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 :	886 16th Mar 2022 Shift 3
Subject Name :	886
Creation Date :	2022-03-16 19:31:35
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
Eraser Required? :	No
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

RET_Computer Science

Group Number :	1
Group Id :	593452137
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 :	593452269
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 :	593452297
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 59345215248 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

What is a Research Design ?

शोध अभिकल्प क्या है ?

Options :

1. ✖ A way of conducting research that is not grounded in theory.
शोध संचालन का एक तरीका, जो सिद्धांत पर आधारित न हो।

2. ✖ The choice between using qualitative or quantitative methods.
गुणात्मक या परिमाणात्मक पद्धतियों के उपयोग के मध्य चुनाव।

3. ✖ The style in which you present your research findings e.g. a graph.
वह शैली जिसमें आप अपने शोध खोजों को प्रस्तुत करते हैं; जैसे - ग्राफ।

4. ✔ A framework for every stage of the collection and analysis of data.
आँकड़ों के संकलन और विश्लेषण के प्रत्येक स्तर के लिए एक ढाँचा।

Question Number : 2 Question Id : 59345215249 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The study design of collecting data at a particular point of time is called :

किसी विशेष समय बिन्दु पर आँकड़े संग्रहण करने वाला अध्ययन अभिकल्प कहलाता है :

Options :

Cohort study

सहगण अध्ययन (कोहार्ट स्टडी)

1. ✖

Trend study

प्रवृत्ति अध्ययन

2. ✖

Cross sectional study

प्रतिनिध्यात्मक (समकालीन) अध्ययन

3. ✔

Longitudinal study

अनुदैर्घ्य (दीर्घकालिक) अध्ययन

4. ✖

Question Number : 3 Question Id : 59345215250 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The value of middle position in a distribution of values is called :

मूल्यों के वितरण में मध्य स्थिति का मान कहलाता है :

Options :

Mean

माध्य

1. ✖

Median

माध्यिका

2. ✔

Mode

3. ✖ बहुलक

Mid-point

4. ✖ मध्य–बिन्दु

Question Number : 4 Question Id : 59345215251 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In order to pursue research, which of the following is priorly required ?
शोध को आगे बढ़ाने के लिए, निम्नलिखित में से किसकी पहले आवश्यकता होती है ?

Options :

Develop a research design

1. ✖ शोध अभिकल्प का विकास

Formulate research questions

2. ✔ शोध प्रश्नों का निर्माण

Deciding about the data analysis procedure

3. ✖ आंकड़ा विश्लेषण प्रक्रिया के बारे में निर्णय लेना

Formulating a research hypothesis

4. ✖ शोध परिकल्पना का निर्माण करना

Question Number : 5 Question Id : 59345215252 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is a basis of the quality of a research journal ?
निम्नलिखित में से किसी शोध पत्रिका की गुणवत्ता का आधार कौन है ?

Options :

1. ✔ Impact factor
प्रभाव गुण

2. ✖ h-index
एच–इंडेक्स

3. ✖ g-index
जी–इंडेक्स

4. ✖ i10-index
i10–इंडेक्स

Question Number : 6 Question Id : 59345215253 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If the population is heterogeneous, which one of the following probability sampling methods will be suitable ?
यदि जनसंख्या विजातीय है, तो निम्नलिखित में से कौन-सी सम्भाव्यता प्रतिदर्श विधि अधिक उपयुक्त होंगी ?

Options :

1. ✖ Sequential sampling
क्रमानुसार प्रतिचयन

2. ✖ Quota sampling
कोटा प्रतिचयन

3. ✖ Double sampling
दोहरा प्रतिचयन

4. ✔ Stratified sampling
स्तरीकृत प्रतिचयन

Question Number : 7 Question Id : 59345215254 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Manipulation is a part of :
प्रहस्तन ..... का एक हिस्सा है।

Options :

1. ✖ Historical research
ऐतिहासिक शोध

Fundamental research
मौलिक शोध

Descriptive research
वर्णनात्मक शोध

Experimental research
प्रायोगिक शोध

Question Number : 8 Question Id : 59345215255 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

p-value stands for :

पी-मूल्य से तात्पर्य है :

Options :

Probability value
सम्भाव्य मूल्य

Preference value
वरीयता मूल्य

Pre-determined value
पूर्व-निर्धारित मूल्य

Prescribed value

नियत मूल्य

4. ✖

Question Number : 9 Question Id : 59345215256 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

R^2 is known as the :

R^2 को ..... के रूप में जाना जाता है।

Options :

Coefficient of determination

निर्धारण का गुणांक

1. ✔

Multiple correlation coefficient

बहु-सहसम्बन्ध गुणांक

2. ✖

Partial correlation coefficient

आंशिक सहसम्बन्ध गुणांक

3. ✖

Semi-partial correlation coefficient

अर्ध-आंशिक सहसम्बन्ध गुणांक

4. ✖

Question Number : 10 Question Id : 59345215257 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Rejection of null hypothesis, when it is true, leads to :

शून्य परिकल्पना अस्वीकृत हो जाये जबकि यह सत्य है ..... को इंगित करती है।

Options :

1. ✖ Sampling Error
प्रतिचयन त्रुटि

2. ✖ Type II Error
टाइप II त्रुटि

3. ✔ Type I Error
टाइप I त्रुटि

4. ✖ Estimation Error
अनुमान त्रुटि

Question Number : 11 Question Id : 59345215258 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is first stage in Grounded Theory data analysis :

निम्नलिखित में से ग्राउंडेड थ्योरी के आँकड़ा विश्लेषण का प्रथम चरण कौन-सा होता है ?

Options :

Examination
परीक्षण

Open coding
खुली कूट संकेतन

Retardation
अवरोध

Comparison
तुलना

Question Number : 12 Question Id : 59345215259 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The area of the rejection region for a two-tailed test in comparison with area of the one-tailed test for the same level of significance will be :
सार्थकता के समान स्तर के लिए एक-पुच्छीय परीक्षण के अस्वीकृति क्षेत्र की तुलना में द्वि-पुच्छीय परीक्षण का क्षेत्र :

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

Options :

Smaller
छोटा होगा

2. Same
समान होगा

3. Larger
बड़ा होगा

4. One-fourth
एक चौथाई होगा

Question Number : 13 Question Id : 59345215260 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Basic research is :
मौलिक शोध होता है :

Options :

1. ✖ Practical and descriptive
व्यवहारिक और वर्णनात्मक

2. ✖ Client-driven
ग्राहक-प्रेरित

3. ✔ Expands current knowledge
वर्तमान ज्ञान का विस्तार करने वाला

4. ✖ Advancement of technology
प्रौद्योगिकी में उन्नति लाने वाला

Question Number : 14 Question Id : 59345215261 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The technique in which an individual is presented with a stimulus and asked to respond with the first thing that comes to mind is known as :
वह तकनीक जिसमें व्यक्ति के सामने एक उत्तेजना प्रस्तुत की जाती है और पहली बात जो दिमाग में आती है, उसका जवाब देने के लिए कहा जाता है, को जाना जाता है :

Options :

1. ✖ Completion techniques
पूर्ति तकनीक

2. ✖ Focus groups
केंद्रित समूह

3. ✔ Association techniques
साहचर्य तकनीक

4. ✖ In depth interviews
गहन साक्षात्कार

Question Number : 15 Question Id : 59345215262 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

An Independent variable is defined as :

एक स्वतंत्र चर को परिभाषित किया जाता है :

Options :

Change variable

1. ✔ परिवर्तनशील चर

Confounding variable

2. ✖ भ्रमित चर

Extraneous variable

3. ✖ वाह्य चर

Outcome variable

4. ✖ परिणाम चर

Question Number : 16 Question Id : 59345215263 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one of the following statements is *false* for Research ?

निम्नलिखित में से कौन-सा कथन अनुसंधान के लिए ***गलत*** है ?

Options :

Research design is a logical and systematic plan for a research study

1. ✖ अनुसंधान अभिकल्प शोध अध्ययन के लिए एक तार्किक और व्यवस्थित योजना है

Applied research is conducted to solve theoretical problems

2. ✔ सैद्धान्तिक समस्याओं को हल करने के लिए व्यावहारिक अनुसंधान किया जाता है

The basic research is also called as fundamental research

3. ✖ मूल शोध को मौलिक शोध भी कहा जाता है

A hypothesis is a statement that is tested for its validity

4. ✖ परिकल्पना एक कथन है जिसकी वैधता का परीक्षण किया जाता है

Question Number : 17 Question Id : 59345215264 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A researcher has administered some drug for management of diabetes for 4 weeks in a group and measured pre and post data for blood glucose level. Which statistical tool will be used to analyze data ?

एक शोधकर्ता ने एक समूह में 4 सप्ताह के लिए मधुमेह के प्रबंधन के लिए कुछ दवा दी है और रक्त शर्करा के पूर्व और बाद के स्तरों का मापन किया। प्राप्त आँकड़ों के विश्लेषण के लिए किस सांख्यिकीय विधि का उपयोग किया जाएगा ?

Options :

Paired 't' test

1. ✔ युग्मित टी-परीक्षण

Independent t-test

2. ✖ स्वतंत्र टी-परीक्षण

ANOVA test

3. ✖ एनोवा परीक्षण

Chi-squire test

4. ✖ काई–वर्ग परीक्षण

Question Number : 18 Question Id : 59345215265 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is a qualitative variable ?

निम्न में से कौन एक गुणात्मक चर है ?

Options :

Colour of hair

1. ✔ बालों का रंग

Body weight

2. ✖ शारीरिक भार

Body height

3. ✖ शारीरिक ऊँचाई

Percentage of haemoglobin

4. ✖ हीमोग्लोबिन का प्रतिशत

Question Number : 19 Question Id : 59345215266 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A researcher should consider which of the following to prepare good research proposal ?

एक शोधकर्ता को अच्छा शोध प्रस्ताव तैयार करने के लिए निम्नलिखित में से किस पर विचार करना चाहिए ?

(a) Research question should be novel
शोध प्रश्न नवीन होना चाहिए

(b) Research protocol should be ethical and relevant
अनुसंधान प्रोटोकॉल नैतिक और प्रासंगिक होना चाहिए

(c) Research question should be interesting and feasible
शोध प्रश्न दिलचस्प और व्यवहार्य होना चाहिए

(d) Researcher should consider only his/her own interest and benefit
शोधकर्ता को केवल अपनी स्वयं की रुचि एवम लाभ पर विचार करना चाहिए

Options :

1. ✖ a & d are correct
a और d सही हैं

2. ✖ c & d are incorrect
c और d गलत हैं

3. ✖ a, c & d are correct
a, c और d सही हैं

a, b & c are correct

4. ✔ a, b और c सही हैं

Question Number : 20 Question Id : 59345215267 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Why reviewing the existing literature is needed ?
मौजूदा साहित्य की समीक्षा करने की आवश्यकता क्यों है ?

Options :

It does not provide references

1. ✖ यह संदर्भों को प्रदान नहीं करता

It does not provide required word-count

2. ✖ आवश्यक शब्द-गणना नहीं देता

To find out what is already known about area of interest

3. ✔ यह जानने के लिए कि रुचि के क्षेत्र के बारे में पहले से क्या ज्ञात है

To help in non-related disciplines

4. ✖ असम्बन्धित विषयों में सहयोग करने के लिए

Question Number : 21 Question Id : 59345215268 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one is called non-probability sampling ?

किसे असंभाव्यता प्रतिचयन कहा जाता है ?

Options :

Quota sampling

1. ✔ कोटा प्रतिचयन

Cluster sampling

2. ✖ गुच्छ प्रतिचयन

Systematic sampling

3. ✖ व्यवस्थित प्रतिचयन

Stratified random sampling

4. ✖ स्तरीकृत यादृच्छिक प्रतिचयन

Question Number : 22 Question Id : 59345215269 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Random error can be effectively handled by :

यादृच्छिक त्रुटि को ..... द्वारा प्रभावी ढंग से नियंत्रित किया जा सकता है।

Options :

Adequate sample size

1. ✔ उपयुक्त नमूना आकार

2. ✖ Randomisation
याद्दच्छीकरण

3. ✖ Blinding
अंधकरण

4. ✖ Representativeness
प्रतिनिधित्व

Question Number : 23 Question Id : 59345215270 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The *correct* definition of h index is :
एच-इंडेक्स की ***सही*** परिभाषा है :

Options :

1. ✔ Largest number h such that h publications have at least h citations
सबसे बड़ी संख्या h जैसे कि h प्रकाशनों में कम से कम h उद्धरण हों

2. ✖ Lowest number h such that h publications have at least h citations
सबसे कम संख्या h जैसे कि h प्रकाशनों में कम से कम h उद्धरण हों

3. ✖ Total number of citations divided by the total number of publications
उद्धरणों की कुल संख्या को प्रकाशन की कुल संख्या से विभाजित करने पर

Another name for impact factor
4. ✖ प्रभाव कारक का दूसरा नाम

Question Number : 24 Question Id : 59345215271 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is ***not*** a reference management tool ?

निम्नलिखित में से कौन संदर्भ प्रबंधन उपकरण ***नहीं*** है ?

Options :

EndNote
1. ✖ एण्डनोट

Zotero
2. ✖ ज़ोटेरो

Mendeley
3. ✖ मेंडले

Scopus
4. ✔ स्कोपस

Question Number : 25 Question Id : 59345215272 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Mean, Median and Mode are :
माध्य, माध्यिका और बहुलक हैं :

Options :

1. ✖ Measures of dispersion
प्रसरण का मापन

2. ✔ Measures of central tendency
केंद्रीय प्रवृत्ति का मापन

3. ✖ Measures of probability
संभाव्यता का मापन

4. ✖ Sampling methods
प्रतिचयन विधि

Question Number : 26 Question Id : 59345215273 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

What is the appropriate measure of dispersion to report when median is reported as the measure of central tendency for a given set of data ?
रिपोर्ट करने के लिए विचलन का उपयुक्त उपाय क्या है जब माध्यिका को आँकड़ों के एक समूह के लिए केंद्रीय प्रवृत्ति के मापन के रूप में प्रयुक्त किया जाता है ?

Options :

1. ✖ Standard deviation
मानक विचलन

Interquartile range
अंतश्चतुर्थक विस्तार

2. ✔

Variance
विचरण

3. ✖

Coefficient of variance
विचरण का गुणांक

4. ✖

Question Number : 27 Question Id : 59345215274 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Open ended group discussion that promotes discussion among participants is called ..... .
विवृतांग (ओपन एंडेड ग्रुप) चर्चा जो प्रतिभागियों के बीच परिचर्चा को बढ़ावा देते हैं, कहलाते हैं .....

Options :

In-depth discussion
गहन चर्चा

1. ✖

Focus group discussions
फोकस ग्रुप चर्चा

2. ✔

Participant observation
प्रतिभागी अवलोकन

3. ✖

Structured interviews
संरचित साक्षात्कार

4. ✖

Question Number : 28 Question Id : 59345215275 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The ability of a tool to correctly measure what it is supposed to measure is called as :
किसी उपकरण/साधन की 'जिस उद्देश्य के मापन के लिए प्रयोग हो रहा है उसे सही-सही मापने की क्षमता' कहलाती है :

Options :

Validity
वैधता

1. ✔

Reliability
विश्वसनीयता

2. ✖

Consistency
संगति

3. ✖

Accuracy
सटीकता

4. ✖

Question Number : 29 Question Id : 59345215276 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In an experimental study of the effects of time spent on studying on grade, time spent studying would be the :
ग्रेड पर अध्ययन में व्यतीत समय के प्रभावों के एक प्रायोगिक अध्ययन में, अध्ययन में बिताया गया समय होगा :

Options :

1. ✖ Control group
नियंत्रण समूह

2. ✔ Independent variable
स्वतंत्र चर

3. ✖ Experimental group
प्रायोगिक समूह

4. ✖ Dependent variable
आश्रित चर

Question Number : 30 Question Id : 59345215277 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A reasoning where we start with certain particular statements and conclude with a universal statement is called :
एक तर्क जहाँ हम कुछ विशिष्ट कथनों से शुरू करते हैं और एक सार्वभौमिक कथन के साथ निष्कर्ष निकालते हैं, कहलाता है :

Options :

1. ✖ Deductive Reasoning
निगमनात्मक तर्क

2. ✔ Inductive Reasoning
आगमनात्मक तर्क

3. ✖ Abnormal Reasoning
असामान्य तर्क

4. ✖ Transcendental Reasoning
प्राशनुभविक तर्क

Question Number : 31 Question Id : 59345215278 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If a distribution is described as platykurtic, then it is :
यदि किसी वितरण को प्लेटीकुरटिक (सपाटक कुर्दी) के रूप में वर्णित किया जाता है, तो वह है :

Options :

1. ✖ Peaked
चोटीदार

Flat
2. ✔ सपाट

Bimodal
3. ✖ द्विबाहुलकी

Thin
4. ✖ पतला

Question Number : 32 Question Id : 59345215279 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In a statistical table the row headings are referred to as :

एक सांख्यिकीय तालिका में, पंक्ति शीर्षकों को कहा जाता है :

Options :

Source note
1. ✖ स्रोत नोट

Captions
2. ✖ कैप्शन (अनुशीर्षक)

Stubs
3. ✔ स्टब्स (ठूंठ)

Body

4. ✖ शरीर

Question Number : 33 Question Id : 59345215280 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following techniques are used to control extraneous variables in research ?

अनुसंधान में बाह्य चरों को नियंत्रित करने के लिए निम्नलिखित में से किस तकनीक का उपयोग किया जाता है ?

Options :

Change of instrument

1. ✖ साधन का परिवर्तन

Randomization

2. ✔ यादृच्छीकरण

Change the research method

3. ✖ अनुसंधान विधियों में परिवर्तन

Parameterization

4. ✖ पैरामीट्रिजेशन (प्राचलीकरण)

Question Number : 34 Question Id : 59345215281 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is the information and library network under UGC ?
यूजीसी के तहत निम्नलिखित में से कौन-सा सूचना और पुस्तकालय नेटवर्क है ?

Options :

1. ✔ INFLIBNET
इनफ्लिबनेट

2. ✖ NISCAIR
निस्केयर

3. ✖ Association of Indian Universities
भारतीय विश्वविद्यालयों का संघ

4. ✖ NAAC
नैक

Question Number : 35 Question Id : 59345215282 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A research tool consisting of a series of questions is known as :
प्रश्नों की एक शृंखला से युक्त एक शोध उपकरण को कहा जाता है :

Options :

1. ✖ Observation schedule
अवलोकन अनुसूची

2. ✖ Interview schedule
साक्षात्कार अनुसूची

3. ✔ Questionnaire
प्रश्नावली

4. ✖ Psychological test
मनोवैज्ञानिक परीक्षण

Question Number : 36 Question Id : 59345215283 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

What does a good thesis involve ?
एक अच्छी थीसिस में क्या सम्मिलित होता है ?

(a) Reducing punctuations as well as grammatical errors to minimal level.
विराम-चिन्हों तथा व्याकरण अशुद्धियों को अल्पतम स्तर तक कम करना।

(b) Correct reference citation.
समुचित सन्दर्भ उल्लरण।

(c) Consistency in the way of thesis writing.
थीसिस लेखन के तरीके में सुसंगति।

(d) All of the three
तीनों में सभी

Choose the *correct* answer from the codes given below :

नीचे दिये गये कूट में से ***सही*** उत्तर चुनें :

Codes :

कूट :

Options :

a, b, c and d

1. ✔ a, b, c तथा d

a, c and d

2. ✖ a, c तथा d

a, b and c

3. ✔ a, b तथा c

c, b and d

4. ✖ c, b तथा d

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 37 Question Id : 59345215284 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The difference between the expected value of a sample statistic and the estimated value of parameter is called :

नमूना आंकड़ों के अपेक्षित मूल्य और प्राचल के अनुमानित मूल्य के बीच के अन्तर को कहा जाता है :

Options :

Error

1. ✖ त्रुटि

Bias

2. ✔ पूर्वाग्रह

Contradiction

3. ✖ विरोधाभास

Difference

4. ✖ अंतर

Question Number : 38 Question Id : 59345215285 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Among the following, widely used method for extracting factors is :

निम्नलिखित में से, कारकों को निकालने के लिए व्यापक रूप से इस्तेमाल की जाने वाली विधि है :

Options :

1. ✖ Path analysis
पथ विश्लेषण

2. ✖ Discriminant analysis
विभेदक विश्लेषण

3. ✖ Group analysis
समूह विश्लेषण

4. ✔ Principle component analysis
प्रमुख-घटक विश्लेषण

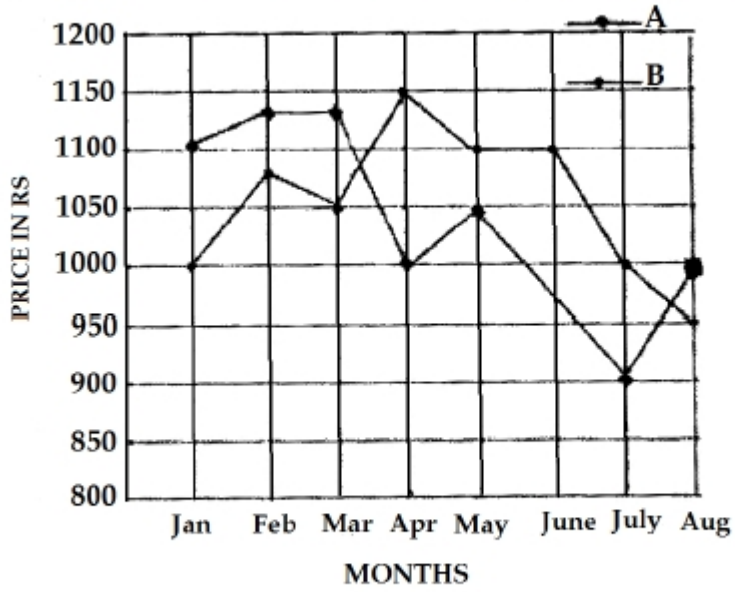
Question Number : 39 Question Id : 59345215286 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Study the following given graph and answer the question :

निम्नलिखित ग्राफ का अध्ययन कीजिए तथा प्रश्न का उत्तर दीजिए :



What was the price difference between commodity A and B in the month of April ?

अप्रैल के महीने में सामग्री A और B के बीच मूल्य का अन्तर क्या था ?

Options :

1. ✖ 250

2. ✔ 150

3. ✖ 100

4. ✖ 90

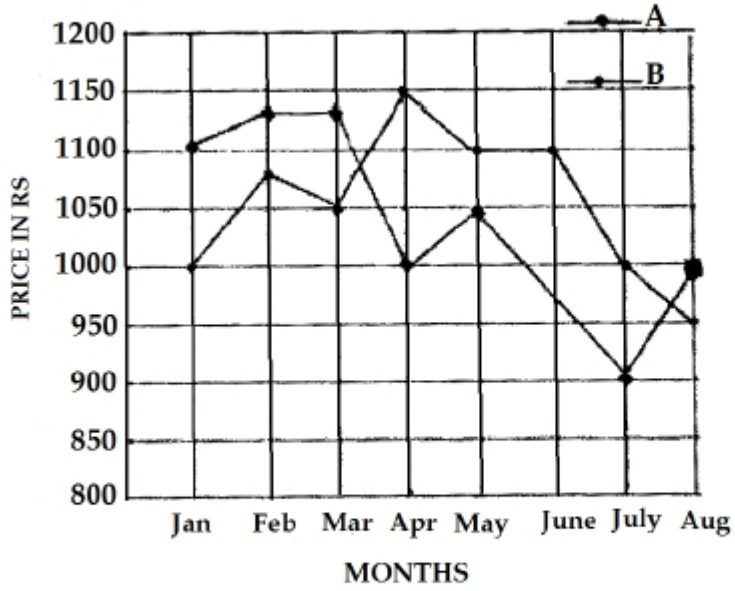
Question Number : 40 Question Id : 59345215287 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes Time interval to replay(In Seconds) : 0 Allow Volume Control : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Study the following given graph and answer the question :

निम्नलिखित ग्राफ का अध्ययन कीजिए तथा प्रश्न का उत्तर दीजिए :



What was the difference in average price between commodity A and B from April to August ?

अप्रैल से अगस्त तक सामग्री A और B के औसत मूल्य में कितना अन्तर था ?

Options :

1. ✖ 90

2. ✖ 86

3. ✖ 95

4. ✔ 75

Subject_&_Area Concerned

Section Id :	593452270
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 :	593452298
Question Shuffling Allowed :	Yes

Question Number : 41 Question Id : 59345215288 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Aggregate functions can be used in the select list or the …….. clause of a select statement or subquery. They cannot be used in a …….. clause.

Options :

1. ✖ where, having

2. ✔ having, where

3. ✖ group by, having

4. ✖ group by, where

Question Number : 42 Question Id : 59345215289 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Given the relations EMPLOYEE (name, salary, deptno) and DEPARTMENT (deptno, deptname, address), which of the following queries cannot be expressed using the basic relational algebra operations (U, –, x, π, σ, p) ?

Options :

1. ✖ Department address of every employee

2. ✖ Employees whose name is the same as their department name

3. ✔ The sum of all employees' salaries

4. ✖ All employees of a given department

Question Number : 43 Question Id : 59345215290 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The relation book (title, price) contains the titles and prices of different books. Assuming that no two books have the same price, what does the following SQL query list ?
Select title from book as B where (select count(*) from book as T where T.price > B.price) < 5.

Options :

1. ✖ Titles of the four most expensive books

2. ✖ Title of the fifth most inexpensive book

3. ✖ Title of the fifth most expensive book

4. ✔ Titles of the five most expensive books

Question Number : 44 Question Id : 59345215291 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The following functional dependencies are given : AB $\rightarrow$ CD, AF $\rightarrow$ D, DE $\rightarrow$ F, C $\rightarrow$G, F $\rightarrow$E, G $\rightarrow$A. Which one of the following options is *false* ?

Options :

1. ✔ $AF^{+} = \{ACDEFG\}$

2. ✖ $CF^{+} = \{ACDEFG\}$

3. ✖ $BG^{+} = \{ABCDG\}$

4. ✖ None of three

Question Number : 45 Question Id : 59345215292 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In a B+-tree, suppose that the search key field is $V = 9$ bytes long, the block size is $B = 512$ bytes, a record pointer is $Pr = 7$ bytes and a block pointer is $P = 6$ bytes. What is the maximum possible order of internal node such that a node must fit into a single block ?

Options :

1. ✖ 23

2. ✔ 34

3. ✖ 32

4. ✖ 29

Question Number : 46 Question Id : 59345215293 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Given that the block size is 1K bytes, record pointer is 7 bytes long, the key field is 9 bytes long and a block pointer is 6 bytes long, what is the order of the leaf node in B^+ tree ?

Options :

1. ✖ 63

2. ✔ 64

3. ✖ 67

4. ✖ 68

Question Number : 47 Question Id : 59345215294 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If a node is locked in …….. , explicit locking is being done at a lower level of the tree, but with only shared-mode locks.

Options :

1. ✖ Intention-shared-exclusive mode

2. ✖ Intention-exclusive (IX) mode

3. ✔ Intention lock modes

4. ✖ Intention-shared (IS) mode

Question Number : 48 Question Id : 59345215295 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which one of the following is a key factor for preferring B+ trees to binary search trees for indexing database relations ?

Options :

1. ✖ Database relations have a large number of records

2. ✖ Database relations are sorted on the primary key

3. ✖ B+ -trees require less memory than binary search trees

4. ✔ Data transfer from disks is in blocks

Question Number : 49 Question Id : 59345215296 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Any relation schema with two attributes always is in ..... .

Options :

1. ✔ BCNF

2. ✖ 3NF

3. ✖ 3NF with redundancy

4. ✖ 2NF but not in 3NF

Question Number : 50 Question Id : 59345215297 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Given a Turing machine M=({q0, q1, q2, q3}, {0, 1}, {0, 1, B}, δ, B, {q3}), where, δ is a transition function defined as δ(q0, 0) = (ql, 0, R), δ(ql, 1) = (q2, 1, R), δ(q2, 0) = (q2, 0, R) δ(q2, 1) = (q3, 1, R). The language accepted by the Turing machine is given as :

Options :

1. ✔ 010*1

2. ✖ 00*1

3. ✖ 0101

4. ✖ 010*

Question Number : 51 Question Id : 59345215298 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which data structure in a compiler is used for managing information about variables and their attributes ?

Options :

1. ✖ Abstract syntax tree

2. ✖ Semantic stack

3. ✔ Symbol table

4. ✖ Parse table

Question Number : 52 Question Id : 59345215299 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If the grammar G has the following productions : $S \rightarrow aB| bA$, $A \rightarrow aS \mid bAA \mid a$, $B \rightarrow bS \mid aBB \mid b$, then :

Options :

1. ✖ L(G) is finite.

2. ✖ $aab \in L(G)$.

3. ✖ L(G) has some strings of odd length.

4. ✔ L(G) has some strings of even length.

Question Number : 53 Question Id : 59345215300 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The context free grammar given by :

$S \rightarrow ABA,$

$A \rightarrow aA|bA|\varepsilon,$

$B \rightarrow bbb.$

The language generated by this grammar is given by regular expression :

Options :

1. ✖ (a+b)*bbb

2. ✔ (a+b)*(bbb) (a+b)*

3. ✖ abbb(a+b)*

4. ✖ (a+b) (bbb) (a+b)*

Question Number : 54 Question Id : 59345215301 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following languages :

L1 : $\{a^P b^q c^r d^S \mid pq = r + s, \text{ where, } p, q, r, s \geq 0\}$

L2 : $\{a^P b^q c^r d^S \mid p = q \text{ and } r = s, \text{ where, } p, q, r, s \geq 0\}$

L3 : $\{a^P b^q c^r d^S \mid p = q = r \text{ and } r \neq s, \text{ where, } p, q, r, s \geq 0\}$

L4 : $\{a^P b^q c^r d^S \mid p + r = q + s, \text{ where, } p, q, r, s \geq 0\}$

Which of the above languages are *context* free ?

Options :

1. ✖ L1 and L2 only

2. ✖ L1 and L3 only

3. ✔ L2 and L4 only

4. ✖ L2 and L3 only

Question Number : 55 Question Id : 59345215302 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let $G = (\{S\}, \{a, b\}, P, S)$ be a context free grammar where the rule set P is $S \rightarrow aSb \mid SS \mid \varepsilon$,

then :

Options :

1. ✖ G is not ambiguous

2. ✖ There exist x, y ∈ L(G) such that xy ∉ L(G)

3. ✖ There is a Deterministic finite automata that accepts L(G)

4. ✔ There is a Deterministic push down automata that accepts L(G)

Question Number : 56 Question Id : 59345215303 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For LR(0) automaton, consider the augmented grammar :

$E' \rightarrow E \qquad E \rightarrow E + T|T \qquad T \rightarrow T*F|F \qquad F \rightarrow (E)|id$

If *I* is the set of two items {E → T. , T → T.*F}, then GOTO (*I*, *) contains the items :

Options :

1. ✔ T → T*.F, F →.(E), F → .id

2. ✖ T → T*.F, F → (.E), F → .id

3. ✖ T → T*.F, F → (E)., F → id.

4. ✖ T → T*F., F → (E)., F → id.

Question Number : 57 Question Id : 59345215304 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The SLR parser for a grammar *G* has N1 states and the LALR parser for the same grammar *G* has N2 states then :

Options :

1. ✖ N1 < N2

2. ✔ N1 = N2

3. ✖ N1 > N2

4. ✖ None of three

Question Number : 58 Question Id : 59345215305 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is the most powerful parsing method ?

Options :

1. ✖ LL(1)

2. ✖ SLR

3. ✔ Canonical LR

4. ✖ LALR

Question Number : 59 Question Id : 59345215306 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

For $S \rightarrow CC, C \rightarrow aC, C \rightarrow d$, the grammar is :

Options :

1. ✔ LALR(1) but not SLR(1)

2. ✖ LL(1)

3. ✖ SLR(1) but not LL(1)

4. ✖ LR(1) but not LALR(1)

Question Number : 60 Question Id : 59345215307 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The production rules $S \rightarrow aB \mid bA, A \rightarrow a \mid aS \mid bAA, B \rightarrow b \mid bS \mid aBB$, generates strings of terminals that have :

Options :

1. ✖ odd number of a's and b's

2. ✖ even number of a's and b's

3. ✖ not equal number of a's and b's

4. ✔ equal number of a's and b's

Question Number : 61 Question Id : 59345215308 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the minterm list form of a Boolean function F given below :

$F(A, B, C, D) = \Sigma m(0, 2, 5, 7, 9, 11) + \Sigma d(3, 8, 10, 12, 14)$.

Here, m denotes a minterm and d denotes don't care term. The number of essential prime implicants of the function F is :

Options :

1. ✖ 2

2. ✖ 3

3. ✔ 4

4. ✖ 5

Question Number : 62 Question Id : 59345215309 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The base of the number system such that 312/20= 13.1 hold is :

Options :

1. ✔ 5

2. ✖ 6

3. ✖ 7

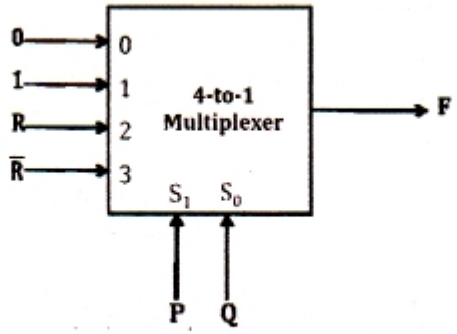
4. ✖ 8

Question Number : 63 Question Id : 59345215310 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider a 4 to 1 multiplexer with two select lines S_1 and S_0



The sum-of-products form of the Boolean expression for the output F of the multiplexer is :

Options :

1. ✖ $P'Q + P'QR' + PQR' + PQ'R$

2. ✔ $P'Q + QR' + PQ'R$

3. ✖ $P'QR + P'QR' + QR' + PQ'R$

4. ✖ PQR'

Question Number : 64 Question Id : 59345215311 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

If P, Q, R are Boolean variables, then $(P + Q')(PQ' + PR)(P'R' + Q')$ simplifies :

Options :

1. ✖ PR'

2. ✖ $PQ' + R$

3. ✔ PQ'

4. ✖ $PR' + Q$

Question Number : 65 Question Id : 59345215312 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The wrong statement/s regarding interrupts and subroutines among the following is/are :

I. The sub-routine and interrupts have a return statement

II. Both of them alter the content of the PC

III. Both are software oriented

IV. Both can be initiated by the user

Options :

1. ✖ I, II and IV

2. ✖ II and III

3. ✖ IV

4. ✔ III and IV

Question Number : 66 Question Id : 59345215313 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider an instruction pipeline with five stages without any branch prediction : Fetch Instruction (FI), Decode Instruction (DI), Fetch Operand (FO), Execute Instruction (EI) and Write Operand (WO). The stage delays for FI, DI, FO, EI and WO are 5 ns, 7 ns, 10 ns, 8 ns and 6 ns, respectively. There are intermediate storage buffers after each stage and the delay of each buffer is 1 ns. A program consisting of 12 instructions I1, I2, I3, ... I12 is executed in this pipelined processor. Instruction I4 is the only branch instruction and its branch target is I9. If the branch is taken during the execution of this program, the time (in ns) needed to complete the program is :

Options :

1. ✖ 132

2. ✔ 165

3. ✖ 176

4. ✖ 328

Question Number : 67 Question Id : 59345215314 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A two-word instruction is stored in memory at an address designated by the symbol W. The address filed of the instruction (stored at W + 1) is designated by the symbol Y. The operand used during the execution of the instruction is stored at an address symbolized by Z. What would be the value of Z if relative addressing mode is used.

Options :

1. ✔ Y + W + 2

2. ✖ Y + W + 1

3. ✖ Y + W

4. ✖ None of three

Question Number : 68 Question Id : 59345215315 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A digital computer has a memory unit 64K * 16 and a cache memory of 1 K words. The cache uses direct mapping with a block size of four words. How many bits are there in tag, index, block and word fields of the address format.

Options :

1. ✖ Tag = 5, Index = 10, Block = 8, Word = 2

2. ✖ Tag = 6, Index = 11, Block = 8, Word = 2

3. ✖ Tag = 5, Index = 11, Block = 8, Word = 2

4. ✔ Tag = 6, Index = 10, Block = 8, Word = 2

Question Number : 69 Question Id : 59345215316 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A RAM chip has a capacity of 1024 words of 8 bits each (1 K $\times$ 8). The number of 2 $\times$ 4 decoders with enable line needed to construct a 16K $\times$ 16 RAM from 1 K $\times$ 8 RAM is :

Options :

1. ✖ 4

2. ✔ 5

3. ✖ 6

4. ✖ 7

Question Number : 70 Question Id : 59345215317 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In a 11 bit computer instruction format, the size of the address field is 4 bits. The computer uses expanding OP code technique and has 5 two-address instructions and 32 one address instructions. The number of zero address instructions it can support is :

Options :

1. ✖ 2048

2. ✖ 512

3. ✔ 256

4. ✖ 272

Question Number : 71 Question Id : 59345215318 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following C code :

```
void main()
{
int i, arr[5] = {25, 30, 35, 40, 45}, *p = arr;
for(i = 0; i<3; i++)
{
printf("%d ", *p++);
p++;
}
}
```

The output of the above program is :

Options :

1. ✖ 25 30 35

2. ✔ 25 35 45

3. ✖ 26 31 36

4. ✖ 26 36 46

Question Number : 72 Question Id : 59345215319 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following C code :

```
main()
    {
    int arr[8] = {11, 22, 33, 44, 55, 66, 77, 88};
    int *p, *q;
    q = arr/2;
    p = q*2;
    printf (" %d %d", *p, *q) ;
    }
```

The output of the above program is :

Options :

1. ✖ 66 132

2. ✖ 132 66

3. ✖ No output

4. ✔ Compile Error

Question Number : 73 Question Id : 59345215320 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following C code :

```
int a = 5, b = 10;
main( )
{
    int x=20, *ptr=&x;
    printf("%d ", *ptr);
    change1(ptr) ;
    printf("%d ", *ptr);
change2(&ptr) ;
printf("%d\n",*ptr)
}
change1(int *p)
{
p=&a;
}
change2(int **pp)
{
*pp=&b;
}
```

The output of the above program is :

Options :

1. ✖ 20 10 20

2. ✖ 10 10 20

3. ✔ 20 20 10

4. ✖ 10 20 20

Question Number : 74 Question Id : 59345215321 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following C code :

```
main()
{
int i=l, j=l;
for ( ; j ; printf ("%d %d\n",i,j))
j= i++<= 5 ;
}
```

The output of the above program is :

Options :

1. ✖ 12 13 14 15 16 17

2. ✔ 21 31 41 51 61 70

3. ✖ 21 31 41 51 61 71

4. ✖ Compile error

Question Number : 75 Question Id : 59345215322 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following C code :

```
main()
{
    int x, y, z;
    x = y = z = 1;
    z =++x &&++y &&++z;
    printf(" %d %d %d\n", x, y, z);
}
```

The output of the above program is :

Options :

1. ✔ 2 2 1

2. ✖ 1 2 1

3. ✖ 1 1 1

4. ✖ 2 1 1

Question Number : 76 Question Id : 59345215323 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following C code :

```
main()
{
int x = 10, y = 100%90;
if(x!=y);
printf("%d %d", x, y);
}
```

The output of the above program is :

Options :

1. ✔ 10 10

2. ✖ Compile error

3. ✖ 10 1

4. ✖ No output

Question Number : 77 Question Id : 59345215324 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following segment of the C program :

```
#include<stdio.h>
#define SQR(x)(x*x)
int main()
{
    int a, b=3;
    a = SQR(b + 2);
    printf("%d\n", a);
    return 0;
}
```

The output of the above program is :

Options :

1. ✖ 25

2. ✔ 11

3. ✖ 17

4. ✖ 13

Question Number : 78 Question Id : 59345215325 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The height of a binary tree is the maximum number of edges in any root to leaf path. The maximum number of nodes in a binary tree of height h is :

Options :

1. ✖ $2^h - 1$

2. ✖ $2^{h-1} - 1$

3. ✖ 2^{h+1}

4. ✔ $2^{h+1} - 1$

Question Number : 79 Question Id : 59345215326 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

In general, in a recursive and non-recursive implementation of a problem (program) :

Options :

1. ✖ Both time and space complexities are better in recursive than in non-recursive program.

2. ✖ Time complexity is better in recursive version but space complexity is better in non-recursive version of the program.

3. ✔ Both time and space complexities are better in non-recursive than in recursive program.

4. ✖ Space complexity is better in recursive version but time complexity is better in non-recursive version of the program.

Question Number : 80 Question Id : 59345215327 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is/are ***true*** ?

Options :

1. ✖ calloc() allocates the memory and also initializes the allocated memory to zero, while memory allocated using malloc() has random data.

2. ✖ malloc() and memset() can be used to get the same effect as calloc().

3. ✖ calloc() takes two arguments, but malloc() takes only 1 argument.

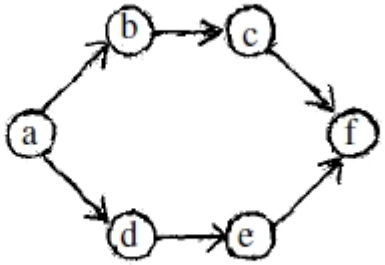
4. ✔ All of three

Question Number : 81 Question Id : 59345215328 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the following directed graph :



The number of different topological orderings of the vertices of the graph is :

Options :

1. ✔ 6.0

2. ✖ 3.0

3. ✖ 5.0

4. ✖ 1.0

Question Number : 82 Question Id : 59345215329 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

A circularly linked list is used to represent a queue. A single variable p is used to access the Queue. To which node should p point such that both operations enQueue and deQueue can be performed in constant time ?

Options :

1. ✔ Rear node

2. ✖ Front node

3. ✖ Not possible with a single pointer

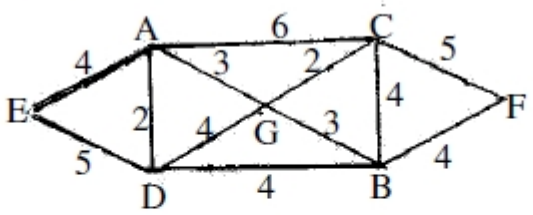
4. ✖ Node next to front

Question Number : 83 Question Id : 59345215330 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider the graph given below :



Use Kruskal's algorithm to find a minimal spanning tree for the graph. The List of the edges of the tree in the order in which they are choosen is ?

(i) AD, AE, AG, GC, GB, BF

(ii) GC, GB, BF, GA, AD, AE

(iii) GC, AD, GB, GA, BF, AE

(iv) AD, AG, GC, AE, GB, BF

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

Options :

1. (i)

2. (i), (ii)

3. (i), (ii), (iii)

4. (iii)

Question Number : 84 Question Id : 59345215331 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Suppose there are six files F1, F2, F3, F4, F5, F6 with corresponding sizes 150 KB, 225 KB, 75 KB, 60 KB, 275 KB and 65 KB respectively. The files are to be stored on a sequential device in such a way that optimizes access time. In what order should the files be stored ?

Options :

1. ✖ F5, F2, F1, F3, F6, F4

2. ✖ F1, F2, F3, F4, F5, F6

3. ✔ F4, F6, F3, F1, F2, F5

4. ✖ F6, F5, F4, F3, F2, F1

Question Number : 85 Question Id : 59345215332 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 : No
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

Let S be an NP-complete problem and R and Q be two other problems not known to be in NP. R is polynomial time reducible to S and S is polynomial-time reducible to Q. Which one of the following statements is ***true*** ?

Options :

1. ✖ R is NP-complete

2. ✔ Q is NP-hard

3. ✖ R is NP-hard

4. ✖ Q is NP-complete

Question Number : 86 Question Id : 59345215333 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 : No
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

The problem 2-SAT and 3-SAT are :

Options :

1. ✖ Both in P

2. ✔ P and NP-complete respectively

3. ✖ NP-complete and P respectively

4. ✖ Undecidable and NP-complete respectively

Question Number : 87 Question Id : 59345215334 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The expression 5 – 2 – 3 * 5 – 2 will evaluate to 18, if :

Options :

1. ✖ – is left associative and * has precedence over –

2. ✖ – is right associative and * has precedence over –

3. ✔ – is right associative and – has precedence over *

4. ✖ – is left associative and – has precedence over *

Question Number : 88 Question Id : 59345215335 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider a hash table of size seven, with starting index zero and a hash function (3x + 4) mod7. Assuming the hash table is initially empty, which of the following is the contents of the table when the sequence 1, 3, 8, 10 is inserted into the table using closed hashing ? Note that '_' denotes an empty location in the table.

Options :

1. ✖ 8, _, _, _, _, _, 10

2. ✔ 1, 8, 10, _ ,_ ,_, 3

3. ✖ 1, _, _, _, _, _, 3

4. ✖ 1, 10, 8, _, _, _, 3

Question Number : 89 Question Id : 59345215336 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider a system having *m* resources of the same type. These resources are shared by 3 processes A, B and C which have peak demands of 3, 4 and 6 respectively. For what value of *m* deadlock will not occur ?

Options :

1. ✔ 13

2. ✖ 9

3. ✖ 10

4. ✖ 7

Question Number : 90 Question Id : 59345215337 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 : No
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

If the disk head is located initially at 32, find the number of disk moves required with FCFS if the disk queue of I/O blocks requests are 98, 37, 14, 124, 65, 67.

Options :

1. ✖ 239

2. ✖ 310

3. ✖ 325

4. ✔ 321

Question Number : 91 Question Id : 59345215338 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 : No
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

Page fault frequency in an operating system is reduced when the :

Options :

1. ✖ processes tend to be of an equal ratio of the I/O-bound and CPU-bound

2. ✖ size of pages is increased

3. ✔ locality of reference is applicable to the process

4. ✖ processes tend to be CPU-bound

Question Number : 92 Question Id : 59345215339 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Which of the following is an example of a spooled device ?

Options :

1. ✖ The terminal used to input data for a program being executed

2. ✖ The Secondary memory device in a virtual memory system

3. ✔ A line printer used to print the output of a number of Jobs

4. ✖ None of three

Question Number : 93 Question Id : 59345215340 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Consider three CPU-intensive processes, which require 10, 20 and 30 time units and arrive at times 0, 2 and 6, respectively. How many context switches are needed if the operating system implements a shortest remaining time first scheduling algorithm ? Do not count the context switches at time zero and at the end.

Options :

1. ✖ 1

2. ✔ 2

3. ✖ 3

4. ✖ 4

Question Number : 94 Question Id : 59345215341 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let $(X, \leq)$ be POSET, where $X = \{2, 3, 6, 12, 24, 36\}$ and relation $\leq$ is defined as :

$x \leq y = \{(x, y) : x \text{ divides } y\}$. The upper bound of $\{2, 3\}$ is :

Options :

1. ✖ $\{3, 6, 12, 24, 36\}$

2. ✔ $\{6, 12, 24, 36\}$

3. ✖ $\{2, 6, 12, 24, 36\}$

4. ✖ $\{2, 3, 6, 12, 24, 36\}$

Question Number : 95 Question Id : 59345215342 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Negation of $P \rightarrow Q$ is :

Options :

1. ✖ $\overline{Q} \rightarrow \overline{P}$

2. ✖ $\overline{P} \rightarrow \overline{Q}$

3. ✖ $P \rightarrow \overline{Q}$

4. ✔ $\overline{\overline{Q} \rightarrow \overline{P}}$

Question Number : 96 Question Id : 59345215343 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Sutherland-Hodgeman clipping is an example of …….. algorithm.

Options :

1. ✔ polygon clipping

2. ✖ line clipping

3. ✖ text clipping

4. ✖ curve clipping

Question Number : 97 Question Id : 59345215344 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 : No
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

A channel has a bit rate of 4 kbps and one-way propagation delay of 20 ms. The channel uses stop and wait protocol. The transmission time of the acknowledgement frame is negligible. To get a channel efficiency of at least 50%, the minimum frame size should be :

Options :

1. ✖ 80 bytes

2. ✖ 80 bits

3. ✖ 160 bytes

4. ✔ 160 bits

Question Number : 98 Question Id : 59345215345 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 : No
Correct Marks : 3 Wrong Marks : 1
Question Label : Multiple Choice Question

Let $f(x) = x^2 - x + 1$ and $x_0 = 1$, then the value of x after first iteration, x_1, in Newton-Raphson method is :

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

Options :

1. 1/2

2. $3/2$

3. -1

4. -2

Question Number : 99 Question Id : 59345215346 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Let $G = (V, E)$ be a graph with $|V| > 1$. If chromatic number of graph is 1 then the total number of edges in the graph is :

Options :

1. ✔ 0

2. ✖ 1

3. ✖ $n(n-1)/2$

4. ✖ n

Question Number : 100 Question Id : 59345215347 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 : No

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

Two coin are tossed. Let A denote the event "at most one head on the two tosses" and let B denote the event "one head and one tail in both tosses". Among the following which statement is ***true*** ?

Options :

1. ✖ A and B are mutually exclusive event

2. ✖ A and B are independent event

3. ✔ A and B are not independent event

4. ✖ A and B are mutually exclusive as well as independent event