RRB NTPC UG Memory Based Mock (19 Aug Exam)

Q1. Which country is the USA collaborating with to develop untapped oil reserves, as part of a new strategic energy deal?
(a) India
(b) China
(c) Pakistan
(d) Russia

Q2. Which case is associated with the Supreme Court striking down the 99th Constitutional Amendment (NJAC)?
(a) Kesavananda Bharati Case (1973)
(b) Golaknath Case (1967)
(c) Supreme Court Advocates-on-Record Association Case (2015)
(d) Minerva Mills Case (1980)

Q3. The Astra missile was developed by which organizations?
(a) Defence Research and Development Organisation (DRDO)
(b) Indian Air Force (IAF)
(c) Hindustan Aeronautics Limited (HAL)
(d) All of the above

Q4. What was a unique feature of Harappan town planning?
(a) Underground temples
(b) Circular forts
(c) Irregular housing layout
(d) Grid pattern streets

Q5. Which of the following physical quantities has the dimension $[M\ L^{-3}]$?
(a) Energy
(b) Density
(c) Pressure
(d) Work

Q6. Which is the only Blue Flag certified beach in Andhra Pradesh?
(a) Ramakrishna Beach
(b) Yarada Beach
(c) Rushikonda Beach
(d) Thotlakonda Beach

Q7. Under which Article of the Indian Constitution are the fundamental rights under Article 19 immediately suspended during a national emergency?
(a) Article 352
(b) Article 358
(c) Article 360
(d) Article 356

Q8. Who was elected as the new President of Poland in the 2025 election?
(a) Rafal Trzaskowski
(b) Karol Nawrocki
(c) Andrzej Duda
(d) Donald Tusk

Q9. Where was the 78th World Health Assembly (WHA78) held in May 2025?
(a) New York, United States
(b) Nairobi, Kenya
(c) Geneva, Switzerland
(d) Paris, France

Q10. According to the Asiatic Lion Census 2025, how much did the lion population in Gujarat increase between 2020 and 2025?
(a) From 500 to 700
(b) From 674 to 891
(c) From 700 to 950
(d) From 600 to 800

Q11. The peace treaty between Armenia and Azerbaijan includes establishing which corridor between the two nations?
(a) Khyber Corridor
(b) Zangezur Corridor
(c) Durand Corridor
(d) Suez Corridor

Q12. Article 395, the final Article of the Constitution, states the provision related to which of the following?
(a) Citizenship Amendment Act, 2019
(b) Formation of New States
(c) Repeal of the Indian Independence Act, 1947
(d) Proclamation of Emergency

Q13. Recently, which ministry unveiled the Bharat Forecasting System (BFS) to enhance weather prediction capabilities in India?
(a) Ministry of Science and Technology
(b) Ministry of Environment, Forest and Climate Change
(c) Ministry of Earth Sciences
(d) Ministry of Agriculture and Farmers Welfare

Q14. The "Drain of Wealth" theory was first formulated by:
(a) Dadabhai Naoroji
(b) M.G. Ranade
(c) Surendranath Banerjee
(d) Bipan Chandra Pal

Q15. The First Human Development Report was published by the United Nations Development Programme (UNDP) in the year _____.
(a) 1905
(b) 1945
(c) 1990
(d) 1980

Q16. Who secured a fourth term as Prime Minister of Canada in the 2025 federal election?
(a) Justin Trudeau
(b) Jagmeet Singh
(c) Pierre Poilievre
(d) Mark Carney

Q17. According to Article 19 of the Indian Constitution, the RTI is derived from which fundamental right?
(a) Right to Equality
(b) Right to Property
(c) Freedom of Religion
(d) Freedom of Speech and Expression

Q18. Cartagena Protocol deals with:
(a) Waste management
(b) Protection of plant variety
(c) Natural resource management
(d) Biosafety

Q19. Which of the following Constitutional Amendment Acts made the president bound by the advice of the council of ministers headed by the prime minister?
(a) 42nd
(b) 48th
(c) 40th
(d) 46th

Q20. Which state government announced the launch of Pradhan Mantri Digital Literacy Campaign from August 1, 2017?
(a) West Bengal
(b) Jharkhand
(c) Bihar
(d) Orissa

Q21. The Paris Agreement, signed in 2015, aims to:
(a) Reduce global oil production
(b) Eliminate the use of nuclear energy
(c) Limit global temperature rise to below **2°C**
(d) Ban the use of plastic worldwide

Q22. The 63rd National Open Athletics Championship was conducted in the city of _____.
(a) Bhopal
(b) Hyderabad
(c) Bengaluru
(d) Mumbai

Q23. The Gateway of India, located in the city of Mumbai, is built in which of the following architectural styles?
(a) Indo-Greek
(b) Indo-British
(c) Indo-Saracenic
(d) Indo-Sino

Q24. Which of the following bills was passed in Parliament to regulate the appointment, conditions of service and term of office of the Chief Election Commissioner and other Election Commissioners, the procedure for transaction of business by the Election Commission and for matters connected therewith or incidental thereto?
(a) The Chief Election Commissioner and other Election Commissioners (Procedure for Transaction of Business) Bill, 2024
(b) The Chief Election Commissioner and other Election Commissioners (Appointment Conditions of Service and Term of Office) Bill, 2023
(c) The Chief Election Commissioner and other Election Commissioners (Procedure for Transaction of Business) Bill, 2023
(d) The Chief Election Commissioner and other Election Commissioners (Appointment Conditions of Service and Term of Office) Bill, 2024

Q25. Which keyboard shortcut key is used to copy the selected text in MS Word 365?
(a) Ctrl + X
(b) Ctrl + V
(c) Ctrl + C
(d) Ctrl + P

Q26. The British East India Company was established in which year?
(a) 1590
(b) 1599
(c) 1600
(d) 1612

Q27. Which country became the 10th full member of BRICS in 2025?
(a) Indonesia
(b) Saudi Arabia
(c) Turkey
(d) Argentina

Q28. Which Article of the Indian Constitution deals with the Governor's assent to Bills?
(a) Article 201
(b) Article 164
(c) Article 264
(d) Article 200

Q29. Against which oppressive law did Mahatma Gandhi launch a movement in 1919 that made him a truly national leader?
(a) Morley Minto Reforms
(b) Salt Tax
(c) Vernacular Press Act
(d) Rowlatt Act

Q30. Deepika Kumari is associated with which sport?
(a) Tennis
(b) Archery
(c) Hockey
(d) Chess

Q31. What is the maximum range of the Man-Portable Anti-Tank Guided Missile (MP-ATGM) developed by DRDO?
(a) 2 kilometers
(b) 2.5 kilometers
(c) 4 kilometers
(d) 3.5 kilometers

Q32. Which country is located to the south of India?
(a) Maldives
(b) Bhutan
(c) Nepal
(d) Sri Lanka

Q33. Which of the following rights is guaranteed by Article 25 of the Indian Constitution?
(a) Right to freedom of religion
(b) Cultural and educational rights
(c) Right to equality
(d) Right to constitutional remedies

Q34. Which age group of the population are covered under the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) scheme of the Government of India?
(a) 25 to 60 years
(b) 30 to 60 years
(c) 15 to 35 years
(d) 14 to 40 years

Q35. Who invented the jet engine?
(a) Roger Bacon
(b) Sir Frank Whittle
(c) James Watt
(d) Lewis Edson Waterman

Q36. Which change was brought about by the 61st Amendment Act in India?
(a) Lowered the age of eligibility for contesting elections
(b) Raised the age of eligibility for contesting elections
(c) Lowered the age of eligibility for voting from 21 to 18 years
(d) Raised the age of eligibility for voting from 18 to 21 years

Q37. Which shortcut key is used to create a new folder in MS Windows?
(a) Right Click Button +W+ Enter
(b) Ctrl +W+ Shift
(c) Right Click Button +F+ Enter
(d) Ctrl +Shift+ N

Q38. Who among the following has written the famous book 'Malgudi Days'?
(a) V. S. Naipaul
(b) Deepak Chopra
(c) Rabindranath Tagore
(d) R.K. Narayan

Q39. The proposed Rowlett Act of 1919 allowed detention of political prisoners without trial for _____.
(a) two years
(b) six months
(c) two months
(d) one year

Q40. What is the Prime Meridian?
(a) The line of longitude that passes through Greenwich, England
(b) The line of latitude that passes through the equator
(c) The line of longitude that passes through the North Pole
(d) The line of longitude that passes through the South Pole

Q41. The ages of Misha and Kamal are in the ratio of 2 : 3 respectively. After 6 years the ratioof their ages will be 7 : 9. What is the difference in their present ages?
(a) 4
(b) 19
(c) 20
(d) 23

Q42. 60 percent students in a school are boys. 40 percent boys passed in the examination. If 35 percent of total students passed the examination, then what percent of girls failed the examination?
(a) 72.5
(b) 29
(c) 56.5
(d) 60

Q43. The price of petrol rises by 60%. By what percentage should one minimize the use of petrol so that the expenditure towards petrol is not affected?
(a) 38.5
(b) 36.5
(c) 37.5
(d) 35.5

Q44. The average weight of 77 students of a school is 47 kg. If the average weight of boys is 50 kg and the average weight of girls is 29 kg, then what is the ratio of the total weight of boys and the total weight of girls respectively?
(a) 304:33
(b) 300:29
(c) 290:27
(d) 301:31

Q45. What will be difference in population 3 years ago and 2 years ago of a town, whose current population is 100000 and which is increasing at a rate of 25% every year?
(a) 12050
(b) 12800
(c) 13150
(d) 12250

Q46. A big spherical besan ladoo of radius 810 cm is broken into smaller spherical ladoos of radius 90 cm. Find the ratio of the total surface area of all the small ladoos taken together to the surface area of the big ladoo.
(a) 2 : 7
(b) 1 : 9
(c) 9 : 1
(d) 8 : 3

Q47. D and E are the midpoints of sides AB and AC of a triangle ABC, respectively, and BC = 6 cm. If DE ∥ BC, then the length of DE is:
(a) 2.5 cm
(b) 3 cm
(c) 5 cm
(d) 6 cm

Q48. If the length and breadth of a rectangle are increased by 30 percent and 25 percent respectively, then by what percent will its area increase?
(a) 62.5 percent
(b) 60 per cent
(c) 55 percent
(d) 56.5 percent

Q49. Roshan can complete the wall putty work in 6 days and Satyam can complete it in 12 days. While working together with Raghu, they completed the job in 2 days only. In how many days Raghu alone can complete the job?
(a) 8 Days
(b) 6 days
(c) 4 Days
(d) 12 Days

Q50. What is the median of the following data?
75, 69, 45, 17, 22, 57, 79, 28, 18, 91, 32
(a) 46
(b) 45.5
(c) 44.5
(d) 45

Q51. The ratio of two numbers a and b is 7: 15, respectively. Their least common multiple is 84. What is (b+a):(b-a) ?
(a) 15 : 4
(b) 11 : 4
(c) 15 : 11
(d) 7 : 11

Q52. The mean proportional between 9 +3737 and 18 – 6767 is:
(a) 6
(b) 1
(c) 13
(d) 9

Q53. A boy travelling at a speed of 16 km/hr covers a certain distance in 8 hours 15 minutes. If he covers the same distance by bicycle in 11 hours, what is the speed of the bicycle?
(a) 8 km/hr
(b) 12 km/h
(c) 14 km/h
(d) 11 km/h

Q54. If $\cot^4\theta + \cot^2\theta = 3.6$, then $\text{cosec}^4\theta - \text{cosec}^2\theta = ?$
(a) 0.6
(b) 3.6
(c) 1.8
(d) 2.4

Q55. Find the ratio in which rice at Rs. 8.30 per kg be mixed with rice at Rs. 5.30 per kg to produce a mixture worth Rs. 6.30 per kg.
(a) 2 : 1
(b) 1 : 2
(c) 1 : 3
(d) 2 : 3

Q56. What is the average of first 9 prime numbers?
(a) 10.77
(b) 11.33
(c) 10.1
(d) 11.11

Q57. Find the greatest number of 4 digits which is exactly divisible by 12.
(a) 9998
(b) 9996
(c) 9994
(d) 9999

Q58. David has two grandsons Rodney and Amit. 15 year old Rodney gets some money from David's wealth and 16 year old Amit gets rest of the money. But Rodney and Amit will get money only when they turn 22 years old. Till then the money is in a bank getting interest at rate 8% compounded annually. When both turn 22, they receive the same amount. How much had David given Amit (in Rs.) initially, if total money with David was Rs. 23400?
(a) 12150
(b) 12500
(c) 11000
(d) 11250

Q59. 79.989% of 599.99 + 32.99% of 400.009 — 48.062% of 149.98 = ? (approximately)
(a) 540
(b) 220
(c) 165
(d) 184

Q60. Which of the following statements is/are correct?
(a) **A triangle can have all angles less than 60°.**
(b) **A triangle can have one obtuse angle.**
(c) **A triangle can have two right angles.**
(d) **A triangle can have two acute angles.**
(a) A
(b) B and D
(c) B
(d) A and C

Q61. A certain sum of money amounts to Rs. 1331 in 3 years at 10 percent compounded annually. Find the sum invested.
(a) Rs. 1050
(b) Rs. 1000
(c) Rs. 1132
(d) Rs. 1100

Q62. If an article is sold at a discount of 30% to the marked price, it makes a loss of 20%. At what percent discount on the marked price will it break even?
(a) 20%
(b) 10.5%
(c) 12.5%
(d) 15%

Q63. Sides of a triangle are 6 cm, 6 cm and 8 cm. What is its area?
(a) $4\sqrt{5}$ cm²
(b) $12\sqrt{5}$ cm²
(c) $8\sqrt{5}$ cm²
(d) $16\sqrt{5}$ cm²

Q64. A bus is travelling at a constant speed of 48 Km/hr. What is the distance travelled by bus from 1:20 pm to 3:40 pm?
(a) 326 Km
(b) 144 Km
(c) 340 Km
(d) 112 Km

Q65. What profit per cent is made by selling an article at a certain price if by selling at4554 of that price there is a loss of 12%?
(a) 10%
(b) 3%
(c) 12%
(d) 5%

Q66. If the angle of elevation of the sun changes from 30° to 45°, the length of the shadow of a pillar decreases by 80 m. The height of the pillar is:
(a) 40 (33 + 1) cm
(b) 30 (33 + 1) cm
(c) 60 (66 + 1) cm
(d) 20 (33 + 1) cm

Q67. The ratio of income of A to that of B is 3 : 5, Expenditure of A is712127 of his income and expenditure of B is815158 of his income. The difference of their expenditures is Rs. 14,300. Find the income of A.
(a) Rs. 46,800
(b) Rs. 65,812
(c) Rs. 44,429
(d) Rs. 45,600

Q68. Ifx+1x=17thenx2+1x2is:If x+x1=17 then x2+x21 is:
(a) 279
(b) 288
(c) 277
(d) 287

Q69. 7353+83537353+8353 is divisible by:
(a) 150
(b) 156
(c) 154
(d) 152

Q70. Simplify the following.
712÷{414−12×(212−114−34)}721÷{441−21×(221−141−43)}
(a) 4.5
(b) 7.25
(c) 1.875
(d) 4.575

Q71. What will come in the place of the question mark '(?)' in the following equation, if '–' and'÷' are interchanged and '×' and '+' are interchanged?
19 + 24 – 6 × 8 ÷ 6 = ?
(a) 76
(b) 78
(c) 77
(d) 79

Q72. In the following number-pairs, the second number is obtained by applying certain mathematical operations to the first number. Which numbers should replace X and Y so that the pattern followed by the two numbers on the left side of :: is the same as that on the right side of :: ? (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.)
X: 114:: 26:Y
(a) X = 31, Y = 72
(b) X = 39, Y = 86
(c) X = 38, Y = 78
(d) X = 42, Y = 84

Q73. Select the Venn diagram that best illustrates the relationship among the following classes.
Pizza, Pasta, Noodles
(a)
(b)
(c)
(d)

Q74. Which word does not belong with others?
(a) Aorta
(b) Heart
(c) Liver
(d) Stomach

Q75. Seven members A, B, C, D, E, F and G of a certain department, have a function to attend on a different day of a week, starting from Monday to Sunday of the same week. B has to attend the function on Tuesday. E has to attend the function immediately before A. G has to attend the function on Sunday. Only F has to attend the function between A and C. D has to attend the function on one of the days before B, A or C. Who has to attend the function on Thursday?
(a) E
(b) C
(c) F
(d) A

Q76. Four letter-clusters have been given, out of which three are alike in some manner, and one is different. Select the one that is different.
(Note: the letter-clusters are not to be treated as meaningful words)
(a) MQOT
(b) GKIM
(c) BFDH
(d) RVTX

Q77. In the question, below are three statements followed by f our conclusions numbered I, II, III, and IV. You have to consider the statements to be true even if it seems to be at variance from commonly known f acts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statements:
1. Some Mirrors are not Glasses.
2. All Glasses are Strong.
3. Some Strong are Fragile.
Conclusions:
I. Some Mirrors may be glasses.
II. Some Glasses are Fragile.
III. All Mirrors are Strong.
IV. Some Mirrors are Fragile.
(a) Conclusion II and III only
(b) Conclusion I only
(c) Conclusion I and II only
(d) Conclusion III and IV only

Q78. B, D, F, H, G, O, T and W are eight family members. B is the brother of G. T is the son of W. O is the son of G. H is D's wife. G and W are sisters. F is the son of B. D is the father of B. How is H related to O?
(a) Maternal cousin
(b) Mother's mother
(c) Father's mother
(d) Mother's sister

Q79. OLQN is related to URWT in a certain way based on the English alphabetical order. In the same way, LINK is related to ROTQ. To which of the following options is IFKH related, following the same logic?
(a) OLQN
(b) LONQ
(c) LOQN
(d) OLNQ

Q80. Read the statement below followed by two arguments.
Statement:
Should Yoga be made compulsory in schools?
Arguments:
I. Yes, it would help in overall development of a child, both physically and mentally
II. No, parents will not object to their children learning Yoga

Which argument(s) of the below is/are strong in the context of the statement?
(a) Both arguments I and II are strong.
(b) Only argument II is strong.
(c) Only argument I is strong.
(d) Neither argument I nor II is strong.

Q81. What will come in the place of the question mark '(?)' in the following equation, if '-' and '÷' are interchanged and '×" and '+' are interchanged? a
24 + 25 - 5 × 2 ÷ 9 = ?
(a) 115
(b) 114
(c) 113
(d) 112

Q82. Each of the letters in the word 'ADMIT' is arranged in alphabetical order. How many letters are there in the English alphabetical series between the letter which is second from the left and the one which is second from the right?
(a) 8
(b) 10
(c) 6
(d) 9

Q83. Six people, K, L, M, N, O and Z, are sitting in a straight row facing north(but not necessarily in the same order). No one sits to the left of M. Only three people sit between M and K. Only three people sit to the right of O. Z sits to the immediate left of O. N is not an immediate neighbour of O. Who sits at the rightmost end of the line?
(a) L
(b) K
(c) N
(d) O

Q84. In a certain code language, 'GROUP' is written as '7T15W16' and 'STATE' is written as '19V1V5'. How will 'RIGHT' be written in that language?
(a) 18J7J20
(b) 17K8J20
(c) 18K7J20
(d) 18K8K20

Q85. Identify the odd out from the following:
(a) BNAAAA
(b) OAGRNE
(c) GAERPS
(d) JSIEAMN

Q86. In a row of certain students, Karishma is 16th from the left and 18th from the right. What is the total number of students in
the row?
(a) 33
(b) 36
(c) 34
(d) 32

Q87. Ajit starts from point A and drives 6 km towards North. He then takes two simultaneous left turns and drives 2 km each. He then takes a right turn and drives 3km. He then takes a left turn and drives 2 km. He takes a final left turn and drives 5 km to reach a point B. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90 degrees turns only unless specified.)
(a) 2 km South
(b) 2 km North
(c) 5 km West
(d) 3 km South

Q88. If each vowel in the word DIALECT is changed to the letter following it in the English alphabetical order and each consonant is changed to the letter preceding it in the English alphabetical order and then the group of letters thus formed is arranged in English alphabetical order, then which of the following letters will be third from the right?
(a) E
(b) M
(c) F
(d) J

Q89. Out of 4 alternatives, 3 forms a group. Find the odd one out.
(a) 32156
(b) 34901
(c) 33338
(d) 33227

Q90. Six friends A, B, C, D, E and F are sitting around a circle facing the centre. B is sitting second to the right of A. D is sitting second to the left of E.D is not an immediate neighbor of A. Who is sitting to the immediate right of B?
(a) F
(b) C
(c) E
(d) D

Q91. Which letter will be 14th to the left of the 10th letter from the right in the English alphabetical series?
(a) X
(b) Z
(c) A
(d) C

Q92. If A = 1, BAR = 21 and STAR = 58, then ABROAD = ?
(a) 32
(b) 41
(c) 33
(d) 42

Q93. From the pairs of words, you have to select the pair which is related in the same way as the words of the first pair.
Editor : Magazine :: ____ : _____
(a) Chair : Table
(b) Director : Film
(c) Poem : Story
(d) Novel : Volume

Q94. Select the correct option that indicates the arrangements of the given words in a logical and meaningful order.
1. Interview **2. Job**
3. Application **4. Selection**
5. Exam **6. Publicity**
(a) 6, 5, 3, 1, 4, 2
(b) 6, 3, 5, 1, 2, 4
(c) 2, 4, 5, 1, 3, 6
(d) 6, 3, 5, 1, 4, 2

Q95. Select the correct combination of mathematical signs that can sequentially replace the * signs and balance the given equation.
181 * 7 * 9 * 18 * 9 = 120
(a) + × ÷ −
(b) - × + ÷
(c) ÷ × + −
(d) × + − ÷

Q96. Radha walks 10m towards North, then she turns left and walks 30m. She again turns left and walks 10m. Further, she moves 10 m after turning to right. How far is she from her original position?
(a) 50 m
(b) 60 m
(c) 70 m
(d) 40 m

Q97. In the following question, select the missing number from the given series.
567, 598, 635, ?, 719, 766
(a) 676
(b) 636
(c) 666
(d) 664

Q98. In a certain code language, 'SHOE' is coded as '3214' and 'HOST' is coded as '3219'.How is 'T' coded in the given language?
(a) 9
(b) 2
(c) 3
(d) 1

Q99. While pointing towards a boy, Samir said, 'He is the son of my father-in-law's elder son.' How is Samir related to the boy?
(a) Brother
(b) Cousin
(c) Grandfather/Granduncle
(d) Uncle

Q100. In a certain code language, 'BUREAU' is written as 'RUBUAE', and 'NUMBER' is written as 'MUNREB'. How will be 'DETECT' be written in that language?
(a) TEDTCE
(b) ETEDEC
(c) TCETED
(d) EDECTC

Solutions

S1. Ans.(c)
Sol. The correct answer is (c) Pakistan.
- The USA has struck a deal with **Pakistan** to jointly develop its **untapped oil reserves**, marking a rare moment of optimism in **US-Pakistan relations**.
- This collaboration is aimed at boosting Pakistan's energy sector and economy, while also strengthening the US's strategic position in South Asia.

Information Booster:
- This deal is part of a broader strategy for the **USA** to expand its energy cooperation in the region, providing Pakistan with American support in developing its energy resources.
- There is also the potential for **Pakistan to export oil to India** in the future, although this is part of the long-term vision.

Additional Information:
- The US's collaboration with Pakistan follows the imposition of **tariffs** on **India**, which were partly linked to India's ongoing **oil imports from Russia**.
- This move strengthens **US-Pakistan ties** and serves as a counter to **China's influence** in the region, particularly through the **Belt and Road Initiative**.

S2. Ans.(c)
Sol. The correct answer is (c) **Supreme Court Advocates-on-Record Association Case (2015)**
Explanation:

- The **Supreme Court Advocates-on-Record Association vs Union of India (2015)** case is directly linked to the **striking down of the 99th Constitutional Amendment**.
- This amendment aimed to replace the existing **collegium system** with the **National Judicial Appointments Commission (NJAC)** for the appointment of judges to the higher judiciary.
- The Supreme Court declared the **NJAC unconstitutional and void**, stating it violated the **basic structure of the Constitution**, particularly **judicial independence**.
- The judgment restored the **collegium system**, where judges are appointed by a panel of senior judges.
- The verdict emphasized that the **executive cannot have a dominant role** in judicial appointments.

Information Booster:

- The **99th Constitutional Amendment Act, 2014**, and the **NJAC Act, 2014**, were passed by Parliament and ratified by a majority of states.
- NJAC proposed a six-member body including the **Chief Justice of India, two senior judges, Law Minister, and two eminent persons**.
- The **Supreme Court ruled (4:1 majority)** that this compromised the independence of the judiciary.
- The case reaffirmed the **doctrine of separation of powers**.
- It highlighted the role of **judicial review** in safeguarding constitutional principles.

Additional Knowledge:
Kesavananda Bharati Case (1973) (Option a)

- Laid down the **Basic Structure Doctrine**, limiting Parliament's power to amend the Constitution.
- Not related to NJAC directly.

Golaknath Case (1967) (Option b)

- Held that **Fundamental Rights cannot be amended** by Parliament.
- Preceded Kesavananda Bharati and was overruled partially by it.

Minerva Mills Case (1980) (Option d)

- Reaffirmed the **basic structure doctrine**, particularly regarding **judicial review and balance between Fundamental Rights and Directive Principles**.
- Not related to judicial appointments.

S3. Ans.(d)
Sol. The correct answer is option (d) All of the above
Explanation
The Astra missile is primarily developed by the Defence Research and Development Organisation (DRDO).
However, its development and realization involved contributions from numerous organizations:
•→**Defence Research and Development Organisation (DRDO):** Led the design and development efforts, including the indigenous Radio Frequency (RF) seeker.
•→**Indian Air Force (IAF):** Collaborated with DRDO, providing requirements and testing support, including flight tests with the Astra missile integrated on platforms like the Su-30MKI.
•→**Hindustan Aeronautics Limited (HAL):** Contributed to the development, particularly in modifying aircraft for missile integration.
•→**Bharat Dynamics Limited (BDL):** Manufacturer of the Astra missile, with technology transfer from DRDO.
Information Booster
•→Astra missile has a range exceeding 100 kilometers, making it capable of engaging targets at long distances.
•→It achieves supersonic speeds of up to Mach 4.5, ensuring rapid interception of enemy aircraft.
•→The missile is equipped with an indigenously developed Radio Frequency (RF) Seeker for high-accuracy detection, tracking, and locking of targets.
•→Astra provides all-weather operational capability, enabling day and night strikes in any environment.
•→The Astra Mk-3, also known as Gandiva, has a remarkable range of 340 kilometers when launched from high altitudes.
•→Astra has advanced guidance and navigation systems that improve its effectiveness in dynamic combat conditions.

S4. Ans.(d)
Sol. The correct answer is: (d) Grid pattern streets
Explanation:

- A **unique and advanced feature** of **Harappan town planning** was the use of a **grid pattern layout**, where **streets ran parallel and perpendicular to each other**, forming well-organized **rectangular or square blocks**.
- This kind of **planned urban layout** was highly advanced for its time (around 2600–1900 BCE) and indicates **exceptional civil engineering and architectural knowledge**.

- Major cities like **Mohenjo-Daro**, **Harappa**, **Dholavira**, and **Kalibangan** showcased this structured design with **straight roads**, **drainage systems**, and **zoned areas** for public and residential use.

Information Booster:

- **Streets** were often aligned in **north-south and east-west** directions.
- Harappan cities had **separate zones**: Citadel (upper part) and lower residential town.
- **Drainage systems** ran along streets with covered channels, indicating **hygiene awareness**.
- Houses were built using **standardized baked bricks**, with access to **wells and bathrooms**.
- The planning also included **public baths** (e.g., Great Bath at Mohenjo-Daro) and granaries.
- Evidence of **town planning principles** such as **zoning**, **standardization**, and **waste management**.

S5. Ans.(b)
Sol. Sol.
Correct Ans is (B) Density
Explanation:
The dimension of **density** is given by **$[M\,L^{-3}]$**, which represents mass per unit volume.

- **Density (ρ)** = Mass/Volume = $[M]/[L^3]$ = **$[M\,L^{-3}]$**.

Information Booster:

- **Energy (A)**: The dimension of **energy** is **$[M\,L^{2}\,T^{-2}]$** (mass × distance^2 / time^2), not **$[M\,L^{-3}]$**.
- **Pressure (C)**: The dimension of **pressure** is **$[M\,L^{-1}\,T^{-2}]$** (force per unit area), not **$[M\,L^{-3}]$**.
- **Work (D)**: The dimension of **work** is also **$[M\,L^{2}\,T^{-2}]$**, which is the same as energy.

Conclusion:

- **Density** is the only physical quantity among the options with the dimension **$[M\,L^{-3}]$**.

S6. Ans.(c)
Sol. Sol.
•→**Rushikonda Beach** is the **only Blue Flag certified beach in Andhra Pradesh**.
•→The Blue Flag certification is a prestigious international award for beaches, marinas, and sustainable boating tourism operators, given by the Foundation for Environmental Education (FEE) from Denmark.
•→This certification indicates high standards of environmental, educational, safety, and accessibility criteria.
•→India has a total of 12 Blue Flag certified beaches.

S7. Ans.(b)
Sol. The correct answer is option (b) Article 358.
Explanation
1. **Suspension of Fundamental Rights under Article 19**:
•→**Article 358** of the Indian Constitution provides for the **immediate suspension** of the fundamental rights guaranteed under **Article 19** (freedom of speech, assembly, movement, etc.) when a **National Emergency** is declared.
2. **No Separate Court Order Required**:
•→The suspension of these rights during a national emergency is automatic and does **not require a separate court order**. This allows the government to take swift action without judicial intervention.
3. **Scope of Article 358**:
•→Article 358 applies only during a **National Emergency** declared on the grounds of **war** or **external aggression** (not internal rebellion). It enables the government to restrict or suspend the freedom of citizens as necessary to maintain national security.
4. **Duration of Suspension**:
•→The suspension of these rights lasts for the duration of the national emergency and is automatically lifted once the emergency is revoked.
5. **Impact of Emergency on Other Fundamental Rights**:
•→While **Article 358** suspends **Article 19**, other fundamental rights (like **Article 21**, right to life and personal liberty) continue to be protected even during a national emergency.
Information Booster
•→**Article 19** guarantees **six fundamental freedoms**: freedom of speech, freedom of assembly, freedom of movement, freedom of residence, freedom of profession, and freedom of association.
•→**Article 352** (Option a) deals with the **proclamation of a National Emergency** but does not directly suspend fundamental rights.
•→**Article 360** (Option c) deals with **financial emergencies** and is unrelated to the suspension of fundamental rights.
•→**Article 356** (Option d) deals with **President's Rule** in states, not the suspension of rights under a national emergency.

Additional Knowledge
•→**Article 358** provides that during a national emergency declared on the grounds of war or external aggression, **Article 19** is suspended.
•→**Article 359** allows the suspension of other fundamental rights, but **Article 19** is specifically governed by **Article 358** during a national emergency.
•→The **suspension of fundamental rights** under Article 19 is a temporary measure to safeguard national security during crises like war or external aggression.

S8. Ans.(b)
Sol. The Correct Answer (b) Karol Nawrocki
- **Karol Nawrocki**, a 42-year-old conservative historian and former boxer, won Poland's presidential election in **2025** with **50.89% of the vote**.
- He narrowly defeated **Rafal Trzaskowski**, the liberal mayor of Warsaw, who secured **49.11%**.
- Nawrocki, supported by the **Law and Justice Party (PiS)** and endorsed by former **U.S. President Donald Trump**, is expected to steer Poland toward a more **nationalist and traditionalist** policy path.
- Nawrocki will succeed **Andrzej Duda**, whose term ends on **August 6, 2025**.

Information Booster:
- Nawrocki has a reputation for promoting **nationalist historical narratives** and has played a role in removing Soviet-era monuments, which earned him a place on Russia's wanted list.
- His presidency is likely to deepen **Poland's ideological divide** and strengthen **conservative values** in Poland, potentially impacting its relationship with the **European Union**.

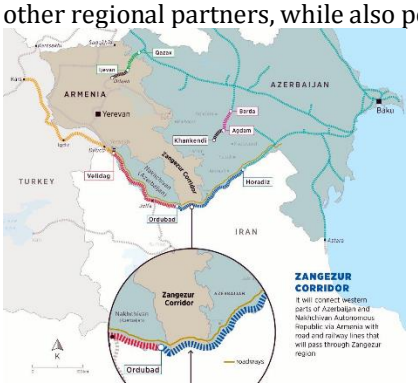
S9. Ans.(c)
Sol. The correct answer is: (c) Geneva, Switzerland
Explanation:
- WHA78 was held in **Geneva**, the headquarters of the World Health Organization.
- The event marked the adoption of several landmark resolutions including the WHO Pandemic Agreement.

Information Booster:
•→Geneva is home to WHO HQ since 1948.
•→WHA is the supreme decision-making body of WHO.
•→WHA78 focused on pandemic preparedness and NCDs.
•→Over 194 WHO member states participated.
•→WHA is held annually in May.
•→WHO DG is Dr. Tedros Adhanom Ghebreyesus.

S10. Ans.(b)
Sol. The correct answer is option (b) From 674 to 891
Explanation
The Asiatic Lion Census 2025 reveals that the lion population in Gujarat increased from 674 in 2020 to 891 in 2025, marking a 32% surge.
•→This significant growth reflects successful conservation efforts, including habitat protection, conflict mitigation, and scientific monitoring under Project Lion.
•→Additionally, the number of adult female lions increased by 27% to 330, indicating strong reproductive health and promising future population stability.
•→This census data underscores the effectiveness of India's wildlife conservation strategies for this endangered species.
Information Booster
•→Lion population rose from 674 to 891 between 2020 and 2025.
•→This increase equals a 32% population surge.
•→Adult females increased by 27% to 330.
•→Indicates strong reproductive potential of lions.
•→Reflects success of Project Lion conservation efforts.
•→Enhances ecological balance and biodiversity in Gujarat.

S11. Ans.(b)
Sol. The correct answer is option (b) Zangezur Corridor
Explanation
The peace treaty negotiations between Armenia and Azerbaijan include the establishment of the Zangezur Corridor.
•→This corridor is intended to create a transport and communication link between Azerbaijan and its exclave Nakhchivan by passing through southern Armenia.

•→The corridor aims to improve connectivity and economic cooperation between the two countries, fostering regional stability and peace after decades of conflict.
•→Its establishment is a significant part of the peace process, as it would enable Azerbaijan direct access to Turkey and other regional partners, while also potentially opening new avenues for trade and transit in the South Caucasus.



Information Booster
•→The corridor is part of peace negotiations between Armenia and Azerbaijan.
•→Connects Azerbaijan to its exclave Nakhchivan through Armenia.
•→Aims to enhance regional connectivity and trade.
•→Supports peace and stability in the South Caucasus region.
•→Facilitates Azerbaijan's access to Turkey and beyond.
•→Critical for economic and geopolitical cooperation.
Additional Knowledge
(a) Khyber Corridor: A historic pass between Pakistan and Afghanistan, unrelated to Armenia-Azerbaijan talks.
(b) Zangezur Corridor: A strategic land corridor proposed to connect Azerbaijan with Nakhchivan via Armenia; central to current peace treaty discussions.
(c) Durand Corridor: Not an official corridor; linked to the Durand Line border between Pakistan and Afghanistan.
(d) Suez Corridor: Refers to the Suez Canal area in Egypt, unrelated to the Caucasus region.

S12. Ans.(c)
Sol. The correct answer is: (C) Repeal of the Indian Independence Act, 1947
Explanation:
- **Article 395** of the **Indian Constitution** is the **final article** and deals with the **repeal of the Indian Independence Act, 1947**.
- The Indian Independence Act of 1947 was the law passed by the British Parliament, which led to the **partition of India** and the formation of the two independent nations of **India** and **Pakistan**.
- Article 395 formally **repealed** the Indian Independence Act as a part of the **Indian Constitution**, which came into effect on **26th January 1950**.

Information Booster:
- Article 395 is symbolic of India's full **legal independence** after the adoption of the **Indian Constitution**.
- The Indian Independence Act, which had served as the **legal framework** for India's partition and independence, was no longer needed after the Constitution replaced it.
- Article 395 essentially marks the **end of colonial law** and affirms that the Indian Constitution is the supreme legal document.

Additional Information:
- **Citizenship Amendment Act, 2019 (A)** – This Act is related to **citizenship laws** and not linked to Article 395.
- **Formation of New States (B)** – This involves **Article 3**, which deals with the creation of new states and union territories.
- **Proclamation of Emergency (D)** – This relates to **Article 352**, which deals with the **Proclamation of Emergency** in India.

S13. Ans.(c)
Sol. The correct answer is option (c) Ministry of Earth Sciences
Explanation
The **Ministry of Earth Sciences (MoES)** recently launched the **Bharat Forecasting System (BFS)** as a next-generation high-resolution weather and climate forecasting platform for India. The BFS aims to significantly enhance India's capability in **short, medium, and long-range weather forecasting** using state-of-the-art dynamic models and improved computational techniques.

Unveiled in 2024, the BFS represents a leap forward in predictive accuracy, integrating **real-time data assimilation, artificial intelligence**, and **multi-model ensemble techniques**. It supports more accurate forecasting of extreme weather events, including **cyclones, heavy rainfall, heatwaves, and droughts**, thereby strengthening India's disaster preparedness and climate resilience strategies. This system is also aligned with the goals of the **National Monsoon Mission** and **Weather and Climate Services** modernization programs under MoES.
This development positions India alongside global leaders like the USA and the UK in meteorological modeling, contributing to both **climate research and policy-making**. The BFS will operate under the **India Meteorological Department (IMD)** and the **National Centre for Medium Range Weather Forecasting (NCMRWF)**.
Information Booster
•→**Launched by**: Ministry of Earth Sciences (MoES)
•→**System Name**: Bharat Forecasting System (BFS)
•→**Purpose**: Enhanced weather and climate predictions
•→**Tech**: Uses AI, ensemble modeling, high-performance computing
•→**Application**: Cyclones, rainfall, temperature, and drought forecasting
•→**Organizations Involved**: IMD and NCMRWF
Additional Knowledge
(a) Ministry of Science and Technology: While this ministry supports scientific R&D, the Bharat Forecasting System is outside its direct purview. It does not manage national meteorological operations or climate modeling systems.
(b) Ministry of Environment, Forest and Climate Change (MoEFCC): This ministry deals with environmental regulations, biodiversity, and climate change policy but does not operate weather forecasting systems. It often utilizes forecasts provided by agencies under MoES.
(c) Ministry of Earth Sciences (MoES): **Correct answer.** This ministry is responsible for India's atmospheric sciences, oceanography, seismology, and meteorology. It oversees agencies like the IMD, INCOIS, and NCMRWF. The BFS is a MoES initiative to bolster predictive weather modeling in India.
(d) Ministry of Agriculture and Farmers Welfare: Although it benefits from improved forecasting for agro-meteorology, this ministry is not responsible for developing weather systems. It relies on MoES for data used in agri-advisories.

S14. Ans.(a)
Sol. Ans:- (a) Dadabhai Naoroji
•→The Drain of Wealth theory explains how the British colonial rule resulted in a continuous transfer of India's wealth to Britain, causing India's poverty and economic stagnation.
•→India was forced to send money to Britain without receiving adequate goods or services in return.
•→The wealth drained out was not reinvested in India's development.
Additional Knowledge:
•→Dadabhai Naoroji – known as the "Grand Old Man of India"
•→Naoroji analyzed how British colonial rule caused a continuous drain of India's wealth to Britain, leading to India's poverty.
•→His book: "Poverty and Un-British Rule in India" (1901) elaborated this theory.
•→First Indian to be elected to the British Parliament (House of Commons) in 1892, representing Finsbury Central.

S15. Ans.(c)
Sol. Correct Answer: **C. 1990**
Solution
- The **first Human Development Report (HDR)** was published by the **United Nations Development Programme (UNDP)** in **1990**.
- This landmark report introduced the concept of **Human Development Index (HDI)**.
- **Economist Mahbub ul Haq** was the **lead author**, and **Amartya Sen** contributed significantly to the framework.

Information Booster
- **Human Development Index (HDI)** measures:
  1. **Life expectancy** at birth (Health)
  2. **Education level** (mean and expected years of schooling)
  3. **Gross National Income (GNI)** per capita (Standard of living)
- The HDR shifted focus from **economic growth alone** to **human well-being** as a measure of progress.
- HDI is now a **globally recognized index** used for comparing development levels of countries.

S16. Ans.(d)
Sol. The correct answer is (d) Mark Carney.
- Mark Carney, former Governor of the Bank of Canada and Bank of England, secured a historic fourth term for Canada's Liberal Party in the 2025 federal election.

- Despite lacking prior political experience, Carney's reputation as a global economic expert and crisis manager appealed to a public concerned about cost-of-living issues and trade tensions with the U.S.
- His background in international finance and public service, including key roles during the 2008 financial crisis, built a solid foundation for his political ascent.

Information Booster:

- A party needs 172 seats for a majority in Canada's House of Commons; early results suggest Carney's Liberals may govern as a minority.
- This election saw record early voter turnout, with 7.3 million Canadians voting ahead of election day.
- Foreign policy emerged as a dominant issue for the first time since 1988, largely due to strained Canada-U.S. relations under U.S. President Donald Trump.
- Canada's economy heavily relies on exports to the U.S. (over 75%), making Trump's tariff threats a critical election concern.
- Carney may need support from the Bloc Québécois, as the NDP lost seats and diminished its leverage in Parliament.

Additional Information:

Key Role	Mark Carney's Position
Former Employer (Private Sector)	Goldman Sachs (13 years in global finance roles)
Central Bank Roles	Governor, Bank of Canada (2008); Bank of England (2013–2020)
Education	Harvard (Economics), Oxford (Master's & Ph.D. in Economics)
Political Office	Prime Minister of Canada (4th Term, 2025)
Key Challenges Ahead	US trade ties, inflation, housing crisis, minority governance

S17. Ans.(d)

Sol. The Right to Information (RTI) is rooted in the freedom of speech and expression under Article 19.
Citizens must have access to government information to form informed opinions.
This strengthens accountability in governance.

S18. Ans.(d)

Sol. Explanation:
The Cartagena Protocol on Biosafety is an international agreement under the Convention on Biological Diversity (CBD) that aims to ensure the safe handling, transfer, and use of living modified organisms (LMOs) resulting from modern biotechnology. It was adopted in 2000 and came into force in 2003.
•→The protocol mainly focuses on the potential risks of genetically modified organisms (GMOs) to biodiversity and human health.
•→It establishes a precautionary approach, meaning countries can restrict or ban the import of GMOs if there is scientific uncertainty about their safety.
•→A key feature is the Advanced Informed Agreement (AIA) procedure, which requires exporters to get consent from importing countries before trading GMOs.
•→The protocol also introduced the Biosafety Clearing-House (BCH) to share information about GMOs and their risks globally.
•→It promotes risk assessment and risk management measures for GMO use in agriculture, research, and industry.
Thus, the Cartagena Protocol primarily deals with biosafety, making option (d) the correct answer.
Information Booster:
•→The Cartagena Protocol is legally binding for signatory countries.
•→It applies to transboundary movement of GMOs, mainly for food, feed, and environmental release.
•→India ratified the protocol in 2003 and follows biosafety regulations under the Genetic Engineering Appraisal Committee (GEAC).
•→Nagoya-Kuala Lumpur Supplementary Protocol (2010) strengthens liability and redress mechanisms for environmental damage caused by GMOs.
•→Cartagena Protocol is implemented under the United Nations Environment Programme (UNEP) framework.
Additional Information:
•→Bonn Guidelines (2002) provide voluntary guidance for biodiversity-related access and benefit-sharing mechanisms.
•→The Aarhus Convention (1998) focuses on public access to environmental information and decision-making.
•→The Montreal Protocol (1987) deals with ozone layer protection by phasing out CFCs.
•→The Stockholm Convention (2001) regulates persistent organic pollutants (POPs).

S19. Ans.(a)

Sol. The correct answer is: **(a) 42nd**
Explanation: The **42nd Constitutional Amendment Act** of **1976** made the **President of India** bound by the advice of the **Council of Ministers** headed by the **Prime Minister**.
The 42nd Amendment reinforced the principle of **collective responsibility** of the Council of Ministers to the Lok Sabha.

Information Booster:

- The **42nd Amendment** is often referred to as the **"Mini Constitution"** due to its wide-ranging changes to the Indian Constitution.
- One of the key changes was related to the role of the **President**: the amendment made it **mandatory** for the President to act according to the advice given by the **Council of Ministers** headed by the **Prime Minister**.
- The amendment also added **"Socialist"**, **"Secular"**, and **"Integrity"** to the Preamble of the Constitution.

Additional Knowledge:

- **40th Amendment**: This focused on changes related to the distribution of legislative powers between the Union and the States.
- **46th Amendment**: This amendment primarily dealt with the **reservation** of seats in local bodies for **Scheduled Castes** and **Scheduled Tribes**.

S20. Ans.(b)
Sol. The correct answer is **(b) Jharkhand**
Explanation:
The **Jharkhand government** launched the **Pradhan Mantri Digital Saksharta Abhiyan (PMGDISHA)** on **August 1, 2017**, as part of the central government's initiative to **enhance digital literacy** across India. The program aimed to **educate people in rural areas** on **using digital services, online transactions, and e-governance facilities** to bridge the digital divide.
Information Booster:

- **PMGDISHA** is a **flagship program** under **Digital India** to provide **basic digital literacy** to citizens.
- The goal was to make **at least one person per household digitally literate**.
- It targeted **6 crore rural households** across India.
- The scheme covered **computer basics, online banking, and e-governance portals**.
- **Jharkhand** was among the early implementers due to its focus on **rural digital inclusion**.
- The initiative helped promote **cashless transactions** in villages.

S21. Ans.(c)
Sol. The **Paris Agreement** is an international treaty under the **United Nations Framework Convention on Climate Change (UNFCCC)**. Its primary goal is to **keep global temperature rise well below 2°C above pre-industrial levels**, and ideally limit it to **1.5°C**, by reducing greenhouse gas emissions.

S22. Ans.(c)
Sol. The correct answer is: **(c) Bengaluru**
Explanation:
The **63rd National Open Athletics Championship** was held in **Bengaluru** in 2023. This annual athletics competition attracts top athletes from across the country to compete in various track and field events.
Information Booster:

- **Bengaluru** hosted the **63rd National Open Athletics Championship**, which is one of the most prestigious athletics events in India.
- The event provides a platform for athletes to showcase their talents and achieve qualifying marks for **international competitions**.
- Bengaluru has become a significant location for hosting national sports events due to its excellent infrastructure and sports facilities.

Additional Information:
Bhopal – Bhopal is a prominent city .
Hyderabad – Hyderabad has hosted other major sports events.
Mumbai – Mumbai is a major sports hub in India.

S23. Ans.(c)
Sol. Correct answer is (c) Indo-Saracenic The **Gateway of India**, located in **Mumbai**, was built in the **Indo-Saracenic architectural style**. This architectural style is a blend of **Indian, Islamic, and Gothic elements**, commonly used by British architects during the colonial period. The monument was designed by **George Wittet** and completed in **1924** to commemorate the arrival of **King George V and Queen Mary** in India in 1911.The **Indo-Saracenic style** combines **Mughal, Rajput, and Gothic Revival** architectural influences, seen in its **arched gateways, domes, intricate carvings, and minarets**. The Gateway of India became a historic site when the **last British troops left India in 1948**, symbolizing the end of British rule.

Information Booster:
•→**Location:** Apollo Bunder, Mumbai, Maharashtra.
•→**Architect:** George Wittet.
•→**Built:** 1913-1924.
•→**Purpose:** Built to commemorate the visit of **King George V and Queen Mary**.
•→**Architectural Style:Indo-Saracenic Revival**, a mix of Islamic, Hindu, and Gothic styles.
•→The **last British troops** departed from the Gateway of India on **28 February 1948**, marking the end of British rule.
•→The structure is made of **yellow basalt and reinforced concrete**.
Additional Information:
•→**Indo-Greek :** Incorrect. Indo-Greek architecture refers to the influence of Greek art on Indian structures, seen in Gandhara and Mathura art.
•→**Indo-British :** Incorrect. There is no specific style called Indo-British; British architecture in India was primarily **Gothic Revival or Indo-Saracenic**.
•→**Indo-Sino :** Incorrect. Indo-Sino refers to architectural influences from China, which is not applicable to the Gateway of India.

S24. Ans.(b)
Sol. The correct answer is **(B) The Chief Election Commissioner and other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill, 2023**.
Explanation:
The **Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill, 2023** was introduced in the Rajya Sabha on August 10, 2023. This bill aims to regulate the appointment, conditions of service, and term of office of the Chief Election Commissioner (CEC) and other Election Commissioners (ECs). It also outlines the procedure for the transaction of business by the Election Commission and addresses related matters.
Key Provisions of the Bill:
- **Appointment Process:** The bill proposes that the CEC and ECs be appointed by the President based on the recommendations of a Selection Committee comprising the Prime Minister, a Union Cabinet Minister nominated by the Prime Minister, and the Leader of the Opposition in the Lok Sabha (or the leader of the single largest opposition party in the Lok Sabha).
- **Search Committee:** A Search Committee, headed by the Cabinet Secretary, will prepare a panel of five candidates for consideration by the Selection Committee.
- **Eligibility Criteria:** Candidates should be persons of integrity with knowledge and experience in the management and conduct of elections and should have held a post equivalent to the Secretary to the Government of India.
- **Term of Office:** The CEC and ECs will hold office for six years or until they attain the age of 65 years, whichever is earlier.
- **Salary and Allowances:** The salary, allowances, and other conditions of service of the CEC and ECs will be equivalent to that of the Cabinet Secretary.

Information Booster:
- **Previous Legislation:** The bill seeks to replace the Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991, which did not specify the appointment process for the CEC and ECs.
- **Supreme Court Directive:** In March 2023, the Supreme Court of India mandated that the appointment of the CEC and ECs should be done by the President on the recommendation of a Selection Committee consisting of the Prime Minister, the Leader of the Opposition in the Lok Sabha, and the Chief Justice of India. This directive was to be in place until Parliament enacted a law on the matter.
- **Comparison of Salaries:** Under the 1991 Act, the salary of the CEC and ECs was equivalent to that of a Supreme Court Judge. The 2023 bill proposes aligning their salary with that of the Cabinet Secretary.

S25. Ans.(c)
Sol. In MS Word 365, the keyboard shortcut **Ctrl + C** is used to copy the selected text or object to the clipboard.
Important Key Points:
1. **Functionality of Ctrl + C:**
•→Copies the selected text or object without removing it from its original location.
•→Stores the copied content in the clipboard for pasting elsewhere.
2. **Clipboard Integration:**
•→The content remains in the clipboard and can be pasted multiple times using **Ctrl + V**.
3. **Common Usage:** Ideal for duplicating text, images, or formatting to other parts of the document.

Knowledge Booster:
•→**Ctrl + X:** Cuts the selected text or object, removing it from its original location and storing it in the clipboard.
•→**Ctrl + V:** Pastes the content from the clipboard into the current location.
•→**Ctrl + P:** Opens the print dialog box to print the document.

S26. Ans.(c)
Sol. Correct Answer: C) 1600
Explanation:
•→The **British East India Company** was established on **31 December 1600** through a royal charter granted by **Queen Elizabeth I**.
•→The company was formed to trade in the East Indies, primarily with India and Southeast Asia, and later played a significant role in the colonization of India.
Key Points:
•→**Full Name:** Originally known as the **Governor and Company of Merchants of London trading to the East Indies.**
•→**Initial Objective:** To trade in spices, silk, cotton, indigo dye, tea, and other goods.
•→**Significance:** Over time, the company expanded its role from a trading entity to a political and military power, controlling large parts of India.
•→**Dissolution:** The company was formally dissolved in **1874**, following the British Crown's assumption of direct control over India in **1858**.
Information Booster:
•→**Competition:** The East India Company faced competition from other European companies, such as the Dutch East India Company (VOC) and the French East India Company.
•→**Major Battles:** The company played a role in significant battles like the **Battle of Plassey (1757)** and the **Battle of Buxar (1764)**, which solidified its dominance in India.
•→**Headquarters:** Initially headquartered in London, its main base in India was established in **Calcutta (Kolkata)**.

S27. Ans.(a)
Sol. Correct Answer:A. Indonesia
Explanation:
•→On January 6, 2025, **Indonesia** joined BRICS as its 10th full member under Brazil's chairmanship.
•→The 17th BRICS Summit will be held in Rio de Janeiro, Brazil, in July 2025 under Brazil's chairmanship.
Information Booster:
•→In 2024, Egypt, Ethiopia, Iran, and the UAE joined BRICS as part of its expansion efforts.
•→The 16th BRICS Summit in 2024 was chaired by Russia and held in Kazan, Russia.
About BRICS:
•→BRIC was established as a formal group in 2006 with its original members: Brazil, Russia, India, and China, **headquartered in Shanghai, China.**

S28. Ans.(d)
Sol. Article 200 of the Indian Constitution outlines the provisions related to the Governor's role in the legislative process concerning Bills passed by the state legislature. It specifies the following:
1. **Assent to Bills**: The Governor may:
•→Give assent to the Bill.
•→Withhold assent.
•→Reserve the Bill for the consideration of the President if it conflicts with the Constitution or has broader implications.
2. **Return of Bills**: The Governor can return a Bill (except money Bills) to the state legislature for reconsideration. If the legislature passes it again with or without amendments, the Governor must give assent.
This article ensures a check-and-balance mechanism at the state level, giving the Governor discretionary powers while respecting legislative autonomy.
Additional Information:
- The **President's Role**: When a Bill is reserved for the President, the President can approve it, withhold assent, or direct reconsideration by the state legislature.
- **Money Bills**: The Governor cannot return money Bills for reconsideration but may still reserve them for the President.

Other Options:
•→**Article 201:** Deals with the President's role when a Bill is reserved by the Governor. It allows the President to provide or withhold assent or direct amendments.
•→**Article 164:** Relates to the **Council of Ministers** in a state and the Chief Minister's appointment by the Governor.

•→**Article 264:** Concerns the **interrelation of state and union territories** regarding taxes and duties but is unrelated to the Governor's assent to Bills.

S29. Ans.(d)
Sol. The correct answer is: **(d) Rowlatt Act**
Explanation:
- In **1919**, Mahatma Gandhi launched a nation-wide movement against the **Rowlatt Act**, which authorized the government to imprison people without trial.
- This protest marked Gandhi's **first all-India struggle** and made him a **truly national leader**.

Information Booster:
- The movement against the Rowlatt Act is called the **Rowlatt Satyagraha**.
- The Act was officially known as the **Anarchical and Revolutionary Crimes Act, 1919**.
- It led to widespread protests, strikes, and rallies across India.
- The brutal suppression of protests culminated in the **Jallianwala Bagh massacre**.
- The failure of constitutional methods radicalized the Indian freedom movement.

Additional Information:
- **Morley-Minto Reforms:** Related to the **Indian Councils Act of 1909**, which introduced separate electorates for Muslims.
- **Salt Tax:** Protested during the **Salt March** (Dandi March) in **1930**, not in 1919.
- **Vernacular Press Act:** Passed in **1878** during Lord Lytton's time to curb the Indian press, protested earlier but not linked to Gandhi's national movement.

S30. Ans.(b)
Sol. The correct answer is (b) **Archery**.
•→**Deepika Kumari** is a well-known Indian archer. She has represented India in multiple international competitions, including the **Olympics**, and is one of the top-ranked female archers in the world.
•→Deepika has won several medals in the **World Archery Championships**, **Commonwealth Games**, and **Asian Games**. She is celebrated for her precision and skills in both individual and team events.
Information Booster:
•→**Deepika's Achievements**: Deepika has been the World No. 1 archer multiple times during her career.
•→**Commonwealth Games**: She won two gold medals at the 2010 Commonwealth Games, one in the individual event and another in the team event.
•→**Olympics**: She has represented India in three Olympics (2012, 2016, and 2020).

S31. Ans.(b)
Sol. The correct answer is **2.5 kilometers**.
•→The Man-Portable Anti-Tank Guided Missile (MP-ATGM) developed by the Defence Research and Development Organisation (DRDO) of India has a maximum range of 2.5 kilometers. This missile is designed to engage and neutralize armored targets such as tanks and other vehicles. The MP-ATGM is a crucial component of India's defense capabilities, providing infantry units with a powerful and portable anti-tank weapon.
Information Booster:
•→**DRDO**: The Defence Research and Development Organisation is responsible for developing advanced defense technologies and systems for the Indian Armed Forces.
•→**MP-ATGM**: A lightweight, portable missile system that can be carried and operated by soldiers in the field, providing a significant tactical advantage.
•→**Maximum Range**: The missile has a range of 2.5 kilometers, making it effective for engaging targets at a considerable distance.
•→**Guidance System**: The MP-ATGM is equipped with a state-of-the-art guidance system to ensure accuracy in hitting targets.

S32. Ans.(d)
Sol. The correct answer is **(d) Sri Lanka**.
•→Sri Lanka is an island country located to the south of India in the Indian Ocean.
•→It is separated from India by the Palk Strait and the Gulf of Mannar.
•→Sri Lanka has a rich cultural heritage and is known for its diverse landscapes, ranging from rainforests and arid plains to highlands and sandy beaches.
Information Booster:
Maldives:→Maldives is a group of islands located to the southwest of India in the Indian Ocean.

Bhutan:
•→Bhutan is a landlocked country located to the north of India, nestled in the eastern Himalayas.
Nepal:
•→Nepal is also a landlocked country situated to the north of India, in the Himalayan region.

S33. Ans.(a)
Sol. The correct answer is (a) Right to freedom of religion.
•→Article 25 of the Indian Constitution guarantees the right to freedom of religion.
•→It provides all individuals the freedom of conscience and the right to freely profess, practice, and propagate religion.
•→This right is subject to public order, morality, and health.
•→Article 25 also allows the state to regulate or restrict any economic, financial, political, or other secular activities associated with religious practice.
•→The provision ensures that religious beliefs and practices are protected while maintaining harmony and law and order in society.

S34. Ans.(c)
Sol. The correct answer is (c) 15 to 35.
• The Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) scheme of the Government of India focuses on rural youth from poor families in the age group of 15 to 35 years.
• However, there is an age relaxation of up to 45 years for women, SC/ST, and physically disabled people.
• The Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) was launched on September 25, 2014, by the Ministry of Rural Development, Government of India.
• It aims to skill rural youth who are poor and provide them with wage employment in various sectors to reduce poverty and unemployment in rural areas.

S35. Ans.(b)
Sol. The correct answer is **(b) Sir Frank Whittle**.
Sir Frank Whittle, an English engineer, is credited with inventing the jet engine in 1930. He patented the concept of a turbojet engine, which led to the development of the first operational jet aircraft. His work laid the foundation for modern jet propulsion technology used in aviation today.
Information Booster:
- **Roger Bacon:** A medieval English philosopher and scientist, not associated with the jet engine.
- **James Watt:** Known for his improvements to the steam engine, but not related to jet propulsion.
- **Lewis Edson Waterman:** Inventor of the modern fountain pen, not linked to jet engines.

S36. Ans.(c)
Sol. The 61st Amendment Act of 1988 in India lowered the age of eligibility for voting from 21 years to 18 years. This amendment significantly extended the right to vote to a larger segment of the population, enabling citizens aged 18 and above to participate in the electoral process and exercise their voting rights in the country's elections.

S37. Ans.(d)
Sol. The shortcut key to create a new folder in MS Windows is **Ctrl + Shift + N.**

S38. Ans.(d)
Sol. "Malgudi Days" published in 1943 is a short story collection by RK Narayan which includes 32 stories, all set in the fictional town of Malgudi, located in South India during British rule and first introduced in his work "Swami and Friends."

S39. Ans.(a)
Sol. The proposed Rowlett Act of 1919 allowed the detention of political prisoners without trial for two years.
The Anarchical and Revolutionary Crimes Act of 1919 is popularly known as the Rowlatt Act.
Provisions of the Rowlett Act of 1919:
The purpose of the Act was to curb the growing nationalist upsurge in the country.
The Rowlett Act allowed the government to arrest and imprison anyone suspected of "revolutionary" or "anarchist" activities without trial for up to two years. It also authorized the government to conduct searches and seizures without a warrant and to detain individuals without charge for up to six months.

S40. Ans.(a)
Sol. The correct answer is (a) The line of longitude that passes through Greenwich, England.
- The Prime Meridian is the line of longitude defined to be 0° longitude.
- It passes through the Royal Observatory in Greenwich, England, and is also known as the Greenwich Meridian.

- The Prime Meridian is used as the reference point for Greenwich Mean Time (GMT) and the International Date Line.
- This meridian was established in 1884 at the International Meridian Conference held in Washington, D.C., where it was decided that the longitude passing through Greenwich would be the starting point for measuring longitude globally.

Information Booster:

The Equator:

- The Equator is a line of latitude that is equidistant from the North and South Poles.
- It divides the Earth into the Northern and Southern Hemispheres and is located at 0° latitude.

Lines of Longitude:

- Lines of longitude, also known as meridians, run from the North Pole to the South Pole.
- They are used to measure distances east and west of the Prime Meridian.

North Pole and South Pole Meridians:

- Every line of longitude passes through both the North Pole and the South Pole, intersecting at these points.

S41. Ans.(a)

Sol. Given:

The present ages of Misha and Kamal are in the ratio 2:3.
After 6 years, the ratio of their ages will be 7:9.

Solution:

Let the present ages of Misha and Kamal be 2x and 3x respectively
After 6 years, Misha's age will be 2x + 6 and Kamal's age will be 3x + 6
The equation representing the ratio of their ages after 6 years is:
$2x+63x+6=793x+62x+6=97$
$9(2x + 6) = 7(3x + 6)$
$18x + 54 = 21x + 42$
$54 - 42 = 21x - 18x$
$12 = 3x$
$x = 4$
The present ages of Misha and Kamal are $2x = 8$ and $3x = 12$, respectively.
The difference in their present ages = 12 - 8 = 4 years

S42. Ans.(a)

Sol. Given:

60 percent of students in a school are boys
40 percent of boys passed the examination
35 percent of total students passed the examination

Solution:

Let the total number of students in the school be 1000.
Number of boys = 60% of 1000 = 600
Then, number of girls = 1000 - 600 = 400
Number of boys who failed the exam = (100 - 40)% of 600 = 360
Number of students who failed = (100 - 35)% of 1000 = 650
Then, number of girls who failed = 650 - 360 = 290 girls
Percentage of girls who failed $=\frac{290}{400}\times 100 = 72.5\%$.

S43. Ans.(c)

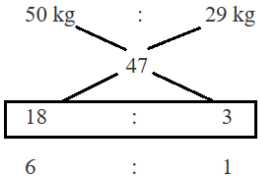
Sol. Given:

Price of petrol rises by 60%.

Solution:

Required Reduction $\% = \frac{60}{100+60}\times\frac{100}{100+60}\times 100$
Reduction $\% = \frac{60}{160}\times\frac{100}{160}\times 100 = 37.5\%$

S44. Ans.(b)
Sol. Given:
•→Total number of students = 77
•→Average weight of all students = 47 kg
•→Average weight of boys = 50 kg
•→Average weight of girls = 29 kg
Solution:



Then the ratio of the total weight of boys and total weight of girls =6×506×50 :1×291×29 = 300 : 29

S45. Ans.(b)
Sol. Given:
Current population = 100000
Annual increase rate = 25%
Formula Used:
Populationnyears ago=Current Population(1+r100)nPopulation n years ago=(1+100r)nCurrent Population
Where r is the growth rate per year.
Solution:
Population 3 years ago :
=100000(1+25100)3=100000(54)3=10000012564=100000×64125=51200=(1+10025)3100000=(45)3100000 =64125 100000=125100000×64=51200
Population 2 years ago:
=100000(1+25100)2=100000(54)2=1000002516=100000×1625=64000=(1+10025)2100000=(45)2100000 =1625 100000=25100000×16=64000
Difference in population = 64000 - 51200 = 12800
Alternate Solution:
Population 2 years ago = 100000××(45)×(45)(54)×(54) = 64000
Population 3 years ago = 100000××(45)×(45)×(45)(54)×(54)×(54)= 51200
Difference in population = 64000 - 51200 = 12800

S46. Ans.(c)
Sol. Given:
Big sphere radius R = 810 cm
small sphere radius r = 90 cm
Concept Used:
Volume is conserved when breaking one sphere into many smaller spheres.
Number of small spheres n =VbigVsmall=(Rr)3VsmallVbig=(rR)3.
Formula Used:
Sphere: Volume =43πr334πr3
Surface area =4πr24πr2
Solution:
Total SA of smallSA of big=n·4πr24πR2=(Rr)3·(rR)2=RrSA of bigTotal SA of small=4πR2n·4πr2 =(rR)3·(Rr)2 =rR
Total SA (small)SA (big)=Rr=81090=9:1SA (big)Total SA (small)=rR=90810=9:1
Hence, the required ratio is 9 : 1

S47. Ans.(b)
Sol. Given:
D and E are the midpoints of sides AB and AC of a triangle ABC, respectively.
BC = 6 cm
DE ∥ BC
Theorem Used:
In a triangle, the line segment joining the midpoints of two sides is parallel to the third side and half as long.
Solution: Since D and E are the midpoints of AB and AC, DE is parallel to BC and half its length.

BC = 6 cm
Length of DE = BC / 2
=> Length of DE = 6 cm / 2
=> Length of DE = 3 cm
The length of DE is 3 cm.

S48. Ans.(a)
Sol. Given:
Length increased by 30%
Breadth increased by 25%
Formula Used: Net % increase = a + b +ab100100ab
Solution: Net increase in area = 30 + 25 +30×2510010030×25
= 55 + 7.5
= 62.5%

S49. Ans.(c)
Sol. Given:
Roshan finishes in 6 days; Satyam in 12 days; all three together finish in 2 days.
Formula Used:
Rate = (Total work) / (time)
Solution:
Total work = LCM(6, 12, 2) = 12 units
Rates: Roshan =126612 = 2
Satyam =12121212 = 1 units/day
Team rate with Raghu:122212= 6 units/day
Raghu's rate = 6 -(2 + 1) = 3 units/day
Raghu alone takes =123312 = 4 days

S50. Ans.(d)
Sol. Given: Data set: 75, 69, 45, 17, 22, 57, 79, 28, 18, 91, 32
Concept Used: The median is the middle value of a data set when it is arranged in ascending or descending order. If the data set has an odd number of values, the median is the middle number.
Solution: Arrange the data in ascending order:
17, 18, 22, 28, 32, 45, 57, 69, 75, 79, 91
The data set has 11 numbers, which is odd. The median is the 6th value in the ordered list:
Median = 45

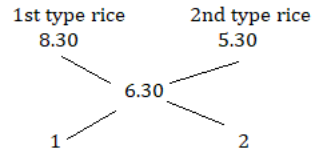
S51. Ans.(b)
Sol. Given: Ratio of Numbers = 7 : 15
LCM = 84
Concept Used: If 'a' and 'b' are two numbers, then LCM × HCF = a × b
Solution: Let the numbers 'a' and 'b' be 7x and 15x.
LCM × HCF = a × b
=> 84 × x = 7x × 15x
=> x =4554
a=7x=>a=7×45=>a=285b=15x=>b=15×45=>b=12(b+a):(b−a)=(12+285):(12−285)=>60+285:60−285=>885:325=>88:32=>11:4∴(b+a):(b−a)=11:4a=7x=>a=7×54=>a=528b=15x=>b=15×54=>b=12(b+a):(b−a)=(12+528):(12−528)=>560+28:560−28=>588:532=>88:32=>11:4∴(b+a):(b−a)=11:4

S52. Ans.(a)
Sol. Given: We are to find the mean proportional between:
9+37and18−679+37and18−67
Formula Used:
The mean proportional between two numbers a and b is:
=a·ba·b
Solution: Mean Proportional =(9+37)(18−67)(9+37)(18−67)
=2(9+37)(9−37)=2{(9)2−(37)2}=2{81−63}=2{18}=2×3×3×2=6=2(9+37)(9−37) =2{(9)2−(37)2} =2{81−63} =2{18}
=2×3×3×2 =6

S53. Ans.(b)
Sol. Given:
Speed of the boy (on foot) = 16 km/h
Time taken on foot = 8 hours 15 minutes = 814=33441=433 hours
Time taken on bicycle = 11 hours
Formula Used:
Distance = Speed × Time
Solution:
Distance covered :
= 16 ×334433 = 4 × 33 = 132
Speed bicycle =1321111132 = 12 km/h

S54. Ans.(b)
Sol. Given:
cot4θ4θ + cot2θ2θ = 3.6,
Identity Used:
cosec2θ−cot2θ=1cosec2θ−cot2θ=1
Solution:
cosec4θ4θ - cosec2θ2θ
=cosec2θ(cosec2θ−1)cosec2θ(cosec2θ−1)
=(1+cot2θ)cot2θ(1+cot2θ)cot2θ
=cot2θ+cot4θcot2θ+cot4θ
Then we can say that cosec4θ4θ - cosec2θ2θ **=**cot2θ+cot4θcot2θ+cot4θ **=** 3.6

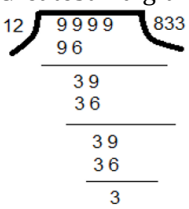
S55. Ans.(b)
Sol. Given:
Cost of first type of rice = Rs. 8.30 per kg
Cost of second type of rice = Rs. 5.30 per kg
Cost of mixture = Rs. 6.30 per kg
Formula Used:
The formula for the mixture problem is:
Ratio = $(C_2 - C_m) / (C_m - C_1)$
Where:
C_1 = Cost of first type of rice
C_2 = Cost of second type of rice
C_m = Cost of mixture
Solution:
Ratio=5.30−6.306.30−8.30=−1−2=12Ratio=6.30−8.305.30−6.30=−2−1=21
Alternate Solution:



S56. Ans.(d)
Sol. Given:
First 9 prime numbers are:
2, 3, 5, 7, 11, 13, 17, 19, 23
Formula Used:
Average=Sum of all observationsNumber of observationsAverage=Number of observationsSum of all observations
Solution:
Sum of first 9 prime numbers = 2 + 3 + 5 + 7 + 11+ 13 + 17 + 19 + 23 = 100
Average =10099100 = 11.11

S57. Ans.(b)
Sol. Given: Greatest number of 4 digits which is exactly divisible by 12.

Solution:
The greatest four-digit number = 9999
Greatest 4 digit number divisible by 12 = 9999 - the remainder of999912129999



999912129999 then 3 remainder
Then, Greatest 4 digit number divisible by 12 = 9999 - 3 = 9996

S58. Ans.(a)
Sol. Given:
Total money = Rs. 23400
Rodney is 15 years old and will receive money after 7 years
Amit is 16 years old and will receive money after 6 years
Rate of compound interest = 8% per annum
Both will receive equal amount at the age of 22
Formula Used:
Amount = Principal(1+r100)t(1+100r)t
Solution:
Let Rodney's initial amount = R
Then Amit's initial amount = 23400 - R
Rodney's Amount after 7 years = Amit's Amount after 6 years
R(1+8100)7=A(1+8100)6R(1.08)7=(23400−R)(1.08)6R(1.08)7(1.08)6=23400−RR(1.08)=23400−R1.08R+R=234002.08R
=23400R=234002.08=11250R(1+1008)7=A(1+1008)6R(1.08)7=(23400−R)(1.08)6(1.08)6R(1.08)7
=23400−RR(1.08)=23400−R1.08R+R=234002.08R=23400R=2.0823400=11250
Amit's share= 23400 - 11250 = 12150

S59. Ans.(a)
Sol. Given:
79.989% of 599.99 + 32.99% of 400.009 - 48.062% of 149.98
Solution:
taking approximate values of each number
80% of 600 + 33% of 400 - 48% of 150
=80100×600+33100×400−48100×150=480+132−72=540=10080×600+10033×400−10048×150 =480+132−72 =540

S60. Ans.(b)
Sol. Solution:
Option(A) A triangle can have all angles less than 60°:
Incorrect. The sum of the angles in a triangle is 180°. If all angles were less than 60°, their sum would be less than 180°, which contradicts the fundamental property of triangles.
Option(B) A triangle can have one obtuse angle:
Correct. A triangle can have one obtuse angle (greater than 90°), as the sum of the remaining two angles will still allow for the sum to be 180°.
Option(C) A triangle can have two right angles:
Incorrect. The sum of the angles in a triangle is 180°. Two right angles alone would add up to 180°, leaving no room for a third angle, which is not possible in a triangle.
Option(D) A triangle can have two acute angles:
Correct. A triangle can have two acute angles (less than 90°), and the third angle would adjust accordingly to ensure the sum of the angles is 180°.
The correct statements are B and D.

S61. Ans.(b)
Sol. Given:
Amount in 3 years = Rs 1331
Formula Used:
Amount=P×(1+r100)nAmount=P×(1+100r)n
P → principal; r → rate of interest; n → number of years

Solution:
1331=P×(1+10100)31331=P×(110100)3=>1331=P×(1110)3=>1331=P×13311000=>P=1331×10001331=10001331=P×(1+10010)31331=P×(100110)3=>1331=P×(1011)3=>1331=P×10001331 =>P=13311331×1000=1000

S62. Ans.(c)
Sol. Given:
30% discount to marked price
Loss percentage = 20%
Formula Used:
It will reach break-even when SP = CP
SP = CP × (100 - L)%
Solution:
Let the marked price be MP and the cost price be CP.
MP×(100−30)%=CP×(100−20)%=>MP=8CP7MP×(100−30)%=CP×(100−20)%=>MP=78CP
Let the discount on MP to reach break even be d%, Here d is the discount.
MP×(100−d)%=SP=>8CP7×(100−d)%=CP100−d100=78=>d=1008=12.5%MP×(100−d)%=SP =>78CP×(100−d)%=CP100100−d=87=>d=8100=12.5%

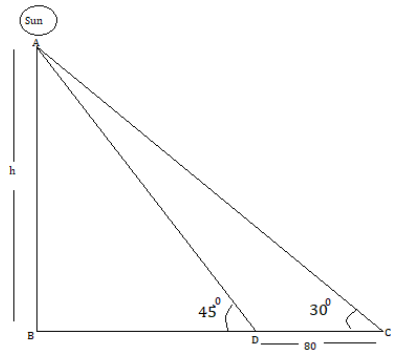
S63. Ans.(c)
Sol. Given:
Sides a, b, and c of the triangle = 6 cm, 6 cm, and 8 cm
Formula Used:
Area of triangle=s(s−a)(s−b)(s−c)Semi-Perimeter=a+b+c2Area of triangle=s(s−a)(s−b)(s−c)Semi-Perimeter=2a+b+c
Solution:
s=6+6+82=10cmArea=10×(10−6)×(10−6)×(10−8)=10×4×4×2=85cm2s=26+6+8=10 cmArea=10×(10−6)×(10−6)×(10−8)=10×4×4×2=85 cm2

S64. Ans.(d)
Sol. Given:
Speed of the bus = 48 km/hr
Time interval = 1:20 PM to 3:40 PM
Formula Used:
Distance = Speed × Time
Solution:
Time from 1:20 PM to 3:40 PM = 2 hours 20 minutes
2+2060=2+13=73hours2+6020=2+31=37 hours
Distance =48×73=16×7=112km48×37=16×7=112 km

S65. Ans.(a)
Sol. Given:
The article is sold at a price where selling it at4554 of the price results in a loss of 12%.
We are to find the profit percentage when the article is sold at the full price.
Formula Used:
Loss = Cost Price − Selling Price
Profit Percentage =ProfitCost Price×100Cost PriceProfit×100
Solution: Let Cost Price (C.P.) = 100
Since there is a loss of 12%, the selling price is:
Selling Price =100−(0.12×100)=100−12=88100−(0.12×100)=100−12=88
Selling Price at4554 of the Full Price:
Let the full selling price be P. Therefore:
45×P=88P=88×54=11054×P=88 P=488×5=110
Now,
Profit = 110 - 100 = 10
Profit Percentage =10100×100=10%10010×100=10%
Thus, the profit percentage is 10%

S66. Ans.(a)
Sol. Given: The angle of elevation of the sun changes from 30° to 45°, and the length of the shadow decreases by 80 m.

Solution:



Let the height of the pillar be h and the length of the shadow when the angle is 45° be x.
Then, when the angle is 30°, the shadow length becomes (x + 80).
Using trigonometric relations:
tan(45°) =hxxh=> h = x
tan(30°) =h(x+80)(x+80)h
Substitute h = x into the second equation:
tan(30°) =x(x+80)(x+80)x
Now calculate tan(30°) and solve:
tan(30°) =1√3√31
So,1√3=x(x+80)√31=(x+80)x
x + 80 =33x
33x -x = 80
x(33-1)= 80
x=803−1x=803−1×3+13+1x=80(3+1)2x=40(3+1)x=3−180 x=3−180×3+13+1 x=280(3+1) x=40(3+1)

S67. Ans.(a)
Sol. Given:
Income ratio (A : B) = 3 : 5
Expenditure of A =712127 of his income
Expenditure of B =815158 of his income
Difference in expenditure = ₹14,300
Solution:
Let income of A = 3x, income of B = 5x
Then,
Expenditure of A =712×3x=7x4127×3x=47x
Expenditure of B =815×5x=8x3158×5x=38x
Now, difference in expenditures:
8x3−7x4=14,30032x−21x12=14,30011x12=14,300x=14,300×1211=15,60038x−47x=14,300 1232x−21x=14,300 1211x =14,300 x=1114,300×12=15,600
Now, income of A = 3x =3×15,6003×15,600 = Rs. 46,800

S68. Ans.(d)
Sol. Given: x+1x=17x+x1=17
Formula Used:
(x+1x)2=x2+2·x·1x+1x2=x2+2+1x2(x+x1)2=x2+2·x·x1+x21=x2+2+x21
Solution:
x+1x=17(x+1x)2=172x2+2·x·1x+1x2=289x2+2+1x2=289x2+1x2=289−2x2+1x2=287x+x1=17 (x+x1)2=172 x2+2·x·x1 +x21=289 x2+2+x21=289 x2+x21=289−2 x2+x21=287

S69. Ans.(b)
Sol. Given:
7353+83537353+8353
Concept Used:
If n is odd, thenan+bnan+bn is divisible by a + b
Solution: Here, n = 53, which is odd
So,7353+83537353+8353 is divisible by 73 + 83 = 156

S70. Ans.(c)
Sol. Given:
712÷{414−12×(212−114−34)}721÷{441−21×(221−141−43)}
Solution:
712÷{414−12×(212−114−34)}=152÷{174−12×(52−54−34)}=152÷{174−12×(10−5−34)}=152÷{174−12×24}=152÷{174−14}=152÷164=152×416=3016=1.875721÷{441−21×(221−141−43)}=215÷{417−21×(25−45−43)}=215÷{417−21×(410−5−3)}=215÷{417−21×42}=215÷{417−41}=215÷416=215×164=1630=1.875

S71. Ans.(b)
Sol. Given: 19 + 24 − 6 × 8 ÷ 6 = ?
Given Sign - ×
Interchanged Sign÷+
Given equation is solve by **BODMAS** rule.
OperationpreferencewiseSymbolBrackets[],,()Orders,
of(power),√(root),ofDivision÷Multiplication×Addition+Subtraction−Operation preference wiseBracketsOrders, ofDivisionMultiplicationAdditionSubtractionSymbol[],,()(power),√(root),of÷×+−
New equation: 19 × 24 ÷ 6 + 8 - 6 = ?
19 × 4 + 8 - 6 = ?
76 + 8 - 6 = ?
84 - 6 = ?
? = **78**
Thus, correct option is (b).

S72. Ans.(c)
Sol. Given: X : 114 :: 26 : Y
Logic: 1st number × 3 = 2nd number, 3rd number × 3 = 4th number.
Let's check all the options:
Option (a): X = 31, Y = 72
New analogy will be 31 : 114 :: 26 : 72
31 × 3 = 93 ≠ 114, 26 × 3 = 78 ≠ 72 **(Not follow)**
Option (b): X = 39, Y = 86
New analogy will be 39 : 114 :: 26 : 86
39 × 3 = 111 ≠ 114, 26 × 3 = 78 ≠ 86 **(Not follow)**
Option (c): X = 38, Y = 78
New analogy will be 38 : 114 :: 26 : 78
38 × 3 = 114, 26 × 3 = 78
Option (d): X = 42, Y = 84 **(Follow)**
New analogy will be 42 : 114 :: 26 : 84
42 × 3 = 126 ≠ 114, 26 × 3 = 78 ≠ 84 **(Not follow)**
Thus, the correct option is **(c) X = 38, Y = 78.**

S73. Ans.(d)
Sol. Given: Pizza, Pasta, Noodles
Explanation
Pizza – A flatbread dish topped with sauce, cheese, and various toppings, typically baked in an oven.
Pasta – An Italian dish made from wheat dough, formed into shapes (like spaghetti, penne), usually boiled and served with sauce.
Noodles – Long, thin strips of dough (wheat, rice, or other flours), boiled and served in various cuisines like Chinese or Thai.
From the given words Venn diagram will be:

Thus, the correct option is **(d).**

S74. Ans.(a)
Sol. Heart, **liver** and **stomach** are organs.
While the **aorta** is a blood vessel, not an organ.

So, **Aorta** is odd one out.
Thus, correct option is (a).

S75. Ans.(d)
Sol. Given:
Seven members A, B, C, D, E, F and G of a certain department, have a function to attend on a different day of a week, starting from Monday to Sunday of the same week.
B has to attend the function on Tuesday.
E has to attend the function immediately before A.
G has to attend the function on Sunday.
Only F has to attend the function between A and C.
D has to attend the function on one of the days before B, A or C.
From the given information arrangement will be.

Days	Members
Monday	D
Tuesday	B
Wednesday	E
Thursday	A
Friday	F
Saturday	C
Sunday	G

A has to attend the function on Thursday.
Thus, correct option is (d).

S76. Ans.(a)
Sol.

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

Logic: 1st letter + 4 = 2nd letter, 2nd letter - 2 = 3rd letter and 3rd letter + 4 = 4th letter
Now, we check each options.
Option (a): MQOT **(Not Follow)**
M + 4 = Q, Q - 2 = O, O + 4≠ = T
Option (b): GKIM **(Follow)**
G + 4 = K, K - 2 = I, I + 4 = M
Option (c): BFDH **(Follow)**
B + 4 = F, F - 2 = D, D + 4 = H
Option (d): RVTX **(Follow)**
R + 4 = V, V - 2 = T, T + 4 = X
Thus, correct option is (a).

S77. Ans.(b)
Sol. Statements:
1. Some Mirrors are not Glasses.
2. All Glasses are Strong.
3. Some Strong are Fragile.
From the given statements possible Venn diagram will be.

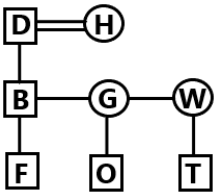
Conclusions:
I. Some Mirrors may be glasses. (**True**, some mirrors are not glasses, which leaves open the possibility that some mirrors might be glasses).

II. Some Glasses are Fragile. (**False**, there is no direct or indirect relation between glasses and fragile).
III. All Mirrors are Strong. (**False**, there is no direct or indirect relation between mirrors and strong).
IV. Some Mirrors are Fragile. (**False**, there is no direct or indirect relation between mirrors and fragile).
So, **Conclusion I only**
Thus, correct option is (b).

S78. Ans.(b)
Sol. Given:
B, D, F, H, G, O, T and W are eight family members.
B is the brother of G.
T is the son of W.
O is the son of G.
H is D's wife.
G and W are sisters.
F is the son of B.
D is the father of B.

Symbol in Diagram	Meaning
- / O	Female
+ / □	Male
=	Married Couple
—	Siblings
|	Difference Of Generation

From the given information blood relation diagram will be.



H is **Mother's mother** of O.
Thus, correct option is (b).

S79. Ans.(a)
Sol. Given: OLQN is related to URWT and LINK is related to ROTQ with same logic.

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

Logic: Letters are increasing + 6 place.
For, OLQN → URWT
O + 6 → U, L + 6 → R, Q + 6 → W, N + 6 → T
For, LINK → ROTQ
L + 6 → R, I + 6 → O, N + 6 → T, K + 6 → Q
Similarly,
IFKH → ?
I + 6 → **O**, F + 6 → **L**, K + 6 → **Q**, H + 6 → **N**
So, IFKH is related to **OLQN**.
Thus, correct option is (a).

S80. Ans.(c)
Sol. Statement:
Should Yoga be made compulsory in schools?
Arguments:
I. Yes, it would help in overall development of a child, both physically and mentally.
It gives a valid reason in support — highlighting **benefits** of Yoga (physical and mental development), which is directly related to the purpose of education and student well-being.
This is a**strong argument**.
II. No, parents will not object to their children learning Yoga.
It's confusing because it's framed as a negative ("No"), but gives a positive outcome — "parents will not object."
This argument is **weak**.
Only argument I is strong.
Thus, correct option is (c).

S81. Ans.(c)
Sol. Given: 24 + 25 - 5 × 2 ÷ 9 = ?

Sign	-	×
Interchange sign	÷	+

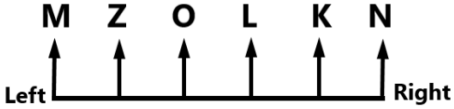
OperationpreferencewiseSymbolBrackets[],,()Orders, of(power),√(root),ofDivision÷Multiplication×Addition+Subtraction−Operation preference wiseBracketsOrders, ofDivisionMultiplicationAdditionSubtractionSymbol[],,()(power),√(root),of÷×+−
After interchanging the sign in the given equation will be:
24 × 25 ÷ 5 + 2 - 9 = ?
? = 24 × 5 + 2 - 9
? = 120 + 2 - 9
? = 122 - 9
? = 113
Thus, the correct option is **(c) 113.**

S82. Ans.(a)
Sol. Given: ADMIT

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

Arrange ADMIT alphabetically → A, D, I, M, T.
Second from left = D
Second from right = M
Letters between D and M are E, F, G, H, I, J, K, L → **8** letters.
So, **8** letters are there in the English alphabetical series between the letter which is second from the left and the one which is second from the right.
Thus, correct option is (a).

S83. Ans.(c)
Sol. Given:
No one sits to the left of M.
Only three people sit between M and K.
Only three people sit to the right of O.
Z sits to the immediate left of O.
N is not an immediate neighbour of O.
According to the given information, Seating arrangements will be:



N sits at the rightmost end of the line.
Thus, the correct option is **(c) N.**

S84. Ans.(c)
Sol. Given GROUP' is written as '7T15W16' and 'STATE' is written as '19V1V5'.

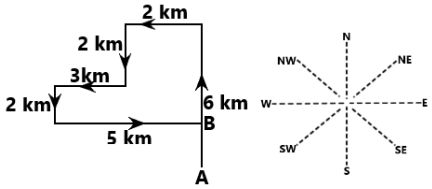
1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

Logic:
1st letter: **keep as number**
2nd letter: **+2 alphabet**
3rd letter: **keep as number**
4th letter: **+2 alphabet**
5th letter: **keep as number**
For **GROUP → 7T15W16**
G → 7 , R +2 →T, O → 15 , U +2 → W, P → 16
For STATE→ 19V1V5
S → 19 , T + 2 → V , A → 1 , T + 2 → V ,E → 5
Similarly;
For RIGHT
R → 18 , I + 2 → K , G → 7 , H + 2 → J , T → 20
So, RIGHT will coded as **18K7J20**
Thus, correct option is (C).

S85. Ans.(a)
Sol. A) BNAAAA
– **Doesn't** resemble any common word
B) OAGRNE → Rearranged = ORANGE (a fruit)
C) GAERPS → Rearranged = GRAPES (a fruit)
D) JSIEAMN → Rearranged = JASMINE (a flower)
option B, C and D give us a meaningful words.
Thus, correct option is (a).

S86. Ans.(a)
Sol. Given:
Karishma is 16th from the left
She is also 18th from the right
So the total number of students =
15 (left of her) + 1 (Karishma) + 17 (right of her) = **33**
Thus, correct option is (a).

S87. Ans.(a)
Sol. Given:
Ajit starts from point A and drives 6 km towards North.
He then takes two simultaneous left turns and drives 2 km each.
He then takes a right turn and drives 3km.
He then takes a left turn and drives 2 km.
He takes a final left turn and drives 5 km to reach a point B.
From the given information Path diagram will be:



Now, 6 km - 2km - 2km = **2km south.**
He drives **2km south** in order to reach Point A again.
Thus, the correct option is **(a) 2km south.**

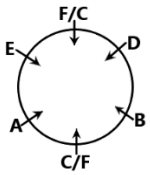
S88. Ans.(d)
Sol. Given: DIALECT

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

Each vowel in the word is changed to the letter following it in the English alphabetical order
Each consonant is changed to the letter preceding it in the English alphabetical order
D → C, I → J, A → B, L → K, E → F, C → B, T → S
The group of letters thus formed is arranged in English alphabetical order
B, B, C, F, **J**, K, S
J letters will be **third** from the right.
Thus, correct option is (d).

S89. Ans.(c)
Sol. Let's find the sum of the digits for each option:
A: 32156 → Sum of digits: 3 + 2 + 1 + 5 + 6 = 17
B: 34901 → Sum of digits: 3 + 4 + 9 + 0 + 1 = 17
C: 33338 → Sum of digits: 3 + 3 + 3 + 3 + 8 = **20**
D: 33227 → Sum of digits: 3 + 3 + 2 + 2 + 7 = 17
The sum of digits in options A, B, and D is 17, but the sum of digits in C is **20**.
Thus, C is the odd one out.

S90. Ans.(d)
Sol. Given:
Six friends A, B, C, D, E and F are sitting around a circle facing the centre.
B is sitting second to the right of A.
D is sitting second to the left of E.
D is not an immediate neighbor of A.
From the given information seating arrangement will be.



D is sitting to the immediate right of B.
Thus, correct option is (d).

S91. Ans.(d)
Sol. Given: Letter will be 14th to the left of the 10th letter from the right in the English alphabetical series.

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

10th from the right = 26 - 10 + 1
= 27 - 10
= 17th letter is Q
The 14th letter to the left of Q
Q is the 17th letter
Move 14 positions to the left:
= 17 – 14 = 3
The 3rd letter is **C**
Thus, correct option is (d).

S92. Ans.(b)
Sol. Given:
A = 1, BAR = 21, STAR = 58

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

Logic: Sum of alphabetical positions
BAR = B(2) + A(1) + R(18) = 21
STAR = S(19) + T(20) + A(1) + R(18) = 58
Similarly,
ABROAD
A(1) + B(2) + R(18) + O(15) + A(1) + D(4)
= 1 + 2 + 18 + 15 + 1 + 4 = 41
Correct answer is (b) **41.**

S93. Ans.(b)
Sol. Given: Editor : Magazine :: ____ : _____
An **editor** is a person who edits or is responsible for the content of a **magazine**.
The relationship is: Person responsible for creating or managing a specific type of content/product.
Now let's evaluate the options:
Option (a): Chair : Table
No creator or managerial relationship. These are just two pieces of furniture — no similar link.
Option (b): Director : Film
A **director** is the person responsible for creating or managing a **film**, just like an editor manages a magazine.
Same kind of relationship: Person → Creative Output
Option (c): Poem : Story
These are both literary forms. No creator/manager relationship.
Option (d): Novel : Volume
A novel can be part of a volume, but again, this is a content-to-content relation, not person-to-creation.
Thus, correct option is (b).

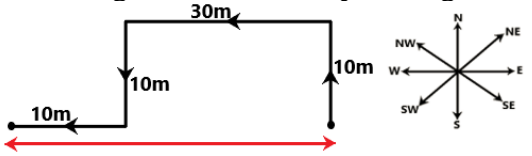
S94. Ans.(d)
Sol. Given:
1. Interview
2. Job
3. Application
4. Selection
5. Exam
6. Publicity

Let's solve it carefully:
6. Publicity → First, the job is publicized.
3. Application → Then, people apply.
5. Exam → After application, an exam is usually conducted.
1. Interview → Those who pass the exam are called for an interview.
4. Selection → Based on the interview, selection is done.
2. Job → After selection, the person gets the job.
So, the correct order is: **6 → 3 → 5 → 1 → 4 → 2**
Thus, the correct option is: **(d)**

S95. Ans.(b)
Sol. Given: 181 * 7 * 9 * 18 * 9 = 120
Using **BODMAS** rule.
OperationpreferencewiseSymbolBrackets[],,()Orders, of(power),√(root),ofDivision÷Multiplication×Addition+Subtraction−Operation preference wiseBracketsOrders, ofDivisionMultiplicationAdditionSubtractionSymbol[],,()(power),√(root),of÷×+−

Now, we check each options.
Option (a): + × ÷ −
New equation: 181 + 7 × 9 ÷ 18 - 9 = 120
181 + 63 ÷ 18 - 9 = 120
181 + 3.5 - 9 = 120
175.5≠ = 120
Option (b): − × + ÷
New equation: 181 - 7 × 9 + 18 ÷ 9 = 120
181 - 7 × 9 + 2 = 120
181 - 63 + 2 = 120
183 - 63 = 120
120 = 120
Option (c): ÷ × + −
New equation: 181 ÷ 7 × 9 + 18 - 9 = 120
181 is not divided by 7
Option (d): × + − ÷
New equation: 181 × 7 + 9 - 18 ÷ 9 = 120
181 × 7 + 9 - 2 = 120
1267 + 9 - 2 = 120
1274≠ = 120
Thus, correct option is (b).

S96. Ans.(d)
Sol. Given:
Radha walks 10m towards North, then she turns left and walks 30m.
She again turns left and walks 10m.
Further, she moves 10 m after turning to right.
From the given information path diagram will be.



30 + 10 = 40m
40m far is she from her original position.
Thus, correct option is (d).

S97. Ans.(a)
Sol. Given: 567, 598, 635, ?, 719, 766
Logic: Numbers are increasing prime number from 31.
567 + 31 = 598
598 + 37 = 635
635 + 41 = **676**
676 + 43 = 719
719 + 47 = 766
So, the missing term is **676**.
Thus, correct option is (a).

S98. Ans.(a)
Sol. Given:
In a certain code language, 'SHOE' is coded as '3214' and 'HOST' is coded as '3219'.

S H O E = 3 2 1 4

H O S T = 3 2 1 9

S, H, O and 3, 2, 1 are common in both.
So, the code of T is **9**.
Thus, correct option is (a).

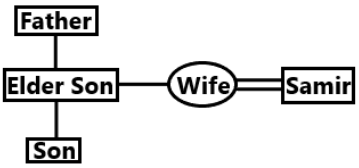
S99. Ans.(d)

Sol. Given:

While pointing towards a boy, Samir said, 'He is the son of my father-in-law's elder son.'

Symbol in Diagram	Meaning
- / O	Female
+/ □	Male
=	Married Couple
—	Siblings
|	Difference Of Generation

From the given information blood relation diagram will be.



Samir is **Uncle** of boy.

Thus, correct option is (d).

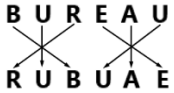
S100. Ans.(a)

Sol. Given:

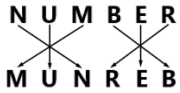
In a certain code language, 'BUREAU' is written as 'RUBUAE', and 'NUMBER' is written as 'MUNREB'.

Logic: Place value of letters are interchanged.

For, BUREAU - RUBUAE



For, NUMBER - MUNREB



Similarly,

DETECT - ?

So, **DETECT** is written as **TEDTCE**.

Thus, correct option is (a).