी-प्लेजिरिज्म सॉफ्टवेयर हैं :

(a) Urkund
उरकुंड

(b) Overleaf
ओवरलीफ

(c) Turnitin
टर्निटिन

(d) Viper
वाईपर

Choose the correct answer from the codes given below :
नीचे दिए गए कोड में से सही उत्तर चुनें :

Options :

(a), (b) and (c)
1. ✖ (a), (b) और (c)

(a), (b) and (d)
2. ✖ (a), (b) और (d)

(a), (c) and (d)
3. ✔ (a), (c) और (d)

(a) and (c)
4. ✖ (a) और (c)

Question Number : 27 Question Id : 50939818649 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Whether a test is one-sided or two-sided depends on :
क्या एक परीक्षण एकतरफा है या दो तरफा है :

Options :

alternative hypothesis
1. ✔ वैकल्पिक परिकल्पना

null and alternate both
2. ✖ शून्य और वैकल्पिक दोनों

null hypothesis
3. ✖ अशक्त परिकल्पना

either by null or by alternate
4. ✖ या तो शून्य या वैकल्पिक द्वारा

Question Number : 28 Question Id : 50939818650 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which measure of dispersion do not depends on all observations ?
फैलाव का कौन सा माप सभी अवलोकनों पर निर्भर नहीं करता है ?

Options :

1. ✖ Root mean & square deviation
मूल माध्य और वर्ग विचलन

2. ✖ Mean deviation
माध्य विचलन

3. ✔ Quartile deviation
चतुर्थक विचलन

4. ✖ Standard deviation
मानक विचलन

Question Number : 29 Question Id : 50939818651 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If r is the simple correlation coefficient, the quantity r^2 is termed as :
यदि r सरल सहसंबंध गुणांक है, तो मात्र r^2 को निम्न के रूप में कहा जाता है :

Options :

1. ✖ Coefficient of alienation
परकीयकरण का गुणांक

2. ✖ Coefficient of variation
भिन्नता का गुणांक

3. ✔ Coefficient of determination
दृढ़ संकल्प का गुणांक

4. ✖ Coefficient of non-determination
गैर-निर्धारण का गुणांक

Question Number : 30 Question Id : 50939818652 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A Scattergram is extremely effective :
एक स्कैटरग्राम अत्यंत प्रभावी है :

Options :

1. ✔ to show visually how two variables are covering
नेत्रहीन दिखाने के लिए कि दो चर कैसे ढकते हैं

2. ✖ in organising the scattered footnotes of the research.
शोध के बिखरे पांवों को व्यवस्थित करने में।

3. ✖ in organising the scattered bibliography of the research.
शोध की बिखरी हुई ग्रंथ सूची के आयोजन में।

4. ✖ in organising the scattered results drawn after the rigorous literature review.
कठोर साहित्य समीक्षा के बाद निकाले गए बिखरे परिणामों को व्यवस्थित करने में।

Question Number : 31 Question Id : 50939818653 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The conclusions/findings of which type of research can ***not*** be generalized to other situations ?
किस प्रकार के शोध के निषकर्ष को दूसरी परिस्थितियों में सामान्यीकृत ***नहीं*** किया जा सकता है ?

Options :

1. ✖ Casual Comparative Research
कारणात्मक तुलनात्मक शोध

2. ✖ Historical Research
ऐतिहासिक शोध

3. ✔ Descriptive Research
विवरणात्मक शोध

4. ✖ Experimental Research
प्रायोगिक शोध

Question Number : 32 Question Id : 50939818654 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one is called non-probability sampling ?
निम्नलिखित में से कौन गैर-प्रायिकता प्रतिचयन कहा जाता है ?

Options :

1. ✔ Quota sampling
कोटा प्रतिचयन

2. ✖ Cluster sampling
गुच्छ प्रतिचयन

3. ✖ Systematic sampling
सुनियोजित/व्यवस्थित प्रतिचयन

4. ✖ Stratified random sampling
स्तरित यादृच्छिक प्रतिचयन

Question Number : 33 Question Id : 50939818655 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In an experimental design, the dependent variable is :
एक प्रयोगात्मक प्रारूप में निर्भर चर वो होता है जिसे/जिसमें :

Options :

1. ✔ The one that is not manipulated and in which any changes are observed
कोई परिवर्तन/छेड़छाड़ नहीं की जाती और जिसमें होने वाले परिवर्तन की समीक्षा की जाती है।

2. ✖ The one that is manipulated in order to observe any effects on the other
परिवर्तन किया जाता है जिससे दूसरों में होने वाले परिवर्तन की समीक्षा की जाए।

3. ✖ A measure of the extent to which personal values affect research
किस प्रकार व्यक्तिगत मूल्य शोध को प्रभावित करते हैं उसके मापक के रूप में प्रयोग किया जाता है।

An ambiguous concept whose meaning depends on how it is defined
एक अस्पष्ट अवधारणा माना जा सकता है जिसका अर्थ इस पर निर्भर करता है कि उसे कैसे परिभाषित किया जाए।

4. ✖

Question Number : 34 Question Id : 50939818656 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

When a group of people with defined characteristics are followed up to determine incidence is known as :
घटना को निर्धारित करने के लिए परिभाषित विशेषताओं वाले लोगों के समूह को निम्न प्रकार से जाना जाता है :

Options :

1. ✖ Case series
केस सीरीज

2. ✔ Cohort
कोहोर्ट

3. ✖ Case control
केस नियंत्रण

4. ✖ Experimental
प्रायोगिक

Question Number : 35 Question Id : 50939818657 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In the process of conducting research, formulation of hypothesis is followed by :
अनुसंधान संचालन की प्रक्रिया में, उपकल्पना निर्माण का अनुसरण करता है :

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. Statement of objectives
उद्देश्यों का कथन

2. Collection or data
तथ्यों का संकलन

3. Analysis of data
तथ्यों का विश्लेषण

4. Selection of research tools
अनुसंधान यंत्रों का चयन

Question Number : 36 Question Id : 50939818658 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following features are considered as critical in qualitative research ?
निम्नलिखित में से कौन-सी विशेषतायें गुणात्मक शोध के लिए महत्त्वपूर्ण मानी जाती हैं ?

Options :

1. ✖ Collecting data with the help of standardized research tools.
मानकित शोध साधनों के के सहयोग से आंकड़ों का संग्रहण

2. ✖ Design sampling with probability sample techniques.
प्रायिकता प्रतिचयन तकनीकों के प्रयोग द्वारा प्रतिचयन प्रारूप का निर्धारण

3. ✔ Collecting data with bottom-up empirical evidence.
ऊर्ध्वगामी आनुभविक साक्ष्यों के प्रयोग से आंकड़ों का संग्रहण

4. ✖ Gathering data with top-down schematic evidence.
शीर्ष-पाद योजनाबद्ध साक्ष्यों के प्रयाग से आंकड़ों का संग्रहण

Question Number : 37 Question Id : 50939818659 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Among 25000 individual in a city, 105 were indentified with Covid-19 positive. Calculate the prevalence of Covid-19 per 1000 population.
एक शहर में 25000 व्यक्तियों में, 105 कोविड-19 सकारात्मक के साथ इडेंट किए गए थे। प्रति 1000 जनसंख्या पर कोविड-19 की व्यापकता की गणना करें।

Options :

1. ✖ 5.2

2. ✔ 4.2

3. ✖ 3.2

4. ✖ 2.2

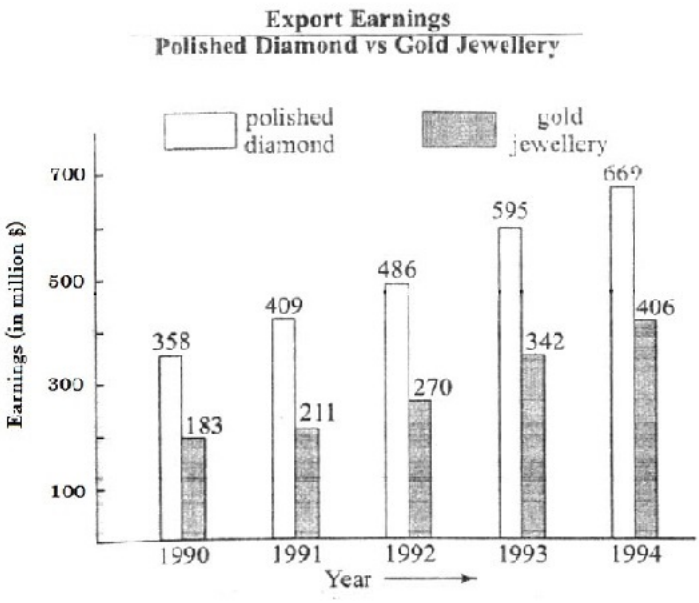
Question Number : 38 Question Id : 50939818660 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The following multiple bar chart shows the export earnings from polished diamonds and gold jewellery. Study the chart and answer the question :

निम्नलिखित बहु बार चार्ट पालिश्ड हीरे और सोने के आभूषणों से निर्यात आय को दर्शाता है। चार्ट का अध्ययन करें और दिए गए प्रश्न का उत्तर दें :



What was average earning from gold jewellery over 1990 to 1994 ?
1990 से 1994 तक स्वर्ण आभूषण से औसत प्राप्ति क्या थी ?

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. 503.4 Million
503.4 मिलियन

2. 501.6 Million
501.6 मिलियन

3. 500 Million
500 मिलियन

4. 510 Million
510 मिलियन

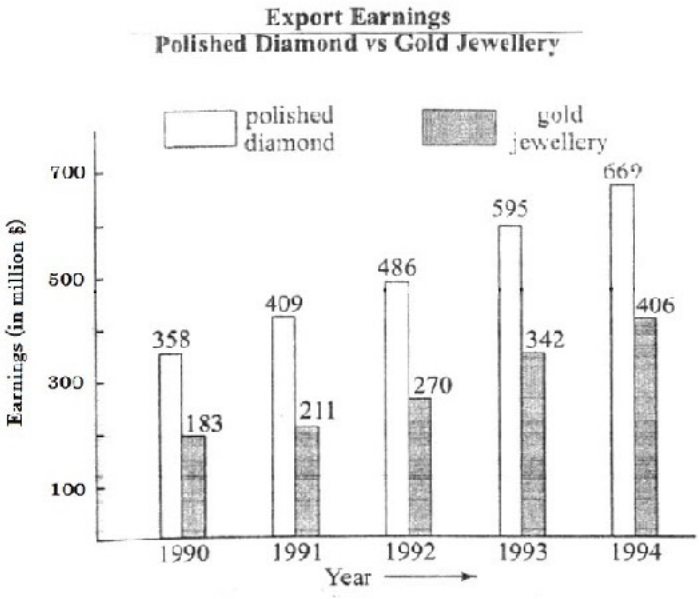
Question Number : 39 Question Id : 50939818661 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The following multiple bar chart shows the export earnings from polished diamonds and gold jewellery. Study the chart and answer the question :

निम्नलिखित बहु बार चार्ट पालिश्ड हीरे और सोने के आभूषणों से निर्यात आय को दर्शाता है। चार्ट का अध्ययन करें और दिए गए प्रश्न का उत्तर दें :



In which year the difference of export earning of two types of jewellery is maximum ?
किस वर्ष में दो आभूषणों के निर्यात प्राप्ति का अन्तर अधिकतम था ?

Options :

1. ✔ 1994

2. ✖ 1993

3. ✖ 1991

4. ✖ 1992

Question Number : 40 Question Id : 50939818662 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Directions : Study the following table and answer the question given :
Production of different types of scooters in a company

निर्देश : निम्नलिखित तालिका का अध्ययन करें और दिए गए प्रश्न का उत्तर दें :
एक कंपनी में विभिन्न प्रकार के स्कूटर का उत्पादन

Figures in '000

Year	Type of scooters				
	A	B	C	D	E
1992	180	60	84	100	76
1993	210	90	32	80	48
1994	135	30	44	95	85
1995	190	85	69	125	115
1996	260	95	120	80	120
1997	240	140	161	90	185

What was the approximate percentage of production of A-type scooters in 1995 to its total production over the years ?

1995 में A-टाइप के स्कूटरों के उत्पादन का अनुमानित प्रतिशत इसके कुल उत्पादन से कितना था ?

Options :

1. ✖ 20

2. ✔ 15

3. ✖ 23

4. ✖ 40

Subject_&_Area Concerned

Section Id :	509398267
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	60
Number of Questions to be attempted :	60
Section Marks :	180
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	509398294
Question Shuffling Allowed :	Yes

Question Number : 41 Question Id : 50939818663 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For any two jointly distributed random variables X and Y, which following is true in connection to the following result

$$E\,|X+Y|^u \le t_u\{E\,|X|^u + E\,|Y|^u\}$$

Options :

1. ✖ $t_u = 2^{u-1}, \quad u \le 1$
$= 1, \quad u \ge 1$

2. ✖ $t_u = 2^{1-u}, \quad u \le 1$
$= 1, \quad u \ge 1$

3. ✖ $t_u = 1, \quad u \le 1$
$= 2^{u-1}, \quad u \ge 1$

4. ✔ $t_u = 1, \quad u \le 1$
$= 2^{1-u}, \quad u \ge 1$

Question Number : 42 Question Id : 50939818664 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

Which one of the following is always true?

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. $X_n \xrightarrow{P} X \Leftrightarrow X_n \xrightarrow{r} X$

2. $X_n \xrightarrow{r} X \Rightarrow X_n \xrightarrow{P} X$ for all $r \in N$

3. $X_n \xrightarrow{P} X \Rightarrow X_n \xrightarrow{r} X$ but its converse is true for some $r \in N$ if a.s. bounded

4. $X_n \xrightarrow{P} X \Rightarrow X_n \xrightarrow{r} X$ but its converse is true for all $r \in N$ if a.s. bounded

Question Number : 43 Question Id : 50939818665 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

If $X_n \xrightarrow{r} X$, then

Options :

1. ✔ $X_n \xrightarrow{r+s} X$ for all $s < 0$

2. ✖ $X_n \xrightarrow{r-s} X$ for all $s < 0$

3. ✖ $X_n \xrightarrow{r+s} X$ for all $s > 0$

4. ✖ None of the above is true

Question Number : 44 Question Id : 50939818666 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

Let $\langle X_n \rangle$ be a sequence of random variables having the following pro

$$P(X_n = n) = \frac{1}{n^r},\ P(X_n = 0) = 1 - \frac{1}{n^r} \text{ for all } n \in N$$

where r is any natural number. Then

Options :

1. ✖ $X_n \xrightarrow{P} X$ and $X_n \xrightarrow{r} X$, where $P(X = 0) = 1$

2. ✖ $X_n \xrightarrow{P} X$ does not hold and $X_n \xrightarrow{r} X$, where $P(X = n) = 1$

3. ✔ $X_n \xrightarrow{r} X$ does not hold and $X_n \xrightarrow{P} X$, where $P(X = 0) = 1$

4. ✖ $X_n \xrightarrow{P} X$ and $X_n \xrightarrow{r} X$, where $P(X = n) = 1$

Question Number : 45 Question Id : 50939818667 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If $F_n(x)$ be the distribution function of the largest order statist random sample $Y_1, Y_2, \cdots, Y_n$ of size n from $U[0, \theta]$ distribution, t

Options :

1. ✖ $\langle F_n \rangle$ converges in law to F, where F is cumulative distribution (c.d.f.) of a degenerated Random Variable (RV) degenerating at 0

2. ✔ $\langle F_n \rangle$ converges in law to F, where F is c.d.f. of a degener degenerating at θ

3. ✖ $\langle F_n \rangle$ converges in law to F, where F is c.d.f. of a degener degenerating at $\frac{1}{\theta}$

4. ✖ $\langle F_n \rangle$ does not converges in law to any c.d.f. F

Question Number : 46 Question Id : 50939818668 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let $X_1, X_2, \cdots, X_n$ be a random sample of size n from a uniform $U(0,1)$. If $X_{(r)}$ denotes the rth order statistics, then $E(X_{(r)})$ is

Options :

1. ✖ $\frac{r}{n-r}$

2. ✖ $\frac{n-r}{n-r+1}$

3. ✔ $\frac{r}{n+1}$

4. ✖ $\frac{r}{n+r+1}$

Question Number : 47 Question Id : 50939818669 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If X is a Poisson variate such that $P(X=2) = 9P(X=4) + 90P$ which of the following is correct?

Options :

1. ✖ Mean $= 3$, coefficient of skewness $= 1 \cdot 5$

2. ✔ Mean $= 1$, coefficient of skewness $= 1$

3. ✖ Mean $= 4$, coefficient of skewness $= -1$

4. ✖ Mean $= 2$, coefficient of skewness $= 5$

Question Number : 48 Question Id : 50939818670 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Statements I and II are based on two identically and independentl random variables X and Y from $U(-\alpha, \alpha)$.

Statement–I : $X+Y$ has triangular distribution i.e., Trg $(-2\alpha, 2\alpha)$ origin.

Statement–II : $X-Y$ has triangular distribution i.e., Trg $(-2\alpha, 2\alpha)$ origin.

Options :

1. ✖ Statement—I is only true

2. ✔ Both statements are true

3. ✖ Statement—II is only true

4. ✖ Both statements are false

Question Number : 49 Question Id : 50939818671 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let a random variable X has standard Cauchy distribution. The d $g(X) = X^2$ is

Options :

1. ✖ $g(X) \sim N(0,1)$

2. ✖ $g(X) \sim$ beta $(2,2)$

3. ✖ $g(X) \sim \exp(1)$

4. ✔ $g(X) \sim \beta_2\left(\frac{1}{2}, \frac{1}{2}\right)$

Question Number : 50 Question Id : 50939818672 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let X_1 and X_2 are the two independent Cauchy variates with paran and (α_2, β_2) respectively. The distribution of $X_1 + X_2$ is

Options :

1. ✔ Cauchy variate with parameters $(\alpha_1 + \alpha_2, \beta_1 + \beta_2)$

2. ✖ Cauchy variate with parameters $(\alpha_2, \beta_1 + \beta_2)$

3. ✖ Cauchy variate with parameters $(\alpha_1 + \alpha_2, \beta_2)$

4. ✖ Cauchy variate with parameters $(\alpha_1 - \alpha_2, \beta_2)$

Question Number : 51 Question Id : 50939818673 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A particle starts a random movement from origin. Let p is prob moving a unit step to the right and q is the probability of its movir to the left such that $p + q = 1$. Assuming independent movements, t variance of the distance moved from origin after n steps are

Options :

1. ✔ $n(p-q),\ 4npq$

2. ✖ $n(q-p),\ 4npq$

3. ✖ $(p-q),\ 4pq$

4. ✖ $np,\ npq$

Question Number : 52 Question Id : 50939818674 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider a random process $X(t)$ defined as $X(t) = A\cos(\omega t) + B$ si ω is a constant and A and B are random variables, which of the f condition for its stationary?

Options :

1. ✔ $E(A) = 0,\ E(B) = 0$

2. ✖ $E(AB) = 0$

3. ✖ $E(A) \neq 0,\ E(B) \neq 0$

4. ✖ A and B should be independent

Question Number : 53 Question Id : 50939818675 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For an ergodic process

Options :

1. ✖ mean is necessarily zero
2. ✖ mean square value is infinity
3. ✖ all time averages are zero
4. ✔ mean square value is independent of sine

Question Number : 54 Question Id : 50939818676 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is not correct?

Options :

1. ✖ An absorbing state is recurrent
2. ✖ An ergodic state is recurrent
3. ✔ Recurrent state is periodic
4. ✖ An absorbing state is a periodic

Question Number : 55 Question Id : 50939818677 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let $\{X_n\}$ be a Markov chain with state space $S = \{0, 1, \cdots\}$ ar probabilities P_{ij}. Let $f_{ii}^{(n)}$ be the probability that the first return after n steps. Let following codes apply to each statement :

i. i is accessible from j

ii. i is a transient state

iii. i is a recurrent state

iv. i is a positive recurrent state

Which of the above statement(s) satisfy $\sum_{n=0}^{\infty} P_{ii}^{n} = \infty$ and $\sum_{n=0}^{\infty}$

Options :

1. ✖ i and iv

2. ✖ ii and iii

3. ✖ iii only

4. ✔ iii and iv

Question Number : 56 Question Id : 50939818678 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The payoff value for which each player in a game always selec strategy is called the

Options :

1. ✖ equilibrium point only

2. ✖ saddle point only

3. ✖ dominant point only

4. ✔ either equilibrium or saddle point

Question Number : 57 Question Id : 50939818679 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If small orders are placed frequently (rather than placing infrequently), then total inventory cost is

Options :

1. ✖ increased
2. ✖ decreased
3. ✖ minimized
4. ✔ either increased or decreased

Question Number : 58 Question Id : 50939818680 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If an optimal order size Q^* is calculated, but is found to be of an i size, would the total cost per unit time

Options :

1. ✖ rise quickly around Q^*
2. ✔ rise slowly around Q^*
3. ✖ fall quickly around Q^*
4. ✖ fall slowly around Q^*

Question Number : 59 Question Id : 50939818681 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Customer behavior in which he moves from one queue to another channel situation is called

Options :

1. ✖ balking
2. ✖ reneging
3. ✔ jockeying

4. ✖ alternating

Question Number : 60 Question Id : 50939818682 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The calculation of opportunity cost in MODI method (to solve tr problem) is analogous to

Options :

1. ✔ $Z_j - C_j$ value for non-basic variable columns in the simplex met

2. ✖ value of a variable in X_B column of the simplex method

3. ✖ $Z_j - C_j$ value for basic variable columns in the simplex method

4. ✖ value of a variable in B-column of the simplex method

Question Number : 61 Question Id : 50939818683 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Migration propensity is not associated with

Options :

1. ✖ geographical

2. ✖ social

3. ✖ psychological

4. ✔ biological

Question Number : 62 Question Id : 50939818684 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is not studied under the topic of mortalit

Options :

1. ✖ Infant deaths

2. ✔ Abortion

3. ✖ Mortality differentials

4. ✖ Mortality trends

Question Number : 63 Question Id : 50939818685 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The crude death rate is called crude because

Options :

1. ✔ the risk set it uses in the denominator is not homogeneous

2. ✖ it ignores causes of death

3. ✖ it can be calculated only in census years

4. ✖ it is seldom used in developed countries

Question Number : 64 Question Id : 50939818686 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is not among the most important proximate d of fertility identified by Bongaarts?

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. Time between marriage and menopause

2. Contraception

3. Abortion

4. Breastfeeding

Question Number : 65 Question Id : 50939818687 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

Moving back and forth between a primary and a secondary residenc

Options :

1. ✖ local move
2. ✔ circulatory mobility
3. ✖ social mobility
4. ✖ mover-stayer cycle

Question Number : 66 Question Id : 50939818688 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

In post-stratified random sampling, population stratum size *Ni*, i

Options :

1. ✔ known
2. ✖ unknown
3. ✖ random variable
4. ✖ fixed

Question Number : 67 Question Id : 50939818689 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

The ratio estimator is BLUE for population mean, if

Options :

1. ✖ $\text{Var}\,(Y_i \mid X_i) = C \log(X_i)$
2. ✖ $\text{Var}\,(Y_i \mid X_i) = C X_i^2$
3. ✖ $E(Y_i) = C Y_i$

4. ✔ $\text{Var}\,(Y_i \mid X_i) = C\,X_i$

Question Number : 68 Question Id : 50939818690 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The expected number of draws required to draw one unit by Lahiri's

Options :

1. ✖ $\overline{X}/M$

2. ✔ $M/\overline{X}$

3. ✖ M

4. ✖ $\overline{X}$

Question Number : 69 Question Id : 50939818691 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The main drawback of the estimate of the variance of the Horvit estimator, when all y_i/π_i are same, is that it does not reduces t

Options :

1. ✖ 1

2. ✔ 0

3. ✖ ∞

4. ✖ N

Question Number : 70 Question Id : 50939818692 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Difference between the sample survey estimate and the parametri being estimated is termed as

Options :

1. ✔ sampling error

2. ✖ non-sampling error

3. ✖ measurement error

4. ✖ total error

Question Number : 71 Question Id : 50939818693 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Under which of the following reliability operation, the class of Increa Rate Average (IFRA) distributions is closed?

Options :

1. ✖ Addition of life length

2. ✖ Mixture of distributions

3. ✔ Formation of coherent systems

4. ✖ Multivariate distributions

Question Number : 72 Question Id : 50939818694 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The lifetime (X) of a certain unit follows exponential distribution w θ. In a life-testing experiment, n such units were put to test and terminated after observing first r failures $x_{(1)} \leq x_{(2)} \leq \cdots \leq x_{(n)}$. The is

Options :

1. ✖ $\frac{1}{r}\sum_{i=1}^{r} x_{(i)}$

2. ✔ $\frac{1}{r}\left(\sum_{i=1}^{r} x_{(i)} + (n-r)\, x_{(r)}\right)$

3. ✖ $\frac{1}{r}\left(\sum_{i=1}^{r} x_{(i)} - (n-r)\, x_{(r)}\right)$

4. ✖ $\frac{1}{n}\sum_{i=1}^{n} x_{(i)}$

Question Number : 73 Question Id : 50939818695 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The Total Time on Test (TTT) plot of a bath-tub shaped failure rate is

Options :

1. ✖ convex

2. ✖ concave

3. ✖ initially concave then convex

4. ✔ initially convex then concave

Question Number : 74 Question Id : 50939818696 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider that F_1 and F_2 are increasing failure rate distributions. convolution of F_1 and F_2. Then F has

Options :

1. ✔ increasing failure rate

2. ✖ decreasing failure rate

3. ✖ decreasing failure rate average

4. ✖ increasing failure rate average

Question Number : 75 Question Id : 50939818697 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In RBD with 4 blocks and 5 treatments having one missing v
missing plot technique analysis the error degrees of freedom wil

Options :

1. ✖ 12

2. ✔ 11

3. ✖ 10

4. ✖ 9

Question Number : 76 Question Id : 50939818698 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

With usual notations the formula for calculating one missing ob
LSD having order m is

Options :

1. ✔ $\frac{m(R+C+T)-2S}{(m-1)(m-2)}$

2. ✖ $\frac{(R+C+T)-2S}{(m-1)(m-2)}$

3. ✖ $\frac{(R+C+T)-2S}{(m^2-1)(m-2)}$

4. ✖ $\frac{(R+C+T)-2S}{(m-1)^2}$

Question Number : 77 Question Id : 50939818699 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

On the basis of statements given below, choose the correct alter

A. the BIB design may be called a PBIB design with one associ

B. the parameters $b, k, v, r, \lambda_1, \lambda_2, \cdots, \lambda_m, n_1, n_2, \cdots, n_m$ are us parameters of first kind of PBIBD

C. there are only $m(m^2-1)/6$ independent parameters of the se PBIBD

D. $\begin{vmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{vmatrix}$ the association scheme with 6 symbols, we easily ve result is a three class association scheme with $n_1 = 2,\ n_2 = 1$

Options :

1. ✖ A and B are true

2. ✖ A, B and C are true

3. ✔ A, B, C and D are true

4. ✖ A, B and D are true

Question Number : 78 Question Id : 50939818700 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If k independent effects are confounded in a 2^n factorial experime blocks of size 2^{n-k} units, the number of automatically confound

Options :

1. ✖ $2^k - k$

2. ✖ $k^2 - k - 1$

3. ✔ $2^k - k - 1$

4. ✖ $k - 1$

Question Number : 79 Question Id : 50939818701 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In 3^3-factorial experiments the effects are

Options :

1. ✖ linear only

2. ✖ quadratic only

3. ✔ linear and quadratic both

4. ✖ Neither linear nor quadratic

Question Number : 80 Question Id : 50939818702 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one is true for BIBD ? Here notations have their usual n

Options :

1. ✖ $b < v$

2. ✔ $b \geq v$

3. ✖ $(\lambda - 1)\, v = r\,(k-1)$

4. ✖ $\lambda v = r\,(k-1)$

Question Number : 81 Question Id : 50939818703 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

ANCOVA is

Note: For this question, discrepancy is found in question/answer. Full Marks is being awarded to all candidates.

Options :

1. combination of ANOVA and regression

2. only regression

3. only ANOVA

Neither ANOVA nor regression

4.

Question Number : 82 Question Id : 50939818704 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In a split plot design, smaller error mean square is obtained for

Options :

1. ✖ main plot error

2. ✔ sub-plot error

3. ✖ experimental error

4. ✖ main plot error and experimental error

Question Number : 83 Question Id : 50939818705 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For linear model $E(Y) = X\beta$, the least square estimator for β with it matrix is given by

Options :

1. ✔ $(X'X)^{-1}X'Y$ and $\sigma^2(X'X)^{-1}$

2. ✖ $X'Y(X'X)^{-1}$ and $\sigma^2(X'X)^{-1}$

3. ✖ $(X'X)^{-1}X'Y$ and $(X'X)^{-1}$

4. ✖ $X'Y(X'X)^{-1}$ and $(X'X)^{-1}$

Question Number : 84 Question Id : 50939818706 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The minimum sum of squares $R_0^2 = (Y - X\hat{\beta})'(Y - X\hat{\beta})$ so an unbias of σ^2 is

Here r = Rank (X) and other notations have their usual meanin

Options :

1. ✔ $\hat{\sigma}^2 = \frac{R_0^2}{n-r}$

2. ✖ $\hat{\sigma}^2 = \frac{R_0^2}{n+r}$

3. ✖ $\hat{\sigma}^2 = \frac{R_0^2}{(n-r)(n+r)}$

4. ✖ $\hat{\sigma}^2 = \frac{n+r}{R_0^2}$

Question Number : 85 Question Id : 50939818707 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let C be a g-inverse of $X'X$ and let $H = CX'X$. Then a necessary a condition that $P'\beta$ is estimable is that

Options :

1. ✖ $P'(I+H) = 0$

2. ✔ $P'(I-H) = 0$

3. ✖ $P'(I-2H) = 0$

4. ✖ $P'(I+2H) = 0$

Question Number : 86 Question Id : 50939818708 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For a given matrix $A = \begin{bmatrix} 3 & 1 & 2 \\ 1 & 1 & 0 \\ 2 & 0 & 2 \end{bmatrix}$, if g-inverse of A is given

$B = \begin{bmatrix} 0 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & \frac{1}{2} \end{bmatrix}$, then the value of ABA will be

Options :

1. ✖ AB

2. ✖ BA

3. ✔ A

4. ✖ B

Question Number : 87 Question Id : 50939818709 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is not a contrast among three treatments cor

Options :

1. ✖ $T_1 - T_3$

2. ✔ $T_1 + 2T_2 - T_3$

3. ✖ $T_1 - 2T_2 + T_3$

4. ✖ $-T_1 + 2T_2 - T_3$

Question Number : 88 Question Id : 50939818710 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

$100\,(1-\alpha)\%$ confidence interval of the slope β_1 in simple regression

Options :

1. ✔ $\hat{\beta}_1 - t_{\frac{\alpha}{2}, n-2} \text{SE}(\hat{\beta}_1) \leq \beta_1 \leq \hat{\beta}_1 + t_{\frac{\alpha}{2}, n-2} \text{SE}(\hat{\beta}_1)$

2. ✖ $\hat{\beta}_1 - t_{1-\frac{\alpha}{2}, n-2} \text{SE}(\hat{\beta}_1) \leq \beta_1 \leq \hat{\beta}_1 + t_{1-\frac{\alpha}{2}, n-2} \text{SE}(\hat{\beta}_1)$

3. ✖ $\hat{\beta}_1 - t_{\frac{\alpha}{2}, n-1} \text{SE}(\hat{\beta}_1) \leq \beta_1 \leq \hat{\beta}_1 + t_{\frac{\alpha}{2}, n-1} \text{SE}(\hat{\beta}_1)$

4. ✖ $\hat{\beta}_1 - t_{\frac{\alpha}{2}, n} \text{SE}(\hat{\beta}_1) \leq \beta_1 \leq \hat{\beta}_1 + t_{\frac{\alpha}{2}, n} \text{SE}(\hat{\beta}_1)$

Question Number : 89 Question Id : 50939818711 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let u be the utility defined on the set of prospects P which preference pattern $\leq$. Then which of the following statements is

Options :

1. ✖ u is typically bounded

2. ✖ u also agrees with preference pattern $\leq$

3. ✖ u is unique up to linear transformation

4. ✔ u is usually convex

Question Number : 90 Question Id : 50939818712 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A decision problem aims to choose an optimum decision amoı decisions $A = \{a_1, a_2, a_3\}$ under states of nature $\Theta = \{\theta_1, \theta_2, \theta_3\}$. Los

	θ_1	θ_2	θ_3
a_1	4	1	−3
a_2	3	2	5
a_3	0	1	6

The prior probabilities are $\pi(\theta_1) = \pi(\theta_2) = \pi(\theta_3) = 1/3$. Then the r Bayes decisions respectively are

Options :

1. ✔ a_2 and a_1

2. ✖ a_1 and a_2

3. ✖ a_2 and a_2

4. ✖ a_2 and a_3

Question Number : 91 Question Id : 50939818713 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For the loss matrix associated with a decision problem

	θ_1	θ_2
a_1	−1	1
a_2	1	−1

Define randomized rule $\delta_p = pa_1 + (1-p)a_2$. The minimax decisi

Options :

1. ✖ δ_0

2. ✔ $\delta_{1/2}$

3. ✖ $\delta_{3/4}$

4. ✖ δ_1

Question Number : 92 Question Id : 50939818714 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is not a part of Bayesian estimation?

Options :

1. ✖ Prior distribution

2. ✖ Likelihood

3. ✖ Loss function

4. ✔ Sampling distribution

Question Number : 93 Question Id : 50939818715 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If prior distribution and posterior distribution of a parameter bel family of distribution, then the prior distribution is named as

Options :

1. ✔ conjugate prior

2. ✖ Jeffrey prior

3. ✖ uniform prior

4. ✖ informative prior

Question Number : 94 Question Id : 50939818716 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

To measure the dissimilarity between two groups, the complete uses

Options :

1. ✖ the mean-based distance

2. ✖ the nearest neighbour distance

3. ✔ the farthest neighbour distance

4. ✖ the average neighbour distance

Question Number : 95 Question Id : 50939818717 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A test is said to be the most powerful test of size α if

Options :

1. ✖ among all other tests of size α or greater, it has the largest β

2. ✔ among all other tests of size α or less, it has the largest power

3. ✖ among all other tests of size α or greater, it has the largest $1-\alpha$

4. ✖ among all other tests of size α or greater, it has the smallest po

Question Number : 96 Question Id : 50939818718 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let p be the probability that a coin will fall head in a single toss in the hypothesis $H_0 : p = \frac{1}{2}$ against $H_1 : p = \frac{3}{4}$. A coin is tossed 5 tim rejected if more than three heads are obtained. The probability of ty

Options :

1. ✔ 3/16

2. ✖ 47/128

3. ✖ 81/128

4. ✖ 13/16

Question Number : 97 Question Id : 50939818719 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response

Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If $X_1, X_2, \cdots, X_n$ is a random sample from normal population statistic

$$t = \frac{1}{n}\sum_{i=1}^{n} X_i^2$$

is an unbiased estimator of

Options :

1. ✖ μ

2. ✖ μ^2

3. ✔ $\mu^2 + 1$

4. ✖ $(\mu + 1)^2$

Question Number : 98 Question Id : 50939818720 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Suppose a random variable X follows normal distribution with variance unity and let the prior for θ be standard normal distribu the Bayes estimator of θ under squared error loss function whe sample $x_1, x_2, \cdots, x_n$ from the considered population is drawn and T

Options :

1. ✖ T/n

2. ✔ $T/(n+1)$

3. ✖ $nT/(n+1)$

4. ✖ $(T+1)/(n+2)$

Question Number : 99 Question Id : 50939818721 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response

Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For testing simple versus simple hypothesis

Options :

1. ✔

Bayes factor becomes a measure of relative support provided exclu the data

2. ✖

Bayes factor becomes a measure of relative support provided exclu the prior

3. ✖

Bayes factor becomes a measure of relative support provided by b and prior

4. ✖

Bayes factor does not exist for such problems

Question Number : 100 Question Id : 50939818722 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one of the following statements is correct?

Options :

1. ✔

Bayes rule corresponding to a least favorable prior distribution is m

2. ✖

Bayes rule is always minimax for the squared error loss functior

3. ✖

Posterior mode can be obtained as a Bayes point estimator when function is linear.

4. ✖

The conjugate prior for the Gamma shape parameter when t parameter is unity is Gamma itself.