

# 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.

<b>Question Paper Name :</b>	Meteorology and Physical Oceanography 5th May 2024 Shift 1
<b>Duration :</b>	120
<b>Total Marks :</b>	140
<b>Display Marks:</b>	No
<b>Share Answer Key With Delivery Engine :</b>	Yes
<b>Calculator :</b>	None
<b>Magnifying Glass Required? :</b>	No
<b>Ruler Required? :</b>	No
<b>Eraser Required? :</b>	No
<b>Scratch Pad Required? :</b>	No
<b>Rough Sketch/Notepad Required? :</b>	No
<b>Protractor Required? :</b>	No
<b>Show Watermark on Console? :</b>	Yes
<b>Highlighter :</b>	No
<b>Auto Save on Console?</b>	Yes
<b>Change Font Color :</b>	No
<b>Change Background Color :</b>	No
<b>Change Theme :</b>	No
<b>Help Button :</b>	No
<b>Show Reports :</b>	No

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

## Research Methodology

Section Id :	971036565
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 : 97103639763 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 focus of Reflective Teaching?

Options :

1. ✘ Memorization
2. ✘ Understanding
3. ✔ Critical thinking

#### 4. ✘ Repetition

**Question Number : 2 Question Id : 97103639764 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 characteristics of adult learners?

**Options :**

1. ✘ Dependence on the teacher
2. ✔ Students have their own motivation
3. ✘ Passive learning style
4. ✘ Fixed mindset

**Question Number : 3 Question Id : 97103639765 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

In teaching, what does the term "Learner centred" approach emphasize?

**Options :**

1. ✘ Teacher's authority
2. ✔ Student involvement and active participation
3. ✘ Memorization of facts

4. ✘ Rote learning

**Question Number : 4 Question Id : 97103639766 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which is an example of an online teaching platform?

**Options :**

1. ✘ Digital Repository
2. ✘ Virtual Symposium
3. ✔ Swayam Prabha
4. ✘ Cybernetic Laboratory

**Question Number : 5 Question Id : 97103639767 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 key characteristic of modern evaluation system?

**Options :**

1. ✘ Rigid structure
2. ✘ Sole reliance on exams

3. ✓ Continuous assessment

4. ✘ Limited feedback

**Question Number : 6 Question Id : 97103639768 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 VPN (Virtual Private Network) in ICT?

**Options :**

1. ✓ To provide a secure connection over a public network

2. ✘ To increase computer speed

3. ✘ To enhance graphics processing

4. ✘ To store large amounts of data

**Question Number : 7 Question Id : 97103639769 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 main purpose of Computer-Based Testing (CBT) in education?

**Options :**

1. ✘ Simplify teacher workload

2.

- ✘ Increase paper usage
- 3. ✔ Enhance test security
- 4. ✘ Reduce access to exams

**Question Number : 8 Question Id : 97103639770 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 key characteristic of a quantitative research method?

**Options :**

- 1. ✘ Emphasis on subjective experiences
- 2. ✔ Focus on numbers and statistical analysis
- 3. ✘ Narrative storytelling
- 4. ✘ Historical analysis

**Question Number : 9 Question Id : 97103639771 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 goal of descriptive research?

**Options :**

- 1.

✘ Establishing cause and effect relationships

2. ✘ Exploring new theories

3. ✔ Describing and summarizing data

4. ✘ Analysing historical events

**Question Number : 10 Question Id : 97103639772 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which approach to research emphasizes the objective measurement of observable phenomena?

**Options :**

1. ✘ Qualitative approach

2. ✘ Historical approach

3. ✔ Positivistic approach

4. ✘ Post-positivistic approach

**Question Number : 11 Question Id : 97103639773 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction**



**Time : 0**

What is common characteristic of qualitative research methods?

**Options :**

1. ✘ Large sample sizes
2. ✘ Emphasis on statistical analysis
3. ✔ In-depth exploration of phenomena
4. ✘ Experimental manipulations

**Question Number : 12 Question Id : 97103639774 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 first step in the research process?

**Options :**

1. ✘ Analysis of findings
2. ✔ Formulation of research questions
3. ✘ Data Collection
4. ✘ Conducting literature review



**Question Number : 13 Question Id : 97103639775 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

In research writing, what is the purpose of referencing?

**Options :**

1. ✘ To confuse the reader
2. ✘ To demonstrate the author's intelligence
3. ✔ To enable verification
4. ✘ To save space in the document

**Question Number : 14 Question Id : 97103639776 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

How does ICT (Information and Communication Technology) contribute to research?

**Options :**

1. ✘ By discouraging collaboration
2. ✘ By limiting access to information
3. ✔ By facilitating data collection, analysis, and dissemination
4. ✘ By promoting unethical practices

Question Number : 15 Question Id : 97103639777 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 key characteristic of effective communication?

Options :

1. ✘ Confusion
2. ✘ Misunderstanding
3. ✔ Clarity
4. ✘ Ambiguity

Question Number : 16 Question Id : 97103639778 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is an example of non-verbal communication?

Options :

1. ✘ Written letter
2. ✘ Text message
3. ✔ Facial expressions
4. ✘ Phone call

**Question Number : 17 Question Id : 97103639779 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which ICT tool is used for storing, organizing, and manipulating data?

**Options :**

1. ✘ Browser
2. ✔ Spreadsheet
3. ✘ Presentation software
4. ✘ Email client

**Question Number : 18 Question Id : 97103639780 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

In a classroom setting, what is an essential aspect of effective communication?

**Options :**

1. ✘ One-way communication
2. ✘ Lack of feedback
3. ✔ Clear instructions and feedback

4. ✘ Ambiguous messages

Question Number : 19 Question Id : 97103639781 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 common barrier to effective communication?

Options :

1. ✘ Active listening
2. ✘ Clarity in expression
3. ✔ Language differences
4. ✘ Open communication channels

Question Number : 20 Question Id : 97103639782 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which form of communication reaches a large and diverse audience simultaneously?

Options :

1. ✘ Interpersonal communication
2. ✘ Group communication

3. ✓ Mass-Media communication

4. ✘ Intra-cultural communication

Is Section Default? : null

Question Id : 97103639783 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:

In terms of labour, for decades the relatively low cost and high quality of Japanese workers conferred considerable competitive advantage across numerous durable goods and consumer electronics industries (eg. Machinery, automobiles, televisions, radios). Then labour-based advantages shifted to South Korea, then to Malaysia, Mexico and other nations. Today, China appears to be capitalizing best on the basis of labour. Japanese firms still remain competitive in markets for such durable goods, electronics and other products, but the labour force is no longer sufficient for competitive advantage over manufacturers in other industrializing nations. Such shifting of labour-based advantage is clearly not limited to manufacturing industries. Today, a huge number of IT and service jobs are moving from Europe and North America to India, Singapore, and like countries with relatively well-educated, low-cost workforces possessing technical skills. However, as educational levels and technical skills continue to rise in other countries, India, Singapore, and like nations enjoying labour-based competitive advantage today are likely to find such advantage cannot be sustained through emergence of new competitors. In terms of capital, for centuries the days of gold coins and later even paper money restricted financial flows. Subsequently regional concentrations were formed where large banks, industries and markets coalesced. But today capital flows internationally at rapid speed. Global commerce no longer requires regional interactions among business players. Regional capital concentrations in places such as New York, London and Tokyo still persist, of course, but the capital concentrated there is no longer sufficient for competitive advantage over other capitalists distributed worldwide. Only if an organization is able to combine, integrate and apply its resources (eg. Land, labour, capital, IT) in an effective manner that is not readily imitable by competitors can such an organization enjoy competitive advantage sustainable overtime. In a knowledge-based theory of the firm, this idea is extended to view organizational knowledge as a resource with atleast the same level of power and importance as the traditional economic inputs.

### Sub questions

**Question Number : 21 Question Id : 97103639784 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which country enjoyed competitive advantages in automobile industry for decades?

**Options :**

1. ✘ South Korea

2. ✓ Japan

3. ✘ Mexico

4. ✘ Malaysia

**Question Number : 22 Question Id : 97103639785 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Why labour-based competitive advantages of India and Singapore cannot be sustained in IT and service sectors?

**Options :**

1. ✘ Due to diminishing levels of skill

2. ✘ Due to capital-intensive technology making inroads

3. ✓ Because of new competitors

4. ✘ Because of shifting of labour-based advantage in manufacturing industries.

**Question Number : 23 Question Id : 97103639786 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

How can an organisation enjoy competitive advantage sustainable overtime?

**Options :**



1. ✘ Through regional capital flows
2. ✘ Through regional interactions among business players.
3. ✘ By making large banks, industries and markets coalesced.
4. ✔ By effective use of various instrumentalities

**Question Number : 24 Question Id : 97103639787 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

What is required to ensure competitive advantages in specific markets?

**Options :**

1. ✘ Access to capital
2. ✘ Common office buildings
3. ✔ Superior knowledge
4. ✘ Common metals

**Question Number : 25 Question Id : 97103639788 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The passage also mentions about the trend of

**Options :**

1. ✓ Global financial flow
2. ✘ Absence of competition in manufacturing industry
3. ✘ Regionalisation of capitalists
4. ✘ Organizational incompatibility

Is Section Default? : null

Question Number : 26 Question Id : 97103639789 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 main purpose of mass-media in society?

Options :

1. ✘ To confuse people
2. ✘ To entertain only
3. ✓ To inform, educate, and entertain
4. ✘ To restrict information flow

Question Number : 27 Question Id : 97103639790 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What can enhance group communication?

Options :

1. ✘ Lack of diversity in the group
2. ✘ Conflict avoidance
3. ✔ Open and honest communication
4. ✘ Minimal interaction

Question Number : 28 Question Id : 97103639791 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What letter comes next in the series: A, C, E, G, \_\_\_?

Options :

1. ✘ H
2. ✔ I
3. ✘ F
4. ✘ J

Question Number : 29 Question Id : 97103639792 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 next number in the series: 2, 5, 10, 17, \_\_\_?

**Options :**

1. ✘ 22

2. ✘ 24

3. ✔ 26

4. ✘ 28

**Question Number : 30 Question Id : 97103639793 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 missing number in the series: 8, 12, 18, \_\_\_, 36?

**Options :**

1. ✘ 22

2. ✘ 24

3. ✘ 25

4. ✔ 26

**Question Number : 31 Question Id : 97103639794 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

If the price of a product increases from Rs.50 to Rs.60, what is the percentage increase?

**Options :**

1. ✘ 10%

2. ✘ 15%

3. ✔ 20%

4. ✘ 25%

**Question Number : 32 Question Id : 97103639795 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

If the cost price of an item is \$40 and it is sold for \$60, what is the profit percentage?

**Options :**

1. ✘ 20%

2. ✘ 30%

3. ✘ 40%

4. ✔ 50%

**Question Number : 33 Question Id : 97103639796 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

If a shirt is purchased for Rs.30 and sold for Rs.25, what is the loss incurred?

**Options :**

1. ✓ Rs.5

2. ✗ Rs.10

3. ✗ Rs.15

4. ✗ Rs.20

**Question Number : 34 Question Id : 97103639797 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

If the interest is calculated on both the principal and accumulated interest,  
it is known as

**Options :**

1. ✗ Simple Interest

2. ✓ Compound Interest

3. ✗ Discounting

#### 4. ✘ Percentage

**Question Number : 35 Question Id : 97103639798 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

If a car travels at a speed of 60 km/h, how far will it travel in 2 hours?

**Options :**

1. ✘ 150 km

2. ✔ 120 km

3. ✘ 180 km

4. ✘ 90 km

**Question Number : 36 Question Id : 97103639799 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 classical square of opposition used for in logic?

**Options :**

1. ✘ Evaluating analogies

2. ✔ Establishing the validity of arguments



3. ✘ Distinguishing deductive and inductive reasoning

4. ✘ Analysing fallacies

**Question Number : 37 Question Id : 97103639800 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The structure of categorical propositions in logic are typically represented by

**Options :**

1. ✔ Venn diagrams

2. ✘ Analogies

3. ✘ Indian Logic

4. ✘ Deductive reasoning

**Question Number : 38 Question Id : 97103639801 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 reasoning involves drawing specific conclusions from general principles?

**Options :**

1. ✘ Deductive reasoning

2. ✓ Inductive reasoning

3. ✗ Analogical reasoning

4. ✗ Fallacious reasoning

**Question Number : 39 Question Id : 97103639802 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 QR code in ICT?

**Options :**

1. ✗ To send emails

2. ✗ To scan documents

3. ✓ To store and retrieve information quickly

4. ✗ To create animations

**Question Number : 40 Question Id : 97103639803 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which Indian Pramana deals with verbal testimony as a means of knowledge?

**Options :**

1. ✗ Pratyaksha

2. ✘ Anumana

3. ✔ Shabda

4. ✘ Upamana

**Question Number : 41 Question Id : 97103639804 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 an example of cloud computing service in ICT?

**Options :**

1. ✘ Microsoft Excel

2. ✔ Google Drive

3. ✘ Adobe Photoshop

4. ✘ Windows Media Player

**Question Number : 42 Question Id : 97103639805 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

What is causation in research?

**Options :**

1. ✘ The process of proving a hypothesis
2. ✘ The final conclusion of a research study
3. ✘ The outcome of hypothesis testing
4. ✔ The relationship between variables where one influences the other

**Question Number : 43 Question Id : 97103639806 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Identify the type of argument presented: ' just as a sword is the weapon of a warrior, a pen is the weapon of a writer'.

**Options :**

1. ✔ Analogical
2. ✘ Deductive
3. ✘ Inductive
4. ✘ Hypothetical

**Question Number : 44 Question Id : 97103639807 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 given below it.

Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

In which month the unit B has a contribution of approximately 15% in the total sugar production?

Options :

1. ✘ August

2. ✘ June

3. ✔ July

4. ✘ April

Question Number : 45 Question Id : 97103639808 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 given below it.

Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

Which of the following units shows continuous increase in the production of sugar over months?

Options :

1. ✓ A

2. ✗ B

3. ✗ C

4. ✗ D

Question Number : 46 Question Id : 97103639809 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 given below it.

Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

In the case of Unit E, in which of the following pairs of months the production of sugar was equal?

Options :

1. ✘ April & June
2. ✘ June & July
3. ✘ July & August
4. ✔ April & May

Question Number : 47 Question Id : 97103639810 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 given below it.

Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

In the month of June, how many units have a share of more than 25% of the total production of sugar?

Options :

1. ✓ One
2. ✗ Three
3. ✗ Two
4. ✗ Four

Question Number : 48 Question Id : 97103639811 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 given below it.

Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

What was approximate percentage decrease in sugar production of unit B in June as compared to April?

Options :

1. ✘ 8 %
2. ✔ 10 %
3. ✘ 15 %
4. ✘ 18 %

Question Number : 49 Question Id : 97103639812 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is considered as scientific misconduct?

Options :

1. ✓ Redundant publications
2. ✗ Transparent reporting of research methods
3. ✗ Acknowledging sources properly
4. ✗ Conducting research with integrity

**Question Number : 50 Question Id : 97103639813 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which term refers to communication within an organization's internal network?

**Options :**

1. ✗ Internet
2. ✓ Intranet
3. ✗ E-mail
4. ✗ Extranet

**Question Number : 51 Question Id : 97103639814 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 a web browser?

**Options :**

1. ✘ Sending emails
2. ✔ Accessing websites
3. ✘ Creating documents
4. ✘ Playing videos

**Question Number : 52 Question Id : 97103639815 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 digital initiative in higher education?

**Options :**

1. ✘ Sending traditional mail
2. ✔ Conducting online courses
3. ✘ Using landline phones
4. ✘ Reading printed textbooks

**Question Number : 53 Question Id : 97103639816 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

What does "CC" stand for in an email?

Options :

1. ✓ Carbon Copy
2. ✗ Courtesy Copy
3. ✗ Computer Copy
4. ✗ Central Copy

Question Number : 54 Question Id : 97103639817 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 main advantage of audio-conferencing?

Options :

1. ✗ Real-time visual interaction
2. ✓ Cost-effectiveness
3. ✗ Faster data transmission
4. ✗ Physical presence required

Question Number : 55 Question Id : 97103639818 Display Question Number : Yes Is Question

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

How does ICT contribute to governance?

**Options :**

1. ✘ By slowing down bureaucratic processes
2. ✘ By reducing transparency
3. ✔ By improving communication and decision-making
4. ✘ By increasing paperwork

**Question Number : 56 Question Id : 97103639819 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

In a research study investigating the relationship between sleep duration and academic performance, "sleep duration" is an example of a

**Options :**

1. ✘ Hypothesis
2. ✘ Concept
3. ✔ Variable
4. ✘ Causation



**Question Number : 57 Question Id : 97103639820 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

In the context of ICT, what does the term "Extranet" refer to?

**Options :**

1. ✘ Communication within an organization
2. ✘ Publicly accessible network
3. ✔ Restricted network for specific users
4. ✘ Email communication

**Question Number : 58 Question Id : 97103639821 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which set of goals focuses on ending poverty, ensuring health, education, and environmental sustainability worldwide?

**Options :**

1. ✘ Kyoto Protocol
2. ✘ Rio Summit Goals
3. ✔ Sustainable Development Goals

#### 4. ✘ Montreal Protocol

**Question Number : 59 Question Id : 97103639822 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 term for human-induced activities that have a significant impact on the environment?

**Options :**

1. ✘ Natural activities
2. ✔ Anthropogenic activities
3. ✘ Environmental activities
4. ✘ Sustainable activities

**Question Number : 60 Question Id : 97103639823 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which software tool is commonly used for statistical analysis in research?

**Options :**

1. ✘ Microsoft Excel
2. ✘ Adobe Photoshop



3. ✓ SPSS (Statistical Package for the Social Sciences)

4. ✘ Microsoft Word

**Question Number : 61 Question Id : 97103639824 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 using graphics in data presentation?

**Options :**

1. ✘ To confuse readers

2. ✘ To hide important findings

3. ✓ To simplify complex data

4. ✘ To increase word count

**Question Number : 62 Question Id : 97103639825 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which resource is classified as a renewable energy source?

**Options :**

1. ✘ Nuclear energy

2.

✘ Fossil fuels

3. ✔ Solar energy

4. ✘ Geothermal energy

**Question Number : 63 Question Id : 97103639826 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

What international agreement aims to phase out substances responsible for ozone depletion?

**Options :**

1. ✘ Rio Summit

2. ✔ Montreal Protocol

3. ✘ Kyoto Protocol

4. ✘ Paris Agreement

**Question Number : 64 Question Id : 97103639827 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 learning was emphasized in ancient India, focusing on traditional subjects like philosophy and literature?

**Options :**

1. ✘ Non-conventional learning
2. ✔ Conventional learning
3. ✘ Technical education
4. ✘ Skill-based education

**Question Number : 65 Question Id : 97103639828 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

National Sample Survey Organization conducts survey on education and employment every \_\_\_\_\_.

**Options :**

1. ✘ One year
2. ✔ Five years
3. ✘ Six years
4. ✘ Ten years

**Question Number : 66 Question Id : 97103639829 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction**

**Time : 0**

What marked the evolution of higher learning and research in Post Independence India?

**Options :**

1. ✘ Shift towards skill-based education
2. ✘ Emphasis on non-conventional learning
3. ✔ Establishment of new institutions and universities
4. ✘ Decline in professional education

**Question Number : 67 Question Id : 97103639830 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

What does plagiarism refer to in research ethics?

**Options :**

1. ✘ Collaborating with other researchers
2. ✘ Citing sources properly
3. ✔ Using someone else's ideas without credit
4. ✘ Sharing research findings openly

**Question Number : 68 Question Id : 97103639831 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

ICSSR is promoting research in the field of -----.

**Options :**

1. ✘ Sciences
2. ✘ Technical education
3. ✔ Social sciences
4. ✘ Medicine

**Question Number : 69 Question Id : 97103639832 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

What aspect of education is concerned with the moral and ethical development of students?

**Options :**

1. ✘ Skill-based education
2. ✔ Value education
3. ✘ Technical education

#### 4. ✘ Non-conventional learning

**Question Number : 70 Question Id : 97103639833 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which Indian city hosted the 2023 International Film Festival of India (IFFI)?

**Options :**

1. ✘ Mumbai

2. ✘ Hyderabad

3. ✔ Goa

4. ✘ Kolkata

## Meteorology and Physical Oceanography

<b>Section Id :</b>	971036566
<b>Section Number :</b>	2
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	70
<b>Section Marks :</b>	70
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Maximum Instruction Time :</b>	0
<b>Is Section Default? :</b>	null



Question Number : 71 Question Id : 97103639834 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 planets show the same "Size-bearing"?

Options :

1. ✓ Earth-Venus
2. ✗ Earth -Mars
3. ✗ Mars-Venus
4. ✗ Venus- Mercury

Question Number : 72 Question Id : 97103639835 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Nebular hypothesis was proposed by?

Options :

1. ✗ Kant
2. ✗ Laplace
3. ✗ Kant and Laplace together
4. ✓ Kant and Laplace independently

**Question Number : 73 Question Id : 97103639836 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The difference between the equatorial and polar diameters of the Earth is

**Options :**

1. ✘ 21 km

2. ✔ 43 km

3. ✘ 56 km

4. ✘ 28 km

**Question Number : 74 Question Id : 97103639837 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The low-velocity zone (LVZ) is NOT poorly developed in the regions of

**Options :**

1. ✘ Shield areas

2. ✘ Platforms

3. ✘ Marine trenches

4. ✔ Mid-oceanic ridges

Question Number : 75 Question Id : 97103639838 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 a non-radioactive isotope of Lead?

Options :

1. ✓  $\text{Pb}^{204}$

2. ✗  $\text{Pb}^{206}$

3. ✗  $\text{Pb}^{207}$

4. ✗  $\text{Pb}^{208}$

Question Number : 76 Question Id : 97103639839 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The maximum age of the oceanic sediments would be?

Options :

1. ✗ Paleozoic

2. ✗ Cenozoic

3. ✓ Mesozoic

4. ✗ Proterozoic

**Question Number : 77 Question Id : 97103639840 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Atmosphere is transparent to the sun's radiation of the wavelength \_\_\_\_\_ range.

**Options :**

1. ✘ 18 - 120 nm
2. ✔ 180 - 1200 nm
3. ✘ 1.8 -12 nm
4. ✘ 0.18 - 1.2 nm

**Question Number : 78 Question Id : 97103639841 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 suitable for dating Tertiary rocks?

**Options :**

1. ✘ U - Th
2. ✘ K - Ar
3. ✔ Rb - Sr
4. ✘ C - C

Question Number : 79 Question Id : 97103639842 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The angular velocity of the earth is

Options :

1. ✘  $3.65 \times 10^{-8}$  rad/s
2. ✘  $4.19 \times 10^{-7}$  rad/s
3. ✘  $2.6 \times 10^{-4}$  rad/s
4. ✔  $7.27513 \times 10^{-5}$  rad/s

Question Number : 80 Question Id : 97103639843 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Feldspars change into clayey sediments in the following climate

Options :

1. ✔ Tropical
2. ✘ Arid
3. ✘ Humid
4. ✘ Dry

Question Number : 81 Question Id : 97103639844 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The point of origin of the earthquake is known as

Options :

1. ✓ Epicenter
2. ✗ Focus
3. ✗ Centre
4. ✗ Seismic vertical

Question Number : 82 Question Id : 97103639845 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A rock that is very porous but practically impervious is known as

Options :

1. ✗ Aquifer
2. ✓ Aquiclude
3. ✗ Aquifuge



4. ✘ Aquitard

Question Number : 83 Question Id : 97103639846 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 an erosional feature of the Wind?

Options :

1. ✘ Zeugen

2. ✘ Yardang

3. ✔ Serir

4. ✘ Hohlweg

Question Number : 84 Question Id : 97103639847 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 rivers does not form a delta?

Options :

1. ✘ Krishna

2. ✘ Godavari

3. ✘ Mahanadi

4. ✓ Narmada

Question Number : 85 Question Id : 97103639848 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The P-wave velocity is highest in

Options :

1. ✗ Air

2. ✗ Water

3. ✗ Sand

4. ✓ Granite

Question Number : 86 Question Id : 97103639849 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The conductivity of rock formation can be measured using

Options :

1. ✗ Electric logging

2. ✓ Induction logging

3. ✗ Sonic logging

4. ✘ Radiation logging

Question Number : 87 Question Id : 97103639850 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In \_\_\_\_\_ the sun is the primary source of energy

Options :

1. ✘ Active remote sensing
2. ✔ Passive remote sensing
3. ✘ Active and Passive remote sensing
4. ✘ Sonic logging

Question Number : 88 Question Id : 97103639851 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When Electromagnetic radiation (EMR) enters the atmosphere, it is subjected to

Options :

1. ✘ Scattering only
2. ✘ Absorption only
3. ✘ Transmission only

4. ✓ Scattering, absorption and transmission.

**Question Number : 89 Question Id : 97103639852 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

\_\_\_\_\_ are devices on which cameras or sensors are mounted for viewing Earth to get images or photographs.

**Options :**

1. ✓ Platforms

2. ✗ Mountings

3. ✗ Radio antennas

4. ✗ Plots

**Question Number : 90 Question Id : 97103639853 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

GIS stands for

**Options :**

1. ✗ Geophysical information system

2. ✗ Geographic Internet System

3. ✓ Geographic Information System

4. ✗ Geo Information system

**Question Number : 91 Question Id : 97103639854 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which theory proposes that variations in the Earth's orbit, including eccentricity, axial tilt, and precession, influence climate changes over long periods?

**Options :**

1. ✗ Volcanic theory

2. ✓ Milankovitch theory

3. ✗ Greenhouse gas theory

4. ✗ Tectonic theory

**Question Number : 92 Question Id : 97103639855 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Thornthwaite considered \_\_\_\_\_ for climatic classification

**Options :**

1. ✗ Potential evapotranspiration only

2. ✘ Actual evapotranspiration only

3. ✘ Precipitation only

4. ✔ Potential evapotranspiration, actual evapotranspiration and Precipitation

**Question Number : 93 Question Id : 97103639856 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Koppen considered \_\_\_\_\_ for climatic classification

**Options :**

1. ✘ Temperature only

2. ✘ Precipitation only

3. ✔ Temperature and precipitation

4. ✘ Pressure only

**Question Number : 94 Question Id : 97103639857 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

If there is no unlimited supply of moisture at the root level, transfer of moisture takes place by evaporation and transpiration. This is called



**Options :**

1. ✓ Actual evapotranspiration
2. ✗ Potential evapotranspiration
3. ✗ Condensation
4. ✗ Evaporation

**Question Number : 95 Question Id : 97103639858 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Low level jet is

**Options :**

1. ✗ Easterly jet
2. ✗ Westerly jet
3. ✓ Somalia jet
4. ✗ Subtropical westerly jet

**Question Number : 96 Question Id : 97103639859 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Solar constant is

Options :

1. ✓ 1.97 cal/cm<sup>2</sup>/min
2. ✗ 3 cal/cm<sup>2</sup>/min
3. ✗ 0.5 cal/cm<sup>2</sup>/min
4. ✗ 1 cal/cm<sup>2</sup>/min

Question Number : 97 Question Id : 97103639860 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The albedo of the earth as a whole is

Options :

1. ✗ 10%
2. ✗ 15%
3. ✗ 45 %
4. ✓ 35 %

Question Number : 98 Question Id : 97103639861 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Greenhouse gases are \_\_\_\_\_

Options :

1. ✘ Methane only
2. ✘ Carbon dioxide and Nitrous oxide only
3. ✘ Water vapour only
4. ✔ Carbon dioxide, Methane, Water vapour and Nitrous oxide

Question Number : 99 Question Id : 97103639862 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Absorption band of water vapour is

Options :

1. ✔ 4 - 10  $\mu\text{m}$
2. ✘ 12 - 18  $\mu\text{m}$
3. ✘ 14  $\mu\text{m}$
4. ✘ 16  $\mu\text{m}$

Question Number : 100 Question Id : 97103639863 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The normal lapse rate of temperature per km is \_\_\_\_\_

Options :

1. ✓ 6.5 °C

2. ✗ 1 °C

3. ✗ 12 °C

4. ✗ 9.8 °C

Question Number : 101 Question Id : 97103639864 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Basic requirements for the formation of thunderstorm are

Options :

1. ✓ Convection and moisture content

2. ✗ Relative humidity and mixing ratio

3. ✗ Convection only

4. ✗ Moisture content only

Question Number : 102 Question Id : 97103639865 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Generators that operate the Global Electric Circuit are

Options :

1. ✘ Thunderstorms only
2. ✘ Ionosphere only
3. ✘ Solar wind magnetosphere only
4. ✔ Solar wind magnetosphere, ionosphere and thunderstorms

Question Number : 103 Question Id : 97103639866 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Ratio of mass of water vapour to the mass of dry air is

Options :

1. ✘ Absolute humidity
2. ✘ Specific humidity
3. ✘ Dew point

4. ✓ Mixing ratio

Question Number : 104 Question Id : 97103639867 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The atmosphere is stable to vertical motions when

Options :

1. ✗ Lapse rate is less than wet adiabatic rate
2. ✗ Lapse rate is larger than wet adiabatic rate
3. ✓ Lapse rate lies between wet and dry adiabatic rates
4. ✗ Lapse rate larger than dry adiabatic rate

Question Number : 105 Question Id : 97103639868 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The solar radiation intensity is maximum at around

Options :

1. ✗  $0.3 \mu$
2. ✓  $0.495 \mu$
3. ✗  $1 \mu$

4. ✘  $10 \mu$

**Question Number : 106 Question Id : 97103639869 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Condensation nuclei are

**Options :**

1. ✘ Trace gases

2. ✘ All liquids

3. ✘ All particles

4. ✔ Tiny suspended solid or liquid particles

**Question Number : 107 Question Id : 97103639870 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 cloud types consists almost of ice crystals?

**Options :**

1. ✘ Altostratus

2. ✘ Cumulonimbus



3. ✓ Cirrus

4. ✗ Cumulus fractus

**Question Number : 108 Question Id : 97103639871 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Example for low cloud is

**Options :**

1. ✓ Stratus

2. ✗ Cirrus

3. ✗ Cumulonimbus

4. ✗ Altocumulus

**Question Number : 109 Question Id : 97103639872 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

\_\_\_\_\_ clouds are accompanied by showers, squalls or thunderstorms and sometimes hail

**Options :**

1. ✗ Stratus

2. ✗ Cirrus

3. ✓ Cumulonimbus

4. ✗ Altocumulus

Question Number : 110 Question Id : 97103639873 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The wind speed in the tornado is of the order of

Options :

1. ✗ 10 m/s

2. ✓ 100 m/s

3. ✗ 20 m/s

4. ✗ 15 m/s

Question Number : 111 Question Id : 97103639874 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Coriolis force is maximum at \_\_\_\_\_

Options :

1. ✗ The equator

2. ✘  $60^{\circ}\text{N}$

3. ✘  $60^{\circ}\text{S}$

4. ✔ The poles

**Question Number : 112 Question Id : 97103639875 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The Geostrophic wind is involved with

**Options :**

1. ✘ Coriolis force only

2. ✘ Pressure gradient force only

3. ✔ Pressure gradient force and Coriolis force

4. ✘ Centrifugal force only

**Question Number : 113 Question Id : 97103639876 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The Gradient wind is involved with

**Options :**

1. ✘ Coriolis force only

2. ✘ Pressure gradient force only
3. ✘ Centrifugal force only
4. ✔ Pressure gradient force, centrifugal force and Coriolis force

**Question Number : 114 Question Id : 97103639877 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The \_\_\_\_\_ is used as a rough measure of expected air turbulence.

**Options :**

1. ✔ Richardson number
2. ✘ Rossby wave number
3. ✘ Prandtl number
4. ✘ Wave number

**Question Number : 115 Question Id : 97103639878 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

One of the following is correct.

**Options :**

1. ✘ Absolute vorticity = relative vorticity
2. ✘ Relative vorticity = coriolis parameter
3. ✔ Absolute vorticity = relative vorticity+ coriolis parameter
4. ✘ Absolute vorticity = coriolis parameter

Question Number : 116 Question Id : 97103639879 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The generation of sound waves is due to

Options :

1. ✔ Adiabatic compression
2. ✘ Hydrostatic pressure gradient
3. ✘ Density variation
4. ✘ Incompressible medium

Question Number : 117 Question Id : 97103639880 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a barotropic model

**Options :**

1. ✘ The density is not a function of pressure
2. ✔ Density is a function of pressure
3. ✘ Wind varies with height
4. ✘ Density is a function of moisture

**Question Number : 118 Question Id : 97103639881 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Gravity waves are

**Options :**

1. ✘ Horizontal transverse
2. ✔ Vertical transverse
3. ✘ Longitudinal waves
4. ✘ Stationary waves

**Question Number : 119 Question Id : 97103639882 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Weather forecasting on different time scales is very important for

**Options :**

1. ✘ Transport only
2. ✘ Water management only
3. ✘ Agricultural sector only
4. ✔ Water management, transport and agricultural sector

**Question Number : 120 Question Id : 97103639883 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

\_\_\_\_\_ was the first to attempt numerical weather forecasting through a direct solution of the equations of motion using finite difference method.

**Options :**

1. ✔ Lewis Fry Richardson
2. ✘ Charney
3. ✘ Rossby
4. ✘ Sasaki



Question Number : 121 Question Id : 97103639884 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Madden-Julian Oscillation is

Options :

1. ✓ 30-60 day oscillation
2. ✗ 20 day oscillation
3. ✗ 10 day oscillation
4. ✗ 5 day oscillation

Question Number : 122 Question Id : 97103639885 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Usually La Nina leads to

Options :

1. ✗ Active summer monsoon over India only
2. ✗ Poor summer monsoon over India only
3. ✗ Poor winter monsoon over India only
4. ✓ Active summer monsoon over India and Poor winter monsoon over India

Question Number : 123 Question Id : 97103639886 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Non-dimensional vertical coordinate  $\sigma$  (sigma) is a function of \_\_\_\_\_

Options :

1. ✘ Temperature
2. ✘ Humidity
3. ✘ Potential temperature
4. ✔ Pressure

Question Number : 124 Question Id : 97103639887 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 controls the climate \_\_\_\_\_?

Options :

1. ✘ Ocean currents
2. ✔ Solar radiation
3. ✘ Winds
4. ✘ Altitude

**Question Number : 125 Question Id : 97103639888 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The QBO is a tropical, lower stratospheric, downward propagating zonal wind variation, with an average period of \_\_\_\_\_ months

**Options :**

1. ✘ 16

2. ✘ 36

3. ✔ 28

4. ✘ 40

**Question Number : 126 Question Id : 97103639889 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Tropical easterly jet stream was discovered by \_\_\_\_\_

**Options :**

1. ✔ P. Koteswaram

2. ✘ P. V. Joseph

3. ✘ B. N. Goswamy

4. ✘ C. Ramaswamy

**Question Number : 127 Question Id : 97103639890 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

During summer monsoon season, Tamil Nadu can not experience high amounts of rainfall due to

**Options :**

1. ✘ La Nina

2. ✘ IOD

3. ✔ Rain shadow effect

4. ✘ ITCZ

**Question Number : 128 Question Id : 97103639891 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

During break monsoon time, \_\_\_\_\_ experience good amounts of rainfall

**Options :**

1. ✘ Northeastern parts of India only

2. ✘ Foot hills of Himalayas only

3. ✘ Southeastern parts of India only

Northeastern parts of India, Foot hills of Himalayas and Southeastern

4. ✔ Parts of India

**Question Number : 129 Question Id : 97103639892 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The minimum speed of jet stream is \_\_\_\_\_ Knots

**Options :**

1. ✘ 15

2. ✔ 60

3. ✘ 30

4. ✘ 20

**Question Number : 130 Question Id : 97103639893 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

During Northeast monsoon season, \_\_\_\_\_ meteorological subdivisions experience good amounts of rainfall.

**Options :**

1. ✘ Tamil Nadu and Kerala only

2. ✘ Coastal Andhra Pradesh and Rayalaseema only

3. ✘ South Interior Karnataka only

Tamil Nadu, Kerala, South Interior Karnataka, Coastal Andhra Pradesh and

4. ✔ Rayalaseema

**Question Number : 131 Question Id : 97103639894 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

\_\_\_\_\_ are common over Northwest India

**Options :**

1. ✔ Dust storms

2. ✘ Tropical storms

3. ✘ Tornados

4. ✘ Floods

**Question Number : 132 Question Id : 97103639895 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 term for a narrow region between two types of air masses, characterized by sharp temperature or humidity gradients?

**Options :**

1. ✘ Jet Stream
2. ✘ Monsoon
3. ✔ Front
4. ✘ Tornado

**Question Number : 133 Question Id : 97103639896 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Increase of \_\_\_\_\_ temperature over the runway decreases the permissible take off gross weight by nearly 200 Kg

**Options :**

1. ✔ 1 °C
2. ✘ 10 °C
3. ✘ 5 °C
4. ✘ 6 °C



**Question Number : 134 Question Id : 97103639897 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

What is icing in the context of aviation?

**Options :**

1. ✘ The process of applying a protective coating to aircraft surfaces
2. ✔ The formation of ice on aircraft surfaces during flight
3. ✘ The act of inspecting aircraft for mechanical issues
4. ✘ The procedure for de-icing aircraft before takeoff

**Question Number : 135 Question Id : 97103639898 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

A knowledge of actual and expected weather is imperative in the \_\_\_\_\_ phase/phases of aircraft operation

**Options :**

1. ✘ Take off and ascent only
2. ✘ Cruise only
3. ✘ Descent or landing only
4. ✔

✓ Take off, ascent, cruise and descent or landing

Question Number : 136 Question Id : 97103639899 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The split window technique for SST retrieval uses channels \_\_\_\_\_.

Options :

1. ✓ 11 & 12  $\mu\text{m}$

2. ✗ 3.7 & 12  $\mu\text{m}$

3. ✗ 3.7 & 11  $\mu\text{m}$

4. ✗ 0.6 & 1.1  $\mu\text{m}$

Question Number : 137 Question Id : 97103639900 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Polar-orbit satellite flies, typically between about \_\_\_\_\_.

Options :

1. ✗ 300 km & 500 km

2. ✗ 550 km & 650 km

3. ✓ 700 km & 1350 km

4. ✘ 30000 km & 36000 km

**Question Number : 138 Question Id : 97103639901 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The geostationary orbit has a period of \_\_\_\_\_.

**Options :**

1. ✘ Half sidereal day

2. ✔ One sidereal day

3. ✘ 12 hrs

4. ✘ 23 hrs

**Question Number : 139 Question Id : 97103639902 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The CO<sub>2</sub> absorption bands are used to retrieve\_\_\_\_\_.

**Options :**

1. ✘ Humidity profile

2. ✘ Ozone profile

3. ✘ Rainfall

4. ✔ Temperature profile

Question Number : 140 Question Id : 97103639903 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Ocean surface winds can be measured by \_\_\_\_\_.

Options :

1. ✘ Visible radiometer

2. ✘ Infrared radiometer

3. ✔ Microwave radiometer

4. ✘ Visible radiometer and Infrared radiometer