

Andhra Pradesh State Council of Higher Education

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 : | GEO ENGINEERING 3rd May 2024 Shift 2 |
| Duration : | 120 |
| Total Marks : | 140 |
| Display Marks: | No |
| Share Answer Key With Delivery Engine : | 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? | Yes |
| Change Font Color : | No |
| Change Background Color : | No |
| Change Theme : | No |
| Help Button : | No |
| Show Reports : | No |

| | |
|-------------------------------|-----------|
| Show Progress Bar : | No |
| Is this Group for Examiner? : | No |
| Examiner permission : | Cant View |
| Show Progress Bar? : | No |

Research Methodology

| | |
|--|-----------|
| Section Id : | 971036451 |
| Section Number : | 1 |
| Mandatory or Optional : | Mandatory |
| Number of Questions : | 66 |
| Section Marks : | 70 |
| Enable Mark as Answered Mark for Review and Clear Response : | Yes |
| Maximum Instruction Time : | 0 |
| Is Section Default? : | null |

Question Number : 1 Question Id : 97103631726 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How does mass media influence society?

Options :

1. ✘ Promotes critical thinking
2. ✔ Shapes public opinion
3. ✘ Limits access to information
4. ✘ Encourages isolation

Question Number : 2 Question Id : 97103631727 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is an example of an online teaching platform?

Options :

1. ✘ Tutorial class
2. ✘ Traditional classroom
3. ✘ Laboratory session
4. ✔ Swayamprabha

Question Number : 3 Question Id : 97103631728 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Some students who do not speak often in class and who typically develop ideas and questions in their minds before speaking are _____ students.

Options :

1. ✔ Reflective
2. ✘ Active

3. ✘ Non-academic

4. ✘ Shy

Question Number : 4 Question Id : 97103631729 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Learning objectives mean?

Options :

1. ✘ Learning experience

2. ✘ Concise outcomes

3. ✘ Academic achievement

4. ✔ Intended learning outcomes

Question Number : 5 Question Id : 97103631730 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following, which one is not considered in 'White Hat'?

Options :

1. ✔ Feelings

2. ✘ Data gathering

3. ✘ Facts

4. ✘ Information needs

Question Number : 6 Question Id : 97103631731 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The modern pedagogical standards are not related to _____ .

Options :

1. ✘ Learners- focussed process

2. ✔ Rigid teaching plan

3. ✘ Individual Students need

4. ✘ Learner diversity

Question Number : 7 Question Id : 97103631732 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many domains of learning are identified by Benjamin Bloom ?

Options :

1. ✘ Two
2. ✔ Three
3. ✘ Four
4. ✘ Five

Question Number : 8 Question Id : 97103631733 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

As per Bloom's taxonomy, the objective of remembering refers to _____

Options :

1. ✘ Psychomotor
2. ✘ Affective
3. ✔ Cognitive
4. ✘ Social

Question Number : 9 Question Id : 97103631734 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following quadrants of SWAYAM, which one is not figured?

Options :

1. ✘ Video lecture
2. ✘ E- content
3. ✘ Self-assessment tests
4. ✔ Podcasts

Question Number : 10 Question Id : 97103631735 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following, which channel is broadcasting educational content of management and library science and related subjects of the SWAYAM platform?

Options :

1. ✘ Door Darshan
2. ✘ Vageesh-1
3. ✔ Prabandhan-5
4. ✘ Kautilya-7

Question Number : 11 Question Id : 97103631736 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many quadrants are there in MOOCs?

Options :

1. ✘ Two

2. ✘ Three

3. ✔ Four

4. ✘ Five

Question Number : 12 Question Id : 97103631737 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the best advantage of a Choice Based Credit System of education?

Options :

1. ✔ Student-centric

2. ✘ Flexibility for teachers

3. ✘ Content specific

4. ✘ Teacher-centric

Question Number : 13 Question Id : 97103631738 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The computer-based testing learning domain covers _____ behaviour.

Options :

1. ✘ Conative

2. ✘ Effective

3. ✔ Cognitive

4. ✘ Psychomotor

Question Number : 14 Question Id : 97103631739 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The research activity pursuing based on observable facts is known as _____

Options :

1. ✘ Ethno methodology

2. ✘ Constructionist

3. ✔ Positivism

4. ✘ Manipulative

Question Number : 15 Question Id : 97103631740 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the purpose of using a Venn diagram in logic?

Options :

1. ✘ To confuse the audience

2. ✔ To visualize logical relationships

3. ✘ To simplify complex arguments

4. ✘ To present factual evidence

Question Number : 16 Question Id : 97103631741 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Experimental research is based on _____ methodology.

Options :

1. ✘ Qualitative
2. ✔ Quantitative
3. ✘ Subjective
4. ✘ Contextual

Question Number : 17 Question Id : 97103631742 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which type of research findings and conclusions are not generalised to other situations?

Options :

1. ✔ Descriptive
2. ✘ Fundamental
3. ✘ Experimental
4. ✘ Historical

Question Number : 18 Question Id : 97103631743 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following approaches, which one is not quantitative research?

Options :

1. ✘ Correlation
2. ✔ Ground theory
3. ✘ Experimental
4. ✘ Deductive

Question Number : 19 Question Id : 97103631744 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The National Literacy Mission was started in the year _____

Options :

1. ✘ 1991
2. ✘ 1947
3. ✔ 1998
4. ✘ 2000

Question Number : 20 Question Id : 97103631745 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the best remedy for the student's problems related to learning?

Options :

1. ✘ Suggestion for private tuition
2. ✘ Suggestion for hard work
3. ✔ Diagnostic teaching
4. ✘ Suggestion to go to the library

Is Section Default? : null

Question Id : 97103631746 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (21 to 25)

Read the Passage and answer the following questions:

If you wish to be a writer, you must learn to develop your own point of view. All good writers make us see things in a different light. You may be writing about the same thing as your classmates, but your presentation must reflect your personality and individuality. There are so many interesting subjects you can write about in different forms but here we will try to attempt writing short stories. There is a good market for the following types: humorous stories, adventurous stories, domestic stories, and mysterious stories and stories related to animals and strange experiences. Don't worry if your story turns out to be short-some of the stories are quite short. Be very careful about the climax or end of the story. It must be what the reader fears, desires, expect or best of all doesn't expect. So, get down to it. Think of a plot-make points on how the story will progress and pen it down.

Sub questions

Question Number : 21 Question Id : 97103631747 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The most important thing about being a writer is that

Options :

1. ✘ You must have a pen and paper
2. ✘ You must have a degree in writing
3. ✘ You must have a painful heart
4. ✔ You must learn to develop your own point of view

Question Number : 22 Question Id : 97103631748 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

The narrator advises the reader to write in order to _____.

Options :

1. ✘ Earn a livelihood
2. ✔ Encourage him to become a writer
3. ✘ Make him famous among his people
4. ✘ Show his intelligence to others

Question Number : 23 Question Id : 97103631749 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

A successful writer's presentation must reflect _____.

Options :

1. ✔ His personality and individuality
2. ✘ His hand writing
3. ✘ His showy nature
4. ✘ His superiority to others

Question Number : 24 Question Id : 97103631750 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The phrase 'pen it down' here means _____.

Options :

1. ✘ To get down
2. ✔ To write
3. ✘ To throw the pen
4. ✘ To throw it down

Question Number : 25 Question Id : 97103631751 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

According to the passage, what is essential for aspiring writers to learn?

Options :

1. ✔ Developing their own point of view
2. ✘ Writing about the same topics as classmates
3. ✘ Avoiding short stories
4. ✘ Following popular writing trends

Is Section Default? :

null

Question Number : 26 Question Id : 97103631752 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The fundamental function of SPSS software is _____.

Options :

1. ✘ To analyse quantitative data
2. ✘ Management reference tool
3. ✔ Statistical Package for analysing quantitative data
4. ✘ Useful for literature review

Question Number : 27 Question Id : 97103631753 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Plagiarism in research refers to _____.

Options :

1. ✘ Using previous data
2. ✘ Quoting findings of others
3. ✔ Unscrupulously copying others works

4. ✘ Incorporating earlier findings of the research.

Question Number : 28 Question Id : 97103631754 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following, which one is considered a barrier of effective communication?

Options :

1. ✔ Differences of cultural aspects

2. ✘ Active listening

3. ✘ Clarity of message

4. ✘ Perfect information

Question Number : 29 Question Id : 97103631755 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following communication, which one is considered as interpersonal?

Options :

1. ✘ Metaphorical

2. ✘ Philosophical

3. ✘ It is not participating in friendly

4. ✔ It is both focused and unfocussed.

Question Number : 30 Question Id : 97103631756 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which one of the following is not considered as verbal communication?

Options :

1. ✘ Instruction

2. ✔ Wordless messages

3. ✘ Practicals

4. ✘ Online classes

Question Number : 31 Question Id : 97103631757 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following, which one is not considered a subjective aspect of culture ?

Options :

1. ✘ Belief

2. ✘ Attitude

3. ✓ Language

4. ✗ Values

Question Number : 32 Question Id : 97103631758 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The origin of the word communication is from _____.

Options :

1. ✗ Greek

2. ✗ German

3. ✓ Latin

4. ✗ French

Question Number : 33 Question Id : 97103631759 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Who is regarded as the father of reasoning?

Options :

1. ✗ Plato

2. ✘ Rousseau

3. ✘ Montesquieu

4. ✔ Aristotle

Question Number : 34 Question Id : 97103631760 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a college 400 students took a mock test. In that 60 percent of boys and 80 percent of the girls cleared the cut off in the test. Suppose the total percentage of students clearing the cut off in the test is 65 percent, how many girls appeared in the test?

Options :

1. ✘ 300

2. ✘ 250

3. ✘ 150

4. ✔ 100

Question Number : 35 Question Id : 97103631761 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

3,5,9,17, 33, _____. What is the next number?

Options :

1. ✘ 45

2. ✘ 35

3. ✔ 65

4. ✘ 75

Question Number : 36 Question Id : 97103631762 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How many types of reasoning are there?

Options :

1. ✘ Four

2. ✔ Two

3. ✘ Three

4. ✘ Five

Question Number : 37 Question Id : 97103631763 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Suppose AIRLINE is written as ENILRIA7, then RAILWAY will be written as _____

Options :

1. ✘ YAWILAR8
2. ✘ YAWILAR7
3. ✔ YAWLIAR7
4. ✘ YAWLIAR8

Question Number : 38 Question Id : 97103631764 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following series 3W, 7V, 11U, 15T, _____ What comes next?

Options :

1. ✘ 22Q
2. ✘ 20P
3. ✔ 19S
4. ✘ 19Z

Question Number : 39 Question Id : 97103631765 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What is the sum of $(71/105)$ and $(71/420)$?

Options :

1. ✘ $83/84$

2. ✘ $73/84$

3. ✘ $79/84$

4. ✔ $71/84$

Question Number : 40 Question Id : 97103631766 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A car can finish a certain journey in 10 hrs at a speed of 48 kmph. To cover the same distance in 8 hours, the speed of the car must be increased by

Options :

1. ✔ 12 kmph

2. ✘ 15 kmph

3. ✘ 6 kmph

4. ✘ 7.5 kmph

Question Number : 41 Question Id : 97103631767 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Suppose the price of the commodity is increased by 50 percent and by what fraction must its consumption be reduced to keep the same expenditure consumption?

Options :

1. ✘ $1/2$

2. ✔ $1/3$

3. ✘ $1/4$

4. ✘ $2/3$

Question Number : 42 Question Id : 97103631768 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The selling price of a bicycle is Rs. 2,850 and the shopkeeper gains 14% profit.
Suppose the profit is reduced to 8%, then the selling price will be Rs. _____.

Options :

1. ✘ 2,600

2. ✔ 2,700

3. ✘ 2,800

4. ✘ 3,000

Question Number : 43 Question Id : 97103631769 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Find out the simple interest, when principal is Rs. 3,000 at the rate of 5% per annum for 2 years?

Options :

1. ✔ 300

2. ✘ 305

3. ✘ 303

4. ✘ 307

Question Number : 44 Question Id : 97103631770 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A channel marked at a price Rs. 1,600 is available at a discount of 45%. What is the discount given?

Options :

1. ✘ 740

2. ✘ 800

3. ✔ 720

4. ✘ 760

Question Number : 45 Question Id : 97103631771 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The average marks of 25 students is 18. The average marks of first 12 students is 14 and the average marks of last 12 students is 17. What is the 13th student result?

Options :

1. ✘ 69

2. ✘ 74

3. ✔ 78

4. ✘ 75

Question Number : 46 Question Id : 97103631772 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following statements is 'Contra positive' of "All Whales are Mammals"?

Options :

1. ✘ Some Whales are Mammals
2. ✘ Some Mammals are Whales
3. ✔ All non-Mammals are non-Whales
4. ✘ All Mammals are Whales.

Question Number : 47 Question Id : 97103631773 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following statement, which informal fallacy is committed?

Statement: We should not ban smoking because it is a personal choice and people should have the freedom to do what they want.

Options :

1. ✘ False dilemma
2. ✘ Ad hominem
3. ✔ Appeal to emotion
4. ✘ Equivocation

Question Number : 48 Question Id : 97103631774 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A word or phrase that is understood by every person in a particular culture is known as its _____

Options :

1. ✘ Denotation
2. ✘ Connotation
3. ✔ Sense
4. ✘ Reference

Question Number : 49 Question Id : 97103631775 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following types of reasoning, in the conclusion the word 'likely' is used.

Options :

1. ✔ Inductive
2. ✘ Deductive

3. ✘ Analogical

4. ✘ Syllogistic

Question Number : 50 Question Id : 97103631776 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Insect: Disease; War: _____?

Options :

1. ✘ Arsenal

2. ✘ Defeat

3. ✔ Destruction

4. ✘ Army

Question Number : 51 Question Id : 97103631777 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the meaning of 'pratyaksh' ?

Options :

1. ✘ Inference

2. ✓ Perception

3. ✗ Implied

4. ✗ Transcendental

Question Number : 52 Question Id : 97103631778 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In Indian logic, what is the meaning of 'Anumana'?

Options :

1. ✗ Determination

2. ✗ Credibility

3. ✓ Inference

4. ✗ Implication

Question Number : 53 Question Id : 97103631779 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the HTML, M refers to _____.

Options :

1. ✘ Machine

2. ✔ Markup

3. ✘ Margin

4. ✘ Micro

Question Number : 54 Question Id : 97103631780 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The receiving emails appear in _____.

Options :

1. ✘ Spam

2. ✘ Trash

3. ✔ Inbox

4. ✘ Archive

Question Number : 55 Question Id : 97103631781 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Internet standard protocol is _____.

Options :

1. ✘ FTP
2. ✘ WWW
3. ✔ TCP/IP
4. ✘ UDP

Question Number : 56 Question Id : 97103631782 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following video-conferencing platforms, which one is popular?

Options :

1. ✘ Gmail
2. ✘ Spotify
3. ✘ Google Drive
4. ✔ Zoom

Question Number : 57 Question Id : 97103631783 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The purpose of the intranet is _____.

Options :

1. ✘ To facilitate online shopping
2. ✘ To make video calls
3. ✘ To provide unrestricted Access to information on the internet.
4. ✔ To allow communication within a specific company

Question Number : 58 Question Id : 97103631784 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

To improve Quality of research, the government has initiated a digital program and it is called _____.

Options :

1. ✘ National Knowledge Network
2. ✔ E-Shodh Sindu
3. ✘ Swayam

4. ✘ E-PG pathshala

Question Number : 59 Question Id : 97103631785 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following sections, which one deals with the punishment for cyber terrorism as per IT Act 2000.

Options :

1. ✔ 66 F

2. ✘ 67 B

3. ✘ 66 B

4. ✘ 45 F

Question Number : 60 Question Id : 97103631786 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

‘Joystick’ refers to _____ device.

Options :

1. ✘ Output

2. ✘ Storage

3. ✓ Input

4. ✗ Network

Question Number : 61 Question Id : 97103631787 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which organisation is established in India to promote , review, encourage, assist and coordinate science research?

Options :

1. ✗ ICSSR

2. ✓ CSIR

3. ✗ NCAR

4. ✗ NCTE

Question Number : 62 Question Id : 97103631788 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the following gases, which one is not considered as 'Green House Gas'

Options :

1. ✗ Methane

2. ✘ Nitrous oxide

3. ✔ Oxygen

4. ✘ Carbon dioxide

Question Number : 63 Question Id : 97103631789 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Environmental protection Act in India was enacted in the year _____.

Options :

1. ✘ 1981

2. ✘ 1996

3. ✔ 1986

4. ✘ 1995

Question Number : 64 Question Id : 97103631790 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which type of pollution can cause respiratory problems ?

Options :

1. ✘ Acid rain
2. ✔ Smog
3. ✘ Ozone depletion
4. ✘ Eutrophication

Question Number : 65 Question Id : 97103631791 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the correct order of 3R principle?

Options :

1. ✘ Recycle, Reuse, Reduce
2. ✘ Reuse, Reduce, Recycle
3. ✔ Reduce, Reuse, Recycle
4. ✘ Recycle, Reduce, Reuse

Question Number : 66 Question Id : 97103631792 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Forest conservation Act was passed in the year _____.

Options :

1. ✘ 1986

2. ✘ 1990

3. ✔ 1980

4. ✘ 1988

Question Number : 67 Question Id : 97103631793 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ is an international treaty signed in 1987 to protect the ozone layer.

Options :

1. ✘ Rio Summit

2. ✘ Kyoto Protocol

3. ✘ Vienna convention

4. ✔ Montreal Protocol

Question Number : 68 Question Id : 97103631794 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Study the following Table and answer the questions from:

| Total Number of Employees in different departments of an organisation and percentage of females and males. | | | |
|--|---------------------------|-----------------------|---------------------|
| Department | Total number of employees | Percentage of females | Percentage of Males |
| IT | 840 | 45 | 55 |
| Accounts | 220 | 35 | 65 |
| Production | 900 | 23 | 77 |
| HR | 360 | 65 | 35 |
| Marketing | 450 | 44 | 56 |
| Customer Service | 540 | 40 | 60 |

What is the total number of employees in all the departments together ?

Options :

1. ✘ 3260

2. ✔ 3310

3. ✘ 3140

4. ✘ 3020

Question Number : 69 Question Id : 97103631795 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following Table and answer the questions from:

| Total Number of Employees in different departments of an organisation and percentage of females and males. | | | |
|--|---------------------------|-----------------------|---------------------|
| Department | Total number of employees | Percentage of females | Percentage of Males |
| IT | 840 | 45 | 55 |
| Accounts | 220 | 35 | 65 |
| Production | 900 | 23 | 77 |
| HR | 360 | 65 | 35 |
| Marketing | 450 | 44 | 56 |
| Customer Service | 540 | 40 | 60 |

What is the respective ratio of the number of females in production department to the number of females in the marketing department?

Options :

1. ✘ 22:23

2. ✘ 35:33

3. ✔ 23:22

4. ✘ 33:35

Question Number : 70 Question Id : 97103631796 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following Table and answer the questions from:

| Total Number of Employees in different departments of an organisation and percentage of females and males. | | | |
|--|---------------------------|-----------------------|---------------------|
| Department | Total number of employees | Percentage of females | Percentage of Males |
| IT | 840 | 45 | 55 |
| Accounts | 220 | 35 | 65 |
| Production | 900 | 23 | 77 |
| HR | 360 | 65 | 35 |
| Marketing | 450 | 44 | 56 |
| Customer Service | 540 | 40 | 60 |

What is the total number of males in the IT and customer service departments together

Options :

1. ✘ 687

2. ✘ 678

3. ✘ 768

4. ✔ 786

GEO ENGINEERING

Section Id :

971036452

Section Number :

2

| | |
|---|-----------|
| Mandatory or Optional : | Mandatory |
| Number of Questions : | 70 |
| Section Marks : | 70 |
| Enable Mark as Answered Mark for Review and Clear Response : | Yes |
| Maximum Instruction Time : | 0 |
| Is Section Default? : | null |

Question Number : 71 Question Id : 97103631797 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the determinant of the 2x2 matrix $\begin{bmatrix} 3 & 4 \\ 1 & 2 \end{bmatrix}$?

Options :

1. ✘ 2

2. ✘ 5

3. ✔ 6

4. ✘ 10

Question Number : 72 Question Id : 97103631798 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is a solution to the system of linear equations

$$2x + 3y = 5$$

$$4x - y = 8$$

Options :

1. ✓ (1, 2)

2. ✗ (2, 1)

3. ✗ (3, -1)

4. ✗ (0, 2)

Question Number : 73 Question Id : 97103631799 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the eigenvalue of the matrix $\begin{bmatrix} 2 & 1 \\ 1 & 2 \end{bmatrix}$?

Options :

1. ✗ 3

2. ✗ 4

3. ✓ 2

4. ✗ 1

Question Number : 74 Question Id : 97103631800 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following operations is NOT valid for matrices?

Options :

1. ✘ Addition
2. ✘ Multiplication
3. ✔ Division
4. ✘ Transposition

Question Number : 75 Question Id : 97103631801 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is true for orthogonal matrices?

Options :

1. ✘ Their determinant is always 1.
2. ✔ Their transpose is equal to their inverse.
3. ✘ Their eigenvalues are always real.
4. ✘ They always have a single eigenvalue.

Question Number : 76 Question Id : 97103631802 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the divergence of the vector field $F(x, y, z) = (x^2, y^2, z^2)$?

Options :

1. ✘ 3

2. ✔ $2x+2y+2z$

3. ✘ $2x^2+2y^2+2z^2$

4. ✘ 0

Question Number : 77 Question Id : 97103631803 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which theorem relates a line integral around a closed curve to the double integral over the region enclosed by the curve?

Options :

1. ✘ Green's theorem

2. ✘ Gauss's theorem

3. ✔ Stokes's theorem

4. ✘ Divergence theorem

Question Number : 78 Question Id : 97103631804 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What is the total derivative of the function $z = xy + \sin(x)$ at the point $(\pi/2, 0)$ in the direction of the vector $\langle 1, 2 \rangle$?

Options :

1. ✘ 1

2. ✘ 2

3. ✔ -1

4. ✘ -2

Question Number : 79 Question Id : 97103631805 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Which theorem is used to evaluate surface integrals over a closed surface?

Options :

1. ✘ Green's theorem

2. ✔ Gauss's theorem

3. ✘ Stokes's theorem

4. ✘ Divergence theorem

Question Number : 80 Question Id : 97103631806 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the probability of rolling an even number on a fair six-sided die?

Options :

1. ✘ $1/2$

2. ✘ $1/3$

3. ✔ $1/6$

4. ✘ $2/3$

Question Number : 81 Question Id : 97103631807 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If $P(A) = 0.7$ and $P(B) = 0.4$, what is $P(A \cap B)$ if A and B are independent events?

Options :

1. ✘ 0.28

2. ✘ 0.11

3. ✔ 0.28

4. ✘ 0.18

Question Number : 82 Question Id : 97103631808 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the standard deviation of the numbers: 2, 4, 6, 8, 10?

Options :

1. ✘ 2

2. ✘ 3

3. ✔ 4

4. ✘ 5

Question Number : 83 Question Id : 97103631809 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the mean of a standard normal distribution?

Options :

1. ✔ 0

2. ✘ 1

3. ✘ -1

4.

✖ Depends on the variance

Question Number : 84 Question Id : 97103631810 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a random variable X follows a Poisson distribution with mean $\lambda=3$, what is $P(X = 2)$?

Options :

1. ✖ 0.112

2. ✖ 0.224

3. ✔ 0.0498

4. ✖ 0.180

Question Number : 85 Question Id : 97103631811 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the variance of a binomial distribution with parameters $n = 10$ and $p = 0.3$?

Options :

1. ✖ 10

2. ✖ 3

3. ✔ 2.1

4. ✘ 2.2

Question Number : 86 Question Id : 97103631812 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a group of 50 students, the mean score on a test is 75. If the standard deviation is 10, what is the variance?

Options :

1. ✘ 10

2. ✔ 25

3. ✘ 100

4. ✘ 250

Question Number : 87 Question Id : 97103631813 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following instruments is used to measure angles in surveying?

Options :

1. ✘ Chain

2. ✘ Compass

3. ✘ Level

4. ✔ Theodolite

Question Number : 88 Question Id : 97103631814 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which type of scale uses representative fractions to denote distances on a map?

Options :

1. ✘ Graphic scale

2. ✘ Verbal scale

3. ✘ Linear scale

4. ✔ Ratio scale

Question Number : 89 Question Id : 97103631815 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In leveling, what does the term "benchmark" refer to?

Options :

1. ✔ A point of known elevation used as a reference

2. ✘ A type of leveling instrument

3. ✘ A method for measuring distances

4. ✘ A type of contour line

Question Number : 90 Question Id : 97103631816 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In surveying, what is the purpose of a theodolite?

Options :

1. ✘ To measure distances

2. ✘ To measure elevations

3. ✔ To measure horizontal and vertical angles

4. ✘ To measure azimuths

Question Number : 91 Question Id : 97103631817 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What are the different forms of precipitation?

Options :

1. ✔ Rain, snow, sleet, and hail

2. ✘ Dew, fog, and frost

3. ✘ Evaporation and transpiration

4. ✘ Condensation and sublimation

Question Number : 92 Question Id : 97103631818 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which term describes the movement of water between Earth's surface and the atmosphere?

Options :

1. ✘ Erosion

2. ✘ Infiltration

3. ✔ Hydrologic cycle

4. ✘ Transpiration

Question Number : 93 Question Id : 97103631819 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Groundwater occurrence primarily depends on

Options :

1. ✘ River flow

2. ✘ Ocean currents
3. ✘ Precipitation
4. ✔ Soil type and geology

Question Number : 94 Question Id : 97103631820 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Permeability of an aquifer refers to

Options :

1. ✔ Its ability to transmit water
2. ✘ The volume of water it can hold
3. ✘ The degree of saturation with water
4. ✘ The percentage of pore space in the rock or soil

Question Number : 95 Question Id : 97103631821 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Radial flow to wells occurs in which type of aquifer?

Options :

1. ✘ Unconfined aquifer

2. ✘ Perched aquifer
3. ✘ Confined aquifer
4. ✔ Artesian aquifer

Question Number : 96 Question Id : 97103631822 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Storage coefficient of an aquifer refers to

Options :

1. ✘ Its ability to transmit water
2. ✔ The volume of water it can hold
3. ✘ The degree of saturation with water
4. ✘ The ratio of permeability to porosity

Question Number : 97 Question Id : 97103631823 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the primary factor affecting groundwater flow in an aquifer?

Options :

1. ✘ Temperature

2. ✘ Pressure

3. ✔ Gradient

4. ✘ Precipitation

Question Number : 98 Question Id : 97103631824 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How is the average rainfall over a basin computed?

Options :

1. ✘ By dividing the total rainfall by the number of rain gauges

2. ✔ By summing the rainfall at all rain gauges and dividing by the total area of the basin

3. ✘ By taking the median of the rainfall measurements

4. ✘ By averaging the highest and lowest rainfall measurements

Question Number : 99 Question Id : 97103631825 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which component of a CPU is responsible for fetching and decoding instructions?

Options :

1. ✘ ALU
2. ✔ Control unit
3. ✘ Memory
4. ✘ Input/output functions

Question Number : 100 Question Id : 97103631826 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What type of computer is typically used for scientific and engineering applications?

Options :

1. ✘ Personal computer
2. ✘ Mainframe computer
3. ✔ Supercomputer
4. ✘ Embedded computer

Question Number : 101 Question Id : 97103631827 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the purpose of memory addressing capability in a CPU?

Options :

1. ✘ To store and retrieve data from storage devices
2. ✘ To execute instructions from the operating system
3. ✘ To perform arithmetic and logic operations
4. ✔ To locate and access data stored in memory

Question Number : 102 Question Id : 97103631828 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the primary function of a Database Management System (DBMS)?

Options :

1. ✘ To manage computer hardware
2. ✘ To control access to the internet
3. ✔ To organize and manipulate data
4. ✘ To design computer networks

Question Number : 103 Question Id : 97103631829 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What are the three levels of database architecture?

Options :

1. ✓ Logical, physical, external
2. ✗ Primary, secondary, tertiary
3. ✗ Hierarchical, network, relational
4. ✗ Centralized, distributed, cloud-based

Question Number : 104 Question Id : 97103631830 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What are Codd's rules in the context of RDBMS?

Options :

1. ✗ Rules for designing user interfaces
2. ✗ Rules for ensuring data security
3. ✗ Rules for enforcing data integrity
4. ✓ Rules for ensuring relational database management system quality

Question Number : 105 Question Id : 97103631831 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What is the purpose of an external schema in a database?

Options :

1. ✘ To provide security controls for data access
2. ✘ To define the overall structure of the database
3. ✔ To provide an interface between the database and applications
4. ✘ To manage data storage and retrieval

Question Number : 106 Question Id : 97103631832 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is a primary characteristic of a relational database?

Options :

1. ✘ Data is organized in a hierarchical structure
2. ✘ Data is organized in a network structure
3. ✔ Data is organized in tables with relationships defined between them
4. ✘ Data is organized in a flat file structure

Question Number : 107 Question Id : 97103631833 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Which of the following is a characteristic of Ethernet LAN?

Options :

1. ✘ It uses token-passing access method
2. ✔ It operates at high-speed data rates
3. ✘ It is primarily used in WANs
4. ✘ It uses a ring topology

Question Number : 108 Question Id : 97103631834 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is FDDI LAN?

Options :

1. ✔ Fiber Distributed Data Interface Local Area Network
2. ✘ Fast Data Delivery Interface Local Area Network
3. ✘ Flexible Data Distribution Interface Local Area Network
4. ✘ Fault Detection and Diagnostic Interface Local Area Network

Question Number : 109 Question Id : 97103631835 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is TCP/IP?

Options :

1. ✓ Transmission Control Protocol/Internet Protocol
2. ✗ Transfer Control Protocol/Internet Protocol
3. ✗ Transaction Control Protocol/Internet Protocol
4. ✗ Transit Control Protocol/Internet Protocol

Question Number : 110 Question Id : 97103631836 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the primary function of a router in a network?

Options :

1. ✗ To connect devices within the same network
2. ✓ To connect multiple networks together and route data between them
3. ✗ To amplify network signals
4. ✗ To secure network connections

Question Number : 111 Question Id : 97103631837 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is a switch in networking?

Options :

1. ✘ A device that connects LANs together
2. ✘ A device that connects LANs to the internet
3. ✔ A device that connects multiple devices within the same LAN
4. ✘ A device that routes data between networks

Question Number : 112 Question Id : 97103631838 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which layer of the Earth is primarily composed of solid rock and extends from the crust to the outer core?

Options :

1. ✘ Crust
2. ✔ Mantle
3. ✘ Outer core
4. ✘ Inner core

Question Number : 113 Question Id : 97103631839 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the average depth of the Earth's oceans?

Options :

1. ✘ 500 meters
2. ✘ 1,000 meters
3. ✘ 3,000 meters
4. ✔ 5,000 meters

Question Number : 114 Question Id : 97103631840 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What process is responsible for the formation of sedimentary rocks?

Options :

1. ✘ Melting and solidification
2. ✔ Compaction and cementation
3. ✘ Heat and pressure
4. ✘ Recrystallization

Question Number : 115 Question Id : 97103631841 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What are silicate minerals primarily composed of?

Options :

1. ✘ Carbon
2. ✔ Oxygen and silicon
3. ✘ Calcium
4. ✘ Iron

Question Number : 116 Question Id : 97103631842 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which layer of the Earth is divided into tectonic plates?

Options :

1. ✔ Crust
2. ✘ Mantle
3. ✘ Outer core
4. ✘ Inner core

Question Number : 117 Question Id : 97103631843 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the process by which sedimentary rocks are formed from the remains of plants and animals?

Options :

1. ✘ Deposition
2. ✘ Compaction
3. ✘ Erosion
4. ✔ Lithification

Question Number : 118 Question Id : 97103631844 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What mineral is commonly found in sandstone?

Options :

1. ✔ Quartz
2. ✘ Calcite
3. ✘ Feldspar
4. ✘ Halite

Question Number : 119 Question Id : 97103631845 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the primary purpose of topographic surveying?

Options :

1. ✘ To measure distances between objects
2. ✔ To create accurate maps of terrain features
3. ✘ To capture aerial photographs
4. ✘ To analyze geological formations

Question Number : 120 Question Id : 97103631846 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the principal point in aerial photography?

Options :

1. ✘ The center of the lens aperture
2. ✔ The point where the optical axis intersects the image plane
3. ✘ The highest point in the aerial photograph

4. ✘ The central point of the fiducial marks

Question Number : 121 Question Id : 97103631847 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is Aero Triangulation?

Options :

1. ✘ The process of calibrating aerial cameras

2. ✘ The process of determining the position of ground control points

3. ✘ The process of measuring the elevation of terrain surfaces

4. ✔ The process of calculating the position of points in three-dimensional space using overlapping aerial photographs

Question Number : 122 Question Id : 97103631848 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is NOT a type of map projection?

Options :

1. ✘ Mercator

2. ✘ Lambert Conformal Conic

3. ✘ Azimuthal Equidistant

4. ✓ Orthogonal Parallel

Question Number : 123 Question Id : 97103631849 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the focal length of an aerial camera lens?

Options :

1. ✗ The distance between the lens and the focal plane
2. ✗ The distance from the principal point to the fiducial marks
3. ✗ The distance from the optical axis to the lens aperture
4. ✓ The distance from the lens to the image plane when focused at infinity

Question Number : 124 Question Id : 97103631850 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the purpose of a lens in an aerial camera?

Options :

1. ✓ To capture and focus light onto the image plane
2. ✗ To store captured images

3. ✘ To regulate the exposure time

4. ✘ To compress captured images

Question Number : 125 Question Id : 97103631851 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the purpose of fiducial marks in aerial photography?

Options :

1. ✔ To provide reference points for camera calibration

2. ✘ To identify specific features in the landscape

3. ✘ To measure the distance between objects

4. ✘ To adjust exposure settings

Question Number : 126 Question Id : 97103631852 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the velocity of electromagnetic radiation in a vacuum?

Options :

1. ✔ 300,000 km/s

2. ✘ 3,000 km/s

3. ✘ 300 km/s

4. ✘ 30 km/s

Question Number : 127 Question Id : 97103631853 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the fundamental unit used to measure solid angles?

Options :

1. ✘ Radian

2. ✘ Degree

3. ✔ Steradian

4. ✘ Angstrom

Question Number : 128 Question Id : 97103631854 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Spatial resolution in remote sensing refers to

Options :

1. ✘ The ability to distinguish between objects in close proximity

2. ✘ The ability to detect changes over time

3. ✘ The ability to measure temperature variations
4. ✔ The ability to collect data in different spectral bands

Question Number : 129 Question Id : 97103631855 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the primary function of radiometric resolution in remote sensing?

Options :

1. ✘ To measure the temperature of objects
2. ✘ To detect changes in land cover over time
3. ✘ To quantify the amount of radiation received by a sensor
4. ✔ To distinguish between different levels of brightness or intensity

Question Number : 130 Question Id : 97103631856 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the major advantage of using infrared sensors in remote sensing?

Options :

1. ✘ They provide high-resolution images
2. ✔

✓ They can penetrate through clouds and fog

3. ✘ They provide global coverage for weather monitoring

4. ✘ They can capture images at night

Question Number : 131 Question Id : 97103631857 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the primary function of radiance in remote sensing?

Options :

1. ✓ To quantify the amount of radiation received by a sensor

2. ✘ To measure the temperature of objects

3. ✘ To distinguish between different levels of brightness or intensity

4. ✘ To measure the amount of reflected energy from the Earth's surface

Question Number : 132 Question Id : 97103631858 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the significance of temporal resolution in remote sensing?

Options :

1. ✘ It determines the ability to detect small differences in wavelength

2. ✓ It determines the frequency of image acquisition over time
3. ✘ It determines the ability to distinguish between different objects
4. ✘ It determines the ability to penetrate through clouds and fog

Question Number : 133 Question Id : 97103631859 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is NOT a characteristic of geosynchronous satellites?

Options :

1. ✘ They provide continuous coverage of specific areas on Earth
2. ✓ They orbit at a low altitude for high-resolution imaging
3. ✘ They are positioned above the equator
4. ✘ They have a synchronous orbit with the Earth's rotation

Question Number : 134 Question Id : 97103631860 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which data structure in GIS is characterized by hierarchical relationships?

Options :

- 1.

- ✘ Network
- 2. ✘ Relational
- 3. ✔ Hierarchical
- 4. ✘ Vector

Question Number : 135 Question Id : 97103631861 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the purpose of polygon overlay in GIS?

Options :

- 1. ✘ To calculate polygon statistics
- 2. ✘ To transform data dimensionality
- 3. ✘ To identify topological errors
- 4. ✔ To analyze spatial relationships

Question Number : 136 Question Id : 97103631862 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the primary advantage of using GPS for GIS data capture?

Options :

1. ✘ High spatial resolution
2. ✔ Real-time data acquisition
3. ✘ Enhanced network analysis
4. ✘ Efficient polygon overlay

Question Number : 137 Question Id : 97103631863 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which database model focuses on representing entities as objects with properties and behaviors?

Options :

1. ✘ Relational model
2. ✘ Hierarchical model
3. ✔ Object-oriented model
4. ✘ Network model

Question Number : 138 Question Id : 97103631864 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the purpose of a digital elevation model (DEM) in GIS?

Options :

1. ✘ To analyze soil properties
2. ✘ To study rainfall patterns
3. ✔ To represent terrain elevation
4. ✘ To manage resource data

Question Number : 139 Question Id : 97103631865 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What does the term "topological errors" refer to in GIS?

Options :

1. ✔ Errors in spatial relationships
2. ✘ Errors in attribute data
3. ✘ Errors in data transformation
4. ✘ Errors in data visualization

Question Number : 140 Question Id : 97103631866 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The band width of GPS range measurements is in _____

Options :

1. ✓ 2L – band frequencies
2. ✗ 3L – band frequencies
3. ✗ 2C – band frequencies
4. ✗ 3C – band frequencies