Banaras Hindu University

Notations:

- 1. Options shown in green color and with vicon are correct.
- 2. Options shown in red color and with * icon are incorrect.

Question Paper Name: 905 **Subject Name:** 905

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RET_Statistics

Group Number:

Group Id: 76221171

Group Maximum Duration :0Group Minimum Duration :120Revisit allowed for view? :NoRevisit allowed for edit? :NoBreak time:0Group Marks:300

Research_Methodology

Section Id: 762211141

Section Number:

Section type: Online
Mandatory or Optional: Mandatory

Number of Questions:40Number of Questions to be attempted:40Section Marks:120Display Number Panel:YesGroup All Questions:No

Sub-Section Number: 1

Sub-Section Id: 762211141

Data Editing

4. 🗱 डाटा एडिटिंग

Question Number: 3 Question Id: 7622117003 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which of the following is **not** covered under Intellectual Property Rights?

निम्नलिखित में से कौन बौद्धिक संपदा अधिकारों के अंतर्गत **नहीं** आता है ?

Options:

Copyrights

1. 🕷 कॉपीराइट

Patents

2. 🗱 पेटेंट

Trademarks

3. 🕷 ट्रेडमार्क

Thesaurus

4. 🗸 थिसॉरस

Question Number: 4 Question Id: 7622117004 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

A bar chart or graph which shows the frequency of occurrence of each value of the variable which is being analysed is termed as:

स्तंभ चार्ट या ग्राफ जो चर के प्रत्येक मान को प्राप्त करने की आवृत्ति को दिखाता है जिसका विश्लेषण किया जा रहा है, को कहा जाता है :

Options:

Bar chart

1 🗱 स्तंभ चार्ट के रूप में

Histogram

2. 🗸 कालिकचित्र के रूप में

Candle stick

3. 🗱 कैंडल स्टिक के रूप में

Tabulation

👱 सारणीयन के रूप में

Question Number : 5 Question Id : 7622117005 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The depth of research can be judged by :

शोध की गहराई का अंदाजा इससे लगाया जा सकता है :

Options:

Title of the research work

🔒 🗱 शोध कार्य का शीर्षक

Objective of research

🤈 🥒 शोध का उद्देश्य

Total expenditure of research

🛪 🛎 शोध का कुल खर्च

Duration of research

🗸 🗯 शोध की अवधि

Question Number: 6 Question Id: 7622117006 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The mean of a set scores is 50 and standard deviation is 10. If the score of each student is doubled the new median will be :

समुच्चय अंकों का माध्य 50 है तथा मानक विचलन 10 है। यदि प्रत्येक छात्र के अंकों को दोगुना कर दिया जाय, नई माध्यिका :

Options:

Remain unchanged

1. 🛎 अपरिवर्तित रहेगी

Increase by double

🤈 🥒 दोगुना वृद्धि होगी

Decrease by half

3. 🗶 आधा कम होगी

Become equal to the mean

🗸 🗶 माध्य के बराबर होगी

Question Number: 7 Question Id: 7622117007 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following is **not** a type of research question?

निम्न में से कौन अनुसंधान प्रश्न का प्रकार **नहीं** है ?

Options:

Predicting an outcome

1. 🗱 परिणाम की भविष्यवाणी

Evaluating a phenomenon

2 🗶 घटना का मूल्यांकन

Developing good practice

3 🗶 अच्छी प्रक्रिया को बढ़ाना

A hypothesis

4. 🗸 एक परिकल्पना

Question Number: 8 Question Id: 7622117008 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

All of the following are types of non-probability sampling techniques except :

निम्न में से सभी गैर-प्रायिकता प्रतिदर्श तकनीक के प्रकार हैं सिवाय :

Options:

Purposive sampling

1. * सोद्देश्य प्रतिदर्श के

Snowball sampling

🤈 🙀 स्नोबॉल प्रतिदर्श के

Convenience sampling

3. 🗶 सुविधा प्रतिदर्श के

Random sampling 4. 🗸 यादृच्छिक प्रतिदर्श के No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1

Question Number: 9 Question Id: 7622117009 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

Question Label : Multiple Choice Question

To test null hypothesis, a researcher does **not** use :

नगण्य परिकल्पना का परीक्षण करने हेतु अनुसंधानकर्ता निम्न में से किसका प्रयोग *नहीं* करते हैं ?

Options:

Chi-square test

1. * काई-स्क्वेयर परीक्षण

t-test

2 🙀 टी-परीक्षण

ANOVA

3. 🗱 एनोवा

Factorial analysis

4. 🛷 क्रमगुणित विश्लेषण

Question Number: 10 Question Id: 7622117010 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

P-value stands for :

पी० मुल्य का अभिप्राय है :

Options:

Probability value

1. ✔ प्रायिकता मूल्य

Preference value

2. 🛎 वरीयता मूल्य

Pre-determined value

3. 🚜 पूर्व-निश्चित मूल्य

Prescribed value

4. 🗱 निर्धारित मूल्य

Question Number: 11 Question Id: 7622117011 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: 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 करने की प्रक्रिया में "परिकल्पना के सूत्रीकरण" के बाद किया जाता है :

Options:

Statement of Objectives

1 🛎 उद्देश्यों का विवरण

Analysis of Data

🤈 🙀 आँकड़े का विश्लेषण

Selection of Research Tools

3. 🗸 अनुसंधान साधनों का चयन

Collection of Data

🛕 🚜 आँकड़े का संग्रह

Question Number: 12 Question Id: 7622117012 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Longitudinal studies of cohort groups

दस्ता समूहों का अनुदैर्घ्य अध्ययन है :

Options:

Study the same people over time

🔒 🎎 कुछ समय पर एक ही लोगों का अध्ययन

Use panel members as participants

2. * भागीदार के रूप में पेनल सदस्यों का उपयोग

Study attitudes at a single point in time

3. 🗱 एक समय पर दृष्टिकोण का अध्ययन

Use different participants for each sequenced measurement

🗸 🧹 प्रत्येक अनुक्रमित मापन हेतु विभिन्न भागीदारों का उपयोग

Question Number: 13 Question Id: 7622117013 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

A deductive theory is one that :

निगमनिक सिद्धांत है:

Options:

Allows theory to emerge out of the data

🛾 🚜 जो सिद्धांत को आँकड़े से व्युत्पन्न होने देता है

Involves testing an explicitly defined hypothesis

🤰 🥒 जिसमें स्पष्ट तथा परिभाषित परिकल्पना का परीक्षण शामिल है

Allows for findings to feed back into the stock of knowledge

🛪 🚜 जिसका उद्देश्य है ज्ञान के संचय में प्रतिपुष्टि हेतु निष्कर्ष देना

Uses qualitative methods whenever possible

4. 🗱 जो जब भी संभव हो गुणात्मक पद्धति का प्रयोग करता है

Question Number: 14 Question Id: 7622117014 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Meta data is the data that :

मेटा डाटा वह डाटा है जो :

Options:

Distribute other data

1. 🛎 अन्य डाटा को बाँटता है

Collect other data

🤈 🚜 अन्य डाटा को एकत्रित करता है

Describes the other data

3 🖋 डाटा को बताता है

Destroy the data

🗸 🗯 डाटा को नष्ट करता है

Question Number: 15 Question Id: 7622117015 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Randomization is done to :

यादुच्छिकीकरण की जाती है :

Options:

Increase bias

🔒 💥 अभिनति को बढ़ाने के लिए

Reduce bias

🤰 🥒 अभिनति को कम करने के लिए

For making hypothesis

3 🗶 परिकल्पना करने के लिए

To increase drug efficacy

4 🗶 औषधि क्षमता को बढ़ाने के लिए

Question Number: 16 Question Id: 7622117016 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Data is represented in form of notes, recordings and video tapes in :

आँकड़ा को नोट, रेकार्डिंग एवं वीडियोटेप के रूप में निरूपित किया जाता है :

Options:

Oualitative Research

1. ✔ गुणात्मक अनुसंधान में

Quantitative Research

🤈 🗯 परिमाणात्मक अनुसंधान में

Experimental Research

🗝 🗶 प्रयोगात्मक अनुसंधान में

Descriptive Research

4. 🛎 वर्णनात्मक अनुसंधान में

Question Number: 17 Question Id: 7622117017 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Grounded theory is often used in formulation of : ग्राउंडेड थ्योरी का प्रयोग प्रतिपादन में बहुधा किया जाता है :

Options:

Policies and Programme evaluation research

1 🗸 नीतियों एवं कार्यक्रम मूल्यांकन अनुसंधान के

Opportunity for exploring the facts

🤈 🚜 तथ्यों का पता लगाने हेतु अवसर के

Categorizing data

🦼 🚜 आँकड़ा को श्रेणीबद्ध करने के

Understanding the culture

🗸 🗶 संस्कृति को समझने के

Question Number: 18 Question Id: 7622117018 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Read the statement A and B and choose the correct option :

कथन **क** एवं **ख** को पढ़िए तथा सही विकल्प चुनिए :

Statement A: Variables can be manipulated, controlled or observed by the experimenter.

कथन क : चरों को प्रयोगकर्ता द्वारा काम में लाया, नियंत्रित या अवलोकित किया जा सकता है।

Statement B: Variables are not related to theoretical concepts.

कथन ख: चर सैद्धांतिक अवधारणाओं से संबंधित नहीं हैं।

Options:

Both the statements are true

1 🗶 दोनों कथन सत्य हैं

Statement A is true but B is false

🤈 🥒 कथन **क** सत्य है किन्तु कथन **ख** असत्य है

Both the statements are false

🔒 🙀 दोनों कथन असत्य हैं

Statement A is false but B is true

🚜 🚜 कथन **क** असत्य है किन्तु कथन **ख** सत्य है

Question Number: 19 Question Id: 7622117019 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which of the following is not a category of legal research?

निम्नलिखित में कौन-सा विधिक शोध की श्रेणी में नहीं आता है ?

Options:

a practical discipline of law

2 🚜 व्यावहारिक विषय के रूप में

an aspect of the humanities

3. 🛪 मानविकी के एक पहलू के रूप में

an aspect of social sciences सामाजिक विज्ञान के पहलू के रूप में

Question Number: 20 Question Id: 7622117020 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

Correct Marks: 3 Wrong Marks: 1

No Control Enable: Yes

Question Label: Multiple Choice Question

Rejection of null hypothesis when it is true is called:

सत्य होने की स्थिति में नगन्य परिकल्पना की अस्वीकृति क्या कहलाती है ?

Options:

Type II error

1. ¥ टाइप Ⅱ त्रुटि

Type I error

_{2. 🖋} टाइप I त्रुटि

Sampling error

🛪 🙀 प्रतिदर्श त्रुटि

Standard error

4. 🗱 मानक त्रुटि

Question Number: 21 Question Id: 7622117021 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

In a research study one of the variables selected was (students') parents' occupation such as business, farming, service etc. What level of measurement is

"अनुसंधान अध्ययन में चयनित एक चर माता-पिता का व्यवसाय जैसे व्यापार, खेती, सेवा इत्यादि। यह किस प्रकार का मापन है ?"

Options:

Nominal

1. 🗸 सांकेतिक

Ordinal

2. 🕷 क्रमसूचक

Interval

अन्तराल

Ratio

अनुपात

Question Number : 22 Question Id : 7622117022 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

What is standard error?

मानक त्रुटि क्या है ?

Options:

Standard deviation of the sampling distribution of a statistic

1 🗸 सांख्यिकीय के प्रतिदर्श बंटन का मानक विचलन

Modal error value of the standard range of a statistic

2 🗱 सांख्यिकीय के मानक रेंज का मॉडल त्रुटि मान

Error in the calculation of standard deviation of a statistic

🛪 🛪 सांख्यिकीय के मानक विचलन के गणना में त्रुटि

Standardized statistic to minimize error

4. 🗱 त्रुटि को कम करने के लिए मानकीकृत सांख्यिकीय

Question Number : 23 Question Id : 7622117023 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following is helpful in determining sample size?

प्रतिदर्श आकार का निर्धारण करने में निम्न में से कौन सहायक है ?

Options:

Russell 2000 index

1 🙀 रसेल 2000 सूचकांक

Cochran's formula

2 🖋 कोकरन का नियम

Tussad's formula

3. 🗶 तुसाद का नियम

Spearman's formula

🗸 🗶 स्पीयरमैन का नियम

Question Number: 24 Question Id: 7622117024 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following is not true about the case study method?

'केस अध्ययन' के बारे में निम्नलिखित में से क्या सत्य नहीं है ?

Options:

It is an expensive method of research

🕯 🚜 यह एक महंगी पद्धति है

There are many chances of making errors

🤈 🚜 इसमें त्रुटि होने की बहुत संभावना होती है

It is mainly qualitative in nature

_{3 🗶} यह मुख्यतया गुणात्मक होता है

It is quantitative in nature

्र यह मात्रात्मक होता है

Question Number : 25 Question Id : 7622117025 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Read statement A and B and Choose the correct option:

कथन क एवं ख को पढ़िए तथा सही विकल्प का चुनाव कीजिए :

Statement A: The Latin square design has an advantage over randomized block design because it is possible to control the effects of two secondary variables.

कथन क: लैटिन स्क्वायर डिजाइन यादृच्छिक ब्लॉक डिजाइन से अधिक लाभदायक है क्योंकि यह दो गौण चरों के प्रभाव को नियंत्रित करने में संभव है।

Statement B: A $2 \times 2 \times 2$ factorial design has six independent variables.

कथन ख: एक 2×2×2 क्रमगुणित डिजाइन में छह स्वतंत्र चर होते हैं।

Options:

Both A and B are true

1 * क एवं ख दोनों सत्य हैं

A is true and B is false

🤈 🧹 क सत्य है तथा ख असत्य है

Both A and B are false

3 🛎 क एवं ख दोनों असत्य हैं

A is false but B is true

4. 🗱 क असत्य है लेकिन ख सत्य है

Question Number : 26 Question Id : 7622117026 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

A researcher is invstigating teacher's attitude towards year-round schooling. She is particularly interested in describing the attitude of teachers from small, medium, and large schools. Which sampling procedure should be used by her to ensure her sample is representative of these types of schools?

एक अनुसंधानकर्त्ता वर्ष भर स्कूलिंग के प्रति अध्यापक के मनोवृत्ति का अन्वीक्षण कर रही है। वह छोटे, मध्यम तथा बड़े स्कूलों से शिक्षकों के मनोवृत्ति की व्याख्या में विशेष रूप से दिलचस्पी ले रही है। उसे किस प्रतिदर्श विधि का प्रयोग करना चाहिए जिससे उसके प्रतिदर्श इन स्कूलों का सही प्रतिनिधित्व कर सकें ?

Options:

Cluster

1. ₩ समूह

Quota

2. 🗱 कोटा

Systematic 🛪 🗶 योजनाबद्ध Stratified 4. 🗸 स्तरित Question Number: 27 Question Id: 7622117027 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Which of the following type of research focuses on amending the prevailing situations? निम्न में से किस प्रकार का अनुसंधान अभिभावी स्थितियों को सुधारने पर संकेन्द्रित करता है ? **Options:** Action research 1 🥒 क्रियाविधि अनुसंधान Experimental research 2. 🗱 प्रयोगात्मक अनुसंधान Fundamental research 3. 🙀 मूलभूत अनुसंधान Conclusive research 🚜 🙀 निर्णयात्मक अनुसंधान Question Number : 28 Question Id : 7622117028 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question If there are eight categories or classes in a goodness of fit test, what will be the degree of freedom? यदि गुडनेस ऑफ फिट टेस्ट में आठ श्रेणियाँ या वर्ग हैं, तो स्वातंत्र्य कोटि क्या होगी ? **Options:** 1. * 8

Cannot tell on the basis of the information given

🗸 😦 दिये गये जानकारी के आधार पर बताया नहीं जा सकता है

Question Number: 29 Question Id: 7622117029 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Qualitative research helps in collecting data under more situations.

गुणात्मक अनुसंधान अधिक स्थितियों में आँकड़ा एकत्रित करने में सहायता करता है।

Options:

Normal

, 👱 सामान्य

Natural

2. 🗸 प्राकृतिक

Experimental

🛪 🗶 प्रयोगात्मक

Artificial

4. **अ** कृत्रिम

Question Number : 30 Question Id : 7622117030 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Read statement A and B and choose the correct option:

कथन क एवं ख को पढ़िए तथा सही विकल्प चुनिए :

Statement A: A case study can be used only in clinical psychology.

कथन क: वृत्त अध्ययन (केस स्टडी) का प्रयोग केवल क्लिनिकल मनोविज्ञान में किया जा सकता है।

Statement B: The approach of case study is based on the artificial atmosphere.

कथन ख: वृत्त अध्ययन (केस स्टडी) का दृष्टिकोण कृत्रिम परिवेश पर आधारित है।

Options:

Both A and B are true

1 🛎 क एवं ख दोनों सत्य हैं

Statement A is true and but B is false

🤈 🗶 कथन क सत्य है लेकिन ख असत्य है

Both A and B are false 3 🛷 क एवं ख दोनों असत्य हैं Statement A is false but B is true 🛾 🚜 कथन क असत्य है लेकिन ख सत्य है Question Number: 31 Question Id: 7622117031 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Which type of research focus on what will be? किस प्रकार का अनुसंधान क्या होगा पर फोकस करता है ? **Options:** Experimental 1. 🛷 प्रयोगात्मक Case study 2. 🛎 वृत्त अध्ययन (केस स्टडी) Survey 🥫 🗯 सर्वेक्षण Ex-post facto 4 💥 पूर्व प्रभावी Question Number: 32 Question Id: 7622117032 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Which of the following should be up to date, complete and affordable for proper sampling? निम्न में से कौन उचित प्रतिदर्श हेतु अद्यतन, पूर्ण तथा संभव होना चाहिए ? **Options:** Sampling technique 1. 🔻 प्रतिदर्श तकनीक Sample frame 2. 🕢 प्रतिदर्श फ्रेम

Respondents

3. 🗱 प्रतिक्रिया दिखाने वाले

Tools for data collection

🔪 ु आँकड़ा संग्रह हेतु साधन

Question Number: 33 Question Id: 7622117033 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

What is a research design?

अनुसंधान अभिकल्प क्या है ?

Options:

A way of conducting research that is not grounded in theory

्र 💂 अनुसंधान करने का तरीका जो सिद्धांत में आधारित नहीं है

The choice between using qualitative or quantitative methods

🤰 🚜 गुणात्मक एवं परिमाणात्मक पद्धतियों का प्रयोग करने के बीच विकल्प

The style in which you present your research findings, e. g. a graph

🧝 🚜 शैली जिसमें आप अपने अनुसंधान निष्कर्ष अर्थात ग्राफ को प्रस्तुत करते हैं

A framework for every stage of the collection and analysis of data

4 🖋 आँकड़ा के विश्लेषण तथा संग्रह के प्रत्येक प्रक्रम हेतु ढाँचा

Question Number : 34 Question Id : 7622117034 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

If a study is "reliable", this means that :

यदि अध्ययन विश्वसनीय है, इसका मतलब है कि :

Options:

It was conducted by a reputed researcher who can be trusted

u ह प्रतिष्ठित अनुसंधानकर्ता द्वारा की जाती है जिस पर विश्वास किया जा सकता है

The measures devised for concepts are stable on different occasions

2 🗸 अवधारणाओं हेतु कल्पित उपाय विभिन्न अवसरों पर स्थिर होता है

The findings can be generalized to other social settings निष्कर्ष को अन्य सामाजिक वातावरण के लिए सामान्यीकृत किया जा सकता है The methods are stated clearly enough for the research to be replicated अनुसंधान की प्रतिकृति किये जाने हेतु पद्धतियों को स्पष्ट रूप से पर्याप्त बताया गया है Question Number: 35 Question Id: 7622117035 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Ethical norms in research does **not** involve guidelines for which of the following? अनुसंधान में नीतिपरक मानक में निम्न में किसके लिए दिशा-निर्देश शामिल **नहीं** है ? **Options:** Thesis Format 1. 🗸 शोध प्रबन्ध प्रारूप Copyright 2. 🕷 कॉपीराइट Patenting policy 3. 🕷 पेटेन्ट नीति Data sharing policy डाटा शेयरिंग नीति Question Number: 36 Question Id: 7622117036 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: is **not** a source of Hypothesis.

Knowledge

ু ৠ

```
Energy
3. 🗸 ऊर्जा
      Theory
      सिद्धान्त
Question Number : 37 Question Id : 7622117037 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes
Correct Marks: 3 Wrong Marks: 1
Question Label: Multiple Choice Question
Which of the following variables cannot be expressed in quantitative terms?
निम्नलिखित में से किस चर को मात्रात्मक शब्दों में व्यक्त नहीं किया जा सकता है ?
Options:
      Socio-economic status
1. 🗱 सामाजिक आर्थिक स्थिति
      Marital status
2. 🚜 वैवाहिक स्थिति
      Numerical aptitude
3 🗸 संख्यात्मक अभिरुचि
      Professional aptitude
4. 🙀 पेशेवर अभिरुचि
Question Number: 38 Question Id: 7622117038 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label: Multiple Choice Question
Which of the following is not a citation style?
निम्नलिखित में से कौन एक उद्धरण विधि नहीं है ?
Options:
      A.P.A.
      ए० पी० ए०
      M.L.A.
```

2. 🕷 एम० एल० ए०

Chicago

💂 🙀 शिकागो

Ohio

4. 🗸 ओहियो

Question Number: 39 Question Id: 7622117039 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which of the following is not a defining characteristics of non-doctrinal research? निम्नलिखित में से क्या गैर-सैद्धान्तिक शोध का परिभाषिक लक्षण नहीं है ?

Options:

It puts lesser emphasis upon doctrines.

ु 👱 यह सिद्धान्तों पर कम बल देता है।

It seeks to answer broader and numerous questions.

🔒 🚜 यह वृहद्र एवम् अनेक प्रश्नों के उत्तर खोजने की कोशिश करता है।

It may involve the use of research tools and perspectives not peculiar to law. इसमें ऐसा शोध औजार और दृष्टिकोण प्रयुक्त हो सकता है जो केवल विधि तक

4 🗶 सीमित नहीं होते हैं।

Question Number: 40 Question Id: 7622117040 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which of the following is **not** true about positivism?

निम्नलिखित में से कौन यथार्थवाद (पॉजिटिविस्म) के संबंध में सही **नहीं** है ?

Options:

It is associated with Auguste Comte

🔒 🚜 यह अगस्ट कॉम्ट के साथ जुड़ा है

It denies metaphysical speculation

2. 🗱 यह तत्वमीमांसिक अटकलबाजी की अवहेलना करता है

It emphasises on objectivity

3. ***** यह वस्तुनिष्ठता पर जोर देता है

It is a method used in qualitative research

4. 🗸 यह एक विधि है जिसका प्रयोग गुणात्मक शोध में होता है

Subject_&_Area Concerned

Section Id: 762211142

Section Number:

Section type:

Online

Mandatory or Optional:

Mandatory

Mandatory

Number of Questions:60Number of Questions to be attempted:60Section Marks:180Display Number Panel:YesGroup All Questions:No

Sub-Section Number:

Sub-Section Id: 762211142

Question Shuffling Allowed: Yes

Question Number: 41 Question Id: 7622117041 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

A random sample $(x_1, x_2, ..., x_n)$ is drawn from a Poisson distribution with parameter λ .

Which one of the following is an unbiased estimator of λ^2 ?

$$\frac{1}{n} \sum_{i=1}^{n} x_i$$

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

$$\frac{1}{3.} \checkmark \frac{1}{n} \sum_{i=1}^{n} x_i (x_i - 1)$$

$$\frac{1}{4} \sum_{i=1}^{n} x_i (x_i + 1)$$

Question Number : 42 Question Id : 7622117042 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

If T is unbiased estimator of parameter θ and $Var(T) \to 0$ as the sample size tends to ∞ , then T is consistent for θ . This result follows from :

Options:

- 1. Central Limit Theorem
- Cramer-Rao Inequality
- Rao-Blackwell Theorem
- Tchebychev's Inequality

Question Number : 43 Question Id : 7622117043 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

In sampling from a normal population $N(\theta, 1)$ with \bar{x} being the sample mean then which of the following class describes all MVB estimators of θ ?

Options:

- All estimators of the type $A \overline{x} + B$, where A and B are the given constants.
- 2. $\times \overline{x}$ only
- 3. All the estimators of $f(\overline{x})$, where f is a real valued function.
- No estimator attains MVB in this case

Question Number : 44 Question Id : 7622117044 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Let 5, 2, 3, 4, 3, 2, 4, 5, 3, 2 be a sample taken from a normal population with mean 0 and variance σ^2 , then minimum variance bound estimator for σ^2 is ?

Options:

₁ × 33

2 * 3.3

4. 12.1

Question Number : 45 Question Id : 7622117045 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Let $(x_1, x_2, ..., x_n)$ be a random sample from a population with pdf:

$$f(x; \theta) = \theta \ x^{\theta - 1}; \ 0 < x < 1, \theta > 0$$

Which one of the following is correct?

Options:

$$t_1 = \sum_{i=1}^{n} x_i$$
 is sufficient for θ .

$$t_2 = \sum_{i=1}^n x_i^2$$
 is sufficient for θ .

$$\exists x \neq t_3 = \prod_{i=1}^n x_i$$
 is sufficient for θ .

⁴ No sufficient statistic exists for θ.

Question Number : 46 Question Id : 7622117046 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Let 5, 3, 3, 6, 2, 3, 5, 4, 3, 6 be a sample of size 10 from a population from Poisson distribution, then UMVUE of λ is :

Question Number : 47 Question Id : 7622117047 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Let X_i (i = 1, 2, ..., n) be distributed as N (μ_i , 1). What is the critical region based on likelihood ratio test for testing $H_0: \mu_1 = \mu_2 = = \mu_n = 0$ against $H_1: \mu_i \neq 0$ for some i, is:

Options:

$$\sum_{i=1}^{n} \left(\frac{x_i^2}{\mu_i} \right)$$

$$\sum_{i=1}^{n} x_i^2$$

$$\sum_{i=1}^{n} (x_i - \overline{x})^2$$

$$\sum_{i=1}^{n} x_i$$

Question Number: 48 Question Id: 7622117048 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Let $(x_1, x_2, ... x_n)$ be a random sample from a population with pdf

$$f(x;\theta) = \frac{x}{\theta}e^{-\frac{x^2}{2\theta}}; x > 0, \theta > 0$$

Then complete sufficient statistic for θ is :

$$\sum_{i=1}^{n} x_i$$

$$> \approx \bar{x}$$

$$\sum_{i=1}^{n} x_i^2$$

4 Max
$$(x_1, x_2, ... x_n)$$

Question Number : 49 Question Id : 7622117049 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

An example of Conjugate prior is:

Options:

- Uniform distribution with binomial sampling
- Normal distribution with Poisson sampling
- 💂 🚜 Gamma distribution with negative binomial sampling
- Beta distribution with binomial sampling

Question Number : 50 Question Id : 7622117050 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Posterior mode can be considered as Bayes estimator because:

Options:

- 1 * It is the best measure of central tendency
- 2 * It minimizes the posterior expected loss for squared error loss function
- 3 VIt gives the maximum a posteriori probability
- 4 * It gives the maximum a priori probability

Question Number: 51 Question Id: 7622117051 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks : 3 Wrong Marks : 1

Question Label: Multiple Choice Question

For testing simple null hypothesis versus simple alternative, the Bayes factor is nothing but:

Options:

Ratio of posterior probabilities

2. * Ratio of prior probabilities

3. 🗸 Likelihood ratio

It depends on the sampling plan

Question Number: 52 Question Id: 7622117052 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The Lindley's paradox refers to the situation when:

Options:

Bayes factor for H_0 against H_1 goes to unity as n goes to infinity

2 * Prior probability of H_0 goes to zero as n goes to infinity

 $_{3.}$ Posterior probability of H_{0} goes to zero as n goes infinity

Posterior probability of H_{Π} goes to unity as n goes infinity

Question Number: 53 Question Id: 7622117053 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which one of the following formula gives doubling time (t) of a given population?

Options:

$$1. * t = (\log 2)/r$$

$$t = (\log_e 2)/r$$

$$t = (\log_e 2)/2r$$

$$t = (\log 2)/2r$$

Question Number: 54 Question Id: 7622117054 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

What is population momentum?

Options:

Tendency of a population to continue to decline after replacement level of fertility has been achieved.

Tendency of a population to continue to grow after replacement level of fertility has been achieved.

Tendency of population to move up and down after reaching replacement level of fertility.

₄ * It is same as population stabilization.

Question Number: 55 Question Id: 7622117055 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The mean length of generation is affected by:

Options:

- Age specific fertility rate and reproductive span of women.
- 2 * Gross reproduction rate and average age of women giving birth.

Overall fertility and mortality levels and the proportional distribution of fertility into 3. \checkmark each age specific rate.

4 Survival of female babies born to those mothers and age of their marriage.

Question Number: 56 Question Id: 7622117056 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which one of the following is not matched correctly?

Options:

Average age of child : Length of generation

2 * A group of people related to marriage or adoption : Household

- 3. * Net Reproduction Rate (NRR) equal to unity: Replacement level
- 4 * A married woman having no birth : Zero parity

Question Number: 57 Question Id: 7622117057 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

If country A has a higher life expectancy than country B, but A has higher crude death rate, it is likely that:

Options:

- 1. A's population is younger than that of B.
- A's population is older than that of B.
- A's population has a high infant mortality rate.
- None of the three is probable.

Question Number: 58 Question Id: 7622117058 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which one of the following is not a spacing method of family planning?

Options:

- 1 * Hormonal Method
- 2 * Barrier Method
- ₄ * Intrauterine Device (IUD)

Question Number: 59 Question Id: 7622117059 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Myer's blended population index is used to correct:

→ Digit preference in age data Sex-ratio 3. Someth rate Migration rate Question Number: 60 Question Id: 7622117060 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question The interval between menarche and attainment of full biological maturity is: **Options:** Primary sterility Adolescent sterility 3 Secondary sterility Menopause Question Number: 61 Question Id: 7622117061 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The equality sign holds between Net Reproduction Rate (NRR) and Gross Reproduction Rate (GRR), if and only if: **Options:** The new born girls survive at least till the end of the reproductive period. Some of the married women become widows. Each of the females in the life table cohort will just be replaced by their daughter.

Survival probability of female child is greater than survival probability of male

4. * child.

Question Number: 62 Question Id: 7622117062 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The probability that a person whose exact age is not known but lies in between x and (x + 1) will die within one year (m_x) is (where q_x is probability that a person of exact age x will die within one year):

Options:

$$2q_x/(2+q_x)$$

$$(2 + q_x)/2q_x$$

$$(2-q_x)/2q_x$$

$$_{4} \checkmark 2q_{x}/(2-q_{x})$$

Question Number: 63 Question Id: 7622117063 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which of the following is not true for stationary population?

Options:

- Constant size
- Constant age
- 3 Constant rate of overall change in the population
- 4 * Constant sex distribution

Question Number: 64 Question Id: 7622117064 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Greatest drawback of systematic sampling is that:

- It is not practical
- 2. * One requires a large sample

- Bata are not easily accessible

Question Number: 65 Question Id: 7622117065 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The discrepancy between estimates and population parameters is known as:

Options:

- 1 * Human Error
- 2 × Formula Error
- 🙎 🗶 Enumeration Error
- 4. Sampling Error

Question Number : 66 Question Id : 7622117066 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Stratified sampling comes under category:

Options:

- Subjective sampling
- 2 Restricted sampling
- 3 # Unrestricted sampling
- 4 * Purposive sampling

Question Number: 67 Question Id: 7622117067 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The technique to deal with problem of incomplete samples in mail surveys dealt first by:

1 * Politz and Simmons 2. * Cochran 3. W Hansen and Hurwitz 4. * Neyman Question Number: 68 Question Id: 7622117068 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The Midzuno system of PPSWOR sampling the units at subsequent draws (except first draw) are selected: **Options:** 1 * With PPSWR method With PPSWOR method With equal probability and WOR With equal probability and WR Question Number: 69 Question Id: 7622117069 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question The case of highly heterogeneous population when only one sample unit can be drawn from each stratum is called: **Options:** Post stratification 2. * Deep stratification 3. V Collapsed strata Neyman allocation

Question Number : 70 Question Id : 7622117070 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Number of basic solutions, basic feasible solutions and basic infeasible solutions for the linear programming problem Max Z = 4X + 5Y subject to $2X + 3Y \le 12$, $3X + Y \le 8$, $X \ge 0$, $Y \ge 0$ are :

Options:

- 1 **8** 6, 3, 3 respectively
- 2 × 6, 0, 6 respectively
- 3. ✓ 6, 4, 2 respectively
- 4 **8** 6, 2, 4 respectively

Question Number: 71 Question Id: 7622117071 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Let $X \ge 0$ and $Y \ge 0$ are two decision variables. Consider the half plan $S_1 = \{(X, Y) : X \ge 1\}$ and $S_2 = \{(X, Y) : 3X + 4Y \le 12\}$. If $S = S_1 \cap S_2$ then S is :

Options:

- 1. Triangle as well as convex set
- 2. * Triangle but not a convex set
- 3 * Trapezium as well as convex set
- Trapezium but not a convex set

Question Number: 72 Question Id: 7622117072 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

If X = 1, Y = 1 and Z = 1 is a feasible solution to the following system of linear equations:

$$2X + 3Y - Z = 4$$

$$-5X + 6Y + Z = 2$$

then which of the following solution is basic feasible solution reduced by given feasible solution?

Options:

- 1 \times X = 0, Y = 6/9 and Z = -2
- X = 1, Y = 0 and Z = 1
- X = 2/3, Y = 8/9 and Z = 0
- X = 1/2, Y = 0 and Z = 1

Question Number: 73 Question Id: 7622117073 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Recursive way is a method to solve:

Options:

- Integer programming problem
- Non linear programming problem
- Bynamic programming problem
- 4 * Queuing problem

Question Number: 74 Question Id: 7622117074 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

In graphical solution, the redundant constraint is:

- 1 * Which forms the boundary of feasible region
- Which do not optimize the objective function
- → Which does not form boundary of feasible region
- 4 * Which optimize the objective function

| Question Number: 75 Question Id: 7622117075 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes |
|--|
| Correct Marks: 3 Wrong Marks: 1 |
| Question Label : Multiple Choice Question |
| If the Dual of the LPP has a finite optimal solution, then primal possesses: |
| Options: |
| 1. 	✓ Finite optimal solution |

2 * Unbounded solution

3 × No solution

Question Number: 76 Question Id: 7622117076 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

A life test with 5 exponential devices was conducted and time to failure (in hrs) of devices were recorded to be 4, 6, 12, 18 and 20. The ML estimates of mean life is:

Options:

1 * 48

2 * 12

3 **V** 192

4 * 10

Question Number: 77 Question Id: 7622117077 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Let $x_{(1)} << x_{(2)} << x_{(3)} << x_{(4)}$ are ordered observations from exponential distribution with mean 5.0. Consider the transformation $z_i = (4 - i + 1)(x_{(i)} - x_{(i-1)}); x_{(0)} = 0$. Let

$$T = z_{(1)} + z_{(2)} + z_{(3)}$$
. Then $E(T)$ is:

Options:

1 * 3

| | | _ |
|---|-----|-----|
| _ | -00 | _ |
| | 200 | |
| | ** | - / |

3. ✔ 15

Question Number : 78 Question Id : 7622117078 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The lifetime of a unit follows Weibull distribution with shape parameter 2 and scale parameter 0.5. The hazard rate of the unit is:

Options:

1. Decreasing

2 * Bathtub shaped

3. * Increasing

4 × Constant

Question Number: 79 Question Id: 7622117079 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

A component with constant hazard rate σ has already survived T hours. What is the probability that the failure of component will occur before T + x hrs?

Options:

$$e^{-\sigma x}$$

$$\sim 1-e^{-6x}$$

$$e^{-\sigma(x+T)}$$

$$4. \times 1 - e^{-\sigma(x+T)}$$

Question Number: 80 Question Id: 7622117080 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

A Cox-proportional hazard model describes the hazard rate of 'treatment group' in terms of baseline hazard rate $(h_0(t))$ of 'control group' and a link function which brings in the effect of covariate Z, as follows:

$$h(t, z) = h_0(t)\psi(\beta' z)$$

While using this model in a clinical trial, an investigator obtained $\psi(\beta'z) = 0.712$ and β is found significant. Based on this which of the following statement is true?

Options:

- Hazard function of treatment group is increasing
- Hazard function of treatment group is decreasing
- ∃ ✓ Treatment group has better survival than control group

Question Number: 81 Question Id: 7622117081 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: 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 its covariance matrix is given by :

Options:

$$_1 \checkmark (X'X)^{-1} X'Y$$
 and $\sigma^2 (X'X)^{-1}$

$$_{2} \times X'Y(X'X)^{-1}$$
 and $\sigma^{2}(X'X)^{-1}$

$$(X'X)^{-1}X'Y$$
 and $(X'X)^{-1}$

$$_{4} \times X'Y(X'X)^{-1}$$
 and $(X'X)^{-1}$

Question Number: 82 Question Id: 7622117082 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: 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 unbiased estimator of σ^2 is:

Here, r = Rank(X) and other notations have their usual meanings.

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

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

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

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

Question Number: 83 Question Id: 7622117083 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: 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

Sub-plot error

3 * Experimental error

4. * Main plot error and experimental error

Question Number: 84 Question Id: 7622117084 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

If the interactions AB and BC are confounded with incomplete blocks in a 2³ factorial experiment, then automatically confounded effect is:

Question Number: 85 Question Id: 7622117085 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

If in a Latin square design with 5 treatments, a treatment is added, the increase in error degrees of freedom will be:

Options:

- , 2 2
- C × 4
- **2 %** 6
- 1 / 8

Question Number: 86 Question Id: 7622117086 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following statement is wrong?

Options:

- Any countable subset of **R** is a Borel set.
- Each singleton is the Borel set.
- 3 * Uncountable unions of singletons are not a Borel set.
- $_4$ \sim A field containing infinite number of sets is always a σ -field.

Question Number: 87 Question Id: 7622117087 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

For the following statements A, B and C, which of the following is correct?

A: The intersection of arbitrary number of fields is a field.

B: The union of any two fields is a field.

C: The union of two fields is not necessarily a field.

Options:

1 A and B are correct and C is wrong

A is correct and B and C are wrong

B and C are correct and A is wrong

✓ A and C are correct and B is wrong

Question Number: 88 Question Id: 7622117088 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

If $F_n(x)$ be the distribution function of the largest order statistics $X_{(n)}$ of a random sample $Y_1, Y_2, ..., Y_n$ of size n from $U[0, \theta]$ -distribution, then:

Options:

<F_n> converges in law to F, where F is cumulative distribution function (cdf) of a degenerated random variable (RV) degenerating at "0".

 $_{2}$ \checkmark < F_{n} > converges in law to F, where F is cdf of a degenerated RV degenerating at " θ ".

 $\langle F_n \rangle$ converges in law to F, where F is cdf of a degenerated RV degenerating at

 $\frac{1}{\theta}$.

 \checkmark < F_n > does not converges in law to any cdf F.

Question Number: 89 Question Id: 7622117089 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: 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 probability law

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

where r is any natural number. Then:

Options:

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

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

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

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

Question Number : 90 Question Id : 7622117090 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

If $\langle A_n \rangle$ be a sequence of events defined on a given probability space (Ω, \mathcal{A}, P) and

$$A = \bigcap_{n=1}^{\infty} \bigcup_{m=n}^{\infty} A_m$$
. Then which one of the following is correct?

Options:

If
$$\sum_{n=1}^{\infty} P(A_n) = \infty$$
, then $P(A) = 0$

If
$$\sum_{n=1}^{\infty} P(A_n) < \infty$$
, then $P(A) = 1$

If
$$\sum_{n=1}^{\infty} P(A_n) < \infty$$
 and $< A_n >$ is a sequence of independent events, then $P(A) = 1$

If
$$\sum_{n=1}^{\infty} P(A_n) = \infty$$
 and $A_n > 1$ is a sequence of independent events, then $P(A) = 1$

Question Number: 91 Question Id: 7622117091 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

To construct control limits of p-chart, which distribution is used:

Options:

Poisson distribution

2 / Binomial distribution

3 * Hyper-geometric distribution

4 * Normal distribution

Question Number: 92 Question Id: 7622117092 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The process standard deviation is estimated by:

Options:

$$1 \times \overline{R}$$

$$a \approx d_2 \overline{R}$$

$$\frac{\overline{R}}{d_2}$$

$$\frac{\overline{R}}{D_0}$$

Question Number: 93 Question Id: 7622117093 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The process is capable, if:

Options:

$$1. * 0 < C_p < 1$$

$$_{2.} \times C_{p} = 0$$

$$C_p < 0$$

$$_{4.} \checkmark C_p \ge 1$$

Question Number: 94 Question Id: 7622117094 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Increase in the number of patients in the hospital due to heat stroke is:

Options:

Secular trend

🤈 🗶 Irregular variation

3. V Seasonal variation

Cyclical variation

Question Number: 95 Question Id: 7622117095 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following is not true?

Options:

Simple exponential smoothing is used when the time series has no trend and no 1 * seasonality.

Double exponential smoothing is used when the time series has seasonality but no trend.

- Double exponential smoothing is also known as Holt-Winters algorithm.
- The weights are exponentially decreasing in exponential smoothing.

Question Number: 96 Question Id: 7622117096 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which one of the following is true? Notations have their usual meaning:

$$\sqrt{n} \left(\overline{X} - \mu \right) \sim N_p \ (0, \Sigma), \ (n-1)S \sim W_p \ (n-1, \Sigma)$$

$$\left(\overline{X}-\mu\right)\sim N_{p}\ (1,\Sigma),\ (n-1)S\sim W_{p}\ (n-1,\Sigma)$$

$$\sqrt{n} \left(\overline{X} - \mu \right) \sim N_p \ (0,1), \ (n-1)S \sim W_p \ (n-1, \Sigma)$$

 $(\overline{X} - \mu) \sim N_p \ (1, \Sigma), \ (n)S \sim W_p \ (n - 1, \Sigma)$

Question Number: 97 Question Id: 7622117097 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following is a form of oblique rotation in Factor analysis?

Options:

1. * Quartimax

🤈 🗶 Varimax

3. 🛷 Promax

4 🙀 Equimax

Question Number: 98 Question Id: 7622117098 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Markov analysis is a technique that deals with the probabilities of future occurrences by:

Options:

- 1 * Time series forecasting
- The maximal flow technique
- 3. Presently known probabilities
- 4 None of the three

Question Number: 99 Question Id: 7622117099 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

A state i is a return state, if:

1.
$$P_{ii}^{(n)} = 0$$
 for some $n \ge 0$

$$P_{ii}^{(n)} > 0$$
 for some $n \ge 1$

$$P_{ii}^{(n)} > 1$$
 for some $n \ge 0$

$$P_{ii}^{(n)} = 1$$
 for some $n \ge 1$

Question Number: 100 Question Id: 7622117100 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Two gamblers are playing a game. If initial capital of first gambler is Rs. 5 and probability of his winning is 0.4. The second gambler has Rs. 3. Find the expected duration of game.