

UGC NET MEMORY BASED QUESTION PAPER 2026 WITH ANSWER KEY- 2 JAN SHIFT 1

Q1. Match the Pramana (List I) with its English equivalent/meaning (List II):

List I (Pramana)	List II (English Equivalent / Meaning)
A. Upamana	I. Non-apprehension / Proof by absence
B. Arthapatti	II. Comparison / Analogy
C. Anupalabdhi	III. Verbal Testimony / Authority
D. Sabda	IV. Implication / Postulation

Options:

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

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

(c) A-II, B-IV

(d) A-II, B-I,

Answer: C

Sol:

Correct Option

Introduction: Pramana is the source of knowledge. It is by which we know the world.

Different schools of Indian philosophy have different views on Pramana.

Information: Pramana is the source of knowledge. It is by which we know the world.

(e.g., learning by seeing, hearing, etc.) It is like a direct knowledge of a known object.

Arthapatti: It is a type of inference. It is like a conclusion drawn from a premise. (e.g., "The cat is dead," implies

he must eat.

Anupalabdhi: It is a type of inference. It is like a conclusion drawn from a premise. (e.g., "The

Sabda: Known words (Scriptures or

Additional Knowledge: Pramana is the source of knowledge. It is by which we know the world.

Vedanta school

Q2. Match the following common logical fallacies with their correct definition.

List-I (Logical Fallacy)	List-II (Definition)
A. Ad Hominem	1. Attacking the person instead of the argument.
B. Straw Man	2. Assuming that because B followed A, A must have caused B.
C. Post Hoc	3. Assuming that because B followed A, A must have caused B.
D. Appeal to Emotion	4. Making an argument by attacking the person.

Codes:

(a) A-3, B-1, C-2, D-4

(b) A-1, B-3, C-4, D-2

(c) A-3, B-1, C-4, D-2

(d) A-4, B-2, C-1, D-3

Answer:

A

Sol:

Correct Option – (a)

Introduction: A logical fallacy is an error in reasoning that undermines the logic of an argument.

Fallacies can be formal (structural) or informal (based on content and context). Identifying them is crucial for critical thinking and constructing sound arguments.

Information Booster:

A. Ad Hominem (Matches with 3): This is an attack on the character, motive, or other attribute of the person making an argument, rather than on the substance of the argument itself. For example, "You can't trust his opinion on climate change because he flies in private jets."

B. Straw Man (Matches with 1): This fallacy involves misrepresenting, exaggerating, or caricaturing an opponent's argument to make it easier to refute. For instance, if someone argues for modest gun control, a straw man response would be, "So you want to take away everyone's guns and leave us defenseless?"

C. Post Hoc Ergo Propter Hoc (Matches with 2): Latin for "after this, therefore because of this," this fallacy assumes that if event B occurred after event A, then A must have caused B. Example: "The rooster crows just before sunrise; therefore, the rooster causes the sun to rise."

D. Appeal to Ignorance (Matches with 4): This fallacy argues that a proposition is true because it has not been proven false, or false because it has not been proven true. For example, "No one has ever proven that ghosts don't exist, so they must be real."

Additional Knowledge:

Other important logical fallacies include the bandwagon fallacy, which involves arguing that something is true because many people believe it, and the red herring fallacy, which involves diverting attention from the main issue by introducing a new, unrelated issue. The bandwagon fallacy is often used in advertising, where the conclusion is that a product is good because many people are using it. The red herring fallacy is often used in politics, where a politician might divert attention from a controversial issue by introducing a new, unrelated issue.

Q3. Identify

I. A "Plotter" is a high-quality type of paper.

II. "OCR" (Optical Character Recognition) is an input device that can read different types of documents.

III. "CMOS" (Complementary Metal-Oxide Semiconductor) is a type of memory that provides power to the computer when the power is cut.

Options:

(a) I and II only

(b) II and III only

(c) I and III only

(d) I, II, and III

Answer: A

Sol:

Correct Option: (a)

Information:

Statement I:

date and time

is cut.

Additional Knowledge: USB (Universal Serial Bus) is a "Plug and Play" interface that allows computers to communicate with peripherals and other devices.

Q4. Arrange the following storage devices based on their chronological emergence in the market:

1. Magnetic Tapes

2. Floppy Disks

3. CD-ROM

4. Solid State Drive (SSD)

(a) 1, 2, 3, 4

(b) 2, 1, 3, 4

(c) 1, 3, 2, 4

(d) 4, 3, 2, 1

Answer:

A

Sol:

Correct Option – (a)

Introduction: The evolution of storage is a journey from Sequential Access (reading data in a fixed order) to Random Access (accessing any part of the data instantly) and from Magnetic to Optical and finally to Flash-based memory.

Information Booster: * Magnetic Tapes (1950s): Data was stored on long reels of tape. To read a file at the end of the tape, you had to wind through the entire reel. These are still used today for massive offline "Cold Storage" backups.

Floppy Disks (1970s): Introduced portability. They used a thin, flexible magnetic disk. The most iconic version was the 5.25-inch disk which held a mere 1.44 MB of data.

CD-ROM (1980s): This was Optical Storage. A laser reads "bits" and "lands" on a reflective surface. It provided much higher capacity than floppy disks.

SSD (2000s): Solid State Drives replaced hard drives. This makes them incredibly fast and durable.

Additional Knowledge: The evolution of storage is a journey from Sequential Access to Random Access and from Magnetic to Optical and finally to Flash-based memory. The evolution of storage is a journey from Sequential Access (reading data in a fixed order) to Random Access (accessing any part of the data instantly) and from Magnetic to Optical and finally to Flash-based memory.

Q5.

Match the memory units with their characteristics from the list below. (from fastest/smallest to slowest/largest)

List-I (Memory Unit)	List-II (Characteristic)
1. Hard Disk	A. Slowest, farthest from CPU
2. RAM (Main Memory)	B. Fastest, closest to CPU
3. Registers	C. Volatile, non-persistent
4. Cache	D. Non-volatile, persistent

Codes:

(a) 1-B, 2-C, 3-A, 4-D

(b) 1-B, 2-C, 3-D, 4-A

(c) 1-C, 2-B, 3-A, 4-D

(d) 1-A, 2-D, 3-B, 4-C

Answer:

A

Sol:

Correct Option – (a)

Introduction: The memory hierarchy is a concept that organizes computer memory based on a trade-off between speed, cost, and size. The memory closest to the CPU is the fastest and most expensive but has the smallest capacity, while storage further away is slower, cheaper, and larger.

Information Booster: The correct order from fastest/smallest to slowest/largest is:

3. Registers (Matches with A): Registers are located inside the CPU itself. They are the smallest and fastest memory units, used to hold instructions and data that the CPU is actively processing.

4. Cache (Matches with D): Cache memory is located on or very near the CPU chip. It is very fast and acts as a buffer between the CPU and the main RAM, storing copies of frequently used data to speed up access. It is larger than registers but smaller than RAM.

2. RAM (Main Memory) (Matches with C): RAM is the computer's main memory. It is volatile and is used to store data and machine code currently being used. It is slower than cache but much faster than storage drives.

1. Hard Disk Drive (HDD) (Matches with B): The HDD is a form of secondary storage. It is non-volatile, meaning it retains data without power. It is the slowest in the hierarchy but offers the largest capacity for long-term storage of files, documents, and programs.

Additional Knowledge: This hierarchy exists because a perfect memory—one that is fast, large, and cheap—does not exist. The principle of locality of reference (the tendency of a processor to access the same set of memory locations repetitively over a short period) makes this hierarchy highly effective.

Q6.

Match the programming language (List I) with the computer generation it is primarily associated with (List II):

List I (Programming Language)	List II (Computer Generation)
A. Machine Language	I. Second Generation
B. FORTRAN	II. First Generation
C. LISP & Prolog	III. Third Generation
D. C++ & JAVA	IV. Fourth Generation

Options:

- (a) A-III, B-I
- (b) A-I, B-III
- (c) A-III, B-I
- (d) A-IV, B-I

Answer:

A

Sol:

Correct Option

Introduction: The evolution of computer programming languages is closely tied to the generations of computer hardware. Early languages like Machine Language (First Generation) were directly tied to hardware, while later languages like FORTRAN (Second Generation) and C++/Java (Fourth Generation) introduced higher levels of abstraction and portability.

Information: The question asks to match programming languages with their primary computer generation. The options provided are (a) A-III, B-I; (b) A-I, B-III; (c) A-III, B-I; and (d) A-IV, B-I.

A. Machine Language (I. First Generation): Programs written directly in binary (0s and 1s). This was the only way to program the first generation computers (e.g., ENIAC, UNIVAC).

B. FORTRAN (II. Second Generation): FORTRAN (1957) and COBOL (1959) were the first widely used high-level languages, designed to be more portable and easier to write than machine code.

C. LISP & Prolog (III. Third Generation): These languages, developed in the 1950s and 1960s, are key languages used in artificial intelligence research and are a focus of the Third Generation.

D. C++ & JAVA (IV. Fourth Generation): While C (early 70s) and C++ (early 80s) were developed in the Fourth Generation, they, along with object-oriented languages like Java, became the dominant languages for developing large-scale software, GUIs, and internet applications on PCs and workstations (Fourth Generation systems).

Additional Knowledge: The shift from Second to Third Generation involved the introduction of Operating Systems, which managed system resources and allowed for multi-programming. This abstraction layer made programming less machine-specific. The Fourth Generation is also known for the rise of Scripting Languages and database management systems.

Q7. Match List - I with List - II:

List - I (Operating System)	List - II (Task)
A. UNIX	I. Assist users in system maintenance task
B. MS-DOS	II. Mobile device
C. Android OS	III. Single user operating system
D. Utility programs	IV. Multi user operating system

Choose the correct answer from the options given below:

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

Answer:

C

Sol:

Introduction of operating systems with their primary task and information science and information technology.

- Information technology is a field of study that deals with the use of computers and other electronic devices to store, retrieve, and process information. It is a multidisciplinary field that combines computer science, engineering, and management.
- A. UNIX
 - Task/Characteristics: UNIX is a multi-user operating system that allows multiple users to access the system simultaneously. It is designed for servers, workstations, and mobile devices.
 - B. MS-DOS
 - Task/Characteristics: MS-DOS is a single-user operating system. It was an early operating system. It was designed for personal computers and is known for its simplicity and ease of use.
 - C. Android
 - Task/Characteristics: Android is a Linux-based operating system designed primarily for touchscreen mobile devices such as smartphones and tablets. It is the most widely used mobile operating system in the world.
 - D. Utility programs
 - Task/Characteristics: Utility programs are system software tools that help users perform system maintenance tasks. Examples include anti-virus software, disk cleanup, and file compression.

The final answer is (c) A-IV, B-III, C-II, D-I. Additional knowledge: Operating systems are software that manage computer hardware and software resources and provides common services for computer programs. They are broadly categorized based on their user support (single-user vs. multi-user) and tasking capabilities (single-tasking vs. multi-tasking). The evolution from MS-DOS to UNIX/Linux, and then to mobile OS like Android, showcases the continuous development towards more powerful, flexible, and specialized computing environments. Utility programs, while not operating systems themselves, are crucial for keeping an OS running efficiently and securely.

Q8. Match the following renewable energy sources with their primary limitation/concern.

List-I (Renewable Energy Source)	List-II (Primary Limitation/Concern)
A. Solar Power	1. Habitat destruction and methane emissions from submerged vegetation
B. Wind Power	2. Intermittency and dependence on weather conditions
C. Hydropower (Large Dams)	3. Visual pollution and threat to birdlife
D. Biomass Energy	4. Competition with food crops for land and water

Codes:

(a) A-2, B-3, C-1, D-4

(b) A-3, B-2, C-4, D-1

(c) A-2, B-1, C-3, D-4

(d) A-4, B-3, C-1, D-2

Answer:

A

Sol:

Correct Option is (a)

Introduction

own set of energy sources that are sustainable and environmentally friendly.

Information

A. Solar Power: The primary limitation of solar power is its intermittency, as it only generates power when the sun is shining.

B. Wind Power: The primary concern of wind power is its intermittency and dependence on weather conditions, as it only generates power when the wind is blowing.

C. Hydropower (Large Dams): The primary concern of large dams is habitat destruction and methane emissions from submerged organic matter, as they create large reservoirs.

D. Biomass Energy: The primary concern of biomass energy is competition with food crops for land and water, as it often involves growing crops specifically for energy production.

Conclusion

areas of land and water, leading to deforestation and loss of biodiversity. Additionally, the submerged organic matter in large dams can produce methane, a potent greenhouse gas.

greenhouse gas. Additionally, the submerged organic matter in large dams can produce methane, a potent greenhouse gas.

D. Biomass Energy: The primary concern of biomass energy is competition with food crops for land and water, as it often involves growing crops specifically for energy production.

production of energy. Additionally, the use of land for biomass production can lead to deforestation and loss of biodiversity.

Additional Key Points:

Geothermal energy is a renewable source of energy that is generated from the heat of the Earth's interior. It is a highly reliable and sustainable source of energy, but it is geographically limited to tectonically active regions.

Q9. Which of the following is not a type of communication?

I. Intrapersonal communication: This involves self-communication and self-reflection.

II. Interpersonal communication: This involves direct interaction between two or more people.

III. Group communication: This involves communication within a group, but it does not always require the presence of mass media technology to be valid.

IV. Mass communication: This uses technical media channels to reach large, scattered audiences simultaneously.

Choose the correct answer from the codes given below:

(a) I, II and IV only

(b) II, III and IV only

(c) I and III only

(d) I, II, III and IV

Answer:

A

Sol:

Introduction: Communication can be broadly categorized into intrapersonal, interpersonal, group, and mass communication, each defined by the number of participants and mode of message delivery.

Information Booster:

Intrapersonal communication is the inner dialogue that an individual has with oneself, influencing perception and decision making.

Interpersonal communication refers to face-to-face or mediated communication between two or a few individuals, allowing rich feedback and relationship building.

Mass communication involves using technological channels like TV, radio, newspapers, and digital media to disseminate messages to a large audience.

The classification helps in understanding audience size, feedback type, and media use across different communication contexts.

Additional Knowledge:

Group communication involves communication within a group, such as a committee meeting or a team discussion.

Mass communication involves communication through mass media, such as television, radio, newspapers, and digital media.

Q10.

Match the List-I (Techniques) with List-II (Descriptions).

LIST-I (Techniques)	LIST-II (Descriptions)
A. Brainstorming	1. Free idea generation (creative)
B. Nominal Group	2. Individual silent ranking (non-dominant)
C. Fishbowl	3. Round-robin sharing, clarification, and voting to democratize input and refine priorities structuredly
D. Delphi	4. Structured idea generation (non-creative)

Choose the correct match from the options given below:

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

Answer:

A

Sol:

Introduction:

Group communication involves communication within a group, such as a committee meeting or a team discussion.

Mass communication involves communication through mass media, such as television, radio, newspapers, and digital media.

Information Booster:

Brainstorming – Free idea generation (creative):

- Encourages unrestricted, judgment-free sharing of ideas to spark innovation and quantity over quality initially.
- Participants vocalize wild, unconventional thoughts in a group setting, building on others' contributions for synergistic creativity.
- Ideal for divergent thinking phases, where the goal is maximum idea volume before evaluation.

Nominal Group – Individual silent ranking (non-dominant):

- Promotes equal participation by starting with silent, independent idea generation and private ranking, preventing vocal dominators from overshadowing others.
- Follows with round-robin sharing, clarification, and voting to democratize input and refine priorities structuredly.

- Balances individual reflection with group consensus, making it perfect for diverse or hierarchical groups.

Fishbowl – Observed inner discussion (observational):

- Features a small inner circle discussing openly while a larger outer circle observes silently, modeling effective dynamics for learning and analysis.
- Observers gain insights into communication patterns, then often rotate in, fostering active listening and perspective-taking.
- Manages large groups efficiently, highlighting group processes without chaos.

Delphi – Anonymous expert rounds (iterative):

- Uses multiple anonymous questionnaire rounds with controlled feedback to refine expert opinions progressively toward consensus.
- Eliminates bias from dominant personalities through anonymity and iteration, ideal for forecasting or complex decisions.
- Builds a consensus through iterative, face-to-face influence.

Additional K

Brainstorming

open.

structured vs.

Q11.

Arrange the

i. Television

ii. Printing P

iii. World W

iv. Radio Br

Codes:

(a) ii, iv, i, iii

(b) ii, i, iv, iii

(c) iv, ii, i, iii

(d) ii, iv, iii, i

Answer:

A

Sol:

Correct Opti

Introduction

transformin

is organized.

new medium

how society

Information Booster: The correct chronological order is:

1. ii. Printing Press (c. 1440): Invented by Johannes Gutenberg, the movable type printing press was the first major revolution in mass communication, enabling the mass production of books and pamphlets and laying the groundwork for the newspaper industry.
2. iv. Radio Broadcasting (1920s): Radio became the first electronic mass medium for the home, providing real-time information and entertainment and creating a national audience for the first time. The first radio broadcast in India was by the Radio Club of Bombay in 1923.
3. i. Television Broadcasting (1930s-40s, widespread post-WWII): TV combined audio and visual elements, becoming the most powerful and pervasive mass medium of the 20th century. Regular broadcasting in India began in Delhi in 1959.

4. iii. World Wide Web (1991): Invented by Tim Berners-Lee, the WWW is a system of interlinked hypertext documents accessed via the internet. It has led to the digital, interactive, and convergent media environment we live in today.

Additional Knowledge: This evolution is often described by media theorists like Marshall McLuhan. He characterized the shift from the "Gutenberg Galaxy" (the print-dominated era) to the "Electronic Galaxy," which retribalizes humanity into a global village.

Q12.

Match the following classic Bollywood movies (Column A) with their correct directors and years of release (Column B).

Column A: Bollywood Movie	Column B: Director & Year
1. Mother India	A. Bimal Roy (1952)
2. Sholay	B. Yash Chopra (1975)
3. 3 Idiots	C. Anurag Kashyap (2009)
4. Do Bigha Zamin	D. Satish Bhakshi (1953)

Options:

- (a) 1-C, 2-A, 3-B, 4-D
- (b) 1-B, 2-C, 3-D, 4-A
- (c) 1-D, 2-A, 3-B, 4-C
- (d) 1-C, 2-D, 3-A, 4-B

Answer:

D

Sol:

Correct Option:

Introduction: Indian cinema, with its rich history, and certain films have become iconic, not just for their entertainment value but also for their cultural significance and impact on Indian society. These key works is part of the cinematic landscape of India.

Information:

1. Mother India (A): Directed by Mehboob Khan, this epic film was released in 1952. It is a remake of his own 1940 film, but it is a seminal work in Indian cinema, nominated for the Academy Award for Best Foreign Language Film. It symbolically represents the newly independent nation.

2. Sholay (B): Directed by Yash Chopra and released in 1975, this film is a iconic "curry western" in Indian cinema. It is a massive blend of action, romance, and comedy, making it a blockbuster.

3. 3 Idiots (C): Directed by Anurag Kashyap and released in 2009, this film is a massive blockbuster. It is a massive blend of comedy and social commentary, a hallmark of Hirani's filmmaking.

4. Do Bigha Zamin (D): Directed by Bimal Roy and released in 1953, this film is a cornerstone of Indian parallel cinema. Inspired by Italian neorealism, it poignantly tells the story of a farmer's struggle, showcasing a more realistic and socially conscious form of filmmaking.

Additional Knowledge: The first full-length Indian feature film is widely considered to be Dadasaheb Phalke's *Raja Harishchandra* (1913). Understanding this lineage from the silent era to the social realism of the 1950s (*Do Bigha Zamin*), to the masala films of the 70s (*Sholay*), and the contemporary social-comedies (*3 Idiots*) provides a framework for analyzing how cinema, as a communication medium, reflects and shapes societal values over time.

Q13.

In 2012, ratio of boys in school A to school B is 45 : 52 and total students in both schools in 2012 is 1100. Find the total number of girls in both schools in the same year. Given below is the table which shows the percentage of boys in two school A and B in 5 different years. Read the data carefully and answer the questions.

Year	School A (boys%)	School B (boys%)
2012	54%	52%
2013	60%	64%
2014	48%	44%
2015	62%	56%
2016	48%	50%

Note: Total students in any school = Total boys + Total girls in each school

(a) 568

(b) 528

(c) 518

(d) 418

Answer:

C

Sol:

Solution:

Let total stu

Boys A = 54

Boys B = 52

Given ratio

Solve: $0.54x$

$\rightarrow 28.08x =$

$\rightarrow 28.08x +$

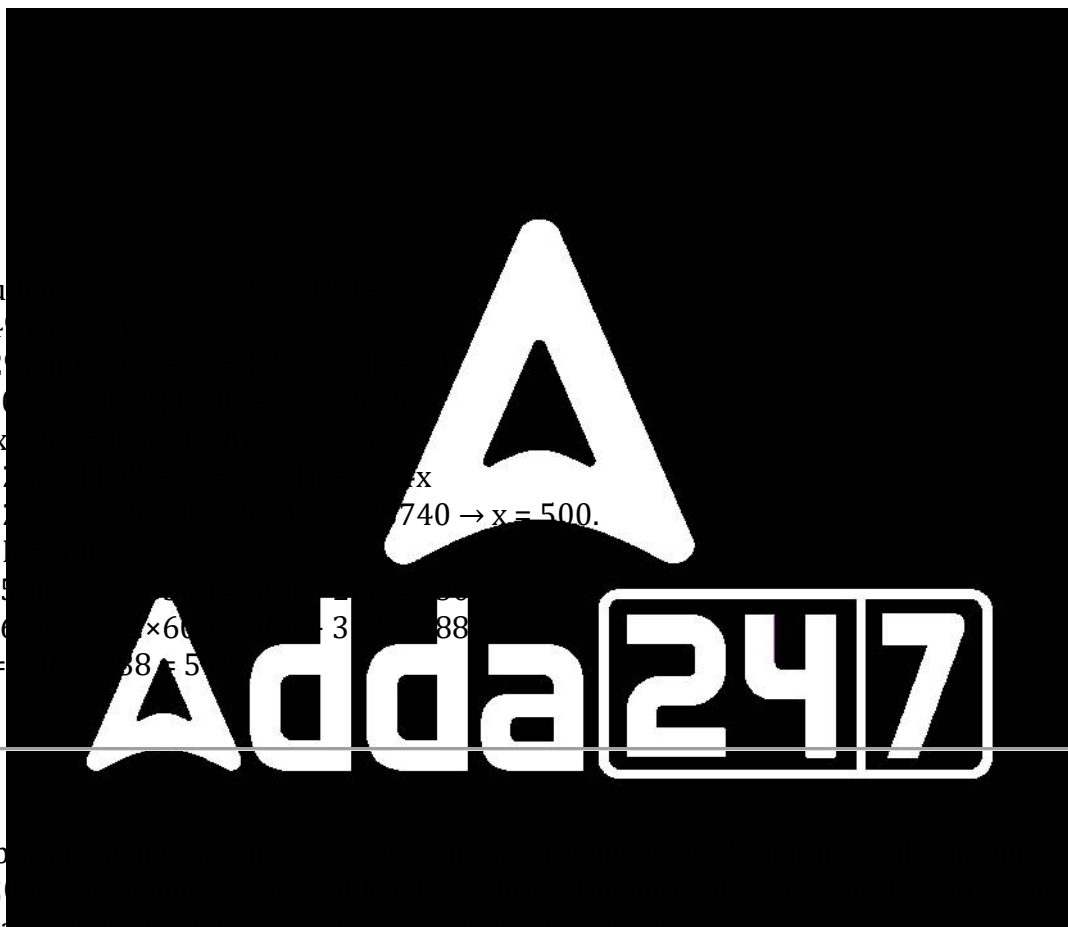
So A = 500,

Girls in A =

Girls in B =

Total girls =

Answer: (c)



Q14.

If in 2014, b girls in both schools in 2014. Find the total number of girls in both schools in 2014. Given below is the table which shows the percentage of boys in two school A and B in 5 different years. Read the data carefully and answer the questions.

Year	School A (boys%)	School B (boys%)
2012	54%	52%
2013	60%	64%
2014	48%	44%
2015	62%	56%
2016	48%	50%

Note: Total students in any school = Total boys + Total girls in each school

(a) 594

(b) 640

(c) 564

(d) 648

Answer:

D

Sol:

Solution:

Boys A = 288 and boys% in A (2014) = 48% $\rightarrow$ total A = $288 \div 0.48 = 600$.

Boys B = 264 and boys% in B (2014) = 44% $\rightarrow$ total B = $264 \div 0.44 = 600$.

Girls A = $600 - 288 = 312$.

Girls B = $600 - 264 = 336$.

Total girls = $312 + 336 = 648$.

Answer: (d)

Q15.

If boys in school A are 48% of the total number of girls in school A and 48% of the total number of boys in school A and 48% of the total number of girls in school B are 52% of the total number of boys in school B.

12 are what percent of the total number of boys in two schools?

Year	School	Boys (%)
2012	A	54%
2013	A	60%
2014	A	48%
2015	A	62%
2016	A	48%

Note: Total number of boys + total number of girls = 600.

(a) 85%

(b) 100%

(c) 90%

(d) 80%

Answer:

B

Sol:

Solution:

Boys A = 288 and boys% in A (2014) = 48% $\rightarrow$ total A = $288 \div 0.48 = 600$.

Boys B = 264 and boys% in B (2014) = 44% $\rightarrow$ total B = $264 \div 0.44 = 600$.

Girls A = $600 - 288 = 312$.

Girls B = $600 - 264 = 336$.

Boys in A (2012) = 54% of 600 = 324.

Boys in B (2012) = 52% of 600 = 312.

Girls in A (2014) = total A (2014) - boys A (2014) = $600 - 288 = 312$.

Girls in B (2014) = total B (2014) - boys B (2014) = $600 - 264 = 336$.

Required percent = $(312 \div 312) \times 100 = 100\%$.

Answer: (b)

Q16.

In 2016, girls in school A are $16 \frac{4}{5}\%$ less than girls in school B. Find the ratio of boys in school A to that of school B in 2016. Given below is the table which shows the percentage of boys in two schools A and B in 5 different years. Read the data carefully and answer the questions.

Year	School A (boys%)	School B (boys%)
2012	54%	52%

Year	School A (boys%)	School B (boys%)
2013	60%	64%
2014	48%	44%
2015	62%	56%
2016	48%	50%

Note: Total students in any school = Total boys + Total girls in each school

(a) 100 : 123

(b) 98 : 117

(c) 96 : 125

(d) 92 : 117

Answer:

C

Sol:

Solution:

Let total stu

Girls A = 52%

Girls B = 50%

Given girls A

So $0.52A = 0$

Boys A = 48%

Boys B = 50%

Ratio boys A

Answer: (c)

Q17.

If total stu

find the ave

table which

carefully an

the q

Year

2012

2013

2014

2015

2016

Note: Total students in any school = Total boys + Total girls in each school

(a) 344

(b) 345

(c) 348

(d) 368

Answer:

B

Sol:

Solution:

Boys% in A (2015) = 62% → boys A(2015) = $0.62 \times 700 = 434$.

Boys% in B (2013) = 64% → boys B(2013) = $0.64 \times 400 = 256$.

Average = $(434 + 256) \div 2 = 690 \div 2 = 345$.

Answer: (b)

Q18.

Which of the following statements are correct in respect of Green House Gases?

- A. They are generally of light green colour
- B. They absorb thermal radiations emitted by earth.
- C. Water vapour is a green house gas.
- D. Green house gases cause global warming.
- E. Ammonia (NH_3) is a green house gas.

Choose the most appropriate answer from the options given below:

(a) A, B, C, D only

(b) A, C, E only

(c) B, C, D only

(d) A, B, C, D only

Answer:

C

Sol:

B. This statement is incorrect. Greenhouse gases absorb and re-emit radiation, contributing to the greenhouse effect.

C. Water vapour is the most abundant greenhouse gas. However, its concentration is controlled by natural processes, not directly by human activity.

D. Greenhouse gases contribute to global warming by trapping heat. This is a fundamental process behind the greenhouse effect.

Information:

A. The statement is incorrect. Greenhouse gases are not generally of light green colour. The term "greenhouse" refers to the effect, not the color.

E. Ammonia (NH_3) is a greenhouse gas, but it is not as significant as carbon dioxide (CO_2), methane (CH_4), or nitrous oxide (N_2O).

Q19.

Black foot disease is caused by:

- (a) Nitrates
- (b) Arsenic
- (c) Fluoride
- (d) Lead

Answer:

B

Sol:

Black Foot Disease (BFD) is a chronic vascular disease caused by prolonged exposure to high levels of arsenic, especially through contaminated drinking water. The disease results in severe peripheral vascular damage, where blood vessels in the lower limbs are constricted or blocked, eventually leading to gangrene and necrosis (blackening of the skin and tissues), hence the name "Black Foot."

Information booster

Seepage of industrial and mine discharges, fly ash ponds of thermal power plants can lead to arsenic in groundwater.

In India and Bangladesh (Ganges Delta), millions of people are exposed to groundwater contaminated with high levels of arsenic, a highly toxic and dangerous pollutant.

Chronic exposure to arsenic causes black foot disease. It also causes diarrhoea and also lung and skin cancer.

Additional Information

(a) Nitrates: Cause Blue Baby Syndrome (Methemoglobinemia), not Black Foot Disease.

(c) Fluoride: Causes dental and skeletal fluorosis, especially in arid regions with fluoride-rich groundwater.

(d) Lead: Leads to neurological disorders, learning disabilities, and kidney damage, especially in children.

Q20.

In a certain

(a) KQWQG

(b) KQSUC

(c) OMWQG

(d) OMSUC

Answer:

B

Sol:

Given:

In a certain

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic: Letter and + place alternately.

For, HEART

H - 2 = F, E + 2 = G, A - 2 = Y, T + 2 = V, R - 2 = P

Similarly,

MOUSE - ?

M - 2 = K, O

So, MOUSE

Thus, correct

Q21.

Arrange the following landmark education policies/commissions of post-independence India in the chronological order of their establishment/submission:

A. National Education Policy (NEP) 2020

B. Radhakrishnan Commission

C. Kothari Commission

D. National Policy on Education (NPE) 1986

Choose the correct answer:

(a) D, A, B, C

(b) C, B, A, D

(c) A, D, B, C

(d) B, C, D, A

Answer:

D

Sol:

The correct chronological order (earliest to latest) is: B (1948-49), C (1964-66), D (1986), A (2020).

Information Booster:

B. Radhakrishnan Commission (1948-49): Focused primarily on higher education and recommended integrating secondary and higher education more closely. Its key recommendation was the formation of the University Grants Commission (UGC).

C. Kothari Commission (1964-66): Recommended the famous "Education and National Development" strategy, proposing the uniform 10+2+3 structure nationwide and emphasizing the modernization of education.

D. National Education Policy (1986): Recommended a 10+2+3 structure, emphasizing the need for liberal education, promoting education for all, and the establishment of a National Council of Educational Research and Training (NCERT).

A. National Education Policy (2020): Recommended a 5+3+3+4 structure, emphasizing the need for holistic education, promoting digital education, and the establishment of a National Education Research Board (NERB).

Additional Information: The Radhakrishnan Commission influenced the formation of the UGC. It stressed the need for liberal education. The Kothari Commission linked education with economic development, advocating for a common school system. The NPE 1986 emphasized increasing expenditure on education to 6% of GDP. The NEP 2020 aims to lead to a new regulatory framework for higher education.

Q22.

Choose the correct option

Assertion: The National Assessment and Accreditation Council (NAAC) is responsible for accrediting universities in India.

Reason: NAAC is a statutory body.

(a) Both Assertion and Reason are true and the Reason is the correct explanation of the Assertion.

(b) Both Assertion and Reason are true and the Reason is not the correct explanation of the Assertion.

(c) Assertion is true, but the Reason is false.

(d) Assertion is false, but the Reason is true.

Answer:

B

Sol:

The NAAC is indeed responsible for accrediting universities and colleges in India, based on their performance in various parameters and criteria such as curriculum, research, infrastructure, governance, and social responsibility. It assesses the quality of institutions of higher education and awards them grades based on their performance. NAAC has categorized the Higher Educational Institutions into three major types (University, Autonomous College, and Affiliated/Constituent College) and assigned different weightages to these criteria under different key aspects based on the functioning and organizational focus of the three types of HEIs.

Q23. Arrange the following chronologically on the basis of their launch year:

A. Swayamprabha

B. Krishi Darshan

C. Gyandarshan

D. PM eVidya

Choose the correct answer from the options given below:

(a) C, A, B, D

(b) A, C, D, B

(c) B, C, A, D

(d) A, B, D, C

Answer: C

Sol:

Introduction

Imagine learning from the comfort of your home. Today, we're going to explore some amazing programs that are helping students learn. Each one was launched at a different time, so let's find out which one came first. India has been using technology for many years!

Information Booster:

Let's learn about the correct order from oldest to newest when they started.

- **Krishi Darshan (1967):**
 - What is it? A TV channel that shows how to grow crops, raise animals, and run a school.
 - When did it start? It was one of the first satellite channels.
 - Why it's special: It reached farmers in villages, helping them grow more food for animals.
- **Gyandarshan (2000):**
 - What is it? A TV channel that shows educational programs for students, teachers, and anyone who wants to learn.
 - When did it start? It was launched by Doordarshan and IGNOU, a big university.
 - Why it's special: It was shown on a TV screen.
- **Swayamprabha (2017):**
 - What is it? A TV channel that shows educational videos 24/7, using a satellite called GSAT-15. You can watch lessons anytime!

24/7, using a satellite called GSAT-15. You can watch lessons anytime!

- When did it start? It was launched on July 9, 2017, to help students in schools and colleges learn better.
- Why it's special: It's free, and you can watch it even in places with no internet!
- **PM eVidya (2020):**
 - What is it? PM eVidya is a big program that brings learning online, on TV, and on radio. It includes apps, websites, and 200 TV channels to help students study from home.
 - When did it start? It was launched on May 17, 2020, during the COVID-19 pandemic to keep schools open in a new way.

Correct Order: Krishi Darshan (1967), Gyandarshan (2000), Swayamprabha (2017), PM eVidya (2020). So, the answer is B, C, A, D.

Additional Information:

Here are some extra facts and ideas to make these programs even more exciting for you:

- Why These Programs Are Awesome:

- They make learning fun and easy for everyone, whether you're a farmer, a student, or a teacher. From helping grow better crops to studying science at home, these programs are like superheroes for education!

- They reach faraway places in India, so even kids in villages can learn.

- Cool Facts:

- Krishi Darshan was one of the first TV programs in India to teach people something useful, way back when TVs were new!

- Gyandarshan works with IGNOU, a university that helps people study from home, even adults!

- Swayamprabha has 40 channels, and each one is like a different subject in school, from math to history.

- PM eVidya is a program that helps everyone

Q24.

What should

275, 230, 190

(a) 95

(b) 100

(c) 105

(d) 90

Answer:

B

Sol:

Given: 275,

Logic: Number

$275 - 45 = 230$

$230 - 40 = 190$

$190 - 35 = 155$

$155 - 30 = 125$

$125 - 25 = 100$

Thus, the co

ence = -25.

Q25.

Match List I with List II:

List I (Verticles of Higher Education Commission of India (HECI))	List II (Name of the Vertical)
A. First Vertical of HECI	I. General Education Council (GEC)
B. Second Vertical of HECI	II. National Higher Education Regulatory Council (NHERC)
C. Third Vertical of HECI	III. National Accreditation Council (NAC)
D. Fourth Vertical of HECI	IV. Higher Education Grants Council (HEGC)

Choose the correct answer from the options given below:

Match the Following:

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

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

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

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

Answer:

A

Sol:

The correct matching is: (a) A-II, B-III, C-IV, D-I

A. First Vertical of HECI - II. National Higher Education Regulatory Council (NHERC)

B. Second Vertical of HECI - III. National Accreditation Council (NAC)

C. Third Vertical of HECI - IV. Higher Education Grants Council (HEGC)

D. Fourth Vertical of HECI - I. General Education Council (GEC)

Information Booster:

1. HECI: The Higher Education Commission of India is proposed to regulate higher education in India.

2. NHERC: The first vertical of HECI responsible for the regulation and oversight of higher education institutions.

3. NAC: The second vertical of HECI responsible for the accreditation of higher education institutions.

4. HEGC: The third vertical of HECI responsible for the distribution of higher education grants to institutions.

5. GEC: The fourth vertical of HECI responsible for the formulation of policies for higher education.

Q26.

Below are the

Statement I: Bloom's Taxonomy is a framework for assessing student learning

Statement II: Bloom's Taxonomy is a hierarchical model that categorizes objectives into six

levels of cognitive

Which of the following best describes the relationship between these statements?

(a) Both statements are true.

(b) Both statements are false.

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

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

Answer:

A

Sol:

Correct Option: A

Introduction:

Bloom's Taxonomy is a hierarchical model that categorizes objectives into six cognitive levels.

Both statements are accurate. Bloom's Taxonomy is indeed a framework for assessing student learning outcomes, and it categorizes objectives into six cognitive levels, making Statement II an explanation for Statement I.

Information Booster:

Understanding the relationship between these statements helps educators appreciate the hierarchical nature of Bloom's Taxonomy.

Additional Knowledge:

The hierarchical structure of Bloom's Taxonomy allows educators to build upon previously learned skills, promoting a deeper understanding of the subject matter.

Q27. Which of the following commissions recommended the introduction of a common school system to promote equality of educational opportunity in India?

- (a) Mudaliar Commission
- (b) Kothari Commission
- (c) Radhakrishnan Commission
- (d) University Grants Commission (UGC) Review Committee

Answer:

B

Sol:

Explanation:

Kothari Commission (1964-66): This commission, also known as the Indian Education Commission, was the first to provide a comprehensive framework for a national system of education in India. Its report recommended the introduction of a Common School System (CSS). The goal of the CSS was to provide "equal opportunity for all children, regardless of their social and economic background"

Information and to reduce the social inequalities in the Indian education system.

Kothari Commission (1964-66): This commission, also known as the Indian Education Commission, was the first to provide a comprehensive framework for a national system of education in India. Its report recommended the introduction of a Common School System (CSS). The goal of the CSS was to provide "equal opportunity for all children, regardless of their social and economic background"

Submitted its report in 1966. The commission recommended the introduction of a Common School System (CSS) to provide "equal opportunity for all children, regardless of their social and economic background"

Major recommendations of the Kothari Commission included diversifying the educational system, improving the quality of education, and promoting the growth of higher education.

Proposed a three-tier system of education: primary, secondary, and higher education. The commission emphasized the importance of the primary and secondary levels of education, and recommended that the government should take steps to improve the quality of education at these levels.

Emphasized the importance of the primary and secondary levels of education, and recommended that the government should take steps to improve the quality of education at these levels. Urged for a common school system at the elementary level to promote social integration.

Additional recommendations of the Kothari Commission included the need for a common school system at the elementary level to promote social integration, and the need for a common school system at the secondary level to promote social integration.

Mudaliar Commission (1948-49): This commission focused on the reorganization of the Indian education system and its recommendations included diversifying the educational system, improving the quality of education, and promoting the growth of higher education.

Undergraduate education: The commission recommended the introduction of a 3-year undergraduate program in all universities, and the need for a common school system at the elementary level to promote social integration.

Radhakrishnan Commission (1948-49): This commission was established to study the university education in India and its recommendations included diversifying the educational system, improving the quality of education, and promoting the growth of higher education.

While the commission made recommendations on various aspects of higher education, such as improving the quality of education, and promoting the growth of higher education, it also addressed the concept of a common school system at the primary and secondary levels of education.

University Grants Commission (UGC) Review Committee: The UGC is a statutory body established in 1956 to coordinate and improve the quality of higher education in India. While it has released various reports and recommendations, it has not specifically recommended the introduction of a common school system.

Q28.

Match the following Models of Teaching with their Key Proponents:

List I (Model of Teaching)	List II (Proponent)
A. Concept Attainment Model	I. Bruce Joyce & Marsha Weil
B. Jurisprudential Inquiry Model	II. Hilda Taba
C. Inductive Thinking Model	III. Herbert Thelen
D. Synectics Model	IV. William J. Gordon

Choose the correct option:

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

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

Answer:

B

Sol:

Correct Answer: (b)

Introduction: This question requires matching specific models of teaching with their key proponents or developers. Understanding these associations is important for recognizing the origins and theoretical foundations of different pedagogical approaches.

Information Booster: Let's match each Model of Teaching with its primary proponent:

A. Concept Attainment Model:

Proponent: This model was originally developed by Jerome Bruner. However, Bruce Joyce & Marsha Weil are widely recognized for their comprehensive work in classifying, describing, and popularizing various models of teaching, including Concept Attainment, in their influential book "Models of Teaching." It involves presenting a concept through examples and non-examples to help learners identify the concept's defining characteristics.

Matches with: Bruce Joyce & Marsha Weil as significant contributors, but Joyce & Weil as the primary proponents.

B. Jurisprudence Model:

Proponent: This model is associated with the "Social Learning Theory" of Albert Bandura, who is known for the concept of observational learning. It focuses on how individuals learn from the environment through the process of observing others. Bandura's work on the "Group Influence" and "Social Learning Theory" is central to this model. It emphasizes the role of social interactions and the environment in learning.

Matches with: Albert Bandura, as he is the primary proponent of the Social Learning Theory, even if not the direct developer of the Jurisprudence Model.

C. Inductive Model:

Proponent: This model was developed by Hilda Taba. It is a learning approach that organizes information from specific examples to general principles. It is often used in science and mathematics to help students understand abstract concepts by first observing concrete examples.

Matches with: Hilda Taba, as she is the primary proponent of the Inductive Model.

D. Synectics Model:

Proponent: This model was developed by William J. Gordon. It is a creative problem-solving approach that uses metaphors and analogies to foster innovative thinking. It is often used in business and education to help individuals see problems from new perspectives.

Matches with: William J. Gordon, as he is the primary proponent of the Synectics Model.

Q29.

Which of the

- A. Concurrent validity
- B. Content validity
- C. Predictive validity
- D. Face validity

Choose the correct answer from the options given below:

- (a) A and C only
- (b) B and D only
- (c) C and B only
- (d) C and D only

Answer:

A

Sol:

Criterion-related validity refers to how well a test predicts or correlates with an external criterion. It has two main types: Concurrent validity (the test correlates with a criterion measured at the same time) and Predictive validity (the test predicts future performance on a criterion). Both involve comparing test scores to an external standard or outcome.

Information Booster:

- Reliability (from the original question) refers to the consistency and stability of test scores across different conditions
- Internal consistency reliability measures whether items within a test measure the same construct (assessed through Split-half and KR-20/Cronbach's alpha)
- Validity refers to whether a test measures what it claims to measure
- Criterion-related validity examines how well test scores relate to concrete outcomes or criteria
- Concurrent validity is established when a test correlates with a criterion measured simultaneously
- Predictive validity is established when a test correlates with a criterion measured at a later date, such as future performance or behavior

Additional K

- Content validity refers to the extent to which the test covers the entire domain of the construct it is intended to measure
- Face validity refers to the extent to which the test appears to measure what it's supposed to measure
- Other types of validity include Construct validity (whether the test measures the intended construct) and consequential validity (whether the test has the intended consequences)
- Test-Retest reliability measures the consistency of test scores over time while Inter-rater/Score reliability measures the consistency of test scores between different raters or scorers

Q30. A and B have some money. If A gives Rs 5 to B, then the ratio of their money becomes 4 : 11. Initially, A and B have respectively?

- (a) Rs 54, Rs 9
- (b) Rs 3, Rs 9
- (c) Rs 9, Rs 54
- (d) Rs 8, Rs 54

Answer:

C

Sol:

Adda247

Initial ratio of A and B = 3 : 2

After A gives Rs 5 to B, the ratio becomes 4 : 11

We need to find the initial amounts of A and B.

Solution:

Let initial amounts be:

$$A = 3x, B = 2x$$

After A gives Rs 5 to B:

$$A = (3x - 5), B = (2x + 5)$$

New ratio:

$$\frac{3x - 5}{2x + 5} = \frac{4}{11}$$

$$11(3x - 5) = 4(2x + 5)$$

$$33x - 55 = 8x + 20$$

$$25x = 75$$

$$x = 3$$

Initial amounts:

$$A = 3x = \text{Rs. } 9, B = 2x = \text{Rs. } 6$$

Q31.

Which of the following statements A–D are correct?

A. The average of the numbers 18, 26, 32, 44 and 60 is 38.

B. If the marked price of an article is increased by 25% and then a discount of 20% is offered, the net effect is a 10% gain on cost price.

C. If $A : B = 3 : 4$ and $B : C = 6 : 5$, then $A : B : C = 9 : 12 : 10$.

D. A machine depreciates 10% in the first year and 20% in the second year. If initial value is Rs. 50,000, its value after 2 years is Rs. 36,000.

- (a) A and C only
 (b) C and D only
 (c) A, B and C only
 (d) A, B, C and D

Answer:

B

Sol:

Correct option: (b)

Solution:

A. Sum = $18 + 26 + 32 + 44 + 60 = 180$ Average = $180 \div 5 = 36 \neq 38 \rightarrow$ False

B. CP = 100 MP = $100 \times 1.25 = 125$ SP = $125 \times 0.80 = 100$ No gain $\rightarrow$ False

C. A:B = 3:4 $\rightarrow A = 3k, B = 4k$ B:C = 6:5 $\rightarrow B = 6m, C = 5m$ Equate B: $4k = 6m \rightarrow k = 3m/2$ A = $9/2 m, B = 6m, C = 5m$ Multiplying by 2 $\rightarrow 9, 12, 10$ True

D. After year

True statement

Q32. Match

List-I (Sampling Technique)	List-II (Applications)
A. Stratified Sampling	for large
B. Cluster Sampling	
C. Systematic Sampling	venient
D. Purposive Sampling	graphically

Codes:

- (a) A-2, B-4,
 (b) A-4, B-2,
 (c) A-2, B-1,
 (d) A-3, B-4,

Answer:

A

Sol:

Correct Option

Introduction: Sampling is a critical aspect of research design that determines both the efficiency of data collection and the generalizability of findings. Different sampling techniques serve different research purposes and constraints.

Information Booster:

A. Stratified Random Sampling (Matches with 2): Involves dividing population into homogeneous subgroups (strata) and randomly sampling from each. Ensures representation of all key segments (e.g., sampling equal numbers from different income groups).

B. Cluster Sampling (Matches with 4): Involves selecting natural groups (clusters) randomly and studying all members within chosen clusters. Cost-effective for geographically dispersed populations (e.g., selecting schools rather than individual students).

C. Systematic Sampling (Matches with 1): Involves selecting every nth element from a sampling frame after random start. Efficient for large populations but risks periodicity bias if patterns exist in the frame.

D. Purposive Sampling (Matches with 3): A non-probability technique involving selecting participants based on specific characteristics or knowledge. Prone to bias but useful for qualitative studies seeking information-rich cases.

Additional Knowledge:

Snowball sampling is another non-probability technique where existing participants recruit future participants, particularly useful for studying hidden populations. The sampling method choice depends on research objectives, resources, and required generalizability.

Q33.

Identify the correct statements regarding qualitative research:

A. In purposive sampling, participants are selected based on specific characteristics relevant to the study.

B. Triangulation

C. Member checking is a technique used to verify the accuracy of data.

D. Qualitative

Choose the correct

(a) A, B, and

(b) A, B, C, and

(c) B, C, and

(d) A, C, and

Answer:

B

Sol:

Qualitative research is a research approach aimed at understanding the meanings people attach to their experiences and actions. The correct answer includes (A) and (D).

Information

Purposive S

qualitative research involves (c) purposive sampling. Researchers select participants who possess specific characteristics or experiences that are relevant to the research question to ensure "information-rich" cases.

Triangulation (Statement B): To increase the credibility and trustworthiness of their findings, researchers use triangulation. This involves cross-checking data from multiple sources (e.g., conducting interview transcripts and analyzing documents).

Member Ch

researcher selects a participant to confirm if the researcher's interpretation aligns with the participant's perspective, thereby reducing researcher bias.

Ongoing Data Analysis (Statement D): In qualitative studies, data collection and analysis are not linear. Analysis often starts while data is still being collected. This "iterative" process allows the researcher to refine interview questions or pursue new leads based on early findings.

Additional Knowledge: Understanding the Depth of Qualitative Rigor

Subjectivity vs. Objectivity: While quantitative research strives for objectivity, qualitative research acknowledges the subjective nature of reality. The researcher is considered the primary instrument for data collection.

Saturation Point: Researchers continue sampling and collecting data until they reach "saturation," which is the point where no new information or themes are observed in the data.

Transferability vs. Generalizability: Qualitative research does not aim for statistical generalizability. Instead, it aims for transferability, providing enough "thick description" so that readers can determine if the findings apply to their own unique contexts.

Q34.

Arrange the following key events in the development and implementation of SWAYAM Prabha in chronological order:

1. GSAT-15 satellite launched
2. Launch of 32 SWAYAM Prabha DTH channels
3. BISAG-N starts central uplink services
4. National Education Policy 2020 recommends scaling up e-content channels

Choose the correct sequence:

- (a) 1 – 3 – 2 – 4
- (b) 2 – 1 – 4 – 3
- (c) 1 – 2 – 3 – 4
- (d) 3 – 1 – 2 – 4

Answer: A

Sol:

Correct Option:

Introduction of SWAYAM Prabha is a significant milestone in the development and policy milestones of the Ministry of Education, Government of India.

Information:

- (1) GSAT-15 satellite launched by ISRO in 2015, which provides the backbone for broadcasting.
- (2) Launch of 32 SWAYAM Prabha DTH channels in 2016, enabling the broadcasting of content from various educational institutions.
- (3) BISAG-N starts central uplink services in 2017, facilitating the scaling up of content from various platforms.
- (4) NEP 2020 recommends scaling up e-content channels, leading to the launch of SWAYAM Prabha.

Additional Information:

The launch of SWAYAM Prabha is a significant milestone in the development and policy milestones of the Ministry of Education, Government of India. The launch of SWAYAM Prabha is a significant milestone in the development and policy milestones of the Ministry of Education, Government of India. BISAG-N provides the technical support and groundwork. NEP 2020 further emphasizes the need to scale up such initiatives.

