# SSC MTS 2025 Official Paper (Held On: 10 Feb, 2026 Shift 2) (Previous Year Paper)

SSC Multi-Tasking Staff (MTS) • 2025 • 90 questions • 90 minutes • Answer key and solutions

**Take this paper as a timed mock test**

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/ssc-mts/ssc-mts-2025-official-paper-held-on-10-feb-2026-shift-2-previou…

Scan the QR code or click the link to open it.

## SESSION 1

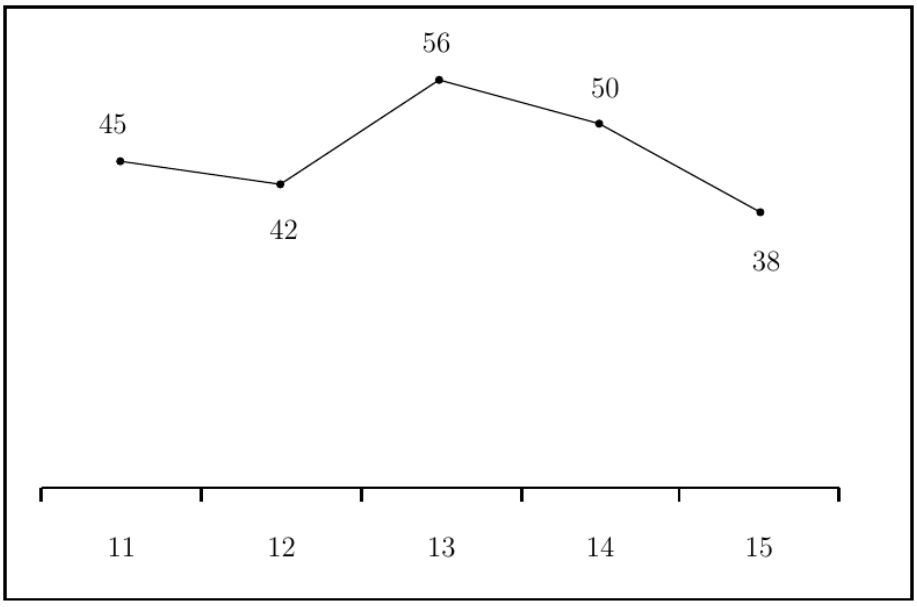
**Q1.** 72 + 18 - (26 + 17) + 44 × 2 - 33 = ?

**(a)** 102
**(b)** 106
**(c)** 108
**(d)** 110

**Q2.** 79 + 28 - 44 + 17 × 2 + (33 ÷ 3) + 19 = ?

**(a)** 127
**(b)** 129
**(c)** 131
**(d)** 133

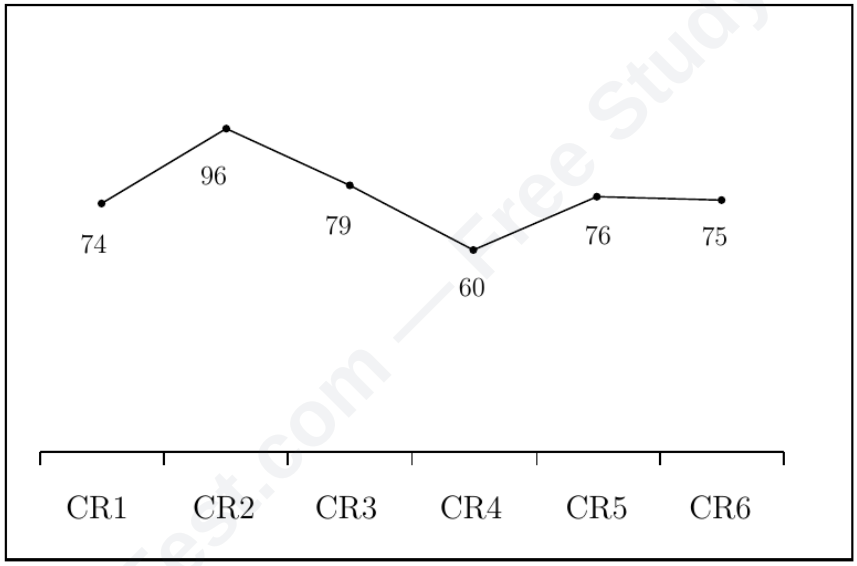
**Q3.** The line chart given below shows the sales of 5 items I1, I2, I3, I4 and I5 in a month.




Sales of I3 are what percent of combined sales of I1 and I4?

**(a)** 58.95%
**(b)** 55.61%
**(c)** 62.43%
**(d)** 65.45%

**Q4.** The line chart given below shows the monthly petrol consumption (in litres) by 6 different cars CR1, CR2, CR3, CR4, CR5 and CR6.




The price per litre of petrol is Rs. 105.

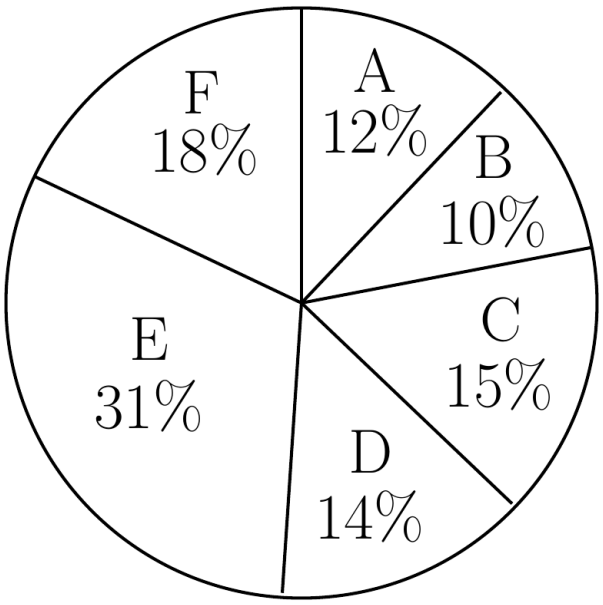
P = Total monthly expenditure (in Rs.) on petrol for CR1 and CR4.

Q = Total monthly expenditure (in Rs.) on petrol for CR3 and CR6.

What is the value (in Rs.) of Q - P?

**(a)** 1575
**(b)** 2310
**(c)** 1680
**(d)** 2100

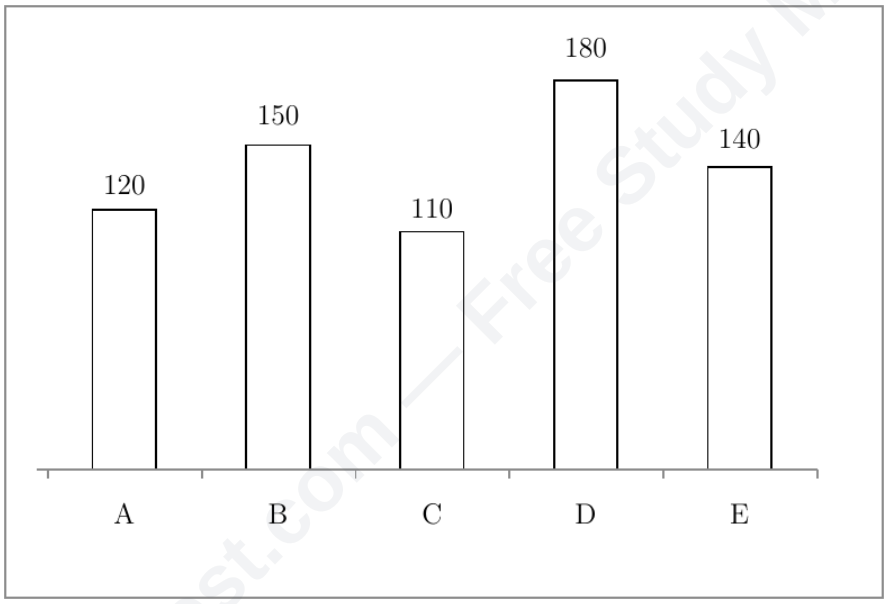
**Q5.** The pie chart given below shows the number of milk shops in 6 towns. The data is presented in the terms of percent.




Number of milk shops in town A are what percent of number of milk shops in town F?

**(a)** 33.33%
**(b)** 50%
**(c)** 66.67%
**(d)** 83.33%

**Q6.** The bar graph given below shows the number of laptops sold by the given 5 shops.

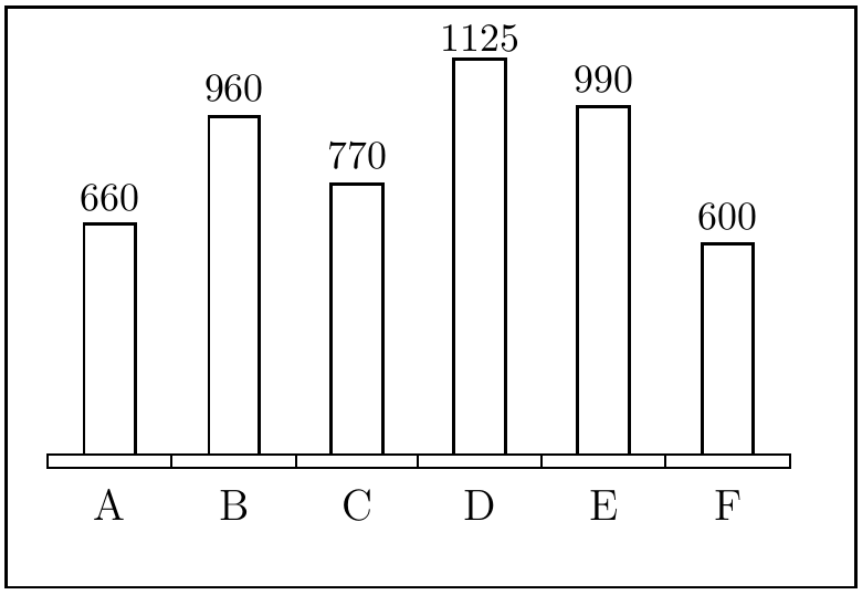



What are the total number of laptops sold by these 5 shops?

**(a)** 690
**(b)** 720
**(c)** 840
**(d)** 700

**Q7.** The bar graph given below shows the selling price of 6 given articles.

Selling price = Cost price × [1 + (Profit%/100)]




Profit earned on article F is 30 percent. What is the cost price of article F?

**(a)** 482.36
**(b)** 461.54
**(c)** 448.67
**(d)** 474.32

**Q8.** The ratio of two numbers is 3 : 4, and their sum is 84. What is the ratio of their squares?

**(a)** 9:16
**(b)** 3:4
**(c)** 4:9

YourMockTest.com — Free Study Material

**(d)** 27:36

**Q9.** Find the approximate value of:

(169.89 × 101.96)/(16.93 × 33.98) + (198.11 × 120.87)/(32.89 × √35.97) = ?

**(a)** 123
**(b)** 151
**(c)** 178
**(d)** 144

**Q10.** If the square of a number is increased by 56, the result is 225. find the number.

**(a)** 14
**(b)** 22
**(c)** 8
**(d)** 13

**Q11.** The average weight of P, Q, and R is 45 kg. If the average weight of P and Q is 40 kg, and that of Q and R is 43 kg, what is the weight of R?

**(a)** 54 kg
**(b)** 55 kg
**(c)** 45 kg
**(d)** 65 kg

**Q12.** Which of the following lies between (3/10) & (7/10) ?

**(a)** 8/9
**(b)** 13/17
**(c)** 10/11
**(d)** 7/11

**Q13.** The table given below shows the number of tiffins sold by 6 shops.

| **M1** | **100** |
|---|---|
| M2 | 120 |
| M3 | 180 |
| M4 | 240 |
| M5 | 200 |
| M6 | 160 |

Total number of tiffins sold by M1 and M2 are how much less than the total number of tiffins sold by M5 and M6?

**(a)** 140
**(b)** 160
**(c)** 120
**(d)** 110

**Q14.** The table given below shows the number of bottles of type B1, B2, B3, B4 and B5 manufactured by 2 companies P and Q.

| | **B1** | **B2** | **B3** | **B4** | **B5** |
|---|---|---|---|---|---|
| P | 100 | 130 | 200 | 60 | 100 |
| Q | 20 | 140 | 220 | 140 | 200 |

R1 = Average number of B1 bottles manufactured by P and Q.

R2 = Average number of B4 bottles manufactured by P and Q.

What is the value of R2 - R1 ?

**(a)** 40

YourMockTest.com — Free Study Material

**(b)** 30
**(c)** 25
**(d)** 35

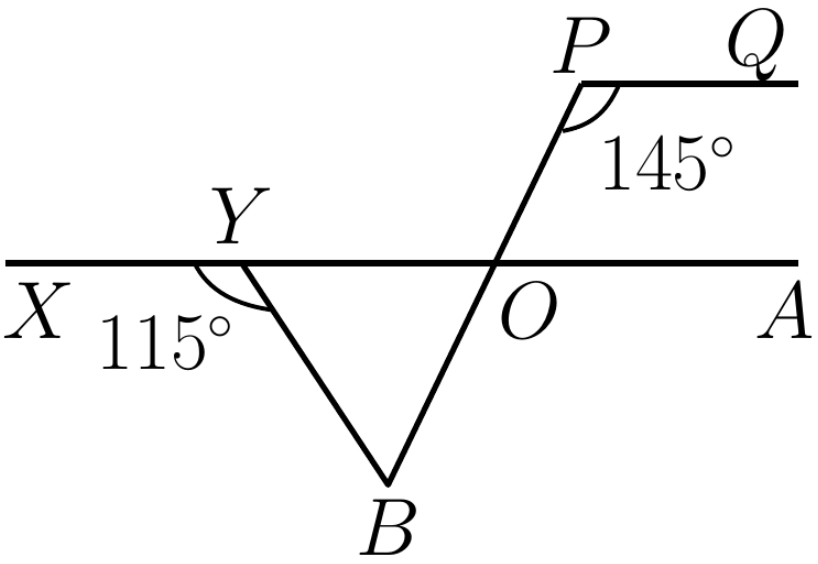
**Q15.** The sum of the three consecutive even numbers is 18. What is the product of the smallest and the largest of the three numbers?
**(a)** 36
**(b)** 32
**(c)** 30
**(d)** 26

**Q16.** Which of the following number is NOT divisible by 6?
**(a)** 7342
**(b)** 7482
**(c)** 7128
**(d)** 8136

**Q17.** 62P8 is divisible by 4. Which of the following cannot be the value of P?
**(a)** 0
**(b)** 3
**(c)** 2
**(d)** 6

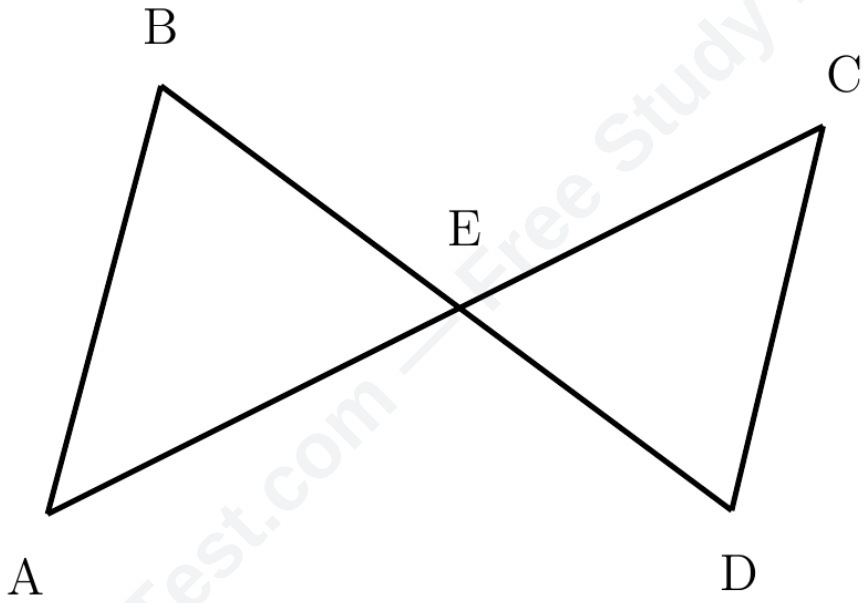
**Q18.** Average of 17 consecutive natural numbers starting with a is x. What will be the average of 17 consecutive natural numbers starting with a + 6 ?
**(a)** x + 2
**(b)** x + 6
**(c)** x + 7
**(d)** x + 3

**Q19.** In following figure, XA is parallel to PQ. What is the value (in degrees) of angle YBP ?




**(a)** 70
**(b)** 80
**(c)** 90
**(d)** 100

**Q20.** In the given figure, AB is parallel to CD. Angle BAE = 65 degrees and angle BEA = 55 degrees. What is the value (in degrees) of angle CDE ?




**(a)** 60
**(b)** 50
**(c)** 70
**(d)** 75

**Q21.** A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

-36, -68, -132, -260, ?, -1028, -2052, -4100

**(a)** -516
**(b)** -519
**(c)** -515
**(d)** -518

**Q22.** A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

N, P, ?, U, X, Z, C, E, H

**(a)** R
**(b)** S
**(c)** V
**(d)** U

**Q23.** Select the option that is related to the sixth letter cluster in the same way as the first letter cluster is related to the second letter cluster and third letter cluster is related to fourth letter cluster.

OLB : JGW :: CWM : XRH :: ? : CIK

**(a)** HJW
**(b)** HNP
**(c)** JEV
**(d)** LGZ

**Q24.** Select the option that is related to the first letter cluster in the same way as the fourth letter cluster is related to the third letter cluster and sixth letter cluster is related to fifth letter cluster.

SEP : ? :: WKJ : BPO :: IQV : NVA

**(a)** QBP
**(b)** XJU
**(c)** QEM

YourMockTest.com — Free Study Material

**(d)** SFR

**Q25.** A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

NZ, PB, RE, TI, VN, XT, ?, BI

**(a)** CA
**(b)** AZ
**(c)** ZY
**(d)** ZA

**Q26.** If 13 January 2023 is a Monday, then what day will 14 December 2023 be?

**(a)** Saturday
**(b)** Sunday
**(c)** Monday
**(d)** Tuesday

**Q27.** What will be the sum of the number of Wednesdays in the month of November of 2013 and April of 2015?

**(a)** 8
**(b)** 7
**(c)** 9
**(d)** 10

**Q28.** What was the first day of the year 1731?

**(a)** Monday
**(b)** Friday
**(c)** Saturday
**(d)** Sunday

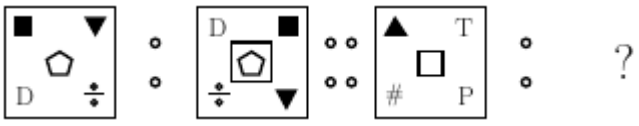
**Q29.** 5 boys R, M, N, B and C are sitting in a row facing north (not necessarily in the same order). Only B and R are to the left of M. N is to the immediate right of M. R is not at the ends of the row. Who is sitting to the right of N?

**(a)** M
**(b)** C
**(c)** R
**(d)** B

**Q30.** 7 boys P, Q, R, S, T, U and W are sitting in a row facing north (not necessarily in the same order). No one is to the right of Q. R is fourth to the left of Q. W is second to the left of R. T is fourth to the right of U. P is not second to the right of U. Who is sitting to the immediate right of P?

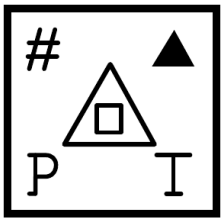
**(a)** S
**(b)** T
**(c)** R
**(d)** Q

**Q31.** Two figures given on the left side of (::) are related with some logic/rule/relation. Select the missing figure on the right side of (::) from the given alternatives based on the same logic/rule/relation.

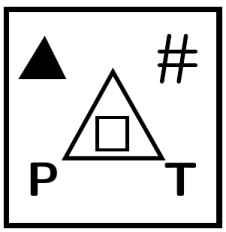



YourMockTest.com — Free Study Material

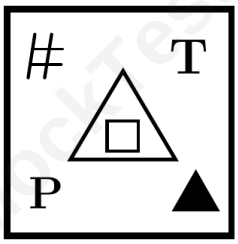
**(a)**



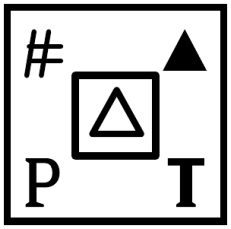

**(b)**



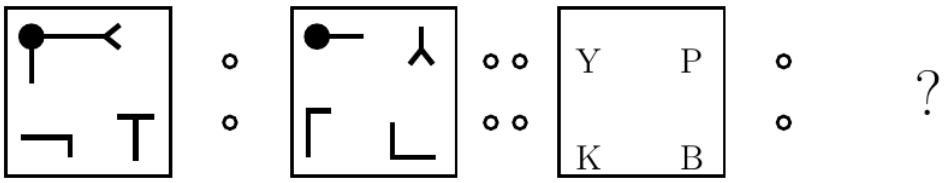

**(c)**



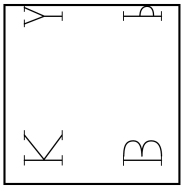

**(d)**




**Q32.** Two figures given on the left side of (::) are related with some logic/rule/relation. Select the missing figure on the right side of (::) from the given alternatives based on the same logic/rule/relation.

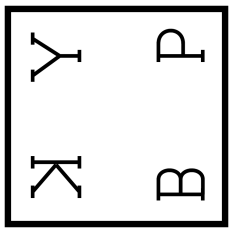



**(a)**

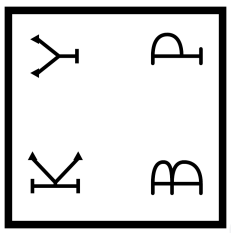



YourMockTest.com — Free Study Material

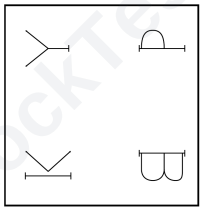
**(b)**




**(c)**




**(d)**




**Q33.** Select the option that is related to the fifth letter-number cluster in the same way as the second letter-number cluster is related to the first letter-number cluster and fourth letter-number cluster is related to third letter-number cluster. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

TK80 : RG160 :: FR60 : DN140 :: ZW40 : ?

**(a)** XS120
**(b)** XT140
**(c)** SX120
**(d)** ST160

**Q34.** Select the option that is related to the third letter-number cluster in the same way as the second letter-number cluster is related to the first letter-number cluster and sixth letter-number cluster is related to fifth letter-number cluster. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

TSR60 : OQS90 :: ZVT80 : ? :: WKU100 : RIV150

**(a)** QTY120
**(b)** YTR160
**(c)** QTY110
**(d)** QYT120

**Q35.** Select the option that is related to the third number in the same way as the second number is related to the first number and sixth number is related to fifth number. (NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 – Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

5884 : 5920 :: 270 : ? :: 4293 : 4329

**(a)** 305
**(b)** 310

YourMockTest.com — Free Study Material

**(c)** 303
**(d)** 306

**Q36.** Select the option that is related to the third number in the same way as the second number is related to the first number and sixth number is related to fifth number.

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g.13 - Operations on 13 such as adding /subtracting /multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed)

494 : 977 :: 436 : ? :: 752 : 1235

**(a)** 938
**(b)** 919
**(c)** 903
**(d)** 907

**Q37.** In a certain code language, ‘bike race is excited’ is coded as ‘la me na ps’ and ‘excited people buy ticket’ is coded as ‘mf na lz pq’. How will ‘excited’ be coded in that code language?

**(a)** lz
**(b)** na
**(c)** ps
**(d)** pq

**Q38.** In a certain code language 'MOONS' is coded as 'NQTLN' and 'STRAY' is coded as 'TVWYT'. How will 'TERMS' be coded in the same code language?

**(a)** VFYMP
**(b)** VEUMM
**(c)** UGWKN
**(d)** UFYJL

**Q39.** A series is given with one term wrong. Select that wrong term from the given alternatives.

TS1, VO8, XK27, ZG64, BC125, EX216

**(a)** BC125
**(b)** ZG64
**(c)** EX216
**(d)** VO8

**Q40.** A series is given with one term wrong. Select that wrong term from the given alternatives.

BFY253, GLU255, LRQ257, QXM259, VDI261, ZID265

**(a)** GLU255
**(b)** QXM259
**(c)** ZID265
**(d)** BFY253

## SESSION 2

**Q41.** National Coal Development Corporation (NCDC) was formed in _____ with 11 collieries with the task of exploring new coalfields and expediting development of new coal mines.

**(a)** 1957
**(b)** 1959
**(c)** 1955
**(d)** 1951

YourMockTest.com — Free Study Material

**Q42.** Where is urine stored before it is released from the human body?

**(a)** In the kidneys
**(b)** In the ureters
**(c)** In the urinary bladder
**(d)** In the urethra

**Q43.** In ancient India, the 'Vajjis' had their capital at Vaishali, which was ruled by the _____.

**(a)** Mallas
**(b)** Kambojas
**(c)** Kurus
**(d)** Lichchhavis

**Q44.** A 'Cut Motion' in Indian parliament is related to _____.

**(a)** reducing budget demands
**(b)** removing a judge
**(c)** amending the Constitution
**(d)** dissolving the House

**Q45.** In which year (AD) did the king Harshavardhana died?

**(a)** 550
**(b)** 647
**(c)** 783
**(d)** 829

**Q46.** Which instrument is associated with U. Srinivas?

**(a)** Sitar
**(b)** Mandolin
**(c)** Tambura
**(d)** Nadaswaram

**Q47.** ____ concluded that not only does the earth attract an apple and the moon, but all objects in the universe attract each other.

**(a)** Albert Einstein
**(b)** Thomas Edison
**(c)** Isaac Newton
**(d)** Galileo Galilei

**Q48.** At which place was the Prarthana Samaj established in 1867?

**(a)** Patna
**(b)** Bombay
**(c)** Calcutta
**(d)** Lucknow

**Q49.** As of July 2025, which of the following is NOT a classical language?

**(a)** Kannada
**(b)** Odia
**(c)** Malayalam
**(d)** Hindi

**Q50.** Mahatma Gandhi organized a Satyagraha to support the peasants of Kheda. Kheda district is located in which of the following states?

**(a)** West Bengal
**(b)** Maharashtra
**(c)** Gujarat
**(d)** Uttar Pradesh

YourMockTest.com — Free Study Material

**Q51.** Which of the following states has the lowest population density (Per square km) as per census 2011?

**(a)** Arunachal Pradesh
**(b)** Tamil Nadu
**(c)** Kerala
**(d)** Goa

**Q52.** The universal law of gravitation states that the gravitational force between two objects is proportional to ____.

**(a)** the difference of the masses
**(b)** the sum of the masses
**(c)** the product of the masses
**(d)** the square of the masses

**Q53.** Subacute Sclerosing Panencephalitis (SSPE), highlighted during a protest in early 2025 at Mantralaya, is a rare, progressive and usually fatal disorder that affects which organ?

**(a)** Liver
**(b)** Brain
**(c)** Heart
**(d)** Lungs

**Q54.** When was Radio broadcasting started in India by the Radio Club Bombay?

**(a)** 1909
**(b)** 1911
**(c)** 1923
**(d)** 1934

**Q55.** Who is the author of the book 'An Equal Music'?

**(a)** Vikram Seth
**(b)** Zulfikar Ghose
**(c)** Shiva Naipaul
**(d)** Kiran Desai

**Q56.** 'The Fisher Queen’s Dynasty' is a book written by _____.

**(a)** Sudha Murty
**(b)** Kavita Kané
**(c)** Jaishree Misra
**(d)** Chitra Banerjee Divakaruni

**Q57.** Which of the following is the objective of the India’s Industrial Policy 1991?

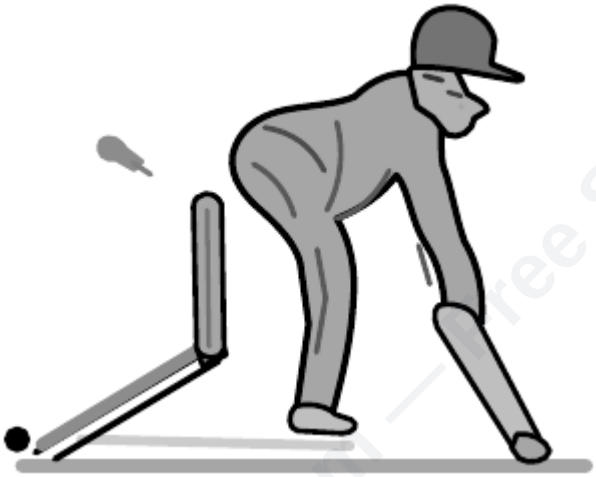
I. To introduce liberalisation.

II. To remove restrictions on direct foreign investment.

**(a)** Only I
**(b)** Only II
**(c)** Both I and II
**(d)** Neither I nor II

**Q58.** The image represents one of the ways through which a batsman can be given “out” in the game of cricket. What is it called?

YourMockTest.com — Free Study Material



**(a)** Bowled
**(b)** Hit Wicket
**(c)** Stumped
**(d)** LBW

**Q59.** The Jaigarh Fort is located in which of the following city?
**(a)** Bikaner
**(b)** Ajmer
**(c)** Udaipur
**(d)** Jaipur

**Q60.** The "Cancel Coal" case, which was seen in news in December 2024, is associated with which of the following country?
**(a)** South Africa
**(b)** India
**(c)** Vietnam
**(d)** Iran

**Q61.** Indian wrestlers won ____ medals in Commonwealth Games 2022.
**(a)** 12
**(b)** 10
**(c)** 8
**(d)** 6

**Q62.** The '80-pillar hall' was part of the palace of which great emperor?
**(a)** Ashoka
**(b)** Samudragupta
**(c)** Chandragupta I
**(d)** Harshavardhana

**Q63.** Which of the following statement is correct regarding doping?
I. EPO is a peptide hormone.
II. EPO is released from the kidneys.
**(a)** Only I
**(b)** Only II
**(c)** Both I and II
**(d)** Neither I nor II

YourMockTest.com — Free Study Material

**Q64.** Which country has the largest reserve of iron ore in Asia?

**(a)** India
**(b)** China
**(c)** Russia
**(d)** Iran

**Q65.** Ustad Zakir Hussain, a famous Indian musician, is a maestro of which musical instrument?

**(a)** Sitar
**(b)** Tabla
**(c)** Flute
**(d)** Violin

**Q66.** Fill in the blank in the following sentence with the correct idiom selecting from the given alternatives.

Digvijay is going to ask his mother to ascertain which course he should pursue. He is still _____.

**(a)** tied to her apron string
**(b)** tied to her silver string
**(c)** tied to her saree
**(d)** tied to her neck

**Q67.** From the alternatives given below, select the correct meaning of the idiom.

Cross one's palm with silver.

**(a)** To salute a person in position
**(b)** To pay one, especially as a bribe
**(c)** Wear a silver bracelet
**(d)** Take something precious secretly

**Q68.** Choose the correctly spelt word from the given options.

**(a)** Millionnaire
**(b)** Milionaire
**(c)** Millionaire
**(d)** Millionare

**Q69.** Select the option with the correct spelling that can replace the underlined word in the given sentence. If the spelling in the given sentence is already correct, choose Option “No replacement required”.

The office was full of sychopants eager to flatter the boss.

**(a)** sycopants
**(b)** sycopahnts
**(c)** sycophants
**(d)** No replacement required

**Q70.** There are four underlined words in the sentence given below. One of them is misspelt. Choose the option with the misspelt word.

The project faced delays due to bureaucratic hurdles, lack of co-ordination, and the inconsistant approach of the contractors.

**(a)** bureaucratic
**(b)** inconsistant
**(c)** approach
**(d)** contractors

**Q71.** Choose the misspelt word from the given options.

**(a)** Confession
**(b)** Dimension
**(c)** Precision
**(d)** Aberrasion

YourMockTest.com — Free Study Material

**Q72.** Choose the word that is the most appropriate antonym of the word "angry".

**(a)** Serene
**(b)** Enraged
**(c)** Mad
**(d)** Irritated

**Q73.** Choose the word that is the antonym of Former.

**(a)** Previous
**(b)** Current
**(c)** Past
**(d)** Earlier

**Q74.** Choose the correct option to complete the sentence.

The farmer used a ____ to cut the grass.

**(a)** cite
**(b)** site
**(c)** sight
**(d)** scythe

**Q75.** Match the words with their correct meanings.

| 1. Brake | a) To stop motion |
|---|---|
| 2. Break | b) Gap or violation |
| 3. Breach | c) Past tense of break |
| 4. Broke | d) To shatter or damage |

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

**Q76.** Choose the most suitable one-word substitution for the following.

The main antagonist in a movie.

**(a)** Hero
**(b)** Protagonist
**(c)** Villain
**(d)** Sidekick

**Q77.** Choose the most suitable one-word substitution for the following.

A false name used by an author instead of their real one.

**(a)** Sobriquet
**(b)** Pseudonym
**(c)** Epithet
**(d)** Cognomen

**Q78.** Which of the following options is the most suitable conversion of the following sentence into Passive Voice?

The engineers completed the structural analysis before the design phase began.

**(a)** The structural analysis is completed by the engineers before the design phase began.
**(b)** The structural analysis was being completed by the engineers before the design phase began.
**(c)** The structural analysis had been completed by the engineers before the design phase began.
**(d)** The structural analysis was completed by the engineers before the design phase began.

YourMockTest.com — Free Study Material

**Q79.** Which of the following options is the most suitable conversion of the following sentence into Passive Voice?

The volunteers are cleaning the beach after the festival.

**(a)** The beach is cleaned by the volunteers after the festival.
**(b)** The beach is being cleaned by the volunteers after the festival.
**(c)** The beach has been cleaned by the volunteers after the festival.
**(d)** The beach will be cleaned by the volunteers after the festival.

**Q80.** Which of the following options is the most suitable conversion of the following sentence into active voice?

New policies are being drafted by the government for immigrants.

**(a)** The government drafts new policies for immigrants.
**(b)** The government is drafting new policies for immigrants.
**(c)** The government has been drafting new policies for immigrants.
**(d)** The government drafted new policies for immigrants.

**Q81.** Which of the following options is the most suitable conversion of the following sentence into active voice?

Several key policies have been introduced by the government to promote renewable energy.

**(a)** The government has introduced several key policies to promote renewable energy.
**(b)** The government introduces several key policies to promote renewable energy.
**(c)** The government introduced several key policies to promote renewable energy.
**(d)** The government is introducing several key policies to promote renewable energy.

**Q82.** Select the correct alternative to fill in the blank with the correct preposition in the following sentence.

Sheela is always busy _____ some work or the other.

**(a)** at
**(b)** with
**(c)** for
**(d)** about

**Q83.** Select the correct alternative to fill in the blank with the correct preposition/prepositional phrase in the following sentence.

Some officers, _____ managers and directors, will attend the marriage ceremony of the clerk.

**(a)** including
**(b)** beside
**(c)** not only
**(d)** either

**Q84.** Given below are six sentences taken from a paragraph. The first and the last sentences are numbered S1 and S2 and are placed in the first and last positions respectively and are fixed in their positions. The other four sentences between the first and last sentences are jumbled up and are numbered A, B, C, and D. Rearrange the jumbled sentences in a logical sequence keeping the unity and coherence of the paragraph intact. Choose the correct alternative that best describes the sequence.

S1. It was long after midnight when we locked up the Englishmen and went to bed ourselves.

A. Noble took it very quietly.

B. I having thought of the same thing myself (among many others) said no, because it was more than likely the English wouldn't shoot our men, and anyhow it wasn't to be supposed the Brigade who were always up and down with the second battalion and knew the Englishmen well would be likely to want them bumped off.

C. As I blew out the candle I told Noble what Jeremiah Donovan had told me.

D. After we had been in bed about an hour he asked me did I think we ought to tell the Englishmen.

S2. 'I think so,' says Noble.

**(a)** CABD
**(b)** CADB
**(c)** CBDA
**(d)** CBAD

YourMockTest.com - Free Study Material

**Q85.** Given below are six sentences taken from a paragraph. The first and the last sentences are numbered S1 and S2 and are placed in the first and last positions respectively and are fixed in their positions. The other four sentences between the first and last sentences are jumbled up and are numbered A, B, C, and D. Rearrange the jumbled sentences in a logical sequence keeping the unity and coherence of the paragraph intact. Choose the correct alternative that best describes the sequence.

S1. Then the Spring came, and all over the country there were little blossoms and little birds.

A. The only people who were pleased were the Snow and the Frost.

B. Only in the garden of the Selfish Giant it was still winter.

C. The birds did not care to sing in it as there were no children, and the trees forgot to blossom.

D. Once a beautiful flower put its head out from the grass, but when it saw the notice-board it was so sorry for the children that it slipped back into the ground again and went off to sleep.

S2. "Spring has forgotten this garden," they cried, "so we will live here all the year round."

**(a)** CDAB
**(b)** BCDA
**(c)** DABC
**(d)** BACD

**Directions**

Read the following passage carefully and answer the questions based on the passage:

Blockchain technology, which was first created for cryptocurrencies like Bitcoin, has the potential to revolutionize the banking industry by providing a decentralized, safe, and open way to handle financial transactions. Blockchain minimizes reliance on middlemen, lowers operating costs, and speeds up transactions—especially for international payments—by using a distributed network. However, there are a number of obstacles to overcome when integrating blockchain technology into international finance. These include the need for banks to reframe their responsibilities and retrain employees, security flaws, and regulatory uncertainty. To enable safe and effective adoption, strong legal frameworks must be developed. Despite these challenges, there is still a lot of interest in blockchain technology; estimates suggest that the banking industry's blockchain market will grow to $22.5 billion by 2026.

**Q86.** Why is blockchain viewed as transformative in the way it offers a decentralized and transparent method of handling transactions?

**(a)** It removes the need for intermediaries and increases transaction speed, especially in cross-border payments.
**(b)** It relies heavily on centralized authorities to validate every financial movement, which speeds up the payment process
**(c)** It slows down international payments due to its complex verification process.
**(d)** It restricts transparency in order to preserve traditional banking secrecy.

**Q87.** In what way does blockchain adoption require banks to rethink their roles and internal structures?

**(a)** It eliminates the need for human employees as all tasks are automated using AI and computers.
**(b)** It demands new staff training, role redefinition, and a shift toward technologically driven operations.
**(c)** It strengthens traditional banking hierarchies; as a result, new employees are unable to bring the required futuristic changes.
**(d)** It preserves old processes and avoids any organizational restructuring.

**Q88.** What challenges stand in the way of blockchain becoming widely used in global banking?

**(a)** A lack of interest from international banks and financial companies, which leads to less or no investment
**(b)** Operating costs that are too low to incentivize further innovation.
**(c)** Regulatory uncertainty, security weaknesses, and the need for institutional restructuring.
**(d)** Stringent global regulations that reduce the necessity for adoption.

**Q89.** Why does the passage say that strong legal frameworks are needed for blockchain adoption?

**(a)** Since they wipe out every possible form of operational risk right away.
**(b)** Because they limit innovations so as not to hurt the conventional banking systems.
**(c)** Because they primarily serve to regularize the activities of cryptocurrency miners.
**(d)** Because they ensure safety in implementation and direct institutions toward safe and efficient use.

**Q90.** What does the projected $22.5 billion blockchain market size in banking suggest?

**(a)** There is a strong and growing interest despite existing challenges.
**(b)** Blockchain adoption is declining across global financial institutions.
**(c)** Banks are abandoning digital transformation in favor of older systems.
**(d)** It restricts transparency in order to preserve traditional banking secrecy.

## ANSWER KEY

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | a | 2 | a | 3 | a | 4 | d | 5 | c | 6 | d | 7 | b | 8 | a | 9 | b | 10 | d |
| 11 | b | 12 | d | 13 | a | 14 | a | 15 | b | 16 | a | 17 | b | 18 | b | 19 | b | 20 | a |
| 21 | a | 22 | b | 23 | b | 24 | b | 25 | d | 26 | b | 27 | c | 28 | a | 29 | b | 30 | b |
| 31 | a | 32 | c | 33 | a | 34 | a | 35 | d | 36 | b | 37 | b | 38 | c | 39 | c | 40 | c |
| 41 | a | 42 | c | 43 | d | 44 | a | 45 | b | 46 | b | 47 | c | 48 | b | 49 | d | 50 | c |
| 51 | a | 52 | c | 53 | b | 54 | c | 55 | a | 56 | b | 57 | c | 58 | a | 59 | d | 60 | a |
| 61 | a | 62 | a | 63 | c | 64 | a | 65 | b | 66 | a | 67 | b | 68 | c | 69 | c | 70 | b |
| 71 | d | 72 | a | 73 | b | 74 | d | 75 | b | 76 | c | 77 | b | 78 | d | 79 | b | 80 | b |
| 81 | a | 82 | b | 83 | a | 84 | b | 85 | b | 86 | a | 87 | b | 88 | c | 89 | d | 90 | a |

## SOLUTIONS

**Q1. Answer: (a) 102**

Shortcut Trick
Solve bracket and multiplication first: (26 + 17) = 43 and 44 × 2 = 88.
Expression becomes: 72 + 18 − 43 + 88 − 33.
Group positive and negative values: (72 + 18 + 88) − (43 + 33).
Result: 178 − 76 = 102.
Therefore The correct answer is 102.
Alternate Method
Given: 72 + 18 − (26 + 17) + 44 × 2 − 33
Formula Used: BODMAS Rule (Brackets, Orders, Division, Multiplication, Addition, Subtraction)
=> 72 + 18 − (43) + 44 × 2 − 33
=> 72 + 18 − 43 + 88 − 33
=> 90 − 43 + 88 − 33
=> 47 + 88 − 33
=> 135 − 33 = 102
Therefore The correct answer is 102.
Additional Information
BODMAS Rule
It defines the order of operations: Brackets → Orders → Division/Multiplication (left to right) → Addition/Subtraction (left to right).
Sign Conventions
When terms are grouped, keep the sign attached to the number (e.g., −33 is a negative term).
Simplification Tip
To avoid errors, always resolve internal brackets before performing operations outside them.

**Q2. Answer: (a) 127**

Shortcut Trick
Solve the expression by applying the BODMAS rule priorities.
Step 1: Solve Bracket (33 ÷ 3) = 11.
Step 2: Solve Multiplication 17 × 2 = 34.
Step 3: Sum the positive values (79 + 28 + 34 + 11 + 19) = 171.

Step 4: Subtract 44 from the sum: 171 − 44 = 127.
Therefore The correct answer is 127.
Alternate Method
Given: 79 + 28 − 44 + 17 × 2 + (33 ÷ 3) + 19
Formula Used: BODMAS Rule (Brackets, Of, Division, Multiplication, Addition, Subtraction)
=> 79 + 28 − 44 + 17 × 2 + 11 + 19
=> 79 + 28 − 44 + 34 + 11 + 19
=> 107 − 44 + 34 + 11 + 19
=> 63 + 34 + 11 + 19
=> 97 + 11 + 19
=> 108 + 19
=> 127
Therefore The correct answer is 127.
Additional Information
BODMAS Rule
It defines the order of operations: Brackets (), Of, Division (÷), Multiplication (×), Addition (+), and Subtraction (−).
Order of Addition
According to the commutative property, the sum remains the same regardless of the order in which terms are added.
Bracket Priority
Always simplify the terms inside circular brackets (), then curly brackets {}, and finally square brackets [] if present.

**Q3. Answer: (a) 58.95%**

Given:

| Item | Sales Value |
|---|---|
| I1 | 45 |
| I2 | 42 |
| I3 | 56 |
| I4 | 50 |
| I5 | 38 |

Formula Used:
Required Percentage = [Value of I3 ÷ (Value of I1 + Value of I4)] × 100
Calculation:
From the line chart, the sales values are:
=> Sales of I3 = 56
=> Sales of I1 = 45
=> Sales of I4 = 50
Now, calculating the combined sales of I1 and I4:
=> Combined sales (I1 + I4) = 45 + 50 = 95
Now, calculating the required percentage:
=> Percentage = (56 ÷ 95) × 100
=> Percentage = (5600 ÷ 95)
=> Percentage = 1120 ÷ 19
=> Percentage ≈ 58.9473...
=> Percentage ≈ 58.95%
Therefore The correct answer is 58.95%.

**Q4. Answer: (d) 2100**

Given:

| Car Name | Monthly Petrol Consumption (in litres) |
|---|---|

| | |
|---|---|
| CR1 | 74 |
| CR2 | 96 |
| CR3 | 79 |
| CR4 | 60 |
| CR5 | 76 |
| CR6 | 75 |

Price of petrol per litre = Rs. 105
Formula Used:
Monthly Expenditure on petrol = Petrol Consumption × Price per litre
P = (Consumption of CR1 + Consumption of CR4) × Price per litre
Q = (Consumption of CR3 + Consumption of CR6) × Price per litre
Calculation:
According to the question,
=> Total consumption for P = 74 + 60 = 134 litres
=> P = 134 × 105
=> Total consumption for Q = 79 + 75 = 154 litres
=> Q = 154 × 105
=> Q − P = (154 × 105) − (134 × 105)
=> Q − P = (154 − 134) × 105
=> Q − P = 20 × 105
=> Q − P = 2100
Therefore The correct answer is 2100.

**Q5. Answer: (c) 66.67%**

Given:

| Town | Percentage of Milk Shops |
|---|---|
| A | 12% |
| B | 10% |
| C | 15% |
| D | 14% |
| E | 31% |
| F | 18% |

Total percentage of milk shops across all towns = 100%
Formula Used:
Required Percentage = (Value of Town A ÷ Value of Town F) × 100
Calculation:
According to the pie chart,
=> Percentage of milk shops in town A = 12%
=> Percentage of milk shops in town F = 18%
=> Required percentage = (12 ÷ 18) × 100
=> Required percentage = (2 ÷ 3) × 100
=> Required percentage = 0.6666... × 100
=> Required percentage = 66.666...% ≈ 66.67%
Therefore The correct answer is 66.67%.

YourMockTest.com – Free Study Material

**Q6. Answer: (d) 700**

Given:

| Shop Name | Number of Laptops Sold |
|---|---|
| Shop A | 120 |
| Shop B | 180 |
| Shop C | 160 |
| Shop D | 100 |
| Shop E | 140 |

Formula Used:

Total laptops sold = Sum of laptops sold by all shops

Total laptops sold = Laptops sold by (Shop A + Shop B + Shop C + Shop D + Shop E)

Calculation:

According to the data extracted from the bar graph,

=> Total laptops sold = 120 + 180 + 160 + 100 + 140

=> Total laptops sold = 300 + 160 + 100 + 140

=> Total laptops sold = 460 + 100 + 140

=> Total laptops sold = 560 + 140

=> Total laptops sold = 700

Therefore The correct answer is 700.

**Q7. Answer: (b) 461.54**

Given:

| Article | Selling Price |
|---|---|
| A | 660 |
| B | 960 |
| C | 770 |
| D | 1125 |
| E | 990 |
| F | 600 |

Profit percentage earned on article F = 30%

Formula Used:

Selling Price = Cost Price × [1 + (Profit% ÷ 100)]

Cost Price = Selling Price ÷ [1 + (Profit% ÷ 100)]

Calculation:

According to the question and the data from the graph,

=> Selling price of article F = 600

=> Profit percentage on article F = 30%

=> Cost price of article F = 600 ÷ [1 + (30 ÷ 100)]

=> Cost price of article F = 600 ÷ [1 + 0.3]

=> Cost price of article F = 600 ÷ 1.3

=> Cost price of article F = 6000 ÷ 13

=> Cost price of article F ≈ 461.5384...

=> Cost price of article F ≈ 461.54

Therefore The correct answer is 461.54.

YourMockTest.com — Free Study Material

**Q8. Answer: (a) 9:16**

Shortcut Trick

The ratio of the squares of two numbers is simply the square of their given ratio.

Given Ratio = 3 : 4

Ratio of Squares = $3^2 : 4^2$

Ratio of Squares = 9 : 16

Note: The sum (84) is redundant information for calculating the ratio of squares.

Therefore The correct answer is 9 : 16.

Alternate Method

Given:

Ratio of two numbers = 3 : 4

Sum of the numbers = 84

Calculations:

=> Let the numbers be 3x and 4x.

=> Sum: 3x + 4x = 84

=> 7x = 84

=> x = 84 ÷ 7 = 12

=> First number = 3 × 12 = 36

=> Second number = 4 × 12 = 48

=> Square of first number = $36^2$ = 1296

=> Square of second number = $48^2$ = 2304

=> Ratio of squares = 1296 : 2304

=> Divide both by 144: (1296 ÷ 144) : (2304 ÷ 144) = 9 : 16

Therefore The correct answer is 9 : 16.

Additional Information

Duplicate Ratio

The ratio of the squares of two numbers ($a^2 : b^2$) is called the duplicate ratio of a : b.

Triplicate Ratio

The ratio of the cubes of two numbers ($a^3 : b^3$) is called the triplicate ratio of a : b.

Sub-duplicate Ratio

The ratio of the square roots of two numbers ($\sqrt{a} : \sqrt{b}$) is called the sub-duplicate ratio of a : b.

**Q9. Answer: (b) 151**

Shortcut Trick

Approximate the values: 169.89 ≈ 170, 101.96 ≈ 102, 16.93 ≈ 17, 33.98 ≈ 34, 198.11 ≈ 198, 120.87 ≈ 121, 32.89 ≈ 33, and √35.97 ≈ 6.

Term 1: (170 ÷ 17) × (102 ÷ 34) = 10 × 3 = 30.

Term 2: (198 ÷ 33) × (121 ÷ 6) = 6 × 121 ÷ 6 = 121.

Final Value ≈ 30 + 121 = 151.

Therefore The correct answer is 151.

Alternate Method

Given expression: (169.89 × 101.96) / (16.93 × 33.98) + (198.11 × 120.87) / (32.89 × √35.97)

=> 169.89 ≈ 170

=> 101.96 ≈ 102

=> 16.93 ≈ 17

=> 33.98 ≈ 34

=> 198.11 ≈ 198

=> 120.87 ≈ 121

=> 32.89 ≈ 33

=> √35.97 ≈ √36 = 6

=> Expression ≈ (170 × 102) ÷ (17 × 34) + (198 × 121) ÷ (33 × 6)

=> Expression ≈ (170 ÷ 17) × (102 ÷ 34) + (198 ÷ 33) × (121 ÷ 6)

YourMockTest.com — Free Study Material

=> Expression ≈ 10 × 3 + 6 × 121 ÷ 6

=> Expression ≈ 30 + 121

=> Expression ≈ 151

Therefore The correct answer is 151.

Additional Information

BODMAS Rule

Simplification must follow the order: Brackets, Of, Division, Multiplication, Addition, and Subtraction.

Approximation Rules

For digits after the decimal, round up if the value is 0.5 or greater (e.g., 16.93 → 17) and round down if it is less than 0.5 (e.g., 32.41 → 32).

Perfect Square Approximation

Identify the nearest perfect square for radical terms to simplify calculations, such as √35.97 ≈ √36 = 6.

**Q10. Answer: (d) 13**

Shortcut Trick

Subtract the increase from the final result: 225 − 56 = 169

Find the square root of the result: √169 = 13

Therefore The correct answer is 13.

Alternate Method

Given: Result = 225, Added value = 56

Formula Used: $x^2$ + constant = Result

Let the required number be x.

=> $x^2 + 56 = 225$

=> $x^2 = 225 - 56$

=> $x^2 = 169$

=> $x = \sqrt{169}$

=> x = 13

Therefore The correct answer is 13.

Additional Information

Perfect Squares

A perfect square is a number that can be expressed as the product of an integer by itself. For example, 169 is the square of 13 (13 × 13 = 169).

Square Root Properties

The square root of a number n is a value x such that $x^2 = n$. For positive integers, the square root can be found using prime factorization or long division methods.

Algebraic Transposition

When moving a term from one side of the equation to the other, the sign changes: addition becomes subtraction (x + a = b → x = b − a) and multiplication becomes division.

**Q11. Answer: (b) 55 kg**

Shortcut Trick

Total weight of P, Q, and R = 45 × 3 = 135 kg

Combined weight of P and Q = 40 × 2 = 80 kg

Weight of R = (Total weight of P, Q, R) − (Weight of P and Q)

Weight of R = 135 − 80 = 55 kg

Therefore The correct answer is 55 kg.

Alternate Method

Given:

Average weight (P + Q + R) = 45 kg

Average weight (P + Q) = 40 kg

Average weight (Q + R) = 43 kg

Formula Used:

Total Sum = Average × Number of entities

YourMockTest.com — Free Study Material

Calculations:

=> Sum (P + Q + R) = 45 × 3 = 135 kg --- (i)

=> Sum (P + Q) = 40 × 2 = 80 kg --- (ii)

=> Sum (Q + R) = 43 × 2 = 86 kg --- (iii)

=> From (i) and (ii):

=> (P + Q + R) − (P + Q) = 135 − 80

=> R = 55 kg

Therefore The correct answer is 55 kg.

Additional Information

Finding the Overlapping Member

In problems with overlapping sets, the common member (Q) can be found by: (Sum of subset 1 + Sum of subset 2) − Total Sum. Here, Q = (80 + 86) − 135 = 31 kg.

Weighted Average Formula

The average of two groups combined is (n1 × Avg1 + n2 × Avg2) ÷ (n1 + n2).

Deviation Method

If a value is added to a group and the average increases, the new value must be greater than the original average by (Increase in average × New count).

**Q12. Answer: (d) 7/11**

Shortcut Trick

Convert the fractions into decimal values to compare easily.

Lower limit = 3/10 = 0.3 and Upper limit = 7/10 = 0.7.

Now check the option (4): 7/11 ≈ 0.636.

Since 0.3 < 0.636 < 0.7, 7/11 lies between 3/10 and 7/10.

Therefore The correct answer is 7/11.

Alternate Method

Given range: 3/10 and 7/10

=> Lower Limit = 3/10 = 0.30

=> Upper Limit = 7/10 = 0.70

=> Option (1): 8/9 ≈ 0.888 (Outside range, > 0.70)

=> Option (2): 13/17 ≈ 0.764 (Outside range, > 0.70)

=> Option (3): 10/11 ≈ 0.909 (Outside range, > 0.70)

=> Option (4): 7/11 ≈ 0.636 (Inside range: 0.30 < 0.636 < 0.70)

Therefore The correct answer is 7/11.

Additional Information

Fraction Comparison (Cross-Multiplication)

To compare a/b and c/d, compare the products a × d and b × c. If a × d > b × c, then a/b > c/d.

Betweenness of Rational Numbers

There are infinitely many rational numbers between any two given rational numbers x and y, often found using the average (x + y) ÷ 2.

Decimal Conversion Shortcut

Fractions with denominator 11 have a repeating decimal pattern: 1/11 = 0.0909..., 2/11 = 0.1818..., so 7/11 = 7 × 0.0909 = 0.6363...

**Q13. Answer: (a) 140**

Given:

| Shop Name | Number of Tiffins Sold |
|---|---|
| M1 | 100 |
| M2 | 120 |
| M3 | 180 |
| M4 | 240 |

| | |
|---|---|
| M5 | 200 |
| M6 | 160 |

Formula Used:

Total Tiffins (Group) = Sum of tiffins sold by shops in that group

Difference = Total (Higher Group) − Total (Lower Group)

Calculation:

According to the question,

=> Total number of tiffins sold by M1 and M2 = 100 + 120 = 220

=> Total number of tiffins sold by M5 and M6 = 200 + 160 = 360

=> Required difference = 360 − 220

=> Difference = 140

Therefore The correct answer is 140.

**Q14. Answer: (a) 40**

Given:

| Company | B1 | B2 | B3 | B4 | B5 |
|---|---|---|---|---|---|
| P | 100 | 130 | 200 | 60 | 100 |
| Q | 20 | 140 | 220 | 140 | 200 |

R1 = Average number of B1 bottles manufactured by P and Q

R2 = Average number of B4 bottles manufactured by P and Q

Formula Used:

Average = (Sum of all observations) ÷ (Total number of observations)

Value to find = R2 − R1

Calculation:

First, calculate the value of R1:

=> R1 = (B1 by P + B1 by Q) ÷ 2

=> R1 = (100 + 20) ÷ 2

=> R1 = 120 ÷ 2 = 60

Next, calculate the value of R2:

=> R2 = (B4 by P + B4 by Q) ÷ 2

=> R2 = (60 + 140) ÷ 2

=> R2 = 200 ÷ 2 = 100

Now, calculate the difference R2 − R1:

=> R2 − R1 = 100 − 60

=> R2 − R1 = 40

Therefore The correct answer is 40.

**Q15. Answer: (b) 32**

Shortcut Trick

For any odd number of consecutive numbers, the average is always the middle term.

Middle Number = Sum ÷ Count = 18 ÷ 3 = 6.

The three consecutive even numbers are 4, 6, and 8.

Product of smallest (4) and largest (8) = 4 × 8 = 32.

Therefore The correct answer is 32.

Alternate Method

Given: Sum of 3 consecutive even numbers = 18.

Formula Used: Sum of terms = n × [First term + (n−1)d ÷ 2]

=> Let the three consecutive even numbers be x, (x + 2), and (x + 4).

=> x + (x + 2) + (x + 4) = 18

=> 3x + 6 = 18

=> 3x = 18 − 6

=> 3x = 12

=> x = 12 ÷ 3 = 4

=> Smallest number (x) = 4

=> Largest number (x + 4) = 4 + 4 = 8

=> Product = 4 × 8 = 32

Therefore The correct answer is 32.

Additional Information

Consecutive Even/Odd Numbers

Consecutive even or odd numbers always have a common difference of 2. If the first number is x, the next is x + 2.

Average of Arithmetic Progression (AP)

For any sequence in AP, the average is equal to (First Term + Last Term) ÷ 2 or simply the middle term for an odd number of terms.

Sum of 'n' Even Numbers

The sum of the first n even natural numbers is given by the formula n(n + 1).

**Q16. Answer: (a) 7342**

Shortcut Trick

A number is divisible by 6 if it is even and the sum of its digits is divisible by 3.

Check sum of digits for each number: (1) 7+3+4+2=16 (No) | (2) 7+4+8+2=21 (Yes) | (3) 7+1+2+8=18 (Yes) | (4) 8+1+3+6=18 (Yes).

Since 16 is not a multiple of 3, the number 7342 is not divisible by 6.

Therefore The correct answer is 7342.

Alternate Method

Given: Numbers 7342, 7482, 7128, 8136.

Condition for Divisibility by 6: The number must satisfy the divisibility rules for both 2 and 3.

Step 1: Check divisibility by 2 (Last digit must be 0, 2, 4, 6, or 8).

=> All options 7342, 7482, 7128, and 8136 are even, so all are divisible by 2.

Step 2: Check divisibility by 3 (Sum of digits must be divisible by 3).

=> For 7342: Sum = 7 + 3 + 4 + 2 = 16 (Not divisible by 3)

=> For 7482: Sum = 7 + 4 + 8 + 2 = 21 (21 ÷ 3 = 7, Divisible)

=> For 7128: Sum = 7 + 1 + 2 + 8 = 18 (18 ÷ 3 = 6, Divisible)

=> For 8136: Sum = 8 + 1 + 3 + 6 = 18 (18 ÷ 3 = 6, Divisible)

=> Only 7342 fails the divisibility test for 3, hence it is not divisible by 6.

Therefore The correct answer is 7342.

Additional Information

Divisibility by 4

A number is divisible by 4 if the number formed by its last two digits is divisible by 4.

Divisibility by 9

A number is divisible by 9 if the sum of its digits is a multiple of 9.

Divisibility by 11

A number is divisible by 11 if the difference between the sum of digits at odd positions and the sum of digits at even positions is 0 or a multiple of 11.

**Q17. Answer: (b) 3**

Shortcut Trick

For a number to be divisible by 4, the number formed by its last two digits must be divisible by 4.

Number: 62P8 → Last two digits: P8.

Test options: 08 (Yes), 28 (Yes), 68 (Yes), 38 (No).

Since 38 is not divisible by 4 (38 ÷ 4 = 9.5), P cannot be 3.

Therefore The correct answer is 3.

Alternate Method

Given: Number = 62P8, Divisor = 4.

YourMockTest.com — Free Study Material

Formula: Divisibility rule of 4 states that a number is divisible by 4 if the last 2 digits are divisible by 4 or are 00.

=> Let us check each option for the number P8:

=> Option (1): P = 0 => Last two digits = 08. Since 08 ÷ 4 = 2, it is divisible.

=> Option (3): P = 2 => Last two digits = 28. Since 28 ÷ 4 = 7, it is divisible.

=> Option (4): P = 6 => Last two digits = 68. Since 68 ÷ 4 = 17, it is divisible.

=> Option (2): P = 3 => Last two digits = 38. Since 38 is not exactly divisible by 4, 38 ÷ 4 = 9.5.

=> Thus, P cannot be 3.

Therefore The correct answer is 3.

Additional Information

Divisibility by $2^n$

A number is divisible by $2^n$ if the last n digits of the number are divisible by $2^n$. For $2^1$ (2), check the last 1 digit; for $2^2$ (4), check the last 2 digits; for $2^3$ (8), check the last 3 digits.

Divisibility by 8

A number is divisible by 8 if the number formed by its last three digits is divisible by 8. Example: In 6208, 208 ÷ 8 = 26, so 6208 is divisible by 8.

Divisibility by 3 and 9

A number is divisible by 3 or 9 if the sum of its digits is divisible by 3 or 9 respectively.

**Q18. Answer: (b) x + 6**

Shortcut Trick

If every term in a set of observations is increased by a constant value k, the average of the set also increases by k.

Original series starts at a and new series starts at a + 6.

Each term is shifted by +6 (since a → a + 6, a + 1 → a + 7, etc.).

New Average = Old Average + Shift = x + 6.

Therefore The correct answer is x + 6.

Alternate Method

Given: Number of terms (n) = 17, First term = a, Average = x.

Formula Used: Average of consecutive natural numbers = (First term + Last term) ÷ 2

For the first series starting with a:

=> Last term = a + (17 − 1) = a + 16

=> x = (a + a + 16) ÷ 2

=> x = (2a + 16) ÷ 2 = a + 8

For the second series starting with a + 6:

=> Last term = (a + 6) + (17 − 1) = a + 22

=> New Average = ((a + 6) + (a + 22)) ÷ 2

=> New Average = (2a + 28) ÷ 2 = a + 14

=> New Average = (a + 8) + 6

=> New Average = x + 6

Therefore The correct answer is x + 6.

Additional Information

Average of Arithmetic Progression (AP)

For any series in AP, the mean is always the average of the first and last terms: (a + l) ÷ 2.

Middle Term Property

For an odd number of consecutive terms, the average is exactly the middle term of the sequence.

Linear Transformation of Mean

If every value $y_i = m \times x_i + c$, then the new mean $Y = m \times X + c$, where X is the original mean.

**Q19. Answer: (b) 80**

Shortcut Trick

When two parallel lines are intersected by a transversal, corresponding angles are equal.

Identify XA || PQ and transversal line YB.

=> angle YBP and angle XAY are corresponding angles.

=> angle YBP = angle XAY = 80°.

Therefore The correct answer is 80°.

Alternate Method

Given: XA || PQ and angle XAY = 80°.

Formula Used: Corresponding Angles Property.

Calculations:

=> Line XA is parallel to Line PQ (XA || PQ).

=> The line YB acts as a transversal intersecting XA at A and PQ at B.

=> angle XAY and angle YBP are located in the same relative position at each intersection.

=> According to the Corresponding Angles Theorem, angle YBP = angle XAY.

=> Since angle XAY = 80°, then angle YBP = 80°.

Therefore The correct answer is 80°.

Additional Information

Corresponding Angles

Angles in the same relative position at each intersection where a straight line crosses two others. If the two lines are parallel, corresponding angles are equal.

Alternate Interior Angles

Angles between the parallel lines and on opposite sides of the transversal. These angles are always equal (e.g., angle XAB = angle ABQ).

Co-interior Angles

Angles on the same side of the transversal and inside the parallel lines. Their sum is always 180° (angle XAB + angle ABP = 180°).

**Q20. Answer: (a) 60**

Shortcut Trick

In triangle ABE, sum of angles = 180°

angle ABE = 180° − (angle BAE + angle BEA) = 180° − (65° + 55°) = 60°

Since AB || CD, alternate interior angles are equal.

angle CDE = angle ABE = 60°

Therefore The correct answer is 60°.

Alternate Method

Given:

AB || CD

angle BAE = 65°

angle BEA = 55°

Formula:

1. Sum of angles in a triangle = 180°

2. Alternate interior angles between parallel lines are equal.

Calculations:

In triangle ABE:

=> angle BAE + angle BEA + angle ABE = 180°

=> 65° + 55° + angle ABE = 180°

=> 120° + angle ABE = 180°

=> angle ABE = 180° − 120° = 60°

Now, as AB || CD and BD is a transversal line:

=> angle CDE = angle ABE (Alternate interior angles)

=> angle CDE = 60°

Therefore The correct answer is 60°.

Additional Information

Alternate Interior Angles

When two parallel lines are cut by a transversal, the pairs of angles on opposite sides of the transversal and between the parallel lines are equal.

Vertically Opposite Angles

When two lines intersect at a point, the angles opposite to each other are equal. In this case, angle BEA = angle CED = 55°.

Angle Sum Property

The sum of all interior angles of any triangle is always exactly 180°.

**Q21. Answer: (a) -516**

Given: −36, −68, −132, −260, ?, −1028, −2052, −4100

The logic followed here is:

Logic: (Previous term × 2) + 4

−36 × 2 + 4 = −72 + 4 = −68

−68 × 2 + 4 = −136 + 4 = −132

−132 × 2 + 4 = −264 + 4 = −260

−260 × 2 + 4 = −520 + 4 = −516

−516 × 2 + 4 = −1032 + 4 = −1028

Thus, -516 is the correct alternative from the given ones that will complete the series.

Hence, the correct answer is "Option 1".

**Q22. Answer: (b) S**

The position and positional values or English Alphabets are:

Given: N, P, ?, U, X, Z, C, E, H

The logic followed here is:

Thus, S is the correct alternative from the given ones that will complete the series.

Hence, the correct answer is "Option 2".

**Q23. Answer: (b) HNP**

The position and positional values or English Alphabets are:

Given: OLB : JGW :: CWM : XRH :: ? : CIK

The logic followed here is:

Similarly,

Thus, HNP is related to the sixth letter cluster in the same way as the first letter cluster is related to the second letter cluster and third letter cluster is related to fourth letter cluster.

Hence, the correct answer is "Option 2".

**Q24. Answer: (b) XJU**

The position and positional values or English Alphabets are:

Given: SEP : ? :: WKJ : BPO :: IQV : NVA

The logic followed here is:

Similarly,

Thus, XJU is related to the first letter cluster in the same way as the fourth letter cluster is related to the third letter cluster and sixth letter cluster is related to fifth letter cluster.

Hence, the correct answer is "Option 2".

**Q25. Answer: (d) ZA**

The position and positional values or English Alphabets are:

Given: NZ, PB, RE, TI, VN, XT, ?, BI

The logic followed here is:

Thus, ZA is the correct alternative from the given ones that will complete the series.

Hence, the correct answer is "Option 4".

**Q26. Answer: (b) Sunday**

Given: 13 January 2023 was Monday.

Now, from 13 January 2023 to 14 December 2023.

January = 18 days

February = 28 days

March = 31 days

YourMockTest.com — Free Study Material

April = 30 days
May = 31 days
June = 30 days
July = 31 days
August = 31 days
September = 30 days
October = 31 days
November = 30 days
December = 14 days
Total days = 18 + 28 + 31 + 30 + 31 + 30 + 31 + 31 + 30 + 31 + 30 + 14
= 335 days.
And, 335 days = 335/7 = 47 week and 6 odd days.
So, 14 December 2023 was = Monday + 6 = Sunday.
Thus, 14 December 2023 will be Sunday.
Hence, the correct option is "Option 2".

**Q27. Answer: (c) 9**

Given: What will be the sum of the number of Wednesdays in the month of November of 2013 and April of 2015?
For November 2013:
November 1, 2013, was a Friday. To find the first Wednesday, we count forward: Nov 1 (Fri), Nov 2 (Sat), Nov 3 (Sun), Nov 4 (Mon), Nov 5 (Tue), Nov 6 (Wed). Adding 7 days to each date gives the subsequent Wednesdays.

| Wed 1 | Wed 2 | Wed 3 | Wed 4 |
|---|---|---|---|
| 6 | 13 | 20 | 27 |

Total number of Wednesdays in November 2013 = 4
For April 2015:
April 1, 2015, was a Wednesday. We list all the Wednesdays in the month by adding 7 days to the first date.

| Wed 1 | Wed 2 | Wed 3 | Wed 4 | Wed 5 |
|---|---|---|---|---|
| 1 | 8 | 15 | 22 | 29 |

Total number of Wednesdays in April 2015 = 5
The calculation is: (Number of Wednesdays in November 2013) + (Number of Wednesdays in April 2015).
Similarly, let's find the total sum:
Sum = 4 + 5 = 9
Thus, the sum of the number of Wednesdays is 9.
Hence, the correct answer is "Option 3".

**Q28. Answer: (a) Monday**

Given : What was the first day of the year 1731?
To find the day of the week for January 1, 1731, we calculate the odd days up to December 31, 1730.
The total years can be broken down as: 1730 years = 1600 years + 100 years + 30 years.

| Year Period | Odd Days |
|---|---|
| 1600 years | 0 |
| 100 years | 5 |

For the remaining 30 years (1701 to 1730):
Number of leap years = 7 (1704, 1708, 1712, 1716, 1720, 1724, 1728)
Number of ordinary years = 30 - 7 = 23

| Type | Calculation | Odd Days |
|---|---|---|
| Leap Years | 7 × 2 | 14 |
| Ordinary Years | 23 × 1 | 23 |

Sum of odd days in 30 years = 14 + 23 = 37 days

Odd days = 37 ÷ 7 = 2 (Remainder)

Total odd days until December 31, 1730:

Total = 0 (for 1600 yrs) + 5 (for 100 yrs) + 2 (for 30 yrs) = 7 odd days.

7 ÷ 7 = 0 remainder (which means December 31, 1730 was a Sunday).

Day on January 1, 1731:

The first day of the next year (1731) will be the day following Sunday.

Total odd days = 0 (until 1730) + 1 (for Jan 1st) = 1 odd day.

According to the day code: 1 → Monday.

Thus, the first day of the year 1731 was Monday.

Hence, the correct answer is "Option 1".

**Q29. Answer: (b) C**

Given: 5 boys R, M, N, B and C are sitting in a row facing north (not necessarily in the same order).

1. Only B and R are to the left of M.

2. N is to the immediate right of M.

3. R is not at the ends of the row.

C, the only person left will occupy the vacant position.

Thus, C is sitting to the right of N.

Hence, the correct answer is "Option 2".

**Q30. Answer: (b) T**

Given:7 boys P, Q, R, S, T, U and W are sitting in a row facing north (not necessarily in the same order).

1. No one is to the right of Q.

2. R is fourth to the left of Q.

3. W is second to the left of R.

4. T is fourth to the right of U.

5. P is not second to the right of U.

S, the only person left will occupy the vacant position.

Thus, T is sitting to the immediate right of P.

Hence, the correct answer is "Option 2".

**Q31. Answer: (a) [figure]**

Given:

The logic followed here is:

Logic: The relationship between the figures is based on the diagonal movement of the internal symbols. Each symbol moves to its diagonally opposite corner in the subsequent figure.

Similarly,

Thus, option 1 is the missing figure on the right side of (::) from the given alternatives based on the same logic/rule/relation.

Hence, the correct answer is "Option 1".

**Q32. Answer: (c) [figure]**

Given:

The logic followed here is:

Logic:All symbols shift positions in a fixed rotational pattern and some symbols rotate by 90°.

Similarly,

Thus, option 3 the missing figure on the right side of (::) from the given alternatives based on the same logic/rule/relation.

Hence, the correct answer is "Option 3".

**Q33. Answer: (a) XS120**

The position and positional values or English Alphabets are:

Given: TK80 : RG160 :: FR60 : DN140 :: ZW40 : ?

The logic followed here is:

Similarly,

Thus, XS120 is related to the fifth letter-number cluster in the same way as the second letter-number cluster is related to the first letter-number cluster and fourth letter-number cluster is related to third letter-number cluster.

Hence, the correct answer is "Option 1".

**Q34. Answer: (a) QTY120**

The position and positional values or English Alphabets are:

Given: TSR60 : OQS90 :: ZVT80 : ? :: WKU100 : RIV150

The logic followed here is:

Similarly,

Thus, QTY120 is related to the third letter-number cluster in the same way as the second letter-number cluster is related to the first letter-number cluster and sixth letter-number cluster is related to fifth letter-number cluster.

Hence, the correct answer is "Option 2".

**Q35. Answer: (d) 306**

Given:

5884 : 5920

4293 : 4329

The logic followed here is:

Logic: Second number = First number + 36

5884 + 36 = 5920

4293 + 36 = 4329

Similarly,

270 + 36 = 306

Thus, the number related to 270 is 306.

Hence, the correct answer is "Option 4".

**Q36. Answer: (b) 919**

Given:

494 : 977

752 : 1235

The logic followed here is:

Logic: Second number = First number + 483

494 + 483 = 977

752 + 483 = 1235

Similarly,

436 + 483 = 919

Thus, the number related to 436 is 919.

Hence, the correct answer is "Option 2".

**Q37. Answer: (b) na**

Given: In a certain code language, ‘bike race is excited’ is coded as ‘la me na ps’ and ‘excited people buy ticket’ is coded as ‘mf na lz pq’.

The logic followed here is:

Thus, ‘excited’ is coded as 'na' in that code language.

Hence, the correct answer is "Option 2".

**Q38. Answer: (c) UGWKN**

The position and positional values or English Alphabets are:

Given: In a certain code language 'MOONS' is coded as 'NQTLN' and 'STRAY' is coded as 'TVWYT'.

The logic followed here is:

Similarly,

Thus, 'TERMS' will be coded as UGWKN in the same code language.

Hence, the correct answer is "Option 3".

YourMockTest.com — Free Study Material

**Q39. Answer: (c) EX216**

The position and positional values or English Alphabets are:

Given: TS1, VO8, XK27, ZG64, BC125, EX216

The logic followed here is:

Thus, EX216 is the wrong term from the given alternatives.

Hence, the correct answer is "Option 3".

**Q40. Answer: (c) ZID265**

The position and positional values or English Alphabets are:

Given: BFY253, GLU255, LRQ257, QXM259, VDI261, ZID265

The logic followed here is:

Thus, ZID265 is the wrong term from the given alternatives.

Hence, the correct answer is "Option 3".

**Q41. Answer: (a) 1957**

The correct answer is 1957.

Key Points

• The National Coal Development Corporation (NCDC) was established as a Government of India undertaking in 1957 (incorporated in September 1956 and operationalized in 1957) with the specific goal of increasing coal production in the public sector.

• At the time of its formation, the corporation was handed over the management of 11 state-owned collieries which were originally under the control of the Indian Railways.

• The primary task assigned to the NCDC was to explore new coalfields and expedite the development of new coal mines to meet the heavy energy demands of the Second Five-Year Plan.

• The corporation played a crucial role in introducing scientific mining methods and mechanization in the Indian coal industry, shifting away from the traditional manual labor methods prevalent in private mines.

• In 1975, following the nationalization of the coal industry, the NCDC was merged into Coal India Limited (CIL), which became the apex holding company for the sector.

Additional Information

• Coal India Limited (CIL): Formed in November 1975, it is a Maharatna Public Sector Enterprise and the largest coal producer in the world. It operates under the Ministry of Coal.

• Nationalization Phases: The coal industry in India was nationalized in two stages; the coking coal mines were nationalized through the Coking Coal Mines (Nationalisation) Act, 1972, and the non-coking coal mines through the Coal Mines (Nationalisation) Act, 1973.

• Industrial Policy Resolution, 1956: This policy placed coal in Schedule A, making it an industry where the state had exclusive responsibility for development, which led to the expansion of the NCDC.

• Geographical Distribution: Most of India's coal reserves are found in the eastern and central parts of the country, specifically in states like Jharkhand, Odisha, Chhattisgarh, and West Bengal.

Important Points

• Second Five-Year Plan (1956-1961): This plan focused on rapid industrialization and the development of heavy industries, which necessitated a massive increase in fuel supply, thus making the formation of NCDC in 1957 a strategic necessity.

• Central Mine Planning and Design Institute (CMPDI): This premier consultancy organization was originally established as a division of NCDC to provide specialized planning and design for coal mines.

• Coal Varieties in India: India's coal is predominantly of the Gondwana type, which accounts for about 98% of the total reserves, while Tertiary coal accounts for the remaining 2%.

• Administrative Control: The Ministry of Coal, headed by a Union Minister, has the overall responsibility for determining policies and strategies for the exploration and development of coal and lignite reserves.

**Q42. Answer: (c) In the urinary bladder**

The correct answer is In the urinary bladder.

Key Points

• The urinary bladder is a hollow, muscular, and elastic organ situated in the pelvic cavity. Its primary role in the human excretory system is to act as a temporary storage vessel for urine before it is voided from the body.

• Kidneys are bean-shaped organs that perform the critical task of filtering blood to remove metabolic wastes and excess water, thereby forming urine. While they are the site of production, they do not store the fluid. Hence, statement 1 is incorrect.

• Ureters are thin, muscular tubes (one for each kidney) that carry urine from the renal pelvis to the bladder. They use peristaltic

YourMockTest.com — Free Study Material

contractions to move the fluid downward. Hence, statement 2 is incorrect.

• The urinary bladder collects urine until it reaches a certain volume, at which point sensory nerves trigger the urge to urinate. It can expand to hold significant volumes due to its specialized lining. Hence, statement 3 is correct.

• The urethra is the final tube in the urinary tract that facilitates the expulsion of urine from the bladder to the external environment. Hence, statement 4 is incorrect.

Additional Information

• Detrusor Muscle: The wall of the urinary bladder consists of a thick layer of smooth muscle known as the detrusor muscle. This muscle remains relaxed to allow the bladder to fill and contracts during the process of urination.

• Urine Composition: Human urine is a liquid byproduct of metabolism consisting primarily of 95% water. The remaining 5% is composed of urea, creatinine, salts, and ammonia. The yellow color of urine is typically due to a pigment called urochrome.

• Micturition: This is the physiological term for the act of passing urine. It involves a coordinated effort between the central nervous system, the bladder muscles, and the urethral sphincters.

• Anatomical Variations: The urethra exhibits significant differences between sexes. In females, it is relatively short (about 4 cm), while in males, it is much longer (about 20 cm) as it passes through the prostate gland and the penis.

Important Points

• Nephron Functionality: The kidneys contain approximately one million nephrons each. These microscopic units are responsible for glomerular filtration, reabsorption, and secretion.

• Bladder Capacity: An average adult urinary bladder can comfortably hold between 300 ml and 500 ml of urine. However, it is capable of stretching to hold more, though this causes significant discomfort.

• Sphincter Control: The flow of urine is regulated by two sphincters: the internal urethral sphincter (involuntary) and the external urethral sphincter (voluntary), the latter of which allows humans to control the timing of urination.

• Hormonal Regulation: The concentration and volume of urine stored are heavily influenced by the Antidiuretic Hormone (ADH), which is secreted by the posterior pituitary gland to regulate water balance in the body.

**Q43. Answer: (d) Lichchhavis**

The correct answer is Lichchhavis.

Key Points

• The Vajji (or Vrijji) was one of the 16 Mahajanapadas (great kingdoms) of ancient India that flourished between the 6th and 4th centuries BCE.

• The capital of the Vajji confederacy was Vaishali, located in the modern-day Vaishali district of Bihar.

• The Vajji territory was governed not by a single monarch but as a Gana-Sangha (an oligarchic republic). The Lichchhavis were the most powerful and prominent clan among the eight clans that formed the Vajji confederacy.

• The Lichchhavis are historically celebrated for establishing what is often considered one of the earliest examples of a republican form of government in the world.

• In this system, the territory was ruled by many Rajas (kings), sometimes numbering in the thousands, who met in assemblies to discuss and debate state matters.

Additional Information

• Geographical Context of Vajjis:

• The Vajji kingdom was situated to the north of the Ganges river. It was bordered by the Gandak river to the west and the Kosi river to the east.

• The region was extremely fertile, making it a prosperous agricultural and commercial center in ancient India.

• The 16 Mahajanapadas:

• Ancient texts like the Buddhist Anguttara Nikaya and the Jain Bhagavati Sutra list 16 Mahajanapadas that existed during the second urbanization.

• These included Magadha, Kosala, Vatsa, and Avanti, which were powerful monarchies, alongside republics like Vajji and Malla.

• Other Options Explained:

• Mallas: This was another Gana-Sangha located to the north of Vajji. They had two main branches with capitals at Kusinara (where Gautama Buddha attained Parinirvana) and Pava.

• Kambojas: Situated in the northwestern part of the Indian subcontinent (near modern Afghanistan and Pakistan). They were renowned for their high-quality horses and excellent cavalry.

• Kurus: Centered around the modern-day Delhi-Meerut region. Their capital was Indraprastha, and they are prominently mentioned in the epic Mahabharata.

Important Points

• Religious Significance: Vaishali is the birthplace of Lord Mahavira, the 24th Tirthankara of Jainism, who belonged to the Jnatrika clan (another member of the Vajji confederacy).

• Buddhist Connection: The Second Buddhist Council was held at Vaishali in 383 BCE, approximately a century after the Buddha's death. The Buddha also visited Vaishali many times and delivered several important discourses there.

• Conflict with Magadha: The Vajji confederacy was eventually conquered by Ajatashatru, the ruler of Magadha. Historians record that the war lasted for nearly 16 years, and Ajatashatru used advanced military technology like Mahashilakantaka (a catapult) and Rathamusala (a chariot with blades).

• Administrative Structure: The Lichchhavis had a sophisticated administration with officials such as the Raja (head), Uparaja (vice-head), Senapati (commander), and Bhandagarika (treasurer).

**Q44. Answer: (a) reducing budget demands**

The correct answer is reducing budget demands.

Key Points

• A Cut Motion is a powerful parliamentary tool used by members of the Lok Sabha to oppose or express disapproval of the Demands for Grants submitted by the Union Government as part of the Union Budget.

• Its primary purpose is to reduce the amount requested by a ministry in its demand for grants, effectively acting as a mechanism for parliamentary control over the executive's spending. Hence, statement 1 is correct.

• These motions are moved during the discussion on the Annual Financial Statement (Budget) under the provisions of Article 113 of the Indian Constitution.

• If a Cut Motion is passed by the Lok Sabha, it is considered a vote of no confidence against the government, and the Council of Ministers is expected to resign as it indicates the government has lost the majority support of the House.

• The Rajya Sabha has no power to move a Cut Motion or vote on the Demands for Grants; it can only discuss the budget.

Additional Information

• Types of Cut Motions:

• Disapproval of Policy Cut Motion: This motion states that the amount of the demand be reduced to Re. 1. It represents the disapproval of the policy underlying the demand. A member giving notice of such a motion must indicate in precise terms the particulars of the policy which he/she proposes to discuss.

• Economy Cut Motion: This motion aims to reduce the amount of the demand by a specified amount. It represents the view that the expenditure is excessive or that economy can be effected in the proposed expenditure.

• Token Cut Motion: This motion proposes that the amount of the demand be reduced by Rs. 100. It is used to ventilate a specific grievance that is within the sphere of the responsibility of the Government of India.

• Unrelated Parliamentary Procedures:

• Removing a Judge: The removal of a judge of the Supreme Court or High Court is done through a Removal Motion based on proved misbehaviour or incapacity under the Judges (Inquiry) Act, 1968, not a Cut Motion. Hence, statement 2 is incorrect.

• Amending the Constitution: The procedure for amending the Constitution is laid down in Article 368, which requires a specific Constitution Amendment Bill to be passed by both Houses. Hence, statement 3 is incorrect.

• Dissolving the House: The President of India has the power to dissolve the Lok Sabha under Article 85 on the advice of the Prime Minister and the Council of Ministers. Hence, statement 4 is incorrect.

Important Points

• Conditions of Admissibility: For a Cut Motion to be admissible in the Lok Sabha, it must fulfill several criteria:

• It must relate to only one demand and be confined to one specific matter.

• It should not contain arguments, inferences, ironical expressions, or defamatory statements.

• It must not relate to the expenditure charged on the Consolidated Fund of India.

• It should not revive discussion on a matter which has been discussed in the same session and on which a decision has been taken.

• It should not make suggestions for the amendment or repeal of existing laws.

• The Speaker of the Lok Sabha decides whether a Cut Motion is admissible or not under the Rules of Procedure and Conduct of Business.

**Q45. Answer: (b) 647**

The correct answer is 647.

Key Points

• Harshavardhana, the last great Hindu emperor of North India, died in the year 647 AD.

• He ruled for approximately 41 years, having ascended the throne in 606 AD at the age of 16 after the tragic deaths of his father Prabhakarvardhana and elder brother Rajyavardhana.

• His death in 647 AD resulted in the immediate disintegration of his empire as he left no direct heir to the throne.

• Following his demise, a minister named Arunasva (or Arjun) is said to have usurped the throne, leading to a brief conflict involving a Chinese diplomatic mission led by Wang Xuance.

• The death of Harsha is often cited by historians as the end of an era of relative unity in Northern India, followed by the rise of various regional powers like the Pratiharas, Palas, and Rashtrakutas.

Additional Information

• Dynasty and Capital:

• Harshavardhana belonged to the Pushyabhuti dynasty (also known as the Vardhana dynasty).

• He initially ruled from Thanesar but later shifted his capital to Kannauj to better manage his expanding empire and protect his sister Rajyashri's interests.

• Literary Contributions:

• Harsha was a renowned scholar and author who wrote three famous Sanskrit plays: Ratnavali, Priyadarshika, and Nagananda.

• His court was graced by the famous poet Banabhatta, who wrote the Harshacharita (the first historical biography in Sanskrit) and Kadambari.

• Foreign Relations:

• The famous Chinese traveler Xuanzang (Hiuen Tsang) visited India during Harsha's reign and stayed in his court for several years, providing detailed accounts of the social, economic, and religious conditions of the time.

• Harsha maintained diplomatic ties with the Tang Dynasty of China, exchanging several embassies.

Important Points

• Military Campaigns:

• Harsha conquered a vast territory including Punjab, Rajasthan, Gujarat, Bengal, and Odisha.

• However, his southward expansion was halted at the Narmada River by the Chalukya King Pulakeshin II in approximately 618-619 AD. This defeat is recorded in the Aihole Inscription.

• Religious Assemblies:

• Though he was initially a devotee of Shiva, Harsha became a great patron of Mahayana Buddhism later in life under the influence of Xuanzang.

• He organized the Kannauj Assembly to popularize Mahayana Buddhism and the Prayag Assembly (Mahamoksha Parishad), held every five years, where he donated his accumulated wealth to the poor and monks.

• Administration:

• Harsha's administration was more decentralized and feudal compared to the Guptas. The practice of granting land grants (Agraharas) to priests and officers became more prevalent during his time.

**Q46. Answer: (b) Mandolin**

The correct answer is Mandolin.

Key Points

• U. Srinivas, also known as Uppalapu Srinivas, was a world-renowned Indian classical musician who popularized the Mandolin in the Carnatic music tradition.

• Born on February 28, 1969, in Palakollu, Andhra Pradesh, he was a child prodigy who began playing the instrument at the age of six.

• He was the first musician to adapt the electric mandolin, a Western instrument, to the requirements of South Indian classical music, effectively producing the delicate gamakas (oscillations) essential to the genre.

• His first public performance took place in 1978 at the Gudur music festival when he was just nine years old, earning him the title "Mandolin Srinivas."

• He received several prestigious honors during his career, including the Padma Shri in 1998, the Sangeet Natak Akademi Award in 2010, and the Sangeetha Ratna.

• He was also known for his international collaborations, notably as a member of the fusion band Remember Shakti, alongside John McLaughlin, Zakir Hussain, Shankar Mahadevan, and V. Selvaganesh.

Additional Information

• Sitar:

• The Sitar is a plucked stringed instrument used predominantly in Hindustani Classical Music.

• It gained global recognition through maestros like Pandit Ravi Shankar, Vilayat Khan, and Nikhil Banerjee.

• It features a long neck and a gourd-shaped resonating chamber, typically having 18, 19, or 20 strings.

• Mandolin:

• The Mandolin belongs to the lute family and usually has four pairs of metal strings.

• While it originated in Europe, U. Srinivas modified it into a five-string electric version for Carnatic performances to sustain notes longer.

• In the Western world, it is commonly used in bluegrass, folk, and classical music.

• Tambura (Tanpura):

• The Tambura is a long-necked plucked string instrument that provides a continuous harmonic drone.

• It does not play a melody but supports the lead singer or instrumentalist by maintaining the Sruti (pitch).

• It is an indispensable part of both Carnatic and Hindustani music performances.

• Nadaswaram:

• The Nadaswaram is a double-reed wind instrument, one of the most popular classical instruments in South India.

• It is often played in pairs, accompanied by a pair of drums called Thavil, and is considered Mangala Vadya (auspicious instrument) used in temples and weddings.

• Legendary exponents include Sheikh Chinna Moulana and T.N. Rajarathnam Pillai.

Important Points

• Legacy: U. Srinivas passed away at a young age on September 19, 2014, in Chennai. His contribution remains unique because he proved that a foreign, fretted instrument could handle the complexities of Indian Ragas.

• Global Fusion: He was a pioneer in World Music, blending Indian classical elements with Jazz and Western Classical styles, performing at major venues like the Sydney Opera House and Royal Albert Hall.

**Q47. Answer: (c) Isaac Newton**

The correct answer is Isaac Newton.

Key Points

• Sir Isaac Newton formulated the Universal Law of Gravitation in 1687, which he documented in his landmark publication Philosophiae Naturalis Principia Mathematica.

• Newton observed that the same force responsible for an apple falling to the ground also keeps the Moon in its nearly circular orbit around the Earth.

• He concluded that gravitation is a universal phenomenon; every point mass attracts every other point mass in the universe by a force pointing along the line intersecting both points.

• This law states that the force is proportional to the product of their masses (m1 × m2) and inversely proportional to the square of the distance ($r^2$) between them.

• His work unified terrestrial and celestial mechanics, proving that the laws of physics are consistent throughout the entire universe.

Additional Information

• Albert Einstein:

• Introduced the General Theory of Relativity in 1915, explaining gravity as the warping of spacetime rather than a simple pulling force.

• Developed the mass-energy equivalence formula $E = mc^2$, which is a cornerstone of modern physics.

• Galileo Galilei:

• Often called the Father of Modern Science, he pioneered the use of the telescope for astronomical discovery.

• He studied the uniform acceleration of falling objects and challenged the Aristotelian view that heavier objects fall faster.

• Thomas Edison:

• A prolific inventor who held 1,093 US patents, focusing on electrical power generation, mass communication, and sound recording.

• Key inventions include the phonograph and the first commercially practical incandescent light bulb.

• Gravitational Constant (G):

• The numerical value of G (approximately 6.674 × 10^(−11) $Nm^2/kg^2$) was accurately measured for the first time by Henry Cavendish in 1798.

**Q48. Answer: (b) Bombay**

The correct answer is Bombay.

Key Points

• The Prarthana Samaj was a prominent movement for religious and social reform in Maharashtra, formally established on 31 March 1867 in Bombay.

• It was founded by Dr. Atmaram Pandurang with the primary objective of promoting the worship of one God and reforming the social fabric of Hindu society.

• The society was heavily inspired by the Brahmo Samaj of Bengal, particularly following the visits of Keshab Chandra Sen to Bombay in 1864 and 1867.

• Unlike the Brahmo Samaj in Bengal, the Prarthana Samaj members did not regard themselves as adherents of a new religion but as a reformist group within Hinduism, drawing inspiration from Maharashtrian bhakti saints like Namdev and Tukaram.

• The movement gained widespread intellectual and social recognition after Mahadev Govind Ranade joined the organization in

1870, providing it with a systematic philosophy and a broad social agenda.

Additional Information

• Social Reform Initiatives:

• The Prarthana Samaj focused on four main areas: disapproval of the caste system, promotion of women education, widow remarriage, and the abolition of child marriage.

• It established the Widow Remarriage Association in 1866 and organized night schools for the working class and orphanages for the needy.

• In 1906, V.R. Shinde, a member of the Samaj, established the Depressed Classes Mission to work for the untouchables.

• Key Personalities:

• R.G. Bhandarkar, a famous orientalist and historian, and N.G. Chandavarkar were other leading figures who spearheaded the movement after Ranade.

• The organization published a weekly journal called Subodha Patrika to spread its message across the Bombay Presidency.

**Q49. Answer: (d) Hindi**

The correct answer is Hindi.

Key Points

• As of July 2025, the Government of India has designated 11 languages as Classical Languages. These include Tamil, Sanskrit, Kannada, Telugu, Malayalam, Odia, and the five added in October 2024: Marathi, Pali, Prakrit, Assamese, and Bengali.

• Hindi is recognized as an Official Language of the Union under Article 343 of the Indian Constitution, but it does not meet the specific criteria for Classical Language status, which requires an antiquity of 1,500 to 2,000 years.

• Kannada was granted classical status in 2008. It possesses an extensive literary tradition, with the Kavirajamarga (9th century) being one of the earliest available literary works in the language.

• Malayalam was officially declared a classical language in 2013. It evolved as a distinct language with a rich poetic and linguistic heritage that distinguishes it from other Dravidian languages.

• Odia became the sixth language to be conferred with the classical tag in 2014. It is the first language from the Indo-Aryan group, other than Sanskrit, to receive this recognition based on its ancient inscriptions and unique literary history.

Additional Information

• Criteria for Classical Language Status:

• High Antiquity: The language must have early texts or recorded history spanning 1,500–2,000 years.

• Valuable Heritage: A body of ancient literature or texts considered a valuable heritage by generations of speakers.

• Originality: The literary tradition must be original and not borrowed from another speech community.

• Discontinuity: There may be a discontinuity between the classical language and its later forms or offshoots.

• Institutional Benefits:

• Recognition allows for the establishment of a Centre of Excellence for Studies in Classical Languages.

• The Ministry of Education provides for Professional Chairs in Central Universities specifically for these languages.

• Annual International Awards are presented to scholars who have made significant contributions to the study and promotion of these languages.

**Q50. Answer: (c) Gujarat**

The correct answer is Gujarat.

Key Points

• The Kheda Satyagraha of 1918 was a significant movement in the Indian independence struggle, organized by Mahatma Gandhi to support the peasants of the Kheda district in Gujarat.

• The region was hit by a severe famine and a plague epidemic in 1917-18, which led to a total crop failure, yet the British authorities refused to waive the land revenue taxes.

• According to the government's own Revenue Code, farmers were entitled to a full remission of taxes if the yield was less than one-fourth of the normal production.

• Gandhi launched the Satyagraha (non-violent resistance) and urged the farmers to refuse tax payments despite the government seizing their property, cattle, and lands.

• The movement was a major success as the government finally agreed to suspend the tax for the year and return the confiscated property, establishing Gandhi as a powerful leader for the rural masses.

Additional Information

• Sardar Vallabhbhai Patel:

• A prominent lawyer from Gujarat, Patel was deeply influenced by Gandhi during the Kheda Satyagraha and gave up his legal practice to join the freedom movement full-time.

YourMockTest.com — Free Study Material

• Comparison with Champaran (1917):

• While Champaran in Bihar was Gandhi's first Satyagraha involving indigo farmers, the Kheda movement was the first major peasant-based non-cooperation struggle in Western India.

• Other Major Movements in Gujarat:

• Ahmedabad Mill Strike (1918): Focused on industrial workers' wages and was Gandhi's first hunger strike in India.

• Bardoli Satyagraha (1928): Another successful peasant movement in Gujarat led by Sardar Patel against a 30 percent tax hike.

• The Philosophy of Satyagraha:

• The term was coined by Gandhi to represent a method of non-violent resistance based on Truth and Ahimsa (non-violence), which he had previously tested in South Africa.

**Q51. Answer: (a) Arunachal Pradesh**

The correct answer is Arunachal Pradesh.

Key Points

• Based on the Census 2011, Arunachal Pradesh recorded the lowest population density in the country, with only 17 persons per square kilometer.

• The state covers a vast geographical area of 83,743 square kilometers, but its population remains low at approximately 1.38 million due to difficult living conditions.

• The primary reasons for this sparse population are the rugged mountainous terrain of the Eastern Himalayas and the fact that nearly 80% of the land is covered by dense forests.

• Within the state, the Dibang Valley district has the distinction of having the lowest density in India at just 1 person per square kilometer.

• This demographic data is essential for the Government of India to determine resource allocation and administrative planning for the Northeast region.

Additional Information

• Population Density Comparison:

• Tamil Nadu: This industrialized southern state has a population density of 555 persons per square kilometer.

• Kerala: Known for its high literacy and social indicators, it has a high density of 860 persons per square kilometer.

• Goa: Despite its small landmass, Goa maintains a population density of 394 persons per square kilometer, which is slightly above the national average.

• National Demographic Context:

• The National Average population density of India as per the 2011 Census is 382 persons per square kilometer.

• Bihar is the most densely populated state in India, with 1,106 persons per square kilometer, followed by West Bengal at 1,028.

• Among Union Territories, Delhi has the highest density at 11,320, while Andaman and Nicobar Islands have the lowest at 46.

• Population density is calculated using the formula: Total Population ÷ Total Land Area.

**Q52. Answer: (c) the product of the masses**

The correct answer is the product of the masses.

Key Points

• Newton's Universal Law of Gravitation, formulated by Sir Isaac Newton in 1687, states that every point mass in the universe attracts every other point mass with a force directed along the line intersecting both points.

• The magnitude of this gravitational force is directly proportional to the product of their masses (m1 × m2). This means if the mass of one object doubles, the force of gravity between them also doubles.

• The law also specifies that the force is inversely proportional to the square of the distance ($r^2$) between the centers of the two objects. This relationship is known as the Inverse Square Law.

• The complete mathematical formula for the law is F = G m1m2/($r^2$), where F represents the force, m1 and m2 are the masses, r is the separation distance, and G is the proportionality constant.

Additional Information

• Universal Gravitational Constant (G):

• The value of G is approximately 6.674 × 10^(−11) $Nm^2/kg^2$.

• Unlike the acceleration due to gravity (g), the value of G remains constant throughout the universe.

• It was first accurately measured by Henry Cavendish in his famous Cavendish experiment in 1798 using a torsion balance.

• Properties of Gravitational Force:

• It is a conservative force, meaning the work done is independent of the path taken.

• It is a central force that acts along the line joining the centers of gravity of the two bodies.

YourMockTest.com — Free Study Material

• Despite being the weakest of the four fundamental forces of nature, it governs the motion of planets, stars, and galaxies over long distances.

• It is always attractive and does not depend on the medium present between the two objects.

**Q53. Answer: (b) Brain**

The correct answer is Brain.

Key Points

• Subacute Sclerosing Panencephalitis (SSPE) is a chronic, progressive, and nearly always fatal inflammatory disease that targets the Central Nervous System, specifically the Brain.

• The condition is caused by a persistent infection with a mutant strain of the measles virus (morbillivirus) that remains dormant in neural tissues for several years.

• The protest at Mantralaya in Mumbai in early 2025 brought attention to the lack of specialized healthcare infrastructure and financial support for families dealing with this rare neurodegenerative condition.

• The pathology involves the widespread destruction of neurons and glial cells, leading to severe cerebral atrophy and sclerosis (scarring) of the brain tissue.

• SSPE typically manifests in children and young adults, appearing roughly 5 to 10 years after a primary measles infection, especially if the infection occurred before the age of 2 years.

Additional Information

• Clinical Progression and Symptoms:

• Early stages involve subtle behavioral changes, irritability, and declining academic performance.

• Advanced stages are characterized by myoclonic jerks (involuntary muscle spasms), seizures, blindness, and eventually a state of akinetic mutism.

• Diagnosis and Prevention:

• Diagnosis is confirmed through the detection of extremely high titers of measles antibodies in the Cerebrospinal Fluid (CSF) and Serum.

• An Electroencephalogram (EEG) often shows classic Radermecker complexes, which are periodic high-voltage slow-wave discharges.

• The only effective way to prevent SSPE is through universal measles vaccination via the MMR (Measles, Mumps, and Rubella) vaccine.

• Treatment Outlook:

• Currently, there is no definitive cure for SSPE; treatment is largely palliative or involves antiviral drugs like Isoprinosine and Interferon-alpha to slow progression.

**Q54. Answer: (c) 1923**

The correct answer is 1923.

Key Points

• Radio broadcasting in India was initiated by the Radio Club of Bombay in June 1923. This marked the very beginning of radio as a medium for mass communication in the country.

• Following the success of the Bombay initiative, the Calcutta Radio Club was established in November 1923, further expanding the reach of experimental broadcasting.

• During its initial years, radio broadcasting was a private enterprise, operated by hobbyists and enthusiasts before any formalized government structure was established.

• In 1927, a private entity called the Indian Broadcasting Company (IBC) was authorized to operate two radio stations: one in Bombay (launched on July 23, 1927) and another in Calcutta (launched on August 26, 1927).

• The Indian Broadcasting Company faced financial difficulties and went into liquidation in 1930, prompting the British Government of India to take over the broadcasting operations under the Indian State Broadcasting Service (ISBS).

Additional Information

• All India Radio (AIR): On June 8, 1936, the Indian State Broadcasting Service was renamed All India Radio. Today, it is part of the Prasar Bharati (Broadcasting Corporation of India) and is one of the world's largest broadcasting organizations.

• Akashvani: The name 'Akashvani', which means 'Voice from the Sky', was officially adopted for national broadcasting in 1957. The name was famously suggested by the poet Rabindranath Tagore.

• Vividh Bharati: Launched on October 3, 1957, this service was created to provide light entertainment and film music. It became immensely popular and was a direct competitor to Radio Ceylon at the time.

• Growth and Reach: Currently, All India Radio operates hundreds of broadcasting centers across India, covering nearly 92% of the country's geographical area and serving about 99.19% of the total population in over 23 languages and 179 dialects.

• FM Broadcasting: The first FM service in India was started in 1977 in Madras (now Chennai), marking a significant technological

YourMockTest.com - Free Study Material

leap in the quality of audio transmission.

Important Points

• Lionel Fielden: He was appointed as the first Controller of Broadcasting in India in 1935 and played a crucial role in organizing the nascent radio services into what became All India Radio.

• News Services Division (NSD): The first news bulletin was broadcast from the Bombay station in 1927. Today, the NSD of All India Radio broadcasts hundreds of bulletins daily in various languages.

• Post-Independence Era: After 1947, India had only six radio stations (Delhi, Bombay, Calcutta, Madras, Tiruchirappalli, and Lucknow), as several major stations like Lahore and Peshawar went to Pakistan.

• Prasar Bharati: Under the Prasar Bharati Act of 1990, AIR and Doordarshan became part of an autonomous statutory body to ensure the independence of public service broadcasting in India.

**Q55. Answer: (a) Vikram Seth**

The correct answer is Vikram Seth.

Key Points

• Vikram Seth is the acclaimed author of the novel 'An Equal Music', which was published in the year 1999.

• The book is a romantic novel that revolves around the lives of professional musicians, specifically a violinist named Michael Holme and a pianist named Julia McNicholl.

• The narrative is deeply infused with classical music themes, featuring works by composers such as Beethoven, Vivaldi, and Bach, reflecting Vikram Seth's own passion for music. Hence, the option containing Vikram Seth is correct.

• The story is set primarily in London, with significant portions taking place in Vienna and Venice, capturing the atmosphere of European musical culture.

• 'An Equal Music' is noted for its lyrical prose and its exploration of themes like lost love, the nature of memory, and the physicality of sound, particularly Michael’s struggle with Julia’s deafness.

Additional Information

• Kiran Desai:

• She is an Indian author who won the Man Booker Prize in 2006 for her novel 'The Inheritance of Loss'.

• Her first novel, 'Hullabaloo in the Guava Orchard', was published in 1998 and won the Betty Trask Award.

• She is the daughter of the famous novelist Anita Desai.

• Zulfikar Ghose:

• He was a Pakistani-American novelist, poet, and essayist born in Sialkot in 1935.

• He is well-known for his trilogy 'The Incredible Brazilian' and the novel 'The Murder of Aziz Khan' (1967).

• His work often explores the post-colonial identity and the history of South Asia.

• Shiva Naipaul:

• He was a Trinidadian-British novelist and journalist, and the younger brother of the Nobel laureate V.S. Naipaul.

• His notable works include 'Fireflies' (1970), which won the John Llewellyn Rhys Prize, and 'The Chip-Chip Gatherers' (1973).

• He was known for his sharp satirical style and observations on the Caribbean diaspora.

Important Points

• Vikram Seth was born in Kolkata, India, in 1952 and is widely regarded as one of India's most versatile writers.

• His most famous work, 'A Suitable Boy', published in 1993, is one of the longest novels ever published in a single volume in the English language.

• He has received numerous awards, including the Sahitya Akademi Award in 1988 for 'The Golden Gate' and the Padma Shri in 2007 for his contributions to Literature and Education.

• 'The Golden Gate' (1986) is a unique novel in verse, written entirely in Onegin stanzas, showcasing his mastery over diverse literary forms.

• Apart from fiction, he is a prolific poet and has published works like 'Mappings' and 'Beastly Tales from Here and There'.

**Q56. Answer: (b) Kavita Kané**

The correct answer is Kavita Kané.

Key Points

• The book titled 'The Fisher Queen’s Dynasty' is written by the noted Indian author Kavita Kané.

• Published in 2017, this novel is a mythological fiction that provides a fresh perspective on the Mahabharata, specifically focusing on the character of Satyavati.

• The narrative explores Satyavati’s journey from being the daughter of a ferryman to becoming the powerful queen of Hastinapur and the matriarch of the Kuru dynasty.

• The book highlights themes of ambition, power, and the sacrifices made by a woman to ensure the survival and supremacy of

her lineage. Hence, the correct answer is Kavita Kané.

• Kavita Kané is credited with pioneering the genre of feminist mythology in contemporary Indian literature, often picking marginalized female characters from epics and making them the protagonists.

Additional Information

• Kavita Kané:

• She was a journalist by profession before becoming a full-time novelist.

• Her debut novel was 'Karna's Wife: The Outcast's Queen', published in 2013, which became a bestseller.

• Other significant works include 'Sita's Sister' (about Urmila), 'Menaka's Choice', 'Lanka's Princess' (about Surpanakha), and 'Ahalya's Awakening'.

• Her writing style focuses on psychological depth and re-evaluating traditional patriarchal narratives.

• Sudha Murty:

• She is a prolific author in English and Kannada and the former chairperson of the Infosys Foundation.

• She is known for her simple and moral-driven storytelling in books like 'Wise and Otherwise', 'The Mother I Never Knew', and 'The Bird with Golden Wings'.

• She was honored with the Padma Shri in 2006 and the Padma Bhushan in 2023 by the Government of India.

• Chitra Banerjee Divakaruni:

• An Indian-American author and poet, she is famous for the novel 'The Palace of Illusions', which is the Mahabharata told from Draupadi's point of view.

• Her other major works include 'The Mistress of Spices', 'The Forest of Enchantments' (Ramayana from Sita's perspective), and 'The Last Queen'.

• Her book 'The Mistress of Spices' was adapted into a film in 2005.

• Jaishree Misra:

• She is a contemporary Indian writer who gained fame with her debut semi-autobiographical novel 'Ancient Promises'.

• She also wrote 'Rani', a historical fiction based on the life of Rani Lakshmibai, which faced a brief ban in Uttar Pradesh in 2008.

Important Points

• Satyavati, also known as Matsyagandha, is a pivotal figure in the Mahabharata as she is the great-grandmother of the Pandavas and Kauravas.

• The re-imagination of mythology has become a significant trend in Indian literature since the 2010s, with authors like Amish Tripathi, Devdutt Pattanaik, and Kavita Kané leading the charts.

• In 'The Fisher Queen's Dynasty', the author portrays Satyavati not just as a manipulative queen, but as a visionary who was pragmatic and determined in a male-dominated world.

**Q57. Answer: (c) Both I and II**

The correct answer is Both I and II.

Key Points

• The Industrial Policy of 1991 was announced by the Government of India on July 24, 1991, under the leadership of Prime Minister P.V. Narasimha Rao and Finance Minister Dr. Manmohan Singh.

• One of the primary objectives was to introduce Liberalization in the Indian economy by ending the "License-Permit-Quota Raj." This involved the abolition of industrial licensing for most projects, allowing the private sector more freedom to operate and expand. Hence, statement I is correct.

• The policy aimed to remove restrictions on Direct Foreign Investment (FDI). It provided automatic approval for foreign technology agreements and allowed foreign equity participation up to 51% in high-priority industries, which was a significant shift from previous restrictive regimes. Hence, statement II is correct.

• The policy sought to integrate the Indian economy with the global market through Globalization, encouraging competition and increasing the efficiency of the domestic industrial structure.

• It also focused on Privatization by reducing the number of industries reserved exclusively for the Public Sector, thereby inviting private participation in core areas of the economy.

• Hence, the correct answer is Both I and II.

Additional Information

• Background of the 1991 Reforms:

• India faced a severe Balance of Payments (BoP) crisis in 1991, where foreign exchange reserves dropped to a level barely sufficient to pay for two weeks of imports.

• This economic crisis necessitated a structural shift, leading to the adoption of the LPG (Liberalization, Privatization, and Globalization) model.

• Abolition of Industrial Licensing:

• Under the New Industrial Policy (NIP), Industrial Licensing was abolished for all but 18 industries (which were later reduced further to 5).

• Currently, only a few sectors like electronic aerospace, gunpowder, industrial explosives, hazardous chemicals, and tobacco products require a license.

• Public Sector De-reservation:

• The number of industries reserved for the public sector was reduced from 17 to 8 in 1991.

• At present, only Atomic Energy and Railway Operations remain exclusively reserved for the public sector.

• MRTP Act Amendment:

• The Monopolies and Restrictive Trade Practices (MRTP) Act was amended to remove the threshold limit of assets for MRTP companies.

• This allowed large industrial houses to invest and expand without seeking prior government approval for every project, fostering a more competitive business environment.

• Foreign Investment Promotion Board (FIPB):

• The government established the FIPB to negotiate with international firms and approve Foreign Direct Investment in sectors that did not fall under the automatic route.

Important Points

• Impact on Economy: The 1991 reforms led to a significant increase in India's GDP growth rate, boosted foreign exchange reserves, and made India one of the fastest-growing economies in the world.

• Technology Upgradation: By allowing foreign investment and technology agreements, the policy facilitated the flow of modern technology into Indian industries, enhancing their global competitiveness.

• Sectoral Growth: The policy paved the way for the growth of the Services Sector, particularly IT and BPO, which became major contributors to the Indian economy in the following decades.

**Q58. Answer: (a) Bowled**

The correct answer is Bowled.

Key Points

• The image depicts the batsman’s stumps being hit by the ball, which indicates the mode of dismissal known as Bowled. Hence, option 1 is correct.

• A batsman is declared Bowled when:

• The ball delivered by the bowler hits the stumps.

• At least one bail is dislodged from the wicket.

• In this dismissal, it does not matter whether the ball touches:

• The bat

• The pad

• Any part of the batsman’s body

before hitting the stumps, provided no other player touches the ball first.

• Bowled is one of the most common methods of dismissal in cricket and directly credits the bowler with the wicket.

• Option-wise Analysis:

• Bowled – Ball hits the stumps and dislodges the bails. Correct.

• Hit Wicket – Batsman disturbs his own stumps using bat or body.

• Stumped – Wicketkeeper removes the bails when the batsman is outside the crease.

• LBW – Ball hits the batsman’s leg before the wicket.

• Hence, the correct answer is Bowled.

Additional Information

• Cricket is governed internationally by the International Cricket Council (ICC).

• The official Laws of Cricket are maintained by the Marylebone Cricket Club (MCC), headquartered at Lord’s, London.

• Common methods of dismissal in cricket include:

• Bowled

• Caught

• Run Out

• LBW

• Stumped

• Hit Wicket

• A bowler receives credit for wickets taken through:
• Bowled
• Caught
• LBW
• Hit Wicket
• Stumped
• The wicket consists of:
• Three stumps
• Two bails
placed at each end of the pitch.

Important Points

• LBW stands for Leg Before Wicket, which prevents batsmen from unfairly blocking the ball with their legs.
• Questions related to sports rules, cricket terminology, ICC, and methods of dismissal are frequently asked in competitive examinations.

**Q59. Answer: (d) Jaipur**

The correct answer is Jaipur.

Key Points

• Jaigarh Fort is a magnificent structure located on the Cheel ka Teela (Hill of Eagles) promontory of the Aravalli range in Jaipur, Rajasthan.
• It was built by Sawai Jai Singh II in the year 1726 to protect the Amer Fort and its palace complex and was named after him.
• The fort is famous for housing the Jaivana Cannon, which was manufactured in the fort's own foundry and was once the world's largest cannon on wheels.
• Architecturally, the fort is similar in design to the Amer Fort and is also known as the Victory Fort due to its massive battlements and defensive structures.
• The fort features an impressive subterranean passage that connects it to the Amer Fort, which was intended as an escape route for the royal family during times of war. Hence, the correct answer is Jaipur.

Additional Information

• Bikaner:
• This city is primarily known for the Junagarh Fort, which was originally called Chintamani.
• It was built by Raja Rai Singh, the sixth ruler of Bikaner, between 1589 and 1594.
• Unlike many other forts in Rajasthan which are built on hilltops, Junagarh Fort is built on the plains.
• Ajmer:
• Ajmer is home to the Taragarh Fort (Star Fort), constructed in 1354 by Ajaypal Chauhan.
• It is also world-famous for the Dargah Sharif, the tomb of the Sufi saint Khwaja Moinuddin Chishti, which attracts millions of pilgrims annually.
• Udaipur:
• Known as the City of Lakes, its most prominent landmark is the City Palace, situated on the banks of Lake Pichola.
• The Sajjangarh Fort (Monsoon Palace) is another significant fort in Udaipur, built by Maharana Sajjan Singh in 1884 to watch the monsoon clouds.
• Nahargarh Fort:
• Located in Jaipur along with Jaigarh and Amer, this fort was built by Maharana Sawai Jai Singh II in 1734.
• It was originally named Sudarshangarh but became known as Nahargarh, meaning 'abode of tigers'.

Important Points

• Water Harvesting: Jaigarh Fort is renowned for its highly advanced water harvesting system, featuring three massive underground tanks. The largest tank had the capacity to store 6 million gallons of water.
• Foundry: The fort housed one of the world's most efficient cannon foundries during the Mughal and Rajput eras due to the abundance of iron ore mines in the vicinity.
• Museum: Today, the fort houses a museum that displays royal artifacts, armoury, manuscripts, and paintings belonging to the Kachwaha dynasty of Jaipur.

**Q60. Answer: (a) South Africa**

The correct answer is South Africa.

Key Points

YourMockTest.com — Free Study Material

• The "Cancel Coal" case is a landmark climate change lawsuit in South Africa that gained international attention in December 2024 following a significant court ruling.

• In a historic judgment, the High Court of South Africa (Gauteng Division, Pretoria) ruled against the government's plans to procure 1,500 MW of new coal-fired power capacity.

• The litigation was spearheaded by youth and environmental groups, including the African Climate Alliance (ACA), groundWork, and the Vukani Environmental Justice Alliance, who challenged the Integrated Resource Plan (IRP) 2019.

• The court determined that the Minister of Mineral Resources and Energy had failed to conduct a proper Climate Change Impact Assessment before including new coal power in the national energy plan.

• The ruling is particularly significant because it explicitly recognized that the climate crisis poses a direct threat to the constitutional rights of children and future generations in South Africa.

Additional Information

• Energy Profile of South Africa: South Africa remains one of the world's most coal-dependent nations, with the mineral accounting for nearly 80% of its electricity generation, primarily managed by the state-owned utility Eskom.

• Constitutional Protection: The legal basis for the "Cancel Coal" case rests on Section 24 of the Constitution of the Republic of South Africa, 1996, which guarantees citizens the right to an environment that is not harmful to their health or well-being.

• The Integrated Resource Plan (IRP): This is a Cabinet-approved roadmap for South Africa’s electricity generation. The IRP 2019 version was contested because it mandated the addition of new coal power despite the availability of cleaner, cheaper renewable alternatives.

• Just Energy Transition Partnership (JETP): South Africa is a pioneer in the JETP model, an international financial framework designed to help developing economies phase out coal. The "Cancel Coal" victory aligns with the national goal of achieving Net Zero emissions by 2050.

• Global Precedent: The case is viewed as a major victory for climate litigation globally, demonstrating how courts can hold governments accountable for the long-term environmental consequences of energy policy and their impact on human rights.

Important Points

• The December 2024 ruling essentially "cancelled" the specific allocation for coal in the IRP 2019, forcing the government to re-evaluate its energy mix with stricter environmental oversight.

• Legal experts highlight that this case establishes the "best interests of the child" principle as a primary consideration in national administrative decisions regarding fossil fuel infrastructure.

• The Department of Mineral Resources and Energy (DMRE) had previously argued that new coal was necessary for energy security, but the court found that this did not exempt the state from its environmental obligations.

**Q61. Answer: (a) 12**

The correct answer is 12.

Key Points

• Indian wrestlers delivered a historic performance at the Commonwealth Games 2022, clinching a total of 12 medals.

• The Indian wrestling contingent achieved a remarkable 100% success rate, as every single one of the 12 wrestlers who traveled to Birmingham returned with a medal.

• The medal haul consisted of 6 Gold, 1 Silver, and 5 Bronze medals, making wrestling the most successful sport for India at the 2022 Games.

• The wrestling events were held at the Coventry Arena over two days, specifically on August 5 and August 6, 2022.

• India dominated the mat, particularly on the first day of the wrestling competition, where all six wrestlers in action won medals, including three golds.

Additional Information

• Gold Medalists:

• Bajrang Punia won the gold in the men's 65kg freestyle category, defending his title from the previous edition.

• Sakshi Malik secured gold in the women's 62kg freestyle, marking a significant comeback in her career.

• Deepak Punia defeated his Pakistani counterpart to win gold in the men's 86kg freestyle.

• Ravi Kumar Dahiya, an Olympic silver medalist, won his maiden CWG gold in the men's 57kg freestyle.

• Vinesh Phogat created history by winning her third consecutive CWG gold medal in the women's 53kg freestyle.

• Naveen Malik grabbed the final wrestling gold for India in the men's 74kg freestyle category.

• Silver and Bronze Medalists:

• Anshu Malik was the sole silver medalist, competing in the women's 57kg category.

• The 5 Bronze medals were won by Divya Kakran (68kg), Mohit Grewal (125kg), Pooja Gehlot (50kg), Pooja Sihag (76kg), and Deepak Nehra (97kg).

• Overall Indian Standings: India finished 4th in the overall medal tally at the Birmingham 2022 Commonwealth Games with a total

of 61 medals (22 Gold, 16 Silver, and 23 Bronze).

Important Points

• Historical Context: In the 2018 Gold Coast Commonwealth Games, India also won 12 medals in wrestling, but the 2022 performance is considered superior due to the higher count of Gold medals (6) compared to 2018 (5 Gold).

• Venue and Edition: The 2022 Commonwealth Games, officially known as the XXII Commonwealth Games, took place in Birmingham, England, from July 28 to August 8, 2022.

• Vinesh Phogat's Record: By winning gold in Birmingham, Vinesh Phogat became the first Indian woman to win three consecutive gold medals at the Commonwealth Games (2014, 2018, and 2022).

• Significance of Wrestling: Wrestling has been a powerhouse sport for India in the Commonwealth arena; since the 2010 Delhi Games, India has consistently dominated the wrestling medal table.

**Q62. Answer: (a) Ashoka**

The correct answer is Ashoka.

Key Points

• The remains of the famous 80-pillar hall were discovered at Kumrahar, located about five kilometers from Patna (ancient Pataliputra) in Bihar.

• This monumental structure is attributed to the Mauryan Empire and served as a grand assembly hall or part of the royal palace of Emperor Ashoka, who reigned from 268 BCE to 232 BCE.

• Archaeological excavations at the site were conducted by Dr. D.B. Spooner between 1912 and 1915, which brought to light the existence of these massive monolithic pillars.

• The hall was constructed using Chunar sandstone, and the pillars exhibited the distinct Mauryan polish, a technique that gave the stone a mirror-like, metallic luster.

• The layout consisted of 80 columns arranged in eight rows of ten pillars each, reflecting the advanced engineering and architectural capabilities of the 3rd century BCE. Hence, the statement regarding Ashoka is correct.

Additional Information

• Mauryan Architecture and Pataliputra:

• Megasthenes, the Greek ambassador sent by Seleucus Nicator to the court of Chandragupta Maurya, provided a detailed account of the city and the palace in his book Indica.

• He described the palace as more magnificent than the Persian palaces of Susa and Ecbatana, noting its wooden fortifications and grand stone pillars.

• Historical evidence suggests that while the pillars were stone, the roof and floor of the 80-pillar hall were made of wood, which is why much of the structure perished due to fire and environmental factors over 2,000 years.

• Influence of Foreign Styles:

• Scholars often note a resemblance between the 80-pillar hall and the Achaemenid architecture of Persia, specifically the Hall of a Hundred Columns at Persepolis.

• However, the Mauryan pillars were monolithic (carved from a single stone), unlike the Persian pillars which were constructed in segments.

• Significance of Kumrahar:

• The site of Kumrahar is not only famous for the hall but also for other findings like the Arogya Vihara (an ancient hospital-monastery) and the Anand Bihar.

• These findings highlight Pataliputra as a major center for administration, religion, and healthcare during ancient India.

Important Points

• Other Rulers Mentioned:

• Samudragupta and Chandragupta I belonged to the Gupta Dynasty (ruling roughly between 319 CE and 540 CE). Their architecture focused more on early Hindu temples and cave shrines, such as the Udayagiri caves.

• Harshavardhana (reigned 606 CE to 647 CE) was a ruler of the Pushyabhuti Dynasty with his capital at Kannauj. His era is noted for the support of Nalanda University rather than the 80-pillar hall of Pataliputra.

• Technical Features:

• The pillars of the hall were approximately 10 meters in height and were buried deep into the ground to provide stability for the massive structure above.

• The use of stone for royal buildings was a transition from the earlier extensive use of timber in the pre-Mauryan era.

**Q63. Answer: (c) Both I and II**

The correct answer is Both I and II.

Key Points

• Erythropoietin, commonly known as EPO, is a peptide hormone (a glycoprotein) that plays a critical role in the human body's

circulatory and respiratory systems. Hence, statement I is correct.

• This hormone is primarily produced and released from the kidneys. Special cells in the kidneys, known as interstitial fibroblasts, sense low oxygen levels and secrete EPO into the bloodstream. Hence, statement II is correct.

• The primary function of EPO is to stimulate the bone marrow to produce more red blood cells (erythrocytes).

• In the context of sports, EPO is used as a performance-enhancing drug because it increases the number of red blood cells, thereby improving the oxygen-carrying capacity of the blood to the muscles.

• Hence, the correct answer is Both I and II.

Additional Information

• Role of EPO in Doping:

• Blood doping involves the use of substances like EPO to artificially boost the hemoglobin levels in an athlete's body.

• By increasing the volume of red blood cells, athletes can significantly improve their aerobic capacity and endurance, allowing them to perform at higher intensities for longer periods.

• This practice is particularly prevalent in endurance sports such as professional cycling, marathon running, and triathlons.

• World Anti-Doping Agency (WADA) Regulations:

• The World Anti-Doping Agency (WADA) was established in 1999 to promote, coordinate, and monitor the fight against doping in sports.

• EPO has been on WADA's Prohibited List since the agency's inception, and tests to detect recombinant (synthetic) EPO were first implemented during the Sydney 2000 Olympic Games.

• Athletes found using EPO face severe penalties, including disqualification, loss of medals, and multi-year bans from competition.

Important Points

• Health Risks of EPO Misuse:

• Artificially elevating EPO levels causes the blood to become overly thick (increased viscosity).

• This high blood viscosity increases the risk of serious health complications, including heart attack, stroke, and pulmonary embolism.

• Historically, several unexplained deaths among cyclists in the 1980s and 1990s were suspected to be linked to EPO abuse.

• Medical Uses:

• While misused in sports, EPO is a vital medication for treating anemia resulting from chronic kidney disease, chemotherapy, or other medical conditions that reduce red blood cell counts.

**Q64. Answer: (a) India**

The correct answer is India.

Key Points

• India is endowed with the largest reserves of iron ore in Asia. The country possesses approximately 95% of the total haematite and magnetite reserves of the continent.

• The iron ore found in India is of superior quality, particularly the haematite variety, which contains about 60% to 70% metallic iron. This makes it highly sought after in the international market.

• Major iron ore belts in India include the Odisha-Jharkhand belt, Durg-Bastar-Chandrapur belt, Ballari-Chitradurga-Chikkamagaluru-Tumakuru belt, and the Maharashtra-Goa belt.

• As per the Indian Bureau of Mines (IBM), the state of Odisha is the leading producer and also holds a significant portion of the country's haematite reserves.

• The high-grade magnetite ores, which have magnetic properties, are found primarily in Karnataka (Kudremukh mines), Andhra Pradesh, and Tamil Nadu.

Additional Information

• Types of Iron Ore:

• Haematite: Known as "Red Ore," it has 60-70% metallic content. It is the most important industrial iron ore in India.

• Magnetite: Known as "Black Ore," it has the highest iron content (up to 72%) and possesses excellent magnetic qualities, useful in the electrical industry.

• Limonite and Siderite: These are inferior quality ores with lower iron content, ranging from 40% to 60%.

• Status of Other Countries:

• China: While China is the world's largest producer and consumer of iron ore, its domestic reserves are often of lower grade (low iron content), requiring it to import high-grade ore from Australia and Brazil.

• Russia: It holds some of the world's largest total reserves, but much of its massive Kursk Magnetic Anomaly and Siberian deposits are geographically categorized under Europe or Eurasia rather than exclusively Asia.

• Iran: It possesses significant iron ore reserves, particularly in the Yazd and Kerman provinces, but they are smaller in scale compared to India.

• Global Context:

• In terms of global production as of 2023, Australia and Brazil lead the world, followed by China and India.

• India exports a large quantity of its iron ore to countries like Japan, South Korea, and China through major ports like Visakhapatnam, Paradip, and Marmagao.

Important Points

• Industrial Use: Iron ore is the basic mineral and the backbone of industrial development. It is the primary raw material for the Iron and Steel Industry.

• Mining Areas: In India, the Bailadila mine in Chhattisgarh is famous for its high-grade haematite which was originally developed for export to Japan.

• Geological Surveys: Regular surveys by the Geological Survey of India (GSI) continue to identify new deposits in Rajasthan and Maharashtra, further solidifying India's position in the mineral sector.

**Q65. Answer: (b) Tabla**

The correct answer is Tabla.

Key Points

• Ustad Zakir Hussain, born on 9 March 1951 in Mumbai, is widely regarded as one of the world's most famous and influential Tabla players.

• He is the eldest son of the legendary Tabla maestro Ustad Allah Rakha, who was frequently associated with Pandit Ravi Shankar.

• In recognition of his contribution to Indian Classical Music, he was awarded the Padma Shri in 1988, the Padma Bhushan in 2002, and the Padma Vibhushan in 2023 by the Government of India.

• He was a child prodigy who began touring by the age of 12 and later moved to the United States in 1970, which marked the beginning of his international career and collaborations with Western musicians.

• Zakir Hussain has won multiple Grammy Awards. His album Planet Drum, co-produced with Mickey Hart, won the first-ever Grammy for Best World Music Album in 1992. In 2024, he made history by winning three Grammys in a single night.

Additional Information

• Musical Instruments and Famous Maestros:

• Sitar: It is a plucked stringed instrument used in Hindustani classical music. Prominent players include Pandit Ravi Shankar, Ustad Vilayat Khan, and Nikhil Banerjee.

• Tabla: A pair of twin hand drums from the Indian subcontinent. It is the principal percussion instrument in Hindustani music. Other famous players include Ustad Allah Rakha, Pandit Kishan Maharaj, and Anindo Chatterjee.

• Flute (Bansuri): A side-blown flute made from a single hollow shaft of bamboo. The most celebrated maestro of the Bansuri is Pandit Hariprasad Chaurasia. Another notable name is Pannalal Ghosh.

• Violin: While it is a Western instrument, it has been adapted into Indian Classical music, especially in the Carnatic tradition. Renowned Indian violinists include L. Subramaniam, T.N. Krishnan, and M.S. Gopalakrishnan.

• The Punjab Gharana: Ustad Zakir Hussain represents the Punjab Gharana of Tabla playing, which is known for its intricate and powerful rhythmic patterns, often influenced by Pakhawaj traditions.

• Fusion Music: He is a founding member of the famous world music fusion band Shakti, along with John McLaughlin and L. Shankar. This group is credited with bridging the gap between Indian and Western musical styles.

Important Points

• Global Recognition: In 1999, he was awarded the National Endowment for the Arts' National Heritage Fellowship, the highest honor given to traditional artists in the United States.

• Collaborations: Throughout his career, he has collaborated with a diverse range of artists including George Harrison, Yo-Yo Ma, and Van Morrison, showcasing the versatility of the Tabla on the global stage.

• Recent Achievements: In 2024, Zakir Hussain and the band Shakti won the Grammy for Best Global Music Album for their latest release, This Moment.

**Q66. Answer: (a) tied to her apron string**

The correct answer is '1' i.e. tied to her apron string.

Key Points

• The idiom "tied to her apron string" is used to describe someone who is overly dependent on their mother or another person, often for guidance or decision-making.

• In the given sentence, Digvijay is described as seeking his mother’s opinion to decide on his course of study, which aligns with the meaning of the idiom.

• The other options (silver string, saree, neck) are incorrect as they do not represent established idiomatic expressions.

Correct sentence: Digvijay is going to ask his mother to ascertain which course he should pursue. He is still tied to her apron

string.

Additional Information

• Meaning of the idiom: The phrase "tied to someone's apron strings" implies dependence or lack of independence, especially on one's mother.

• Example: Even though he is 30, he is still tied to his mother's apron strings and won't make a decision without her approval.

• Usage: This idiom is often used in a figurative sense to express emotional or decision-making dependence.

**Q67. Answer: (b) To pay one, especially as a bribe**

The correct answer is '2' i.e. To pay one, especially as a bribe.

Key Points

• The idiom "Cross one's palm with silver" means to pay someone, often as a bribe or for a favor.

• This idiom originates from the historical practice of giving money (often silver coins) to fortune-tellers or individuals in exchange for their services.

• It does not relate to saluting, wearing jewelry, or taking something secretly, which eliminates the other options.

Correct sentence usage: He agreed to reveal the secret only after I crossed his palm with silver.

Additional Information

• Common Idiomatic Expressions:

• Break the ice: To start a conversation in a social setting.

• Spill the beans: To reveal a secret.

• Bite the bullet: To face a difficult situation with courage.

• Tips for Identifying Idioms:

• Always look for the figurative, not literal, meaning of the phrase.

• Consider the context in which the phrase is used to derive its intended meaning.

**Q68. Answer: (c) Millionaire**

The correct answer is '3' i.e. Millionaire.

Key Points

• The word Millionaire refers to a person whose wealth is equal to or exceeds a million units of currency.

• The correct spelling of the word is Millionaire, as per standard English usage.

• Other options like "Millionnaire," "Milionaire," and "Millionare" are misspelled and not recognized as valid in the English language.

Correct spelling: Millionaire.

Additional Information

• Word Origin: The term "Millionaire" originates from the French word millionaire, derived from million, meaning "a thousand thousands."

• Usage: It is commonly used to describe individuals with significant wealth, often in financial or business contexts.

**Q69. Answer: (c) sycophants**

The correct answer is '3' i.e. sycophants.

Key Points

• The given sentence contains the word sychopants, which is incorrectly spelled.

• The correct spelling for the word is sycophants, which refers to people who flatter someone in authority for personal gain.

• Among the options, Option 3 has the correct spelling, "sycophants."

Correct sentence: The office was full of sycophants eager to flatter the boss.

Additional Information

• Meaning of Sycophant: A person who acts obsequiously toward someone important in order to gain advantage.

• Example Usage: "She surrounded herself with sycophants who praised her every decision."

**Q70. Answer: (b) inconsistant**

The correct answer is '2' i.e. inconsistant is misspelt.

Key Points

• The word inconsistant in the sentence is incorrect.

• The correct spelling is inconsistent.

• All other underlined words are spelled correctly:

• Bureaucratic is correctly spelled.

• Approach is correctly spelled.

• Contractors is correctly spelled.

Correct sentence: The project faced delays due to bureaucratic hurdles, lack of co-ordination, and the inconsistent approach of the contractors.

Additional Information

• Commonly confused words:

• Inconsistant is a common misspelling of the word inconsistent, which means not staying the same or not acting in a predictable or uniform way.

• It's important to carefully proofread sentences to avoid such errors.

• Spelling Tip:

• Remember that words ending in "-ent" often denote an adjective (e.g., consistent, persistent, efficient).

**Q71. Answer: (d) Aberrasion**

The correct answer is '4' i.e. Aberrasion.

Key Points

• The question asks us to identify the misspelt word from the given options.

• Let us analyze each option:

• Option 1: Confession - This word is correctly spelled. It means an acknowledgment or disclosure of something.

• Option 2: Dimension - This word is correctly spelled. It refers to a measurable extent of some kind, such as length, width, or height.

• Option 3: Precision - This word is correctly spelled. It refers to the quality of being exact or accurate.

• Option 4: Aberrasion - This word is misspelt. The correct spelling is Abrasion, which means the process of scraping or wearing something away.

• Thus, the misspelt word is Aberrasion, which is why the correct answer is Option 4.

Correct word: Abrasion.

Additional Information

• Commonly Misspelt Words:

• Separate: Often misspelt as "seperate".

• Accommodate: Often misspelt as "accomodate".

• Occurrence: Often misspelt as "occurence".

• Tip: To avoid spelling errors, practice regularly and use spell-check tools when necessary.

**Q72. Answer: (a) Serene**

The correct answer is '1' i.e. Serene.

Key Points

• The word "angry" refers to a strong feeling of displeasure or hostility.

• To determine the antonym of "angry," we need to find a word that conveys the opposite meaning, such as calm, peaceful, or tranquil.

• Let us analyze the given options:

• Option 1: Serene: This means calm, peaceful, or untroubled, which is the most appropriate antonym of "angry."

• Option 2: Enraged: This means extremely angry or furious, which is a synonym, not an antonym.

• Option 3: Mad: This is another synonym of "angry," so it is incorrect.

• Option 4: Irritated: This means annoyed or slightly angry, which is not an antonym.

Correct answer: Serene (Option 1).

Additional Information

• An antonym is a word that has the opposite meaning of another word.

• For example:

• Happy: Antonym is "Sad."

• Fast: Antonym is "Slow."

**Q73. Answer: (b) Current**

The correct answer is '2' i.e. Current.

Key Points

• The term "Former" refers to something that has already happened or existed in the past.

• Its antonym would be a word that describes something happening now or in the present.
• Among the given options, "Current" is the word that signifies the present time and is opposite in meaning to "Former."

Explanation:

• Option 1 - Previous: This word also refers to something from the past, so it is synonymous with "Former," not an antonym.
• Option 2 - Current: This word refers to the present time, making it the correct antonym of "Former."
• Option 3 - Past: Similar to "Previous," this word relates to something that existed earlier, so it is not an antonym.
• Option 4 - Earlier: This word indicates a time before the present, and like the other options, it is synonymous with "Former."

**Q74. Answer: (d) scythe**

The correct answer is '4' i.e. scythe.

Key Points

• The word "scythe" refers to a tool with a long, curved blade attached to a handle, traditionally used to cut grass or harvest crops.
• The context of the sentence specifies that the farmer is cutting grass, which makes "scythe" the most appropriate choice.
• Other options such as "cite," "site," and "sight" are unrelated to the action or tool described in the sentence.

Correct sentence: The farmer used a scythe to cut the grass.

Additional Information

• Usage of incorrect options:
• "Cite:" Used to refer to quoting or referencing information.
• "Site:" Refers to a location or place.
• "Sight:" Refers to the ability to see or something visible.
• "Scythe" is the correct tool mentioned for agricultural purposes like cutting grass or harvesting crops.

**Q75. Answer: (b) 1-a, 2-d, 3-b, 4-c**

The correct answer is '2' i.e. 1-a, 2-d, 3-b, 4-c.

Key Points

• The word Brake refers to "To stop motion", which matches option (a).
• The word Break refers to "To shatter or damage", which matches option (d).
• The word Breach refers to "Gap or violation", which matches option (b).
• The word Broke refers to "Past tense of break", which matches option (c).

Correct Mapping: 1-a, 2-d, 3-b, 4-c.

Additional Information

• Brake: Commonly used in vehicles to stop motion.
• Break: Often refers to physical damage or destruction.
• Breach: Indicates a violation of rules or a gap in a structure.
• Broke: The simple past tense of "break."

**Q76. Answer: (c) Villain**

The correct answer is '3' i.e. Villain.

Key Points

• The word Villain refers to the main antagonist in a movie or story. This character opposes the protagonist and is typically responsible for creating conflict or obstacles.
• The option Hero refers to the main character or protagonist who usually represents good and strives to resolve the conflict.
• The term Protagonist refers to the main character in a story, who is typically the central figure driving the narrative forward, often in opposition to the villain.
• The word Sidekick refers to a supporting character who assists the protagonist but does not play the role of the antagonist.

Correct sentence: The main antagonist in a movie is called a Villain.

Additional Information

• Villain:
• The term is commonly used in literature, films, and plays to refer to the character opposing the protagonist.
• Examples include characters such as Lord Voldemort in the Harry Potter series or Thanos in the Marvel Cinematic Universe.
• Protagonist:
• The protagonist is the central character, often representing good, who drives the story forward by overcoming challenges created by the antagonist.

YourMockTest.com — Free Study Material

• Examples include Harry Potter in the Harry Potter series or Frodo Baggins in The Lord of the Rings.

**Q77. Answer: (b) Pseudonym**

The correct answer is '2' i.e. Pseudonym.

Key Points

• The word Pseudonym refers to a false name or a pen name used by an author instead of their real name.
• A Sobriquet is a nickname or an informal name given to someone, which is different from a pseudonym.
• An Epithet is a descriptive term or phrase expressing a characteristic of someone or something, often used in literature.
• Cognomen refers to a surname or family name, especially in ancient Roman naming conventions.

Correct usage: An author often uses a Pseudonym to conceal their real identity.

Additional Information

• Pseudonym Examples:
• Mark Twain is the pseudonym of Samuel Langhorne Clemens.
• George Eliot is the pseudonym of Mary Ann Evans.
• Why authors use pseudonyms:
• To maintain anonymity.
• To write in a different genre without bias.
• To create a memorable or marketable name.

**Q78. Answer: (d) The structural analysis was completed by the engineers before the design phase began.**

The correct answer is '4' i.e. The structural analysis was completed by the engineers before the design phase began..

Key Points

• The given sentence is in the active voice, where the subject "The engineers" performs the action "completed the structural analysis".
• To convert a sentence into the passive voice, the object of the active sentence becomes the subject, and the verb is changed to the passive form.
• The correct passive structure for the given sentence is "was completed", as the action occurred in the past.

Correct sentence: The structural analysis was completed by the engineers before the design phase began..

Additional Information

• Passive Voice Rules:
• Structure: Object + auxiliary verb (was/were) + past participle + by + subject.
• Example: Active: "The chef prepared the meal." → Passive: "The meal was prepared by the chef."
• Usage: Used when the focus is on the action or the recipient of the action rather than the doer.
• Common Mistakes:
• Confusing tenses in passive voice (e.g., using "is" instead of "was" for a past action).
• Incorrect placement of "by" and the original subject.

**Q79. Answer: (b) The beach is being cleaned by the volunteers after the festival.**

The correct answer is '2' i.e. The beach is being cleaned by the volunteers after the festival.

Key Points

• The given sentence is in the present continuous tense, indicated by the phrase "are cleaning." In passive voice, the verb form changes to "is being cleaned" to match the tense.
• The correct structure for converting active voice to passive voice in present continuous tense is:
• Active voice: Subject + is/are/am + verb (-ing form) + object
• Passive voice: Object + is/are/am + being + past participle + by + subject
• Applying the above rule:
• Active: The volunteers are cleaning the beach after the festival.
• Passive: The beach is being cleaned by the volunteers after the festival.

Correct sentence: The beach is being cleaned by the volunteers after the festival.

Additional Information

• Common Structures for Passive Voice:
• Present Simple: Object + is/are/am + past participle
• Active: She writes a letter.

• Passive: A letter is written by her.
• Present Continuous: Object + is/are/am + being + past participle
• Active: They are painting the house.
• Passive: The house is being painted by them.
• Present Perfect: Object + has/have + been + past participle
• Active: He has completed the project.
• Passive: The project has been completed by him.

**Q80. Answer: (b) The government is drafting new policies for immigrants.**

The correct answer is '2' i.e. The government is drafting new policies for immigrants.

Key Points

• The given sentence is written in the passive voice: "New policies are being drafted by the government for immigrants."
• To convert it into the active voice, the subject (the government) must perform the action.
• The correct tense in the passive sentence is present continuous ("are being drafted"), so the active voice must also use the present continuous tense.
• Among the options given:
• Option 1: "The government drafts new policies for immigrants." - Incorrect as it is in the present simple tense.
• Option 2: "The government is drafting new policies for immigrants." - Correct as it is in the present continuous tense and maintains the intended meaning.
• Option 3: "The government has been drafting new policies for immigrants." - Incorrect as it changes the tense to present perfect continuous.
• Option 4: "The government drafted new policies for immigrants." - Incorrect as it changes the tense to past simple.

Correct sentence: The government is drafting new policies for immigrants.

Additional Information

• Active vs Passive Voice:
• In the active voice, the subject performs the action (e.g., "The government is drafting policies").
• In the passive voice, the subject receives the action (e.g., "Policies are being drafted by the government").
• Tense Consistency: When converting between active and passive voice, the tense of the sentence should remain consistent.

**Q81. Answer: (a) The government has introduced several key policies to promote renewable energy.**

The correct answer is '1' i.e. The government has introduced several key policies to promote renewable energy.

Key Points

• The given sentence is in the passive voice, where the subject (government) is receiving the action.
• To convert it into the active voice, the subject (government) must perform the action.
• The correct structure for the active voice sentence is: Subject + has/have + past participle + object.
• Option 1 correctly converts the sentence into the active voice, maintaining the tense and meaning.

Correct sentence: The government has introduced several key policies to promote renewable energy.

Additional Information

• Passive Voice:
• Structure: Object + has/have + been + past participle + by + subject.
• Example: Several key policies have been introduced by the government.
• Usage: Focuses on the action or object receiving the action rather than the performer.
• Active Voice:
• Structure: Subject + has/have + past participle + object.
• Example: The government has introduced several key policies to promote renewable energy.
• Usage: Focuses on the performer of the action.

**Q82. Answer: (b) with**

The correct answer is '2' i.e. with.

Key Points

• The sentence given describes Sheela’s activity or engagement in a task. The correct preposition to describe being occupied with something is ‘with’.
• Option 2, ‘with’, is the most appropriate choice as it conveys that Sheela is engaged in some work or the other.

YourMockTest.com — Free Study Material

• Other options like ‘at,’ ‘for,’ and ‘about’ do not fit the context or grammatical structure of the sentence.

Correct sentence: Sheela is always busy with some work or the other.

Additional Information

• Usage of ‘with’: The preposition ‘with’ is used to indicate association or engagement with something. For example:

• Example: He is busy with his homework.

• Example: She is occupied with her project work.

• Incorrect Usage of Other Options:

• ‘at’: Indicates location or position, but is not suitable in this sentence.

• ‘for’: Implies purpose or intention, but does not fit the context here.

• ‘about’: Refers to a topic or subject, which is not applicable in this case.

**Q83. Answer: (a) including**

The correct answer is '1' i.e. including.

Key Points

• The sentence mentions that certain officers will attend a marriage ceremony and specifies examples of such officers, like "managers and directors."

• The preposition "including" is used to specify that managers and directors are part of the group of officers attending the ceremony.

• Other options do not fit the context:

• Beside: Means "next to" or "apart from," which does not convey the correct meaning here.

• Not only: Indicates addition but requires a pairing phrase like "but also," which is absent in the sentence.

• Either: Used to indicate choice or alternatives, which is not relevant in this context.

Correct sentence: Some officers, including managers and directors, will attend the marriage ceremony of the clerk.

Additional Information

• Prepositions: Words used to link nouns, pronouns, or phrases to other words within a sentence, explaining relationships like direction, place, time, cause, manner, or possession.

• Common examples include "in," "on," "at," "for," "with," "including," etc.

• In this case, the preposition "including" helps clarify that managers and directors are part of the group mentioned.

**Q84. Answer: (b) CADB**

The correct answer is '2' i.e. CADB.

Key Points

• The paragraph starts with S1, setting the scene that it was late at night when the Englishmen were locked up and the narrator went to bed.

• Sentence C logically follows S1, as it describes the narrator blowing out the candle and sharing information with Noble.

• Sentence A follows C, explaining Noble’s quiet reaction to the narrator’s statement.

• Sentence D comes next, detailing Noble asking whether they should inform the Englishmen after an hour in bed.

• Finally, Sentence B logically follows D, where the narrator responds to Noble, expressing his thoughts about the situation.

• The paragraph ends with S2, reinforcing Noble’s agreement with the narrator’s perspective.

Correct sequence: CADB.

Additional Information

• When rearranging sentences, ensure logical flow and coherence of ideas.

• Start with introductory information or actions and progress to reactions, thoughts, or conclusions.

• Pay attention to transitions and connectors that indicate the relationship between sentences.

**Q85. Answer: (b) BCDA**

The correct answer is '2' i.e. BCDA.

Key Points

• The paragraph begins with the arrival of spring (S1), suggesting a joyful and blossoming time.

• Sentence B logically follows S1, as it contrasts the general springtime happiness with the Selfish Giant's garden, where it is still winter.

• Sentence C explains the reason for the garden's winter-like state — the absence of children and birds, leading to a lack of blossoms.

• Sentence D adds further detail, describing how even a flower retreated upon seeing the notice-board forbidding children,

emphasizing the sorrow of the garden.

• Sentence A connects to S2, describing how the Snow and Frost were the only ones pleased with the perpetual winter in the garden.

Correct Sequence: BCDA

Additional Information

• Theme: The paragraph revolves around the theme of selfishness and its impact on nature, represented by the Selfish Giant's garden.

• Coherence: By logically connecting the sentences, the paragraph conveys how the giant's selfishness led to the absence of spring in his garden.

**Q86. Answer: (a) It removes the need for intermediaries and increases transaction speed, especially in cross-border payments.**

The correct answer is Option 1.

Key Points

• To understand why blockchain is considered transformative, we must look at the benefits described in the first paragraph: "Blockchain minimizes reliance on middlemen, lowers operating costs, and speeds up transactions—especially for international payments..."

• The term "decentralized" in the passage refers to the "distributed network" that eliminates the need for a central authority or intermediary (middleman).

• Option 1 directly reflects these points by mentioning the removal of intermediaries and the increase in transaction speed for cross-border (international) payments.

• Why other options are incorrect:

• Option 2: This contradicts the passage. Blockchain is "decentralized," meaning it moves away from heavy reliance on centralized authorities.

• Option 3: The passage explicitly states that blockchain "speeds up transactions," whereas this option claims it slows them down.

• Option 4: The passage describes blockchain as an "open way" to handle transactions, which is the opposite of restricting transparency or preserving traditional secrecy.

Therefore, the correct answer is 1.

Analytical Insight: In technical reading comprehension, pay close attention to prefixes like "de-" in decentralized. It signifies a move away from the center. If a passage highlights "speed" and "lower costs," any option suggesting "slower" or "complex delays" is a distractor designed to test your reading accuracy.

Additional Information

• Decentralized: The transfer of control of an activity or organization from a single central authority to several local or distributed offices or authorities.

• Middlemen/Intermediaries: In finance, these are typically banks or clearinghouses that sit between the sender and the receiver.

• Distributed Network: A system where data is spread across multiple nodes rather than stored in one single location.

• $22.5 Billion: The projected market value for blockchain in banking by 2026, highlighting the massive economic scale of this shift.

**Q87. Answer: (b) It demands new staff training, role redefinition, and a shift toward technologically driven operations.**

The correct answer is Option 2.

Key Points

• To identify how banks must adapt, we look at the section of the passage discussing integration obstacles: "These include the need for banks to reframe their responsibilities and retrain employees, security flaws, and regulatory uncertainty."

• The passage explicitly links the adoption of blockchain with a fundamental shift in how banks operate internally, moving away from traditional "middleman" roles toward a "distributed network" model.

• Option 2 accurately summarizes these requirements by mentioning staff training, redefinition of roles, and the shift toward technological operations.

• Why other options are incorrect:

• Option 1: The passage mentions the need to "retrain employees," which implies that human staff are still needed, just with different skills. It does not say they are "eliminated."

• Option 3: The text suggests that banks must "reframe their responsibilities," which implies a change to traditional hierarchies rather than strengthening them.

• Option 4: This is the opposite of the passage, which states that banks must "reframe" and "retrain," both of which involve organizational restructuring.

Therefore, the correct answer is 2.

Analytical Insight: In English, questions regarding "internal structures" test your ability to connect technical implementation with

human resource management. "Reframing responsibilities" is a professional way of saying "redefining job roles."

Additional Information

• Regulatory Uncertainty: The lack of clear laws or government guidelines, which makes it difficult for banks to adopt new technologies safely.

• Legal Frameworks: A system of rules and regulations that provides a stable environment for new technology like blockchain to function.

• Retraining: The process of learning new skills so that employees can do a different job or a different version of their current job.

• 2026: The year by which the blockchain market in banking is expected to reach $22.5 billion.

**Q88. Answer: (c) Regulatory uncertainty, security weaknesses, and the need for institutional restructuring.**

The correct answer is Option 3.

Key Points

• To identify the challenges, we must look at the specific "obstacles" mentioned in the middle of the passage: "However, there are a number of obstacles to overcome... These include the need for banks to reframe their responsibilities, security flaws, and regulatory uncertainty."

• The passage presents these as the primary hurdles that must be cleared before blockchain can be effectively integrated into international finance.

• Option 3 accurately lists these three components: "Regulatory uncertainty" (lack of clear laws), "Security weaknesses" (security flaws), and "Institutional restructuring" (reframing responsibilities).

• Why other options are incorrect:

• Option 1: This is contradicted by the final sentence, which states there is "still a lot of interest" and that the market is expected to grow significantly.

• Option 2: Low operating costs are mentioned as a benefit of blockchain, not a "challenge" that prevents its use.

• Option 4: The passage states that strong legal frameworks "must be developed," implying that they do not currently exist in a stringent enough form to enable safe adoption.

Therefore, the correct answer is 3.

Analytical Insight: In high-difficulty passages, synonyms are often used in the options. "Institutional restructuring" in Option 3 is a sophisticated synonym for the passage's phrase "reframe their responsibilities." Identifying these conceptual matches is key to scoring.

Additional Information

• Regulatory Uncertainty: The state where laws regarding a new technology are either non-existent, unclear, or constantly changing.

• Institutional Restructuring: Significant changes made to the way an organization (like a bank) is managed or organized.

• Blockchain Market: The estimated value of $22.5 billion by 2026 underscores that despite these challenges, the economic incentive for adoption remains extremely high.

• Security Flaws: Potential vulnerabilities in the code or network that could lead to unauthorized access or loss of funds.

**Q89. Answer: (d) Because they ensure safety in implementation and direct institutions toward safe and efficient use.**

The correct answer is Option 4.

Key Points

• To find the specific reason for legal frameworks, we look at the concluding section of the passage: "To enable safe and effective adoption, strong legal frameworks must be developed."

• The passage suggests that because there is "regulatory uncertainty" and "security flaws," a set of laws is necessary to guide how the technology is used without putting the financial system at risk.

• Option 4 directly mirrors the text by stating these frameworks ensure "safety in implementation" and lead institutions toward "safe and efficient use."

• Why other options are incorrect:

• Option 1: This is an extreme claim. Legal frameworks help manage risk, but they do not "wipe out every possible form of risk right away."

• Option 2: The passage portrays blockchain as a positive revolution ("potential to revolutionize"), so it wouldn't suggest that laws are meant to "limit innovations" to protect the old system.

• Option 3: While blockchain started with Bitcoin, the passage is specifically about the "banking industry" and "international finance," not just "cryptocurrency miners."

Therefore, the correct answer is 4.

Analytical Insight: In reading comprehension, look for the "purpose" of a statement. The author mentions "regulatory uncertainty" as a problem; therefore, the "legal framework" is the solution to ensure safety and efficiency.

Additional Information

• Legal Frameworks: A broad system of rules and laws that govern how a particular sector or technology must operate.

• Regulatory Uncertainty: A situation where businesses are unsure of the rules they must follow because laws are either missing or unclear.

• Market Growth: The projection of $22.5 billion by 2026 highlights that the banking sector is moving toward blockchain regardless of current hurdles.

• Adoption: The process of starting to use a new technology or system on a large scale.

**Q90. Answer: (a) There is a strong and growing interest despite existing challenges.**

The correct answer is Option 1.

Key Points

• To understand what the market projection signifies, we must look at the final sentence of the passage: "Despite these challenges, there is still a lot of interest in blockchain technology; estimates suggest that the banking industry's blockchain market will grow to $22.5 billion by 2026."

• The author uses this figure to show that even though there are "obstacles" like "regulatory uncertainty" and "security flaws," the momentum for adoption remains extremely high.

• Option 1 accurately reflects this by stating that there is "strong and growing interest" in the technology despite the hurdles mentioned earlier.

• Why other options are incorrect:

• Option 2: This contradicts the text. A projected growth to $22.5 billion indicates that adoption is increasing, not declining.

• Option 3: The passage highlights the "potential to revolutionize the banking industry," which is the opposite of "abandoning digital transformation."

• Option 4: This is a generic distractor. The passage describes blockchain as an "open way" to handle transactions, which actually increases transparency rather than restricting it.

Therefore, the correct answer is 1.

Analytical Insight: In high-level competitive exams, data points at the end of a passage usually serve as a "Concluding Evidence" to support the author's main argument. Here, the $22.5 billion figure proves that the "revolution" is inevitable despite the "obstacles."

Additional Information

• Projected Market Size: The estimated total value of products and services in a specific industry within a certain timeframe.

• Digital Transformation: The integration of digital technology into all areas of a business, fundamentally changing how you operate and deliver value to customers.

• Revolutionize: To change something fundamentally or completely.

• $22.5 Billion: This specific figure for the year 2026 highlights the rapid pace at which global finance is shifting toward decentralized ledger technology.

More previous year papers and mock tests: **www.yourmocktest.com/pyq**

YourMockTest.com – Free Study Material