UGC NET 6th Jan 2026 Shift 2_Paper 1 MBQ

Q1. Which one of the following is included while estimating Air Quality Index (AQI)?
(a) N_2O Nitrous oxide
(b) NO_2 Nitrogen dioxide
(c) N_2O_3 Dinitrogen trioxide
(d) N_2O_5 Dinitrogen pentoxide
Answer:
B
Sol:
The Air Quality Index (AQI) is a standardized measurement used to convey information about the quality of air in a specific area, with a focus on how it might impact human health. It is used by environmental agencies and governments to communicate air quality levels to the public in a clear and easily understandable manner.
Nitrogen dioxide is a reddish-brown gas that is a common component of air pollution in urban and industrial areas. It is released into the atmosphere through various sources, including the combustion of fossil fuels in vehicles and power plants.6pThe Air Quality Index (AQI) commonly includes the following pollutants for its estimation:
• Particulate Matter (PM10 and PM2.5)
• Ozone (O_3)
• Carbon Monoxide (CO)
• Sulfur Dioxide (SO_2)
• Nitrogen Dioxide (NO_2)
• Lead (Pb)

Q2. Which of the following greenhouse gases has the highest Global Warming Potential (GWP) over a 100-year period?
(a) Carbon Dioxide (CO2)
(b) Methane (CH4)
(c) Nitrous Oxide (N2O)
(d) Hydrofluorocarbons (HFCs)
Answer:
D
Sol:
Correct Option – (d)
Introduction: Global Warming Potential (GWP) compares the cumulative radiative forcing of a unit mass of a greenhouse gas to that of CO_2 over a chosen time horizon (commonly 20 or 100 years). GWP helps prioritize mitigation by potency as well as abundance.
Information Booster:
CO_2 (a) is the baseline with GWP = 1.
Methane CH_4 (b) has a 100-yr GWP roughly in the mid-20s to 30s (depending on assessment).

Nitrous oxide N_2O (c) has a 100-yr GWP ≈ 298.
Hydrofluorocarbons (HFCs) (d) are a class with widely varying GWPs; many HFCs have very high GWPs (ranging from a few hundreds to several thousands), so as a class HFCs can include the highest GWPs among the listed options. Hence (d) is the best answer given the options.
Additional Knowledge:
Sulphur hexafluoride (SF_6) and some per- and polyfluorocarbons (PFCs) have even larger GWPs (tens of thousands) but were not listed.
Policy context: the Kigali Amendment to the Montreal Protocol (2016) aims to phase down HFCs because of their high GWPs.
While GWP helps compare gases, CO_2 remains the dominant driver of warming due to its large absolute emissions and long atmospheric lifetime.

Q3. If the statement "Some rectangles are not squares" is given as true, then according to the square of opposition which of the following statements can by immediately inferred to be false?
(a) All rectangles are squares.
(b) Some rectangles ae squares.
(c) No rectangles are squares.
(d) Some squares are not rectangles.
Answer:
A
Sol:
The Square of Opposition is a diagram representing the relations between four categorical propositions. According to this framework, if it's stated that "Some rectangles are not squares," we're acknowledging the existence of rectangles that do not conform to the definition of squares (rectangles with equal sides). This immediately contradicts the universal affirmative statement that "All rectangles are squares," as it's logically impossible for both statements to be true simultaneously. The given statement highlights particularity and negation, directly opposing the absolute inclusivity suggested by "All rectangles are squares." Therefore, if "Some rectangles are not squares" is true, then the statement "All rectangles are squares" must be false, as it fails to account for the existence of non-square rectangles, thus directly violating the principles of logical consistency and the specific relational dynamics outlined in the Square of Opposition.

Q4. What is a primary difference between IPv4 and IPv6 addresses?6p1. IPv6 addresses are shorter than IPv4
(b) IPv6 uses 128 bits, while IPv4 uses 32 bits
(c) IPv6 is only for LANs
(d) IPv4 provides better security than IPv6
Answer:
B
Sol:

IPv6 addresses are 128 bits long, compared to the 32-bit length of IPv4 addresses, allowing a vastly larger number of unique addresses. IPv4's 32-bit system offers around 4.3 billion addresses, which is insufficient for the modern internet's needs. IPv6, with its expanded address space, supports an almost limitless number of unique addresses, essential for the growth of the Internet of Things (IoT) and global connectivity. IPv6 also includes built-in security features and more efficient routing, making it a significant improvement over IPv4.

Important Key Points:

1. IPv6 was developed to solve the address exhaustion problem encountered with IPv4.
2. IPv6 includes built-in support for IPsec, enhancing security at the protocol level.
3. IPv6 uses hexadecimal notation, while IPv4 uses dotted decimal notation.

Knowledge Booster:

Shorter addresses describe IPv4, with only 32 bits per address.

IPv6 is used globally, not limited to LANs.

IPv6 offers improved security compared to IPv4 due to IPsec integration.

Q5. Match the LIST-I with LIST-II

LIST - I (Learning Theory)	LIST - II (Core Mechanism/Concept)
A. Classical Conditioning	I. Learning through observation and imitation
B. Social Learning Theory	II. Association between stimulus and response
C. Cognitive Load Theory	III. Learning as network creation/connection
D. Connectivism	IV. Managing working memory capacity during instruction

Choose the correct answer from the options given below:

(a) A - II, B - I, C - IV, D – III

(b) A - I, B - II, C - III, D - IV

(c) A - IV, B - III, C - II, D – I

(d) A - III, B - IV, C - I, D – II

Answer:

A

Sol:

Correct Option - (a)

Introduction: This question asks to match different learning theories with their fundamental mechanisms or core concepts. Understanding these connections is essential for grasping the diverse ways in which learning is theorized to occur.

Information Booster: Let's analyze each pairing:

A. Classical Conditioning

Core Mechanism/Concept: II. Association between stimulus and response. Classical conditioning, famously demonstrated by Ivan Pavlov, involves learning through the association of a neutral stimulus with a stimulus that naturally elicits a response, eventually leading the neutral stimulus to elicit a similar response. It's about involuntary, reflexive responses.

B. Social Learning Theory

Core Mechanism/Concept: I. Learning through observation and imitation. Developed by Albert Bandura, Social Learning Theory (later Social Cognitive Theory) posits that individuals learn behaviors, attitudes, and emotional reactions by observing others (models) and the consequences of their actions, without necessarily direct reinforcement. Key concepts include observational learning, modeling, and vicarious reinforcement.

C. Cognitive Load Theory

Core Mechanism/Concept: IV. Managing working memory capacity during instruction. Proposed by John Sweller, Cognitive Load Theory focuses on how instructional design can manage the demands placed on a learner's limited working memory capacity to optimize learning. It distinguishes between intrinsic (inherent difficulty), extraneous (poor design), and germane (schema construction) cognitive load.

D. Connectivism

Core Mechanism/Concept: III. Learning as network creation/connection. Connectivism, a learning theory for the digital age (developed by George Siemens and Stephen Downes), suggests that learning is a process of connecting specialized information nodes or sources. It emphasizes that knowledge resides in connections and networks, and learning involves the ability to navigate, create, and grow these networks, especially in a world of rapidly changing information.

Additional Knowledge: These theories represent different paradigms in learning:

Behaviorism (Classical Conditioning) focuses on observable behaviors and environmental stimuli.

Social Learning Theory bridges behaviorism and cognitivism by including cognitive factors like attention and motivation in observational learning.

Cognitive Load Theory is a cognitive theory that provides practical guidelines for instructional design based on how the human mind processes information.

Connectivism is a relatively newer theory, often considered a "learning theory for the digital age," that attempts to explain learning in complex, networked environments where knowledge is constantly evolving and distributed.

Q6. The project method of teaching was first propounded by:

(a) Crow and Crow

(b) John Dewey

(c) Robert Miller

(d) Robert Mager

Answer:

B

Sol:6pThe project method of teaching was first propounded by John Dewey, an American philosopher, psychologist, and educational reformer. Dewey emphasized experiential learning, where students actively engage with real-world problems and projects to construct their knowledge.

Key Features of the Project Method:

1. Experiential Learning:

Learning occurs through doing and reflecting on the process.

2. Focus on Student Interest:

Projects are often chosen based on students' curiosity and real-world relevance.

3. Collaborative Learning:
Encourages teamwork and social interaction.
4. Problem-Solving:
Develops critical thinking as students work through challenges.
Information Booster:
1. Historical Background:
John Dewey's educational philosophy emphasized learning by doing, which laid the foundation for the project method.
It aligns with the progressive education movement.
2. Steps in the Project Method:
Selection of the project.
Planning the project.
Executing the project.
Evaluating and reflecting on the outcomes.
3. Benefits:
Develops critical thinking, collaboration, and practical skills.
Connects academic learning with real-world applications.
Additional Knowledge:
1. (a) Crow and Crow:
Known for their contributions to educational psychology, not for the project method.
2. (c) Robert Miller:
Not associated with the project method. Miller focused on other aspects of educational theory.
3. (d) Robert Mager:
Known for developing objectives-based teaching, particularly "Mager's approach to instructional objectives," not the project method.

Q7. The image, sound and video data can be created in a number of file formats. In this context, which of the following are compressed file formats?
(A) JPEG
(B) MP3
(C) MIDI
(D) AVI
(E) MP4
Choose the correct answer from the options given below:6p1. (A), (B) and (E) only
(b) (C), (D) and (E) only
(c) (B), (C) and (D) only
(d) (A) and (E) only
Answer:
A
Sol:6pThe following are compressed file formats:
JPEG: A compressed image format.
MP3: A compressed audio format.

MP4: A compressed video format.
MIDI is not a compressed format but a protocol for musical instruments. AVI is an uncompressed or minimally compressed video format.
Important Key Points:
1. JPEG, MP3, and MP4 are all commonly used compressed file formats.
2. MIDI is a protocol for audio data, while AVI is often used for uncompressed video.

Q8. Match the following models of communication with their key characteristics:

List-I (Model)	List-II (Key Characteristic)
1. Shannon-Weaver Model	A. A transactional model focusing on the shared field of experience.
2. Schramm's Model	B. A linear model with components: Source, Encoder, Channel, Decoder, Receiver.
3. Berlo's SMCR Model	C. Highlights the importance of feedback and circularity of communication.
4. Osgood-Schramm Model	D. Emphasizes the factors affecting the individual components: Source, Message, Channel, Receiver.

Codes:
(a) 1-D, 2-C, 3-B, 4-A
(b) 1-B, 2-A, 3-D, 4-C
(c) 1-C, 2-B, 3-A, 4-D
(d) 1-B, 2-C, 3-D, 4-A
Answer:
D
Sol:6pCorrect Option – (d)
Introduction: Communication models are conceptual representations that simplify the process of communication to help us understand its key components and dynamics. They have evolved from simple linear depictions to complex transactional views.
Information Booster:
1. Shannon-Weaver Model (1949) (Matches with B): This is a foundational linear model developed in the context of telecommunications. Its components are: Information Source -> Transmitter (Encoder) -> Channel -> Receiver (Decoder) -> Destination. It introduced the concept of "noise" as any interference disrupting the message.
2. Schramm's Model (1954) (Matches with C): Wilbur Schramm introduced the crucial element of feedback, making the model circular rather than linear. He argued that communication requires overlapping "fields of experience" between the sender and receiver for the message to be understood effectively.
3. Berlo's SMCR Model (1960) (Matches with D): David Berlo's model is a linear one that focuses on the factors influencing each component: Source (communication skills, attitude, knowledge), Message (elements, structure, content), Channel (senses), and Receiver (similar factors as source). It is detailed but criticized for being static.

4. Osgood-Schramm Model (1954) (Matches with A): This is a truly transactional model where communication is seen as a dynamic process. Charles Egerton Osgood and Wilbur Schramm proposed that participants in communication (interpreters) simultaneously perform the functions of encoding, decoding, and interpreting. It emphasizes the shared social context and the continuous, reciprocal nature of communication.
Additional Knowledge: The Transactional Model (later development) views communication as an ongoing process where all parties are continuously sending and receiving messages, and each person's field of experience is constantly changing. This is the most accurate model for describing interpersonal communication.

Q9. Match the following scenarios with their most appropriate communication context:

List-I (Scenario)	List-II (Context)
1. A CEO writing the annual report	A. Intrapersonal
2. Meditating to reduce stress	B. Interpersonal
3. A negotiation between two companies	C. Organizational
4. A couple resolving a disagreement	D. Public

Codes:
(a) 1-C, 2-A, 3-D, 4-B
(b) 1-D, 2-A, 3-C, 4-B
(c) 1-C, 2-B, 3-D, 4-A
(d) 1-D, 2-B, 3-C, 4-A
Answer:
B
Sol:
Correct Option – (b)
Introduction: Communication contexts define the setting, number of people, and purpose of the interaction. Correctly identifying the context is crucial for applying the right communication principles.
Information Booster:
1. A CEO writing the annual report (Matches with D): An annual report is a formal document addressed to the public, including shareholders, stakeholders, and the market. It is a crafted public message.
2. Meditating to reduce stress (Matches with A): Meditation is an internal, private process of focusing one's mind and calming one's thoughts. It is a quintessential intrapersonal activity.
3. A negotiation between two companies (Matches with C): This is organizational communication. While it involves interpersonal skills, the representatives are acting on behalf of their entire organizations, and the outcomes have organizational-level consequences.
4. A couple resolving a disagreement (Matches with B): This is a dyadic (two-person) form of interpersonal communication. It involves personal relationship dynamics, emotions, and conflict resolution strategies at an individual level.
Additional Knowledge: Other contexts include Small Group (e.g., committee meetings) and Mass Communication (e.g., television news). Organizational communication often encompasses and influences all other contexts within its structure.

Q10. Match the following descriptions with the correct type of communication barrier:

List-I (Description)	List-II (Barrier)
1. A manager is too overwhelmed with emails to respond effectively.	A. Psychological
2. An employee assumes a technical term means one thing, but the boss means another.	B. Semantic
3. A team member is too afraid of criticism to share a new idea.	C. Organizational
4. A listener is focused on crafting a rebuttal instead of understanding the speaker.	D. Personal

Codes:
(a) 1-C, 2-B, 3-D, 4-A
(b) 1-B, 2-C, 3-A, 4-D
(c) 1-C, 2-B, 3-A, 4-D
(d) 1-D, 2-A, 3-C, 4-B
Answer:
C
Sol:
Correct Matching: 1-C, 2-B, 3-A, 4-D
Introduction:
Communication barriers hinder effective exchange of information, categorized into organizational (structural issues like overload), semantic (language misinterpretations), psychological (mental/emotional blocks), and personal (individual habits or attitudes). The correct matches align descriptions to these types based on standard classifications in management studies.
Information Booster:
1. A manager overwhelmed with emails – Organizational (C)
- Represents information overload, a core organizational barrier where excessive communication volume (e.g., too many emails) overwhelms individuals, reducing response effectiveness and causing delays or errors.
- Arises from structural issues like poor channel management or high message traffic in hierarchies, not personal emotions or language issues.
- Commonly seen in modern workplaces with 120+ daily emails per professional, leading to burnout and missed priorities.

2. Employee assumes technical term differently from boss – Semantic (B)
- Exemplifies semantic barriers from differing word interpretations, like jargon or technical terms having multiple meanings between sender and receiver.
- Causes misunderstandings due to varied connotations, faulty translations, or unclear symbols, not emotional states.
- Key issue: Words like "bandwidth" mean data rate to experts but speed to others, distorting intent.

3. Team member afraid of criticism to share idea – Psychological (A)
- Falls under psychological barriers from fear, anxiety, or defensiveness blocking open expression.

- Fear of judgment or challenge creates emotional distance, leading to withheld ideas despite their value.
- Stems from mental states like stress or low self-esteem, affecting encoding/decoding.

4. Listener focused on rebuttal instead of understanding – Personal (D)

- A personal barrier involving poor listening habits, like defensive/aggressive listening where one plans counterarguments over active comprehension.
- Includes selective attention or prejudice, prioritizing rebuttal due to individual biases or frustration.
- Differs from psychological as it's habitual, not deeply emotional

Additional Knowledge: Other psychological barriers include selective perception (hearing what we want to hear) and cognitive dissonance. A key organizational barrier is filtering, where information is deliberately altered as it moves through the hierarchy.

Q11. Which of the following statements are correct?

A. A firewall helps in monitoring and controlling incoming and outgoing network traffic.

B. A botnet is a group of infected computers controlled by a hacker.

C. Phishing is a method used to enhance password strength.

D. Encryption converts readable data into an unreadable format for security. E. VPN reduces online privacy by exposing user data.

Choose the correct answer from the options given below:

(a) A, B and E only

(b) A, B and D only

(c) A and C only

(d) C and D only

Answer:

B

Sol:

Correct Option – (b)

Introduction

In cybersecurity, several concepts such as firewalls, botnets, phishing, encryption, and VPNs play a major role in protecting digital data and systems. UGC NET often asks conceptual and factual questions to check whether the learner can distinguish between security tools and security threats. This question evaluates the understanding of correct and incorrect cybersecurity statements.

Information Booster

Statement A: A firewall helps in monitoring and controlling incoming and outgoing network traffic.

A firewall works as a security barrier between internal and external networks. It filters traffic based on predefined rules and prevents unauthorised access.

Statement B: A botnet is a group of infected computers controlled by a hacker.

Cybercriminals use malware to infect multiple devices and control them remotely. These infected systems collectively form a botnet used for large-scale attacks.

Statement C: Phishing is a method used to enhance password strength.

Phishing is a *social engineering cyberattack* where attackers impersonate legitimate sources to steal passwords, bank details, or personal information. It has no role in improving password security.
Statement D: Encryption converts readable data into an unreadable format for security.
Encryption transforms plain text into ciphertext using an algorithm and a key. Only authorised users with the decryption key can access the original information.
Statement E: VPN reduces online privacy by exposing user data.
A VPN actually enhances privacy, encrypts internet traffic, and hides the user's IP address. It does *not* expose user data.
Therefore, the correct statements are:
A (Firewall) B (Botnet) D (Encryption)
Additional Information
A firewall is a security device/software used for traffic filtering.
Botnets are commonly used in DDoS attacks and mass spamming.
Phishing techniques include email phishing, spear phishing, and smishing.
Encryption can be symmetric or asymmetric.

Q12. Which of the following should always be regarded as security risks to computer system?
A. Chart rooms
B. Cookies
C. Pharming
D. Virus
E. VoIP
Choose the correct answer from the options given below:
(a) A and D only
(b) C and D only
(c) B and D only
(d) A, D and E only
Answer:
B
Sol:
The following should always be regarded as security risks to a computer system:
C. Pharming - Pharming is a fraudulent practice that can lead to unauthorized access to websites or services.
D. Virus - Viruses are a well-known security risk that can harm a computer system.
So, the correct answer is (b) C and D only

Q13. Match the following research types with the level of control a researcher has over the variables:

List-I (Research Type)	**List-II (Level of Variable Control)**
A. Descriptive Research	1. High level of control, primarily in a lab setting.
B. Exploratory Research	2. No control, only passive observation and description.
C. Explanatory (Experimental) Research	3. Minimal control, flexible to allow for new discoveries.

Choose the correct option:
(a) A-2, B-3, C-1
(b) A-1, B-2, C-3
(c) A-2, B-1, C-3
(d) A-3, B-2, C-1
Answer:
A
Sol:
Correct Option – (a)
Introduction
This question requires you to connect the research type to the degree of researcher intervention and control, a critical aspect of research design.
Information Booster
A. Descriptive Research (2. No control, only passive observation and description): The goal of descriptive research is to paint an accurate picture of a situation. The researcher does not interfere with or manipulate any variables. They simply observe and record. For example, a researcher conducting a descriptive study of voter turnout would simply record the number of voters without attempting to influence them.
B. Exploratory Research (3. Minimal control, flexible to allow for new discoveries): A researcher in an exploratory study has some control over the research process (e.g., they can decide what questions to ask in a focus group), but they do not control the variables themselves. The approach is deliberately flexible to allow new, unexpected insights to emerge, which is the opposite of the rigid control required in an experiment.
C. Explanatory (Experimental) Research (1. High level of control, primarily in a lab setting): The defining feature of an experiment is the researcher's ability to manipulate the independent variable and control all other variables. This control is necessary to confidently state that the independent variable caused a change in the dependent variable. This is why many experiments are conducted in highly controlled environments like a laboratory.
Additional Knowledge
The level of control is a key differentiator in research. High control allows for strong claims of causality but can sometimes compromise the study's generalizability to the real world. Lower control makes it difficult to establish causality but can lead to new discoveries.

Q14. What is the sum of the binary (base 2) number $(1100)_2$, and the hexadecimal (base 16) number $(3)_{16}$?6p1. $(F)_{16}$

(b) $(15)_{16}$

$(1003)_{10}$

(c)

(d) $(1103)_8$

Answer:

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A
Sol:
Convert
$(1100)_2$
(binary) to decimal:
$(1100)_2 = 1 \times 2^3 + 1 \times 2^2 + 0 \times 2^1 + 0 \times 2^0 = 8 + 4 = 12_{10}$6pConvert
$(3)_{16}$
(hexadecimal) to decimal:
$(3)_{16} = 3_{10}$6pAdd the decimal values:
$12_{10} + 3_{10} = 15_{10}$6pConvert
15_{10}
back to hexadecimal:
$15_{10} = F_{16}$6pThus, the sum is
$(F)_{16}$6pInformation Booster:
1. Binary System (Base 2): Uses two digits, 0 and 1. Each position represents a power of 2.
2. Hexadecimal System (Base 16): Uses sixteen symbols (0 – 9 and A – F). A represents 10, B represents 11, and so on.

Q15. Arrange the following steps of the hypothesis formulation and testing process in the correct sequence:
A. Formulate the alternative hypothesis (H1).
B. State the null hypothesis (H0) as a statement of "no effect."
C. Collect and analyze data to obtain a test statistic and p-value.
D. Set the significance level (α) and determine the critical region.
E. Make a decision to either reject or fail to reject the null hypothesis based on the p-value.
Choose the correct answer from the options given below:
(a) . A, B, C, D, E
(b) . B, A, C, D, E
(c) . B, A, D, C, E
(d) . A, B, D, C, E
Answer:
C
Sol:
Correct Option - (c)
Introduction

Hypothesis testing is a systematic and logical process. This question requires you to understand the correct order of these steps, from the initial conceptualization of the research question to the final conclusion drawn from the data. The sequence ensures a rigorous and unbiased approach to statistical inference.

Information Booster

The correct logical flow of the hypothesis testing process is as follows:

1. B. State the null hypothesis (H0) as a statement of "no effect.": The first step is to establish the baseline or "status quo" assumption that there is no effect or no difference. This is the hypothesis that will be challenged by the data.

2. A. Formulate the alternative hypothesis (H1): This hypothesis is the logical opposite of the null hypothesis and represents the researcher's claim or expectation. It's what the researcher hopes to prove.

3. D. Set the significance level (α) and determine the critical region: Before data is collected, the researcher must decide on the level of risk they are willing to take in making a Type I error. The significance level, typically $\alpha=0.05$, defines the threshold for rejection. The critical region corresponds to the area of the sampling distribution where the null hypothesis would be rejected.

4. C. Collect and analyze data to obtain a test statistic and p-value: The researcher gathers data, performs the appropriate statistical test (e.g., t-test, ANOVA), and calculates a test statistic. This statistic is then used to determine the p-value, which is the probability of observing the data if the null hypothesis were true.

5. E. Make a decision to either reject or fail to reject the null hypothesis based on the p-value: This is the final step. If the p-value is less than or equal to the predetermined significance level (α), the researcher concludes that the evidence is strong enough to reject the null hypothesis. Otherwise, they fail to reject it.

Additional Knowledge

The sequence of steps is crucial because setting the significance level *before* analyzing the data prevents the researcher from manipulating the threshold to achieve a desired outcome. This ensures objectivity in the research process.

The phrase "fail to reject" is used instead of "accept" the null hypothesis because the absence of evidence for a difference does not prove that no difference exists; it simply means there wasn't enough evidence to confidently claim a difference.

Q16. Given below are two statements:

Statement I: A cookie is a packet of information sent by a web browser to a web server.

Statement II: Spam can 'clog up' a 'user' inbox with unwanted emails: it can also lead to phishing attacks.

In the light of the above statements, choose the most appropriate answer from the options given below:

(a) Both Statement I and Statement II are true

(b) Both Statement I and Statement II are false

(c) Statement I is true but Statement II is false

(d) Statement I is false but Statement II is true

Answer:

D

Sol:
Statement I is false because a cookie is a packet of information sent by a web server to a web browser. A web browser stores cookies on a user's computer to remember information about the user's browsing history, such as login credentials, website preferences, and shopping cart items.
Statement II is true. Spam is unsolicited or unwanted electronic mail. It can be a nuisance, as it can clog up a user's inbox with unwanted emails. Spam can also be dangerous, as it can lead to phishing attacks. Phishing attacks are attempts to trick users into revealing personal information, such as passwords or credit card numbers.

Q17. Match the following email-related terms with their correct functions:

	List – I		List – II
A.	CC	I.	Sends a copy without hiding the recipient.
B.	BCC	II.	Sends a hidden copy.
C.	Attachment	III.	Includes files with an email.
D.	Spam	IV.	Unsolicited bulk emails.

1. A - I, B - II, C - III, D - IV
(b) A - II, B - I, C - IV, D - III
(c) A - I, B - III, C - II, D - IV
(d) A - III, B - IV, C - II, D - I
Answer:
A
Sol:6pA. CC (Carbon Copy):
Function I: CC sends a copy without hiding the recipient. All recipients can see who else received the email.
B. BCC (Blind Carbon Copy):
Function II: BCC sends a hidden copy to recipients. Other recipients can't see the BCC recipients.
C. Attachment:
Function III: An attachment includes files with an email (e.g., documents, images).
D. Spam:
Function IV: Spam refers to unsolicited bulk emails, often for advertising or malicious purposes.

Q18. Match the following Mass Media concepts with their primary definition:

List I (Concept)	**List II (Definition)**
1. Gatekeeping	a. The process through which news and information are filtered and selected for public consumption
2. Media Convergence	b.The process by which different media forms and technologies merge into a single platform
3. Cultivation Theory	c.A set of attitudes and beliefs developed in heavy media consumers that align with media portrayals
4. Digital Divide	d. The socioeconomic and geographical gap in access to and use of information and communication technologies

Options:
(a) 1-a, 2-b, 3-c, 4-d
(b) 1-a, 2-c, 3-d, 4-b
(c) 1-d, 2-b, 3-a, 4-c
(d) 1-b, 2-a, 3-c, 4-d
Answer:
A
Sol:
Correct Matching:
(a) Gatekeeping – a. The process through which news and information are filtered and selected for public consumption
(b) Media Convergence – b. The process by which different media forms and technologies merge into a single platform
(c) Cultivation Theory – c. A set of attitudes and beliefs developed in heavy media consumers that align with media portrayals
(d) Digital Divide – d. The socioeconomic and geographical gap in access to and use of information and communication technologies

Introduction:

Gatekeeping matches with (a), Media Convergence with (b), Cultivation Theory with (c), and Digital Divide with (d), as these definitions precisely align with their core concepts in mass media studies, where gatekeeping filters information flow, convergence merges platforms, cultivation shapes perceptions through heavy exposure, and digital divide highlights access disparities.

Information Booster:

Gatekeeping (a):

- Gatekeeping refers to the filtering and selection process by which media professionals, like editors and reporters, decide what information reaches the public from vast sources.
- It acts as checkpoints in mass communication, controlling content through selection, shaping, and dissemination to influence public discourse.
- Originating from Kurt Lewin's work and applied to media by David Manning White, it underscores media's role in culling information for limited messages.

Media Convergence (b):

- Media convergence is the merging of distinct media forms, technologies, and platforms into unified digital systems, like smartphones delivering TV, print, and internet content.
- Driven by digitization, it enables cross-platform content flow, transforming production, distribution, and consumption across computing, communication, and content.
- Examples include Netflix evolving from DVDs to streaming, blending industries and audiences seamlessly.

Cultivation Theory (c):

- Developed by George Gerbner, it posits that heavy media consumers, especially TV viewers, develop attitudes and beliefs mirroring media portrayals, like perceiving higher crime rates.
- Long-term exposure cultivates a "mean world syndrome", where reality aligns with repeated media messages over personal experience.

- It distinguishes first-order effects (general worldviews) and second-order effects (specific attitudes), strongest in light-of-experience viewers.

Digital Divide (d):

- The digital divide is the socioeconomic and geographical gap separating those with access to ICTs (internet, devices) from those without, affecting education and opportunities.
- It spans first-level (access) and second-level (usage) divides, influenced by urban-rural splits, income, and global development disparities.
- Factors include affordability, infrastructure, and literacy, exacerbating inequalities in information access.

Additional Knowledge:

No incorrect options exist here, as all matches are precise; however, common misconceptions include confusing gatekeeping with mere censorship (it's selective filtering, not suppression), viewing media convergence as just digitization (it fully integrates platforms), mistaking cultivation theory for direct effects (it's long-term, subtle shaping), or limiting digital divide to urban-rural gaps (it encompasses socioeconomic, educational, and global layers).

Q19. Which of the following is true regarding extrinsic motivation?

(a) . It is based on external factors like rewards and punishments.

(b) . It is the natural curiosity and interest in a subject.

(c) . It is the feeling of personal satisfaction from an activity.

(d) . It motivates an individual to seek new challenges.

Answer:

A

Sol:

Correct Option - (a)

Introduction: Extrinsic motivation is driven by external factors.

Information Booster: Extrinsic motivation refers to behavior that is driven by external rewards or punishments. These factors can include money, grades, praise, or the avoidance of sanctions. The person is motivated to perform a task to achieve an external outcome, not because they enjoy the task itself.

Additional Information:

Intrinsic motivation is the opposite of extrinsic motivation. It is driven by internal factors like enjoyment, curiosity, and personal satisfaction (b, c, and d).

An individual with high intrinsic motivation enjoys the process of learning and seeks out challenges for the sake of mastery, which is described in options (b), (c), and (d).

Q20. Which of the following is NOT a trait of a good teacher?6p1. Full command over the subject

(b) Treating the intellectual ability of all students identically

(c) A lot of preparation and thinking in the subject before taking class

(d) Effective communication and presentation skills

Answer:
B
Sol:6pThe correct answer is; Treating the intellectual ability of all students identically. A good teacher recognizes that students have diverse intellectual abilities and learning styles. Treating all students identically without considering their individual needs and abilities is not effective. A good teacher tailors instruction to meet the varying needs of students, using differentiated teaching strategies to ensure all students have the opportunity to succeed.

Q21. What is the primary purpose of using a portfolio in educational assessment?
(a) To conduct standardized testing
(b) To evaluate a student's learning process and progress over time
(c) To assign random grades to learners
(d) To replace final examinations entirely
Answer:
B
Sol:
Correct Option - (b)
Introduction: This question asks about the main reason for incorporating portfolio assessment into the educational evaluation process.
Information Booster: Let's analyze each option:
(a) To conduct standardized testing:
Incorrect. Portfolios are a form of authentic, performance-based assessment, which is typically individualized and qualitative. This is the opposite of standardized testing, which aims for uniformity and comparison across large groups.
(b) To evaluate a student's learning process and progress over time:
Correct. This is the primary and most significant purpose of portfolio assessment. A portfolio is a curated collection of student work, often including drafts, revisions, reflections, and different types of assignments, gathered over a period. This allows educators (and students themselves) to observe growth, track development of skills, understand the learning journey, and assess mastery across various contexts, rather than just a single performance snapshot.
(c) To assign random grades to learners:
Incorrect. Assessment, by its very nature, aims to be fair and systematic. Assigning random grades contradicts all principles of valid and reliable evaluation.
(d) To replace final examinations entirely:
Incorrect. While portfolios can be a substantial component of a student's overall assessment and may reduce the reliance on traditional final exams, their primary purpose is not simply to replace existing methods. Their value lies in providing a unique, comprehensive, and process-oriented view of learning that other assessments cannot. They often complement, rather than entirely replace, other forms of assessment.
Conclusion: The primary purpose of using a portfolio in educational assessment is (b) To evaluate a student's learning process and progress over time.

Additional Information: Portfolio assessment encourages student self-reflection, metacognition, and ownership of their learning. It provides a rich source of evidence for both formative and summative evaluation, offering insights into how students learn, not just what they have learned.

Q22. What is the ratio of sold items of type A and C together to unsold items of type B and E together?
Study the given table carefully to answer the questions that follow:
The following table shows the total number of five different items manufactured by BMW Company and percentage distribution of each item sold.

Items	No. of items manufactured	Percentage distribution of items sold
A	2000	35%
B	1500	65%
C	1600	40%
D	600	63%
E	2800	70%

(a) 1341:746
(b) 268:273
(c) 1340:609
(d) 609:1340
Answer:
B
Sol:6pSolution:

$$2000 \times \frac{35}{100} + 1600 \times \frac{40}{100} : 1500 \times \frac{35}{100} + 2800 \times \frac{30}{100}$$
$$= 700 + 640 : 525 + 840$$
$$= 1340 : 1365$$
$$268 : 273$$

Q23. If ratio of defective to non-defective item which are unsold of type B and type D is 7:8 and 5:1 respectively then find the difference between total defective and total non-defective items of these two types of item which are unsold?
Study the given table carefully to answer the questions that follow:
The following table shows the total number of five different items manufactured by BMW Company and percentage distribution of each item sold.

Items	No. of items manufactured	Percentage distribution of items sold
A	2000	35%
B	1500	65%
C	1600	40%
D	600	63%
E	2800	70%

(a) 212

(b) 313
(c) 125
(d) 113
Answer:
D
Sol:6pSolution:

$\text{Unsold item of B} = 1500 \times \frac{35}{100} = 525$

$\text{Defective item of type B} = 525 \times \frac{7}{15} = 245$

$\text{Non-defective item of type B} = 525 - 245 = 280$

$\text{Unsold item of D} = 600 \times \frac{37}{100} = 222$

$\text{Defective item of type D} = 222 \times \frac{5}{6} = 185$

$\text{Non-defective item of type B} = 222 - 185 = 37$

$\text{Req. difference} = (245 + 185) - (280 + 37)$

$= 430 - 317 = 113$

Q24. If 60% of total items of type A are defective, then non-defective items of type A is approximately what percent of the average of unsold items of type C and type E?
Study the given table carefully to answer the questions that follow:
The following table shows the total number of five different items manufactured by BMW Company and percentage distribution of each item sold.

Items	No. of items manufactured	Percentage distribution of items sold
A	2000	35%
B	1500	65%
C	1600	40%
D	600	63%
E	2800	70%

(a) 62%
(b) 84%
(c) 89%
(d) 50%
Answer:
C
Sol:6pSolution:

$\text{Non-defective items of type A} = 2000 \times \frac{40}{100} = 800$

$\text{Average of unsold items of type C and type E} = \frac{1600 \times \frac{60}{100} + 2800 \times \frac{30}{100}}{2}$

$= 900$

$\text{Req. Percentage} = \frac{800}{900} \times 100 = 88.88\% \approx 89\%$

Q25. If the cost of each item sold of type B is Rs. 50 and that of type E is Rs. 70 then find the average of total selling cost of items of type B and type E?

Study the given table carefully to answer the questions that follow:

The following table shows the total number of five different items manufactured by BMW Company and percentage distribution of each item sold.

Items	No. of items manufactured	Percentage distribution of items sold
A	2000	35%
B	1500	65%
C	1600	40%
D	600	63%
E	2800	70%

(a) 82850

(b) 92975

(c) 76458

(d) 68250

Answer:

B

Sol:6pSolution:

$$\text{Req. average} = \frac{\left(1500\times\frac{65}{100}\right)\times 50+\left(2800\times\frac{70}{100}\right)\times 70}{2}$$

$$\frac{48750+137200}{2} = 92975$$

Q26. No. of items sold of type A and D together are approximately what percent more or less than no. of items sold of type C and B together?

Study the given table carefully to answer the questions that follow:

The following table shows the total number of five different items manufactured by BMW Company and percentage distribution of each item sold.

Items	No. of items manufactured	Percentage distribution of items sold
A	2000	35%
B	1500	65%
C	1600	40%
D	600	63%
E	2800	70%

(a) 33%

(b) 28%

(c) 38%

(d) 45%

Answer:

A

Sol:6pSolution:

No. of items sold of type A and D = $2000\times\frac{35}{100}+600\times\frac{63}{100}$

= 700+378 = 1078

No. of items sold of type C and B = $1600\times\frac{40}{100}+1500\times\frac{65}{100}$

= 640+975

= 1615

Req. Percentage = $\frac{1615-1078}{1615}\times 100$

$=\frac{537}{1615}\times 100 = 33.25\% \approx 33\%$

Q27 Find the ratio of the squares of A and B if the ratio between two numbers, A and B, is 3 : 5 and B is 120.

(a) 9 : 25

(b) 3 : 5

(c) 5 : 3

(d) 25 : 9

Answer: A

Sol: Given:

Ratio of A : B = 3 : 5

B = 120

Solution:

If A : B = 3 : 5, then

A = $\frac{3}{5}\times 120 = 72$

$A^2 = 72^2 = 5184$

$B^2 = 120^2 = 14400$

$A^2 : B^2 = 5184 : 14400 = 9 : 25$

Q28. Rahul goes to a place 70 km away and returns in 10 hours 40 minutes. He can cover 15 km downstream or 7 km upstream in the same time. What is the speed of the current?

(a) 6 km/hr

(b) 3.5 km/hr

(c) 5.5 km/hr

(d) 11 km/hr

Answer: C

Sol: Given:

Total distance (70 km out + 70 km back) = 140 km

Total time = 10 h 40 min = $\frac{32}{3}$ h

In any given time, Rahul can cover 15 km downstream or 7 km upstream.

Find the speed of the current.

Formula Used:

Downstream speed, D = x + y

Upstream speed, U = x - y

where x = speed of boat in still water, y = speed of current

Time = Distance / Speed

Solution:

From first condition;

$$\frac{15}{x+y} = \frac{7}{x-y}$$

15(x-y) = 7(x+y)

15x - 15y = 7x + 7y

8x = 22y

$x = \frac{11}{4}y$

From the second condition;

$$\frac{70}{x+y}+\frac{70}{x-y}=\frac{32}{3}$$

Substituting value of x in the equation :

$$\frac{70}{\frac{15}{4}y}+\frac{70}{\frac{7}{4}y}=\frac{32}{3}$$

$$\frac{280}{15y}+\frac{280}{7y}=\frac{32}{3}$$

$$\frac{56}{3y}+\frac{40}{y}=\frac{32}{3}$$

$$\frac{176}{3y}=\frac{32}{3}$$

$$y=5.5$$

Thus, speed of current is 5.5 km/hr

Q29. In the Classical Square of Opposition, if the 'A' proposition (All S is P) is given as TRUE, arrange the other propositions in the sequence of their truth values (E, I, O):

1. O (Some S is not P)
2. I (Some S is P)
3. E (No S is P)

(a) 3 (False), 2 (True), 1 (False)
(b) 3 (True), 2 (False), 1 (True)
(c) 1 (False), 2 (False), 3 (True)
(d) 2 (True), 3 (True), 1 (False)

Answer: A

Sol:6pCorrect Option – (a)

Introduction: The Square of Opposition illustrates the logical relationships between the four types of categorical propositions: A, E, I, and O.

Information Booster:

Contradictories (A and O): If A is True, O must be False.

Contraries (A and E): If A is True, E must be False (they cannot both be true).

Subalternation (A to I): If the universal (A) is True, the particular (I) must also be True.
Additional Knowledge: This logic applies to the Aristotelian perspective. In modern logic (Boolean), subalternation is not recognized because universal statements do not imply the existence of individuals.

Q30. Match the type of Inference/Anumana (List I) with its characteristic (List II):

List I (Inference Type)	List II (Characteristic)
A. Purvavat	I. Inference based on common points of similarity.
B. Sheshavat	II. Inference of an unperceived effect from a perceived cause.
C. Samanyatodrishta	III. Inference of an unperceived cause from a perceived effect.

Options:
(a) A-II, B-III, C-I
(b) A-III, B-II, C-I
(c) A-I, B-II, C-III
(d) A-II, B-I, C-III
Answer: A
Sol:6pCorrect Option – (a)
Introduction
The Nyaya school classifies Anumana into three types based on the nature of the relationship between the perceived and the inferred.
Information Booster
Purvavat (Antecedent): Inferring the future from the past/present. Example: Seeing dark clouds and inferring that it will rain.
Sheshavat (Residual): Inferring the past cause from the present effect. Example: Seeing a flooded river and inferring that it rained upstream.
Samanyatodrishta (General): Not based on cause-effect but on general regularity. Example: Observing the sun in the East in the morning and West in the evening, and inferring that the sun moves (even though we don't see the movement itself).
Additional Knowledge
Another classification is based on the logic of Vyapti: Kevalanvayi (Positive only), Kevalavyatireki (Negative only), and Anvaya-vyatireki (Both positive and negative).

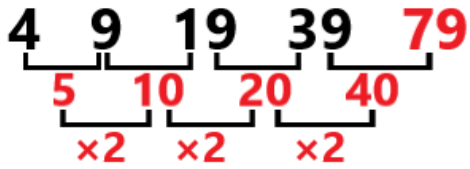
Q31. Match the informal fallacy (List I) with its specific characteristic of emotional appeal (List II):

List I (Fallacy)	List II (Characteristic)
A. Argumentum ad Baculum	I. Appealing to the pity or sympathy of the listener.
B. Argumentum ad Misericordiam	II. Appealing to the threat of force or negative consequences.
C. Argumentum ad Populum	III. Appealing to the desire to be part of a popular group.
D. Argumentum ad Verecundiam	IV. Appealing to the authority of an unqualified source.

Options:
(a) A-II, B-I, C-III, D-IV
(b) A-I, B-II, C-III, D-IV

(c) A-II, B-IV, C-I, D-III
(d) A-III, B-I, C-IV, D-II
Answer: A
Sol:6pCorrect Option – (a)
Introduction
Informal fallacies often rely on emotional manipulation rather than logical evidence. These are categorized under "Fallacies of Relevance," where the premises are logically irrelevant to the conclusion but psychologically persuasive.
Information Booster
Ad Baculum (Appeal to Force): "Accept this policy or you will be fired." The "reason" is a threat, not logic.
Ad Misericordiam (Appeal to Pity): "I should pass the exam because I have been sick all week." Health status doesn't prove academic competency.
Ad Populum (Bandwagon): "Everyone is buying this crypto-currency, so it must be a good investment."
Ad Verecundiam (Inappropriate Authority): Using a famous actor's opinion to prove a point about molecular biology.
Additional Knowledge
These fallacies are common in advertising and political rhetoric. In UGC NET, identifying the "emotion" (fear, pity, vanity) is the quickest way to find the correct answer.

Q32. Find the missing term:
4, 9, 19, 39, ?
(a) 59
(b) 69
(c) 49
(d) 79
Answer:
D
Sol:
Given: 4, 9, 19, 39, ?
Logic: Each number increases by doubling the previous difference:
Differences:
9−4 = 5
19−9 = 10
39−19 = 20
Next difference: 40
39 + 40 = 79
Alternate



So, the missing term is 79.
Thus, correct option is (d).

Q33. Match the following concepts from Nyaya philosophy with their correct definitions:

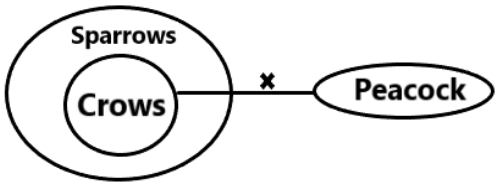
List I (Concept)	List II (Definition)
1. Hetu	a. The major term Sadhya
2. Sadhya	b. The reason or middle term Hetu
3. Paksha	c. The minor term Paksha
4. Vyapti	d. The invariable and universal relationship between the middle and major terms

1. 1-b, 2-a, 3-c, 4-d
(b) 1-a, 2-c, 3-d, 4-b
(c) 1-c, 2-d, 3-a, 4-b
(d) 1-d, 2-a, 3-c, 4-b
Answer:
A
Sol:
Introduction
The Nyaya school of Indian philosophy is renowned for its systematic approach to logic and epistemology. This question tests your foundational understanding of the key terms that constitute a logical inference (Anumana), which is a critical part of the UGC NET syllabus.
Information Booster
1. Hetu (b): The Hetu is the reason or the middle term in an inference. It is the core of the argument and is used to establish the relationship between the minor and major terms. For example, in the inference "The hill has fire because it has smoke," the smoke is the Hetu.
2. Sadhya (a): The Sadhya is the major term that needs to be proven. It is the predicate of the conclusion. In the same example, the fire is the Sadhya because its existence on the hill is what we are trying to prove.
3. Paksha (c): The Paksha is the minor term or the subject of the conclusion. It is the locus or place where the Sadhya is being inferred to exist. In the example, the hill is the Paksha, as we are trying to prove that the hill possesses fire.
4. Vyapti (d): Vyapti is the most crucial concept in Nyaya logic. It is the invariable and universal relationship between the Hetu (middle term) and the Sadhya (major term). It is the logical ground of inference, ensuring that whenever there is smoke, there is fire.
Additional Knowledge
Anumana (inference) is one of the four valid means of knowledge (Pramanas) accepted by the Nyaya school. The structure of a valid inference is often presented in a five-part syllogism called Pancavayava.

Q34 Assertion (A): Rubrics provide a clear set of criteria for grading student work, which enhances consistency in assessment.
Reason (R): The formation of rubrics requires input from students to ensure that assessment criteria are relevant and understandable.
Read the assertion (A) and reason (R) below and choose the correct option:
(a) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A).
(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).
(c) Assertion (A) is true, but Reason (R) is false.
(d) Assertion (A) is false, but Reason (R) is true.
Answer:
B
Sol:6pAssertion (A) is true because rubrics do indeed provide a clear set of criteria for grading student work, which helps ensure consistency and fairness in assessment. Rubrics outline specific expectations and performance standards, making the grading process more transparent and objective. Reason (R) is also true because involving students in the creation of rubrics can help ensure that the assessment criteria are relevant and understandable to them, fostering a sense of ownership and clarity. However, Reason (R) is not the correct explanation for Assertion (A). The primary reason rubrics enhance consistency in assessment is due to their clear, predefined criteria, not necessarily because of student input.
Information Booster:
Rubrics and Consistency: Rubrics standardize the assessment process by providing clear guidelines that can be applied uniformly across all students' work. This reduces subjectivity and variability in grading.
Student Involvement: While not always necessary, involving students in rubric development can enhance their understanding of the assessment criteria and expectations, which can lead to better performance and engagement.

Q35 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:
All crows are sparrows.
No crow is a peacock.
Conclusions:
(i) No sparrow is a peacock.
(ii) Some peacocks are crows.
(a) Neither conclusion (i) nor (ii) follows.
(b) Only conclusion (ii) follows.
(c) Only conclusion (i) follows.
(d) Both conclusions
Answer:
A

Sol:
Statements:
All crows are sparrows.
No crow is a peacock.
According to the given statement, Venn diagram will be:



Analyze the conclusions:
Conclusions:
(i) No sparrow is a peacock. → False
Since sparrows and crows are not peacocks. Other sparrows (who are not crows) may or may not be peacocks. So "No sparrow is a peacock" is not definite
(ii) Some peacocks are crows. → False
"Some peacocks are crows" directly contradicts the statement.
Thus, the correct option is (A) Neither conclusion (i) nor (ii) follows.6p

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Q36 Arrange the following events in chronological order:
A. National Education Policy 1986
B. Kothari Commission Report
C. University Education Commission
D. NEP 2020
Options:
(a) C, A, B, D
(b) B, C, A, D
(c) C, B, A, D
(d) B, A, C, D
Answer:
C
Sol:
Correct Option – (c)
Introduction: The history of education policy in India is marked by important reports and policies that shaped the system over decades.
Information Booster:
University Education Commission (1948–49) under Dr. S. Radhakrishnan focused on university reforms.
Kothari Commission Report (1964–66) laid the foundation for modern educational planning.
NEP 1986 introduced structural changes and emphasized equality.
NEP 2020 is the latest comprehensive education policy.
Additional Information:
NEP 2020 replaced the 1986 policy after 34 years.

Kothari Commission is often called the "Bible of Indian Education."

Q37 Identify the correct chronological sequence of the following:
(A) Codex
(B) Television
(C) Radio
(D) Newspaper
(E) Technicolour Cinema
Choose the correct answer from the options given below:
(a) C, D, E, A, B
(b) A, D, C, E , B
(c) B, E, A, D, C
(d) D, C, B, E, A
Answer:
B
Sol:
Introduction:
Communication technologies and media formats evolved gradually over centuries. Understanding their timeline is important in Media Studies, Mass Communication, and UGC NET Paper 1 topics like ICT and communication history.
Information Booster (Chronology Explained):
(a) Codex (1st–2nd century CE)
- The earliest form of the modern book.
- Replaced scrolls.

(b) Newspaper (17th century CE)
- The first printed newspapers appeared in early 1600s.
- *Relation aller Fürnemmen und gedenckwürdigen Historien* (Germany, 1605) is often cited as the earliest.

(c) Radio (Late 19th – Early 20th century)
- Experiments by Marconi in the 1890s.
- Public broadcasting began in the 1920s.

(d) Technicolour Cinema (1916 / 1930s)
- Two-color system began in 1916.
- Famous three-strip Technicolor introduced in 1932.

5. Television (1927–1936)
- First electronic TV demonstrated in 1927 (Philo Farnsworth).
- Public broadcasting began from 1936 (BBC).

Additional Knowledge:
- Technicolor cinema was widely used *before* television became a global household medium.
- Radio became the dominant mass medium before both color cinema and television.
- Codex remains the foundation of print culture.

Q38 Choose the correct statements about Post-Vedic Education.

A. Post-Vedic education was not meant only for the sake of education. It was for the sake of life.
B. Self study was emphasized
C. Upanishads are known as 'Para-Vidya'
D. The Student who studied three vedas was called 'Vaidya'
E. Upanishads are considered to be above all kinds of material knowledge
Choose the correct answer from the options given below:
(a) A, B,C, D only
(b) A, C, D, E only
(c) B, C, D, E only
(d) A, B, C, E only
Answer:
D
Sol:
Introduction:
Post-Vedic education in ancient India was a holistic system aimed not just at academic learning but at preparing individuals for a meaningful and purposeful life. It emphasised spiritual knowledge, self-development, and moral values along with intellectual growth.
Information Booster:

- A. Post-Vedic education was for the sake of life: True. Education was considered a means to develop a complete personality and lead a purposeful life, not just to acquire information.
- B. Self-study was emphasised: True. Students were encouraged to learn through personal reflection, meditation, and understanding rather than rote memorization alone.
- C. Upanishads are known as 'Para-Vidya': True. 'Para-Vidya' refers to the higher knowledge of ultimate reality, spiritual wisdom, and metaphysical truths contained in the Upanishads.
- D. The student who studied three Vedas was called 'Vaidya': False. A student who studied the Vedas was called a 'Vedic student' or 'Vedic scholar.' The term 'Vaidya' refers to a practitioner of medicine.
- E. Upanishads are considered above all kinds of material knowledge: True. The Upanishads deal with supreme knowledge, transcending material or worldly knowledge ('Apara-Vidya').

Additional Information:

- Para-Vidya vs. Apara-Vidya: Apara-Vidya is the lower knowledge, like grammar, mathematics, and material sciences, while Para-Vidya is the supreme spiritual knowledge found in the Upanishads.
- Post-Vedic education emphasized the unity of ethical, spiritual, and intellectual learning.

Q39 Consider the following statements about rubrics:
A. An analytic rubric provides a single, overall score for a performance, without breaking it down into specific criteria.
B. A holistic rubric offers detailed feedback on multiple dimensions of a task, allowing for targeted improvement.
C. Analytic rubrics are generally more suitable for providing formative feedback than holistic rubrics.
D. Holistic rubrics are typically faster to score for complex performances.
Which of the above statements are TRUE?
Choose the correct answer from the options given below:

(a) A and B Only
(b) B and D Only
(c) C and D Only
(d) A and C Only
Answer:
C
Sol:
Correct Option - (c)
Introduction: This question challenges your understanding of the distinctions between analytic and holistic rubrics and their implications for feedback and scoring.
Information Booster: Let's analyze each statement:
A. An analytic rubric provides a single, overall score for a performance, without breaking it down into specific criteria.
FALSE. This statement describes a holistic rubric. An analytic rubric, by its nature, breaks down a performance into multiple specific criteria (e.g., content, organization, grammar) and provides separate scores or ratings for each criterion.
B. A holistic rubric offers detailed feedback on multiple dimensions of a task, allowing for targeted improvement.
FALSE. This statement describes an analytic rubric. A holistic rubric provides a single, overall judgment or score based on the general quality of the performance. While it gives an overall impression, it does not offer the *detailed, dimension-specific* feedback necessary for targeted improvement.
C. Analytic rubrics are generally more suitable for providing formative feedback than holistic rubrics.
TRUE. Because analytic rubrics provide specific scores and descriptive feedback for each individual criterion, they allow teachers to pinpoint exact areas of strength and weakness. This detailed information is highly effective for guiding student learning and informing instructional adjustments, which are the hallmarks of formative assessment.
D. Holistic rubrics are typically faster to score for complex performances.
TRUE. Since holistic rubrics require only a single, overall judgment of quality, they are generally quicker to apply, especially for experienced scorers, compared to analytic rubrics which demand a separate evaluation for each criterion. This efficiency makes them useful for summative assessment of large batches of work.
Conclusion: Based on the analysis, the true statements are C and D.
Additional Information: Understanding the strengths and weaknesses of different rubric types helps educators choose the most appropriate tool for their assessment goals. Analytic rubrics are powerful for diagnosing learning needs and providing actionable feedback, while holistic rubrics are efficient for making quick overall judgments about performance quality.

Q40 Arrange the following universities in the order they were established (from oldest to newest):
A. Aligarh Muslim University
B. Banaras Hindu University
C. Osmania University
D. Patna University
Choose the correct answer:

(a) B, C, D, A
(b) B, D, C, A
(c) C, B, A, D
(d) A, B, C, D
Answer:
B
Sol:
Chronological Sequence (Oldest to Newest):
1. B. Banaras Hindu University (1916)
2. D. Patna University (1917)
3. C. Osmania University (1918)
4. A. Aligarh Muslim University (1920)
The correct sequence is B, D, C, A.
Information Booster:
B. Banaras Hindu University (1916): Founded by Madan Mohan Malaviya, it was one of the first Central Universities established in India and played a key role in the nationalist movement.
D. Patna University (1917): Established to cater to Bihar, it was the seventh oldest university of the Indian subcontinent.
C. Osmania University (1918): It is unique for being the first Indian university to use a native language (Urdu) as the medium of instruction for higher education, following the vision of the Nizam of Hyderabad.
A. Aligarh Muslim University (1920): Though founded as a university in 1920, its origins lie in the Muhammadan Anglo-Oriental College (MAO) established by Sir Syed Ahmad Khan in 1875. The university status marked a significant transition.
These universities represent the era of post-1904 (Indian Universities Act) reform and indigenous efforts to establish centers of learning with a nationalist or regional focus.

Q41 The cost price of an item A is Rs.400 more than that of B. Item A is sold at a loss of 10% and Item B is sold at a profit of 60%. If there is a profit of 20% in the entire transaction, then what is the selling price of item A?
(a) Rs. 1360
(b) Rs. 1500
(c) Rs. 1440
(d) Rs. 1600
Answer: C

Sol: Given :

Loss on A = 10%

Profit on B = 60%

Overall profit = 20%

Formula Used :

Selling Price (SP) = Cost Price (CP) × (1 ± Profit/Loss %)

$$\text{Overall Profit \%} = \frac{\text{Total SP} - \text{Total CP}}{\text{Total CP}} \times 100$$

Solution :

Let the cost price of item B = ₹x

Then, cost price of item A = ₹(x + 400)

SP of A = $(x + 400) \times 90\% = 0.9(x + 400)$

SP of B = $x \times 160\% = 1.6x$

Total CP = x + (x + 400) = 2x + 400

Total SP = 0.9(x + 400) + 1.6x

Given overall profit = 20%

Total SP = $1.2 \times$ Total CP

0.9(x + 400) + 1.6x = 1.2(2x + 400)

0.9x + 360 + 1.6x = 2.4x + 480

2.5x + 360 = 2.4x + 480

0.1x = 120

x = 1200
Cost price of A = 1200 + 400 = 1600

SP of A = 90% of 1600 = ₹1440

Selling price of item A = ₹1440

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