MAH B.P.Ed CET — Complete Sample Paper

Sample Paper — 1

Duration: 60 Minutes **Maximum Marks: 50**

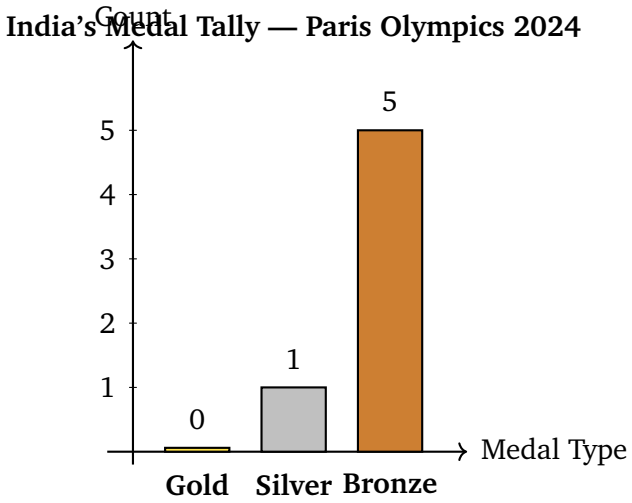
Instructions

- This paper contains **50 Multiple Choice Questions** modelled on the **MAH B.P.Ed CET** written test pattern.
- **Part A**: General Knowledge (Q1–Q15) | **Part B**: Mental Ability (Q16–Q30) | **Part C**: Teacher Aptitude & Sports Related Knowledge (Q31–Q50).
- Each correct answer carries **+1 mark**. There is **no negative marking**.
- Only **one** option is correct per question. Choose carefully.
- No sectional time limit; move freely between parts. Total time: **60 minutes**.
- Mobile phones, calculators, and electronic gadgets are strictly prohibited.

Part A: General Knowledge

| Q1–Q15 | 15 Marks

Q1. At the Paris Olympics 2024, India's medal tally comprised 0 Gold, 1 Silver, and 5 Bronze medals. What was India's **total** medal count at the Paris Olympics 2024?



(A) 4

(B) 6

(C) 7

(D) 3

Q2. The Major Dhyan Chand Khel Ratna Award 2023 was jointly awarded to Chirag Shetty and Satwiksairaj Rankireddy for their outstanding performance in which sport?

(A) Badminton

(B) Tennis

(C) Table Tennis

(D) Squash

Q3. Which country won the ICC Men's Cricket World Cup 2023, defeating India in the final at Narendra Modi Stadium, Ahmedabad?

(A) India

(B) South Africa

(C) Australia

(D) New Zealand

Q4. The Nobel Prize in Physics 2023 was awarded for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter. Which of the following correctly identifies the 2023 Nobel Laureates in Physics?

(A) Alain Aspect, John Clauser and Anton Zeilinger

(B) Syukuro Manabe, Klaus Hasselmann and Giorgio Parisi

(C) Roger Penrose, Reinhard Genzel and Andrea Ghez

(D) Pierre Agostini, Ferenc Krausz and Anne L'Huillier

Q5. At the Asian Games 2023 held in Hangzhou, China, India had a historic performance, winning 107 medals in total. What was India's overall rank in the medals tally at Hangzhou 2023?

(A) 3rd

(B) 4th

(C) 5th

(D) 6th

Q6. In January 2024, the Government of India announced Bharat Ratna awards to several eminent personalities. Who was the **first** recipient announced for the Bharat Ratna 2024, awarded posthumously?

(A) Karpoori Thakur

(B) L. K. Advani

(C) P. V. Narasimha Rao

(D) Chaudhary Charan Singh

Q7. In which year did the Battle of Plassey take place, marking a decisive turning point in the establishment of British colonial power in India?

(A) 1764

(B) 1742

(C) 1757

(D) 1775

Q8. The Western Ghats mountain range, a UNESCO World Heritage Site, is also popularly known as:

(A) Aravalli

(B) Vindhyas

(C) Satpura

(D) Sahyadri

Q9. Which river is considered the longest river flowing through the state of Maharashtra, and is also the second-longest river in India?

(A) Godavari

(B) Krishna

(C) Tapi

(D) Bhima

Q10. Mahatma Gandhi launched the historic Quit India Movement against British rule in India with the call "Do or Die." In which year was this movement launched?

(A) 1930

(B) 1940

(C) 1942

(D) 1947

Q11. What is the official State Bird of Maharashtra?

(A) Great Indian Bustard

(B) Yellow-footed Green Pigeon (Hariyal)

(C) Indian Peacock

(D) Flamingo

Q12. India's Chandrayaan-3 mission created history in August 2023 by achieving a successful soft landing near the south pole of the Moon. Which component of the Chandrayaan-3 mission executed this soft landing?

(A) Vikram lander

(B) Pragyan orbiter

(C) Aditya module

(D) Mangalyaan probe

Q13. In which year was the Digital India programme officially launched by the Government of India to transform India into a digitally empowered society?

(A) 2012

(B) 2013

(C) 2014

(D) 2015

Q14. The Right to Education (RTE) Act, 2009, guarantees free and compulsory education to all children of India. Up to which class does the RTE Act provide this guarantee?

(A) Class 5

(B) Class 6

(C) Class 8

(D) Class 10

Q15. Following the reorganisation of Jammu & Kashmir into two Union Territories (Jammu & Kashmir and Ladakh) in October 2019, how many states does India officially have as of 2024?

(A) 29

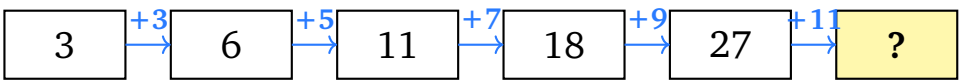
(B) 28

(C) 27

(D) 30

Part B: Mental Ability | Q16–Q30 | 15 Marks

Q16. Study the following number series carefully and find the missing number:



3, 6, 11, 18, 27, __?

(A) 36

(B) 38

(C) 40

(D) 35

Q17. Choose the correct answer to complete the analogy: **BD : CE :: FH : ?**

(A) GI

(B) HJ

(C) GJ

(D) FI

Q18. Choose the word that best completes the analogy: **Teacher : School :: Doctor : ?**

(A) Medicine

(B) Clinic

(C) Hospital

(D) Patient

Q19. From the following set of numbers, find the one that does **NOT** belong to the same group as the others: **4, 9, 16, 23, 25**

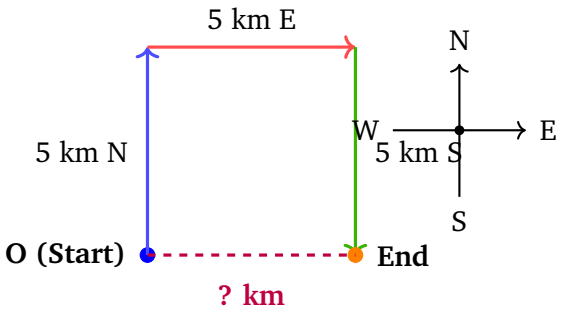
(A) 4

(B) 9

(C) 16

(D) 23

Q20. A person starts from point O, walks **5 km North**, then turns **East** and walks **5 km**, then turns **South** and walks **5 km**. How far is the person from the starting point, and in which direction?



(A) 0 km (back at starting point)

(B) 5 km East

(C) 5 km West

(D) $5\sqrt{2}$ km North-East

Q21. Find the missing number in the following matrix:

2	4	8
3	9	27
4	16	?

(A) 64

(B) 32

(C) 48

(D) 12

Q22. In a certain code language, **CAT** is written as **DBU**. Using the same coding rule, how would **DOG** be written in that code?

(A) EPF

(B) ENH

(C) EPH

(D) DPH

Q23. What is the next letter in the following series? **B, D, G, K, P, __?**

(A) T

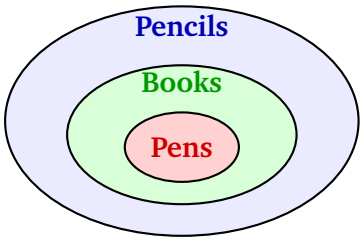
(B) U

(C) W

(D) V

Q24. Consider the following statements and identify the conclusion that **definitely follows**:

Statement 1: All pens are books.
Statement 2: All books are pencils.



(A) All pens are pencils

(B) All pencils are books

(C) All books are pens

(D) Some pencils are not books

Q25. Pointing to a girl in a photograph, Raju said, "She is the daughter of my father's only son." How is the girl related to Raju?

(A) Sister

(B) Niece

(C) Daughter

(D) Cousin

Q26. In a class, Priya is ranked **8th from the top** and **5th from the bottom**. How many students are there in the class?

(A) 11

(B) 12

(C) 13

(D) 10

Q27. Choose the number that best completes the analogy: **5 : 25 :: 8 : ?**

(A) 64

(B) 40

(C) 56

(D) 80

Q28. When a plane mirror is placed **vertically on the right** side of the word **PLAIN**, which of the following represents the correct mirror image?

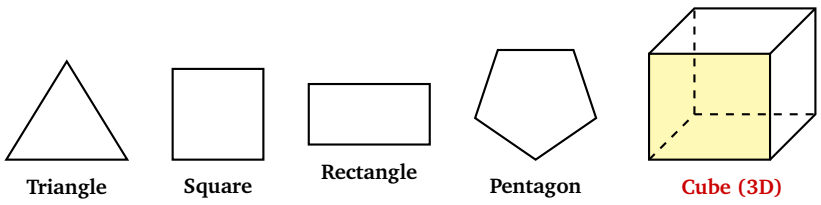
(A) NILAP

(B) PLANI

(C) NIAJP

(D) NIALP

Q29. Which of the following is the **odd one out**?



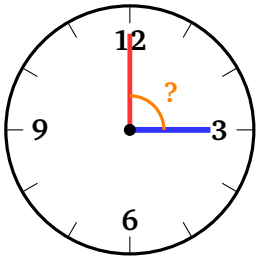
(A) Triangle

(B) Pentagon

(C) Cube

(D) Rectangle

Q30. What is the angle between the **minute hand** and the **hour hand** of a clock at exactly **3:00**?



(A) 45°

(B) 90°

(C) 120°

(D) 180°

Part C: Teacher Aptitude & Sports Related Knowledge | Q31–Q50 | 20 Marks

Q31. How many players are there on each side in a standard volleyball match?

(A) 7

(B) 5

(C) 9

(D) 6

Q32. What is the standard duration (in minutes) of a football (soccer) match, excluding any extra time or penalty shootout?

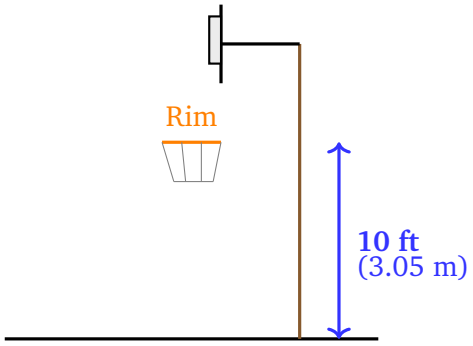
(A) 90

(B) 80

(C) 60

(D) 120

Q33. According to official basketball regulations, at what height (measured from the floor) is the basketball rim (basket) mounted?



Basketball Basket — Side View

(A) 8 feet

(B) 9 feet

(C) 10 feet

(D) 12 feet

Q34. What is the length of a standard cricket pitch from one set of stumps to the other?

(A) 20 yards

(B) 22 yards

(C) 24 yards

(D) 18 yards

Q35. How many players are permitted on the mat per team during a Kabaddi match as per standard rules?

(A) 7

(B) 6

(C) 9

(D) 5

Q36. How many feathers are there in a regulation badminton shuttlecock?

(A) 12

(B) 14

(C) 15

(D) 16

Q37. The **FITT principle** is a fundamental framework used in exercise prescription. What does the letter **'I'** stand for in the FITT principle?

F	— Frequency (How often)
I	**— Intensity ⟵ *this question***
T	— Time (Duration)
T	— Type (Mode of exercise)

(A) Interval

(B) Integration

(C) Intensity

(D) Impact

Q38. Which component of **health-related physical fitness** refers to the maximum force that a muscle or muscle group can exert against resistance in a single maximal effort?

(A) Muscular Endurance

(B) Muscular Strength

(C) Cardiovascular Fitness

(D) Flexibility

Q39. In biomechanics, when performing a bicep curl (lifting a weight with the forearm), the forearm functions as which **class of lever**?

(A) Third class lever

(B) First class lever

(C) Second class lever

(D) Fourth class lever

Q40. According to Fitts and Posner's three-stage model of motor learning, what is the name of the **first (initial) stage** of skill acquisition?

(A) Associative stage

(B) Autonomous stage

(C) Reflex stage

(D) Cognitive stage

Q41. In Mosston's Spectrum of Teaching Styles, which style gives **maximum authority to the teacher** with **minimum decision-making** by the student during the lesson?

(A) Practice style

(B) Reciprocal style

(C) Command style

(D) Discovery style

Q42. Surya Namaskar (Sun Salutation) is a classical yoga sequence. How many postures (asanas / steps) are there in one complete cycle of Surya Namaskar?

(A) 8

(B) 12

(C) 16

(D) 24

Q43. Which international body serves as the **global governing organisation** for the sport of Athletics (Track and Field)?

(A) World Athletics (formerly IAAF)

(B) FIFA

(C) IOC (International Olympic Committee)

(D) BWF (Badminton World Federation)

Q44. Which Indian cricketer received the prestigious **Arjuna Award in 2023** for his outstanding performance, including a stellar showing in the ICC Cricket World Cup 2023?

(A) Rohit Sharma

(B) Virat Kohli

(C) Jasprit Bumrah

(D) Mohammed Shami

Q45. Who received the **Dronacharya Award 2023** (regular category) for outstanding contribution to coaching in **Boxing**?

(A) Gurbax Singh Sandhu

(B) Mahavir Singh Phogat

(C) Lalit Kumar

(D) Hawa Singh

Q46. The **Commonwealth Games 2022** were hosted by which city in the United Kingdom?

(A) Birmingham

(B) Manchester

(C) London

(D) Glasgow

Q47. The **Dhyan Chand Award** is India's highest honour for lifetime achievement in which field?

(A) Outstanding coaching in sports

(B) Sports and games (lifetime achievement)

(C) Promotion of sports among school children

(D) Excellence in a single international sporting event

Q48. Which player won the **Golden Boot** at the FIFA World Cup 2022 in Qatar by scoring the most goals in the tournament (8 goals)?

(A) Lionel Messi (Argentina)

(B) Olivier Giroud (France)

(C) Richarlison (Brazil)

(D) Kylian Mbappé (France)

Q49. The Hockey India League (HIL) was revived after a prolonged hiatus. In which year was the Hockey India League **resumed/revived**?

(A) 2022

(B) 2023

(C) 2024

(D) 2025

Q50. India's star athlete **Neeraj Chopra** won a **silver medal** at the Paris Olympics 2024. In which athletic event did he compete?

(A) Javelin Throw

(B) Shot Put

(C) Discus Throw

(D) Hammer Throw

Detailed Solutions — Sample Paper 1 of 8

Solution 1.

Solution

Topic: Paris Olympics 2024 — India's Medal Tally

India competed at the Paris Olympics 2024 (26 July – 11 August 2024) and won a total of **6 medals**: 0 Gold, 1 Silver (Neeraj Chopra, Javelin Throw), and 5 Bronze medals (Manu Bhaker in Shooting $\times 2$, Swapnil Kusale in Shooting, Indian Hockey team, Aman Sehrawat in Wrestling). Thus the total is $0 + 1 + 5 = \mathbf{6}$.

Why other options are wrong:

- Option (A) 4: Incorrect; India won more than 4 medals (5 bronze alone).
- Option (C) 7: Incorrect; India's tally was 6, not 7.
- Option (D) 3: Incorrect; India won 6 medals in total.

Answer: (B) Go Back to Q 1

Solution 2.

Solution

Topic: Major Dhyan Chand Khel Ratna Award 2023

The Major Dhyan Chand Khel Ratna Award is India's highest sports honour. In 2023, the award was jointly conferred on **Chirag Shetty** and **Satwiksairaj Rankireddy** for their outstanding achievements in **Badminton**. The duo won the BWF World Championships doubles title and numerous Super 500/750 titles in 2023.

Why other options are wrong:

- Option (B) Tennis: Chirag and Satwik are badminton players, not tennis.
- Option (C) Table Tennis: Incorrect sport; they play court badminton.
- Option (D) Squash: Incorrect; they represent India in badminton doubles.

Answer: (A) Go Back to Q 2

Solution 3.

Solution

Topic: ICC Men's Cricket World Cup 2023

The ICC Men's Cricket World Cup 2023 was hosted by India. **Australia** defeated India in the final held at the Narendra Modi Stadium, Ahmedabad on 19 November 2023, winning by 6 wickets. Australia thus claimed their sixth ODI World Cup title.

Why other options are wrong:

- Option (A) India: India reached the final but lost to Australia.
- Option (B) South Africa: South Africa did not reach the final; they lost in the semi-finals.
- Option (D) New Zealand: New Zealand did not make the final in 2023.

Answer: (C) Go Back to Q 3

Solution 4.

Solution

Topic: Nobel Prize in Physics 2023

The Royal Swedish Academy of Sciences awarded the 2023 Nobel Prize in Physics to **Pierre Agostini**, **Ferenc Krausz**, and **Anne L'Huillier** for their experimental methods that generate **attosecond pulses of light** for the study of electron dynamics in matter. (1 attosecond $= 10^{-18}$ seconds.)

Why other options are wrong:

- Option (A): Aspect, Clauser, Zeilinger won the 2022 Nobel Physics Prize (quantum entanglement).
- Option (B): Manabe, Hasselmann, Parisi won the 2021 Nobel Physics Prize (complex systems).
- Option (C): Penrose, Genzel, Ghez won the 2020 Nobel Physics Prize (black holes).

Answer: (D) Go Back to Q 4

Solution 5.

Solution

Topic: Asian Games 2023 — India's Rank

The 19th Asian Games were held in Hangzhou, China (September–October 2023). India had a record-breaking performance, winning **107 medals** (28 Gold, 38 Silver, 41 Bronze) and finishing **4th** in the overall medals tally, behind China (1st), Japan (2nd), and South Korea (3rd).

Why other options are wrong:

- Option (A) 3rd: South Korea finished 3rd, not India.
- Option (C) 5th: India surpassed expectations and finished 4th.
- Option (D) 6th: India's performance was significantly better than 6th place.

Answer: (B) Go Back to Q 5

Solution 6.

Solution

Topic: Bharat Ratna 2024 — First Recipient

On 23 January 2024 (Netaji Subhas Chandra Bose Jayanti), the Government of India announced the Bharat Ratna for **Karpoori Thakur** (1924–1988), former Chief Minister of Bihar, to be conferred posthumously. He was the **first** of the five 2024 Bharat Ratna recipients to be announced.

Why other options are wrong:

- Option (B) L. K. Advani: He also received Bharat Ratna 2024, but was announced later.
- Option (C) P. V. Narasimha Rao: Also a 2024 recipient, announced after Karpoori Thakur.
- Option (D) Chaudhary Charan Singh: Also a 2024 recipient, announced subsequently.

Answer: (A) Go Back to Q 6

Solution 7.

Solution

Topic: Battle of Plassey — Year

The Battle of Plassey was fought on **23 June 1757** between the forces of the British East India Company, led by Robert Clive, and the Nawab of Bengal, Siraj-ud-Daulah. The British victory effectively began the colonial era in the Indian subcontinent.

Why other options are wrong:

- Option (A) 1764: The Battle of Buxar was fought in 1764, not Plassey.
- Option (B) 1742: This predates both major battles; no significant British-Indian conflict in 1742.
- Option (D) 1775: The First Anglo-Maratha War began in 1775; Plassey was in 1757.

Answer: (C) Go Back to Q 7

Solution 8.

Solution

Topic: Western Ghats — Alternative Name

The Western Ghats mountain range running along India's western coast is traditionally and popularly known as **Sahyadri** (meaning "the benevolent mountains" in Sanskrit). It was designated a UNESCO World Heritage Site in 2012 for its exceptional biodiversity.

Why other options are wrong:

- Option (A) Aravalli: The Aravalli Range runs through Rajasthan and Gujarat — entirely separate.
- Option (B) Vindhyas: The Vindhya Range runs across central India (east–west).
- Option (C) Satpura: The Satpura Range is in central India (Madhya

Pradesh, Maharashtra border).

Answer: (D) Go Back to Q 8

Solution 9.

Solution

Topic: Longest River of Maharashtra

The **Godavari** river, with a total length of approximately **1,465 km**, is the longest river that flows through Maharashtra and is also the second-longest river in India (after the Ganga). It originates at Trimbakeshwar in Nashik district and flows into the Bay of Bengal.

Why other options are wrong:

- Option (B) Krishna: Shorter than Godavari and flows mainly through Telangana, Karnataka, and Andhra Pradesh.
- Option (C) Tapi: Much shorter; flows westward and originates in Madhya Pradesh.
- Option (D) Bhima: A tributary of the Krishna; not the longest river of Maharashtra.

Answer: (A) Go Back to Q 9

Solution 10.

Solution

Topic: Quit India Movement — Year

Mahatma Gandhi launched the **Quit India Movement** (Bharat Chhodo Andolan) on **8 August 1942** at the Bombay session of the All India Congress Committee, giving the rallying cry "*Do or Die*" (*Karenge ya Marenge*). The British responded by immediately arresting Gandhi and major Congress leaders.

Why other options are wrong:

- Option (A) 1930: Gandhi launched the Civil Disobedience Movement / Salt March (Dandi March) in 1930.

- Option (B) 1940: The Individual Satyagraha movement was launched in 1940.
- Option (D) 1947: This is the year India gained independence, not the year of the movement.

Answer: (C) Go Back to Q 10

Solution 11.

Solution

Topic: State Bird of Maharashtra

The official **State Bird of Maharashtra** is the **Yellow-footed Green Pigeon**, known locally as **Hariyal** (*Treron phoenicoptera*). It is a colourful bird found across the Indian subcontinent and symbolises the rich avifauna of Maharashtra.

Why other options are wrong:

- Option (A) Great Indian Bustard: It is the State Bird of Rajasthan, not Maharashtra.
- Option (C) Indian Peacock: The Peacock is India's National Bird, not Maharashtra's State Bird.
- Option (D) Flamingo: Flamingos are winter visitors to Maharashtra but are not the State Bird.

Answer: (B) Go Back to Q 11

Solution 12.

Solution

Topic: Chandrayaan-3 — Soft Landing Component

India's Chandrayaan-3 mission achieved a historic **soft landing near the Moon's south pole** on **23 August 2023** (now celebrated as National Space Day in India). The component that executed the landing is called the **Vikram lander**, which subsequently deployed the **Pragyan rover** to explore the lunar surface. ISRO named the landing site "Shiv Shakti Point."

Why other options are wrong:

- Option (B) Pragyan orbiter: Pragyan is the rover (not an orbiter); it was deployed by Vikram.
- Option (C) Aditya module: Aditya-L1 is a separate solar mission, not part of Chandrayaan-3.
- Option (D) Mangalyaan probe: Mangalyaan (Mars Orbiter Mission) was India's Mars mission, launched in 2013.

Answer: (A) Go Back to Q 12

Solution 13.

Solution

Topic: Digital India Programme — Launch Year

The **Digital India** programme was officially launched by Prime Minister Narendra Modi on **1 July 2015** at Indira Gandhi Indoor Stadium, New Delhi. The programme aims to transform India into a digitally empowered society and knowledge economy. July 1 is now observed as "Digital India Day."

Why other options are wrong:

- Option (A) 2012: Digital India had not been conceptualised by 2012.
- Option (B) 2013: The programme was not in existence in 2013.
- Option (C) 2014: The NDA government came to power in 2014; Digital India was launched the following year.

Answer: (D) Go Back to Q 13

Solution 14.

Solution

Topic: Right to Education Act, 2009 — Coverage

The Right of Children to Free and Compulsory Education (RTE) Act, 2009 guarantees **free and compulsory education to all children between the ages of 6 and 14**, which corresponds to **Class 1 through Class 8** (elementary education). It is a fundamental right under Article 21-A of the Indian Constitution.

Why other options are wrong:

- Option (A) Class 5: The RTE Act covers up to Class 8, not just Class 5.
- Option (B) Class 6: Incorrect; coverage extends through Class 8.
- Option (D) Class 10: The Act covers elementary education (up to Class 8), not secondary.

Answer: (C) Go Back to Q 14

Solution 15.

Solution

Topic: Number of States in India (2024)

On 31 October 2019, the erstwhile state of Jammu & Kashmir was bifurcated into two Union Territories: **Jammu & Kashmir** (with a legislature) and **Ladakh** (without a legislature). This reduced the number of states from 29 to **28 states**, while the total number of UTs increased to 8. As of 2024, India has **28 states**.

Why other options are wrong:

- Option (A) 29: India had 29 states before the J&K reorganisation in October 2019.
- Option (C) 27: No state has been further bifurcated since 2019; the count remains 28.
- Option (D) 30: Incorrect; no new state was created to raise the count to 30.

Answer: (B) Go Back to Q 15

Solution 16.

Solution

Topic: Number Series — Finding the Missing Term

The differences between consecutive terms form an arithmetic sequence of **odd numbers**:

$$6-3=3, \quad 11-6=5, \quad 18-11=7, \quad 27-18=9, \quad ?-27=11$$

The differences are $3, 5, 7, 9, 11, \ldots$ (increasing by 2 each time).
Therefore, the next term $= 27 + 11 =$ **38**.

Why other options are wrong:

- Option (A) 36: Would require $27 + 9 = 36$ (repeating the previous difference, not the next).
- Option (C) 40: Would require a difference of 13, which skips one term in the pattern.
- Option (D) 35: $27 + 8 = 35$; the difference 8 does not fit the odd-number pattern.

Answer: (B) Go Back to Q 16

Solution 17.

Solution

Topic: Letter Analogy — Alphabetic Shift

The rule: each letter in the pair is shifted **one position forward** in the alphabet.

$$\text{BD} \rightarrow \text{CE}: \quad B+1=C,\ D+1=E$$

Applying the same rule to FH:

$$\text{FH} \rightarrow \text{GI}: \quad F+1=G,\ H+1=I$$

Therefore, the answer is **GI**.

Why other options are wrong:

- Option (B) HJ: $H = F+2$ (two shifts, not one); rule is +1, not +2.
- Option (C) GJ: G is correct but J= $H + 2$ (H should shift only by 1

to give I).

- Option (D) FI: F is the same as the original (no shift applied to first letter).

Answer: (A) Go Back to Q 17

Solution 18.

Solution

Topic: Word Analogy — Place of Work

The relationship is: **[Professional] works in [Workplace]**.

$$\text{Teacher} : \text{School} \quad \Rightarrow \quad \text{Doctor} : \text{Hospital}$$

A doctor's primary workplace is a **Hospital** where they diagnose and treat patients.

Why other options are wrong:

- Option (A) Medicine: Medicine is a subject/field, not a workplace.
- Option (B) Clinic: A clinic is a smaller setup; *hospital* is the standard and more complete analogy to *school*.
- Option (D) Patient: A patient is the person treated, not the place of work.

Answer: (C) Go Back to Q 18

Solution 19.

Solution

Topic: Odd One Out — Perfect Squares

Identify each number's property:

$$4 = 2^2, \quad 9 = 3^2, \quad 16 = 4^2, \quad 25 = 5^2$$

All of $4, 9, 16, 25$ are **perfect squares**. However, **23 is not a perfect square** ($4^2 = 16 < 23 < 25 = 5^2$). Therefore, 23 is the odd one out.

Why other options are wrong:

- Option (A) 4: $4 = 2^2$; it belongs to the group of perfect squares.
- Option (B) 9: $9 = 3^2$; it is a perfect square.
- Option (C) 16: $16 = 4^2$; it is a perfect square.

Answer: (D) Go Back to Q 19

Solution 20.

Solution

Topic: Direction Sense — Net Displacement

Trace the path starting from O$(0, 0)$:

(a) 5 km **North** $\Rightarrow$ reaches $(0,\ 5)$

(b) 5 km **East** $\Rightarrow$ reaches $(5,\ 5)$

(c) 5 km **South** $\Rightarrow$ reaches $(5,\ 0)$

Final position: $(5, 0)$. Starting position: $(0, 0)$.
Net displacement $= \sqrt{5^2 + 0^2} = 5$ km, in the **East** direction.

The North and South legs cancel each other (both 5 km), leaving only the East displacement of 5 km.

Why other options are wrong:

- Option (A) 0 km: The East leg creates a net 5 km displacement; not back at start.
- Option (C) 5 km West: The person moved East, so end point is East of start.
- Option (D) $5\sqrt{2}$ km NE: There is no diagonal; N and S cancel, leaving a pure East displacement.

Answer: (B) Go Back to Q 20

Solution 21.

Solution

Topic: Matrix Number Pattern — Powers

Each row follows the pattern: $n^1,\ n^2,\ n^3$:

$$\text{Row 1} : 2,\ 4,\ 8 \quad (2^1,\ 2^2,\ 2^3)$$

$$\text{Row 2} : 3,\ 9,\ 27 \quad (3^1,\ 3^2,\ 3^3)$$

$$\text{Row 3} : 4,\ 16,\ ? \quad (4^1,\ 4^2,\ 4^3 = \mathbf{64})$$

Therefore the missing number is **64**.

Why other options are wrong:

- Option (B) 32: $32 = 2^5$; does not fit the pattern 4^3.
- Option (C) 48: $48 = 4 \times 12$; no relation to the cube pattern.
- Option (D) 12: $12 = 4 \times 3$; arbitrary, does not match the cube rule.

Answer: (A) Go Back to Q 21

Solution 22.

Solution

Topic: Letter Coding — Shift by +1

The coding rule is: **each letter is replaced by the next letter in the alphabet** (shift of $+1$).

$$\text{CAT} \to \text{DBU}: \quad C+1=D,\ A+1=B,\ T+1=U$$

Applying the same rule to DOG:

$$D+1=E, \quad O+1=P, \quad G+1=H \quad \Rightarrow \quad \textbf{EPH}$$

Why other options are wrong:

- Option (A) EPF: G$+1$ $=$ H, not F; the last letter is incorrectly shifted.
- Option (B) ENH: O$+1$ $=$ P, not N; the middle letter is incorrectly shifted.

- Option (D) DPH: D is unchanged (no shift applied to the first letter).

Answer: (C) Go Back to Q 22

Solution 23.

Solution

Topic: Letter Series — Increasing Differences in Position

Find the alphabetical position of each letter (A=1, B=2, . . . , Z=26):

$$B = 2, \quad D = 4, \quad G = 7, \quad K = 11, \quad P = 16$$

Differences between positions: $2, 3, 4, 5, \ldots$ (increasing by 1 each time).
Next difference $= 6$, so next position $= 16 + 6 = 22$.
The 22nd letter of the alphabet is **V**.

Why other options are wrong:

- Option (A) T: T is the 20th letter $(16 + 4 = 20)$; difference 4 was already used.
- Option (B) U: U is the 21st letter $(16 + 5 = 21)$; difference 5 was already used.
- Option (C) W: W is the 23rd letter $(16 + 7 = 23)$; skips the required difference of 6.

Answer: (D) Go Back to Q 23

Solution 24.

Solution

Topic: Syllogism — Set Relationships

From the two statements:

- Statement 1: All pens are books $\Rightarrow$ Pens $\subseteq$ Books
- Statement 2: All books are pencils $\Rightarrow$ Books $\subseteq$ Pencils

By transitivity: Pens $\subseteq$ Books $\subseteq$ Pencils $\Rightarrow$ **All pens are pencils** (Conclusion 1 is valid).

Why other options are wrong:

- Option (B) All pencils are books: Pencils include books but may also include non-books; not necessarily true.
- Option (C) All books are pens: The implication goes Pens $\rightarrow$ Books, not Books $\rightarrow$ Pens.
- Option (D) Some pencils are not books: This contradicts Statement 2 (all books ARE pencils, but pencils could have more members).

Answer: (A) Go Back to Q 24

Solution 25.

Solution

Topic: Blood Relations — Decoding Relationships

Parse the statement step by step:

(a) "My father's only son" $\Rightarrow$ Raju himself (since his father has only one son).

(b) "She is the daughter of my father's only son" $\Rightarrow$ She is the daughter of Raju.

Therefore, the girl is Raju's **Daughter**.

Why other options are wrong:

- Option (A) Sister: A sister would be a daughter of Raju's father, not of Raju himself.
- Option (B) Niece: A niece would be the daughter of Raju's sibling; Raju is an only son.
- Option (D) Cousin: A cousin would be the child of Raju's uncle/aunt; no such relation is described.

Answer: (C) Go Back to Q 25

Solution 26.

Solution

Topic: Ranking — Total Students in Class

When a student is ranked r_1 from the top and r_2 from the bottom, the total number of students is:

$$\text{Total} = r_1 + r_2 - 1 = 8 + 5 - 1 = \mathbf{12}$$

(Subtracting 1 avoids counting Priya herself twice.)

Why other options are wrong:

- Option (A) 11: Would mean $8 + 5 - 2 = 11$; incorrect formula.
- Option (C) 13: Would mean $8 + 5 = 13$; counts Priya twice.
- Option (D) 10: Does not correspond to any valid formula with these ranks.

Answer: (B) Go Back to Q 26

Solution 27.

Solution

Topic: Number Analogy — Square Numbers

The relationship is: **each number is squared**.

$$5 : 25 \quad (5^2 = 25) \quad \Rightarrow \quad 8 : ? \quad (8^2 = \mathbf{64})$$

Why other options are wrong:

- Option (B) 40: $40 = 8 \times 5$ (multiplying by 5, not squaring).
- Option (C) 56: $56 = 8 \times 7$; no valid rule connects 5:25 with the same multiplier.
- Option (D) 80: $80 = 8 \times 10$; does not match the squaring pattern.

Answer: (A) Go Back to Q 27

Solution 28.

Solution

Topic: Mirror Image — Vertical Mirror on the Right

When a vertical mirror is placed on the **right side** of a word, the word appears in **reverse left-to-right order** in the mirror image. The rightmost letter of the original becomes the leftmost letter in the reflection:

$$\text{P} - \text{L} - \text{A} - \text{I} - \text{N} \xrightarrow{\text{mirror}} \text{N} - \text{I} - \text{A} - \text{L} - \text{P} = \textbf{NIALP}$$

Why other options are wrong:

- Option (A) NILAP: Third letter is L, but A should come third (N-I-A-L-P is correct).
- Option (B) PLANI: This is a rearrangement, not a true mirror reflection (reversal).
- Option (C) NIAJP: The fourth letter J is wrong; it should be L (from original PLAIN).

Answer: (D) Go Back to Q 28

Solution 29.

Solution

Topic: Odd One Out — Dimensions of Shapes

The classification is based on **dimensions**:

- Triangle, Square, Rectangle, Pentagon $\Rightarrow$ all are **2-Dimensional (flat)** plane figures.
- **Cube** $\Rightarrow$ a **3-Dimensional** solid figure with 6 faces, 12 edges, and 8 vertices.

The Cube is the odd one out because it is the only 3D figure in the group.

Why other options are wrong:

- Option (A) Triangle: A 2D figure with 3 sides; belongs to the group.
- Option (B) Pentagon: A 2D figure with 5 sides; belongs to the group.

- Option (D) Rectangle: A 2D quadrilateral; belongs to the group.

Answer: (C) Go Back to Q 29

Solution 30.

Solution

Topic: Clock Angles — Angle at 3:00

At **3:00**:

- The **minute hand** points to **12** (top of the clock, $0°$).
- The **hour hand** points to **3** (right side, $90°$ from 12).

The clock is divided into 12 equal segments. Each hour mark is $360°/12 = 30°$ apart. From 12 to 3 is **3 segments**:

$$3 \times 30° = \mathbf{90°}$$

Why other options are wrong:

- Option (A) $45°$: This would be the angle at 1:30, not 3:00.
- Option (C) $120°$: This is the angle between hands at 4:00.
- Option (D) $180°$: This is the angle at 6:00 (hands are opposite each other).

Answer: (B) Go Back to Q 30

Solution 31.

Solution

Topic: Volleyball — Players per Side

According to FIVB (Federation Internationale de Volleyball) rules, a standard volleyball team consists of **6 players per side** on the court at any given time: 3 front-row players and 3 back-row players. A team roster may have up to 12 players, but only 6 play at once.

Why other options are wrong:

- Option (A) 7: Beach Volleyball has 2 players per side; 7 is not a standard volleyball format.
- Option (B) 5: 5 players per side is the format for Basketball, not Volleyball.
- Option (C) 9: 9-a-side volleyball (nine-man) exists but is non-standard; FIVB standard is 6.

Answer: (D) Go Back to Q 31

Solution 32.

Solution

Topic: Football — Standard Match Duration

A standard football (soccer) match consists of **two halves of 45 minutes** each, totalling **90 minutes** of regulation play. Stoppage time (injury time) may be added by the referee, and extra time / penalty shootouts apply only in knockout rounds.

Why other options are wrong:

- Option (B) 80 minutes: This is the duration of a Rugby Union match (2×40 min).
- Option (C) 60 minutes: This is the duration of some indoor/futsal variants.
- Option (D) 120 minutes: This is the total duration including two periods of extra time in knockout rounds.

Answer: (A) Go Back to Q 32

Solution 33.

Solution

Topic: Basketball — Basket (Rim) Height

As per official NBA and FIBA regulations, the **basketball rim (basket) is mounted at a height of exactly 10 feet (approximately 3.05 metres) from the playing floor**. This standard is universal across professional, collegiate, and most amateur levels of the game.

Why other options are wrong:

- Option (A) 8 feet: Used in junior/youth basketball programmes to lower difficulty.
- Option (B) 9 feet: Sometimes used for young children; not the official FIBA/NBA standard.
- Option (D) 12 feet: Higher than the official standard; not used in any regulation game.

Answer: (C) Go Back to Q 33

Solution 34.

Solution

Topic: Cricket — Pitch Length

As defined by the Laws of Cricket (MCC), the distance between the two sets of stumps (the cricket pitch) is **22 yards** (approximately **20.12 metres**). This measurement has been standardised since the earliest codified Laws of Cricket (1744).

Why other options are wrong:

- Option (A) 20 yards: Slightly shorter than the standard pitch; not the correct measurement.
- Option (C) 24 yards: Longer than the official measurement.
- Option (D) 18 yards: Used for shorter-format or junior cricket; not the standard.

Answer: (B) Go Back to Q 34

Solution 35.

Solution

Topic: Kabaddi — Players on the Mat

According to Kabaddi Federation of India and Amateur Kabaddi Federation of India rules, each team fields **7 players** on the mat during a match. The squad may have up to 12 players, but only 7 play at a time. The Pro Kabaddi League (PKL) follows the same standard.

Why other options are wrong:

- Option (B) 6: Six-a-side Kabaddi exists in modified formats but is not the standard.
- Option (C) 9: Nine players per side is used in some local variants, not the national/international standard.
- Option (D) 5: Five-a-side formats exist for certain youth categories; not the standard.

Answer: (A) Go Back to Q 35

Solution 36.

Solution

Topic: Badminton — Feathers in a Shuttlecock

A regulation feather shuttlecock (as defined by the Badminton World Federation) must have exactly **16 feathers** fixed into a rounded cork base. The feathers are traditionally made from the left wing of a goose or duck and are arranged in a circular cone shape.

Why other options are wrong:

- Option (A) 12: Fewer than the regulation count; a 12-feather shuttle is non-standard.
- Option (B) 14: Not the correct BWF-specified number.
- Option (C) 15: One short of the regulation count of 16.

Answer: (D) Go Back to Q 36

Solution 37.

Solution

Topic: FITT Principle — Meaning of 'I'

The FITT principle is a foundational exercise science framework:

- **F** = Frequency (how many times per week)
- **I** = **Intensity** (how hard the exercise is – measured by heart rate, RPE, or % of 1RM)
- **T** = Time/Duration (how long each session lasts)
- **T** = Type/Mode (what kind of exercise is performed)

The letter 'I' stands for **Intensity**.

Why other options are wrong:

- Option (A) Interval: "Interval" is a training method (e.g., interval training), not the I in FITT.
- Option (B) Integration: Not a component of the FITT principle.
- Option (D) Impact: Not one of the FITT components; impact is a biomechanical concept.

Answer: (C) Go Back to Q 37

Solution 38.

Solution

Topic: Health-Related Physical Fitness — Muscular Strength

The five components of health-related physical fitness are: Cardiovascular Endurance, Muscular Strength, Muscular Endurance, Flexibility, and Body Composition.

Muscular Strength is defined as the *maximum force a muscle or muscle group can produce in a single maximal contraction against resistance* (e.g., one-repetition maximum / 1RM in weight training).

Why other options are wrong:

- Option (A) Muscular Endurance: The ability to perform repeated contractions over time — different from a single maximal effort.

- Option (C) Cardiovascular Fitness: Relates to the heart and lungs' ability to deliver oxygen during sustained exercise.
- Option (D) Flexibility: The range of motion around a joint; unrelated to muscular force.

Answer: (B) Go Back to Q 38

Solution 39.

Solution

Topic: Biomechanics — Class of Lever in Forearm (Bicep Curl)

In lever mechanics, a lever has three components: **Fulcrum (F)**, **Effort (E)**, and **Load (L)**.

Fulcrum = Elbow joint, Effort = Bicep muscle contraction, Load = Weight in the h

The arrangement is: **F – E – L** (Fulcrum at one end, Load at the other end, Effort in between). This is a **Third Class Lever**, where the effort is applied between the fulcrum and the load. Third-class levers are the most common in the human body; they sacrifice mechanical advantage for speed and range of motion.

Why other options are wrong:

- Option (B) First class lever: Arrangement F – E – L with fulcrum in the middle (e.g., seesaw, head nodding). Not the bicep curl.
- Option (C) Second class lever: Arrangement E – L – F with load in the middle (e.g., calf raise / standing on tiptoes). Not the bicep curl.
- Option (D) Fourth class lever: No such classification exists in standard biomechanics.

Answer: (A) Go Back to Q 39

Solution 40.

Solution

Topic: Fitts and Posner's Model of Motor Learning — First Stage

Fitts and Posner (1967) proposed three stages of motor skill acquisition:

(a) **Cognitive Stage** (Initial): Learner consciously thinks about every movement; makes frequent errors; relies on verbal cues and visual feedback.

(b) **Associative Stage** (Intermediate): Fewer errors; movements begin to be linked; less cognitive attention required.

(c) **Autonomous Stage** (Final): Movement becomes automatic; minimal conscious thought; highly consistent performance.

The **first stage** is the **Cognitive Stage**.

Why other options are wrong:

- Option (A) Associative stage: This is the second (intermediate) stage.
- Option (B) Autonomous stage: This is the third (final) stage.
- Option (C) Reflex stage: Not a recognised stage in Fitts and Posner's model.

Answer: (D) Go Back to Q 40

Solution 41.

Solution

Topic: Mosston's Spectrum of Teaching Styles — Command Style

Muska Mosston's Teaching Spectrum classifies teaching styles along a continuum of decision-making from teacher-centred to student-centred. The **Command Style (Style A)** places *all decisions* (pre-impact, impact, and post-impact) with the teacher. Students simply respond to the teacher's commands, with zero decision-making authority. It is ideal for safety-critical situations, drill-based practice, and large-group management.

Why other options are wrong:

- Option (A) Practice style: The student makes some decisions (where to practise, pace); more freedom than Command.
- Option (B) Reciprocal style: Students work in pairs; one performs, one gives feedback — far more student involvement.
- Option (D) Discovery style: Student discovers the answer through exploration; maximum student authority.

Answer: (C) Go Back to Q 41

Solution 42.

Solution

Topic: Surya Namaskar — Number of Postures

Surya Namaskar (Sun Salutation) is a classical yoga sequence composed of **12 postures (asanas)** performed in a flowing sequence. The 12 postures are: Pranamasana, Hastauttanasana, Hasta Padasana, Ashwa Sanchalanasana, Dandasana, Ashtanga Namaskara, Bhujangasana, Adho Mukha Svanasana, and the reverse sequence back. One full round (right leg + left leg) comprises 24 steps, but a single cycle is 12 postures.

Why other options are wrong:

- Option (A) 8: Only 8 postures is not the standard Surya Namaskar count.
- Option (C) 16: Some advanced or modified sequences may have more postures, but the classical count is 12.
- Option (D) 24: A *full round* (both legs) has 24 steps, but a single cycle / sequence is 12 postures.

Answer: (B) Go Back to Q 42

Solution 43.

Solution

Topic: International Governing Body for Athletics

World Athletics (formerly the International Association of Athletics Federations — IAAF, founded 1912) is the global governing body for the sport of **Athletics** (Track & Field, Road Running, Race Walking, Cross Country, and Mountain Running). It was rebranded as "World Athletics" in 2019.

Why other options are wrong:

- Option (B) FIFA: FIFA (Fédération Internationale de Football Association) governs Football/Soccer.
- Option (C) IOC: The International Olympic Committee oversees the Olympic Games but does not govern individual sports.
- Option (D) BWF: The Badminton World Federation governs the sport of Badminton.

Answer: (A) Go Back to Q 43

Solution 44.

Solution

Topic: Arjuna Award 2023 — Cricket

The Arjuna Award is presented by the Ministry of Youth Affairs and Sports for outstanding performance in sports over a period of four years. In 2023, Indian fast bowler **Mohammed Shami** received the Arjuna Award for Cricket, recognising his stellar performance including taking **24 wickets** in the ICC ODI World Cup 2023 — the most by any bowler in a single World Cup edition.

Why other options are wrong:

- Option (A) Rohit Sharma: He received the Khel Ratna (2020); did not receive the Arjuna Award in 2023.
- Option (B) Virat Kohli: Also a past Khel Ratna recipient; not the 2023 Arjuna Award winner for cricket.
- Option (C) Jasprit Bumrah: He did not receive the 2023 Arjuna Award.

Answer: (D) Go Back to Q 44

Solution 45.

Solution

Topic: Dronacharya Award 2023 — Boxing Coaching

The Dronacharya Award is India's highest coaching honour. In the 2023 awards (regular category), **Lalit Kumar** was recognised for his outstanding coaching in **Boxing**. He has trained several national and international-level boxers over his career.

Why other options are wrong:

- Option (A) Gurbax Singh Sandhu: A well-known hockey coach; not the 2023 boxing Dronacharya awardee.
- Option (B) Mahavir Singh Phogat: Famous wrestling coach (Dangal fame); not the 2023 boxing recipient.
- Option (D) Hawa Singh: A legendary Indian boxer, not a coach/Dronacharya awardee in 2023.

Answer: (C) Go Back to Q 45

Solution 46.

Solution

Topic: Commonwealth Games 2022 — Host City

The **22nd Commonwealth Games** (also known as **Birmingham 2022**) were held from 28 July to 8 August 2022 in **Birmingham**, England, United Kingdom. India finished 4th in the medals tally, winning 61 medals (22 Gold, 16 Silver, 23 Bronze).

Why other options are wrong:

- Option (B) Manchester: Manchester hosted the Commonwealth Games in **2002** (17th edition).
- Option (C) London: London hosted the 2012 Olympics but has not recently hosted the Commonwealth Games.
- Option (D) Glasgow: Glasgow hosted the Commonwealth Games

in **2014** (20th edition).

Answer: (A) Go Back to Q 46

Solution 47.

Solution

Topic: Dhyan Chand Award — Purpose

The **Dhyan Chand Award for Lifetime Achievement in Sports and Games** is India's highest honour for lifetime contribution to **sports and games**. It is named after the legendary Indian hockey wizard Major Dhyan Chand and is awarded to athletes who, by their personal achievement and contribution, have contributed to the development of sports even after retirement.

Why other options are wrong:

- Option (A) Outstanding coaching: The Dronacharya Award is for outstanding coaching; Dhyan Chand Award is for athletes' lifetime achievement.
- Option (C) Promotion among school children: No specific national award is named after this criterion.
- Option (D) Excellence in a single event: The Arjuna Award recognises consistent performance; single-event excellence is not the criterion for Dhyan Chand.

Answer: (B) Go Back to Q 47

Solution 48.

Solution

Topic: FIFA World Cup 2022 — Golden Boot

At the **FIFA World Cup 2022** in Qatar, French striker **Kylian Mbappé** won the **Golden Boot** by scoring **8 goals** in the tournament, including a hat-trick in the final against Argentina (which France ultimately lost 3–3 on penalties, 4–2). It was the highest individual goal tally in any FIFA World Cup since 1958.

Why other options are wrong:

- Option (A) Lionel Messi: Messi won the Golden Ball (best player) with 7 goals + 3 assists, but Mbappé scored more goals (8).
- Option (B) Olivier Giroud: He did not lead the top scorers chart at Qatar 2022.
- Option (C) Richarlison: He scored 3 goals for Brazil but was far below Mbappé's tally.

Answer: (D) Go Back to Q 48

Solution 49.

Solution

Topic: Hockey India League — Revival Year

The Hockey India League (HIL) was a professional field hockey league in India. It was suspended after the 2017 season due to financial and administrative issues. After a seven-year hiatus, Hockey India announced and successfully revived the league in **2024**. The revived HIL 2024–25 season featured both men's and women's teams.

Why other options are wrong:

- Option (A) 2022: The HIL was still on hiatus in 2022; no revival took place then.
- Option (B) 2023: Discussions were ongoing in 2023 but the actual revival occurred in 2024.
- Option (D) 2025: The league was revived and commenced in 2024, not 2025.

Answer: (C) Go Back to Q 49

Solution 50.

Solution

Topic: Neeraj Chopra — Paris Olympics 2024

Neeraj Chopra, India's golden boy of athletics and defending Olympic champion (Tokyo 2020 Gold), competed in the **Javelin Throw** event at the Paris Olympics 2024. He won the **Silver Medal** with a throw of **89.45 metres**. The Gold was won by Pakistan's Arshad Nadeem (92.97 m), who set a new Olympic record.

Why other options are wrong:

- Option (B) Shot Put: Neeraj Chopra is exclusively a javelin thrower, not a shot-putter.
- Option (C) Discus Throw: A different throwing event; Neeraj does not compete in discus.
- Option (D) Hammer Throw: Another throwing discipline; Neeraj's specialisation is the javelin.

Answer: (A) Go Back to Q 50

Answer Key — Sample Paper 1 of 8

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1	B	2	A	3	C	4	D	5	B
6	A	7	C	8	D	9	A	10	C
11	B	12	A	13	D	14	C	15	B
16	B	17	A	18	C	19	D	20	B
21	A	22	C	23	D	24	A	25	C
26	B	27	A	28	D	29	C	30	B
31	D	32	A	33	C	34	B	35	A
36	D	37	C	38	B	39	A	40	D
41	C	42	B	43	A	44	D	45	C
46	A	47	B	48	D	49	C	50	A

Option	Questions	Count
(A)	Q2, Q6, Q9, Q12, Q17, Q21, Q24, Q27, Q32, Q35, Q39, Q43, Q46, Q50	14
(B)	Q1, Q5, Q11, Q15, Q16, Q20, Q26, Q30, Q34, Q38, Q42, Q47	12
(C)	Q3, Q7, Q10, Q14, Q18, Q22, Q25, Q29, Q33, Q37, Q41, Q45, Q49	13
(D)	Q4, Q8, Q13, Q19, Q23, Q28, Q31, Q36, Q40, Q44, Q48	11
Total		**50**

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