

DDA MTS Sample Paper 2025

Q1. 'Roppi' is a popular folk dance from the state of _____.

- (a) Kerala
- (b) Assam
- (c) Karnataka
- (d) Arunachal Pradesh

Q2. Which of the following Constitutional Amendment Acts constituted the State Finance Commission?

- (a) 74th Amendment Act
- (b) 76th Amendment Act
- (c) 75th Amendment Act
- (d) 73rd Amendment Act

Q3. Rangarajan Committee is related to which of the following?

- (a) Unemployment
- (b) Banking
- (c) Poverty
- (d) Education

Q4. Which Five-Year Plan is also known as the 'Mahalanobis Plan'?

- (a) Second Plan
- (b) Seventh Plan
- (c) First Plan
- (d) Fourth Plan

Q5. The region of the Earth's atmosphere where weather events occur is known as the:

- (a) Stratosphere
- (b) Mesosphere
- (c) Troposphere
- (d) Exosphere

Q6. Select the INCORRECT statement from the following about mitosis.

- (a) Each cell called mother cell divides to form two identical daughter cells.
- (b) The daughter cells have half the number of chromosomes as mother cell.
- (c) It helps in growth and repair of tissues in organisms.
- (d) Cells divide for growth.

Q7. How can a high fiscal deficit lead to crowding out in the economy?

- (a) By enhancing the availability of credit for businesses
- (b) By leading to higher interest rates and reduced private investment
- (c) By reducing government borrowing and debt
- (d) By increasing private investment in the market

Q8. Whose name was recorded in the Guinness Book of World Records for recording 28 songs in one day in 1993?

- (a) Udit Narayan
- (b) Krishnakumar Kunnath
- (c) Sonu Nigam
- (d) Kumar Sanu

Q9. Sangeet Natak Akademi, the apex body in the field of performing arts in the country, was set up in which year for the preservation and promotion of various forms of Indian music, dance and drama?

- (a) 1961
- (b) 1963
- (c) 1949
- (d) 1953

Q10. According to the Constitution of India, who is considered as a real executive of a state?

- (a) Deputy Chief Minister
- (b) Chief Minister
- (c) Speaker
- (d) Governor

Q11. Which of the following best describes the term 'Public Debt'?

- (a) The total amount of money owed by the citizens of a country
- (b) The total investments made by the government
- (c) The total revenue generated by the government
- (d) The total amount of money owed by the government to its creditors

Q12. 'Cheiraoba' festival is the New Year festival celebrated in the state of

- (a) Karnataka
- (b) Goa
- (c) Manipur
- (d) Uttarakhand

Q13. What is the chemical name of the substance that forms the tooth enamel in the human body?

- (a) Calcium
- (b) Sodium
- (c) Calcium hydroxyapatite
- (d) Hydrochloric acid

Q14. Which Act, enacted in 1919, introduced the system of dyarchy in the provinces of British India?

- (a) Indian Councils Act
- (b) Government of India Act
- (c) Rowlatt Act
- (d) Vernacular Press Act

Q15. Shovana Narayan, a Padma Shri recipient, performs which of the following Indian classical dances?

- (a) Bharatanatyam
- (b) Manipuri
- (c) Odissi
- (d) Kathak

Q16. Which constitutional amendment of the Constitution of India is related to the establishment of National Commission for Backward Classes in India?

- (a) Constitution (Eighty-sixth Amendment) Act, 2002
- (b) Constitution (One hundred and fourth Amendment) Act, 2019
- (c) Constitution (One Hundred and Second Amendment) Act, 2018
- (d) Constitution (Eighty-fourth Amendment) Act, 2001

Q17. Which of the following is/are other historical names for table tennis?

- (a) Gossima
- (b) Whiff-whaff
- (c) Ping-pong
- (a) All of a, b and c
- (b) Only b
- (c) Only a and c
- (d) Only a

Q18. Name a crystal-like, white compound with strong pungent aroma and taste, which is purified by the process of sublimation.

- (a) Lye
- (b) Camphor
- (c) Caustic Potash
- (d) Soda Ash

Q19. Which two water streams meet at Tandi near Keylong in Himachal Pradesh?

- (a) Panzara and Waghur
- (b) Bindusara and Sabari
- (c) Chandra and Bhaga
- (d) Penuganga and Warda

Q20. According to the census of India 2011, which state from the following has the least population growth?

- (a) Bihar
- (b) Tamil Nadu
- (c) Haryana
- (d) Kerala

Q21. What should come in place of the question mark (?) in the given series?

395, 366, 337, 308, 279, ?

- (a) 266
- (b) 250
- (c) 229
- (d) 237

Q22. Select the combination of letters that when sequentially placed in the blanks of the given series, will logically complete the series.

_ T W R U _ S N Q L _ J M H K _ I D G _

- (a) YQOEB
- (b) ZQNEC
- (c) ZPNFC
- (d) YPOFB

Q23. Rubi and Juhi are sisters. Krishna is Juhi's father's father. Reshma is the mother of Arvind. Arvind is the father of Rohit, who is the only brother of Rubi. How is Krishna related to Rohit?

- (a) Mother's brother
- (b) Father's father
- (c) Father
- (d) Mother's father

Q24. Six people Alice, Bob, Carol, David, Emily, and Frank are sitting around a circular table facing towards the centre. David sits adjacent to both Alice and Emily. Carol sits to the immediate right of Bob. Alice and Bob are not immediate neighbors. Frank and Alice are not immediate neighbors. Who sits to the immediate left of Bob?

- (a) David
- (b) Frank
- (c) Alice
- (d) Emily

Q25. In a hotel, there are five guests – X, Y, Z, W, and V staying on five different floors. The bottommost floor is numbered as 1, and the floor immediately above it is numbered as 2, and so on. X, Y, and Z do not have rooms on floor number 1. V stays on the topmost floor. Y stays on the floor number 3. X does not stay on floor number 2. On which floor number does W stay?

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

Q26. Arrange the given words in the alphabetical order:

- | | | |
|--------------|-----------|-----------|
| 1. BUTTERFLY | 2. BEE | 3. BREEZE |
| 4. BUSH | 5. BEETLE | |

- (a) 25314
- (b) 25341
- (c) 23451
- (d) 25413

Q27. Four number-sets have been given, out of which three are alike in some manner and one is different. Select the number-set that is different. (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.)

- (a) (11 : 41)
- (b) (9 : 33)
- (c) (10 : 37)
- (d) (12 : 46)

Q28. 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.

- (a) RVZD
- (b) BFJN
- (c) UYCF
- (d) KOSW

Q29. In a code language, 'COLONY' is coded as '48' and 'INTERCHANGE' is coded as '88'. How will 'MOUNTAIN' be coded in the same language?

- (a) 64
- (b) 86
- (c) 66
- (d) 84

Q30. Refer to the given number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 7 & 3 Ω 9 5 5 & 4 6 @ 8 \$ # 1 * £ 5 (Right)

How many such symbols are there, each of which is immediately preceded by an even number and also immediately followed by an odd number?

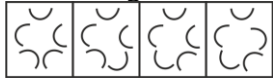
- (a) One
- (b) More than two
- (c) None
- (d) Two

Q31. Problem Figures :



(A) (B) (C) (D) (E)

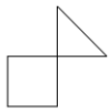
Answer Figures :



(1) (2) (3) (4)

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

Q32. Select the option figure in which the given figure (X) is embedded as its part (rotation NOT allowed).



(X)

- (a)
- (b)
- (c)
- (d)

Q33. Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only.

(Left) 8 £ 6 @ & % 4 6 @ 8 \$ 7 & 3 Ω 9 # 1 * 4 5 (Right)

How many such symbols are there each of which is immediately preceded by an even number and also immediately followed by an odd number?

- (a) Four
- (b) Two
- (c) One
- (d) Three

Q34. If 'A' stands for '÷', 'B' stands for '×', 'C' stands for '+', and 'D' stands for '-', then the resultant of which of the following would be 99?

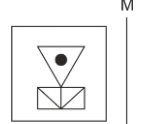
- (a) 28 A 39 D 3 B 12 C 7
- (b) 28 B 39 C 3 A 12 D 7
- (c) 28 C 39 B 3 D 12 A 7
- (d) 28 D 39 A 3 C 12 B 7

Q35. Two statements are given below, followed by four conclusions given in the options. Find out which conclusion is true based on the given statements.

Statement: $P < Q = R < T = M$, $J < N < P$

- (a) $R < J$
- (b) $J > T$
- (c) $N > R$
- (d) $M > J$

Q36. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



- (a)
- (b)
- (c)
- (d)

Q37. If every letter in the word IMAGINATION is changed to the next letter in the English alphabetical order and the letters of the new word are arranged in alphabetical order, which letter will be the sixth from the left end of the new word thus formed?

Note: The new word formed after performing the mentioned operations may not necessarily be a meaningful English word.

- (a) N
- (b) O
- (c) J
- (d) P

Q38. A, B, C, D, G, H and I are sitting around a circular table facing the centre of the table. Only B sits between H and A. A sits third to the left of D. G sits to the immediate left of D. C is not an immediate neighbour of A. Who sits third to the left of I?

- (a) G
- (b) C
- (c) A
- (d) H

Q39. In a certain code language,
'P + Q' means 'P is the sister of Q',
'P - Q' means 'P is the son of Q',
'P × Q' means 'P is the husband of Q' and
'P ÷ Q' means 'P is the daughter of Q'.

How is A related to E if 'A + B - C × D ÷ E'?

- (a) Son's daughter
- (b) Daughter
- (c) Daughter's daughter
- (d) Sister

Q40. Which two numbers (not digits) should be interchanged to make the given equation correct?

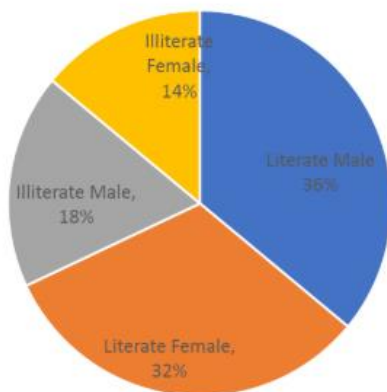
$$21 \times 8 - 18 + (64 \div 2) + 32 = 64$$

- (a) 8 and 18
- (b) 8 and 2
- (c) 18 and 32
- (d) 32 and 64

Q41. Study the given pie - chart and answer the question that follows.

The following pie - chart shows the percentage of literate and illiterate - males and females in a city.

Percentage of Literate and Illiterate - Males and Females in a city



What is the difference between the number of literate males and literate females if the number of illiterate males is 648?

- (a) 144
- (b) 126
- (c) 136
- (d) 162

Q42. If $4 : 16 :: 7.3 : x$ and $4 : 32 :: 7 : y$. What is the ratio of x to y ?

- (a) 73 : 140
- (b) 71 : 141
- (c) 74 : 138
- (d) 77 : 150

Q43. What is the value of $3/8 + 1/8 + 5/16 + 2/8 - 2$

- (a) $-23/16$
- (b) $-13/16$
- (c) $-15/16$
- (d) $-21/16$

Q44. Find the value of $40^{-7} \div (40^{19} \times 40^4)$

- (a) -33
- (b) -29
- (c) -30
- (d) -28

Q45. Ayush starts his journey from Chandigarh to Ludhiana with his car at a speed of 77 km/hr and returns at a speed of 63 km/hr. If the distance between Chandigarh and Ludhiana is 97 km, then what is the average speed (in km/hr) of Ayush during his whole journey?

- (a) 69
- (b) 68.2
- (c) 68
- (d) 69.3

Q46. The value of $\sqrt{256} + \sqrt{0.0121} - \sqrt{4.41} =$

- (a) 14.01
- (b) 6.12
- (c) 4.21
- (d) 2.57

Q47. Two taps can fill a cistern in 2 hours and 64 hours, respectively. A third tap can empty it in 2 hours. How long (in hours) will it take to fill half of the empty cistern, if all of them are opened together?

- (a) 96
- (b) 32
- (c) 128
- (d) 64

Q48. The average of first 101 even numbers is

- (a) 102
- (b) 103
- (c) 102.5
- (d) 101.5

Q49. Kalpana and Sudha got 621 and 522 marks, respectively, in the same examination. If Kalpana scored 69% marks, then what is the percentage of marks scored by Sudha?

- (a) 58%
- (b) 59%
- (c) 60%
- (d) 55%

Q50. A shopkeeper purchases oil at ₹50/litre and sells the same at ₹54/litre. While selling, he gives 900 ml of oil instead of 1 litre. What is his profit percentage?

- (a) 18%
- (b) 21%
- (c) 20%
- (d) 14%

Q51. A person invested ₹50,000, partly at 10% and the rest at 12% per annum at simple interest. At the end of two years, the total interest received was ₹11,640. How much is the first and the second part of the investment?

- (a) ₹9,000; ₹41,000
- (b) ₹31,000; ₹19,000
- (c) ₹20,000; ₹30,000
- (d) ₹10,000; ₹40,000

Q52. How many prime numbers lie between 1 and 30 ?

- (a) 10
- (b) 8
- (c) 9
- (d) 11

Q53. A man sold his furniture at a 25% gain. Had he sold at 15% loss. He would have received ₹ 800 less. Find cost price of the furniture.

- (a) Rs. 1,500
- (b) Rs. 3,000
- (c) Rs. 2,000
- (d) Rs 2,500

Q54. If a job is to be completed in 10 days, it requires 270 persons. If 180 persons take up the same job, they will finish it in -

- (a) 20 days
- (b) 18 days
- (c) 15 days
- (d) None of these

Q55. The ratio of copper and zinc in the brass is 13 : 7. How much zinc will there be in 100 kg of brass?

- (a) 35 kg
- (b) 14 kg
- (c) 42 kg
- (d) 70 kg

Q56. Ravi is younger than Kishan by 3 years. If the ages of Ravi and Kishan are in the ratio 7 : 8, then how old is Kishan?

- (a) 24 years
- (b) 21 years
- (c) 18 years
- (d) 27 years

Q57. The ratio of length and breadth of a rectangle is 3 : 2 respectively. The ratio of its perimeter and area is 5 : 9. The breadth of the rectangle (in meters) is:

- (a) 8
- (b) 9
- (c) 13
- (d) 6

Q58. On a circular path of 432 m, Soham and Rohan start running from the same point and in same direction at the speed of 12 m/sec and 9 m/sec, respectively. Find the time in which they will meet for the first time.

- (a) 98 seconds
- (b) 144 seconds
- (c) 156 seconds
- (d) 112 seconds

Q59. The price of an article is successively increased by 25%, 40%, and 45% respectively. What is the net percentage increase?

- (a) 153.75%
- (b) 110%
- (c) 135.75%
- (d) 75%

Q60. If the volume of a hemisphere is 155232cm^3 , then half of the radius (in cm) of the hemisphere is: (Use $\pi = 22/7$)

- (a) 18
- (b) 42
- (c) 21
- (d) 12

Q61. 'जिस पर अभियोग लगाया गया हो' वाक्यांश के लिए एक शब्द होगा:

- (a) अपराधी
- (b) अभियुक्त
- (c) भुक्तभोगी
- (d) अभियोगी

Q62. निम्नलिखित में से कौन-सा शब्द स्त्रीलिंग नहीं है ?

- (a) दुनिया
- (b) किस्सा
- (c) सलाह
- (d) अदालत

**Q63. निम्नलिखित प्रश्न में, चार विकल्पों में से, उस सही विकल्प का चयन करें जो रिक्त स्थान के लिए सही कारक शब्द का विकल्प हो।
कल हमारे यहाँ के मंदिर _____ एक पालकी गई।**

- (a) से
- (b) को
- (c) द्वारा
- (d) ने

Q64. निम्नलिखित में कौन सा विलोम युग्म सुमेलित नहीं है?

- (a) प्रलय - सृष्टि
- (b) संधि - समास
- (c) सार्थक - निरर्थक
- (d) निरामिष - सामिष

Q65. 'मूक' का विलोम होगा:

- (a) विद्वान
- (b) कुटिल
- (c) मूर्ख
- (d) वाचाल

Q66. किस विकल्प में सभी शब्द परस्पर पर्यायवाची नहीं हैं?

- (a) पुत्री, सुता, तनय
- (b) गंगा, भागीरथी, मन्दाकिनी
- (c) तलवार, शमशीर, असि
- (d) रवि, भास्कर, दिनकर

Q67. निम्न में से किस विकल्प में सकर्मक क्रिया का प्रयोग हुआ है ?

- (a) सिपाही युद्ध में लड़ता है।
- (b) सिपाही चोर को पकड़ता है।
- (c) सिपाही तेज दौड़ता है।
- (d) सिपाही बहुत कम सोता है।

Q68. निम्न में प्रेरणार्थक क्रिया है:

- (a) उठना
- (b) चमकना
- (c) गिराना
- (d) देना

Q69. 'तुमने गाया होगा' इस वाक्य का काल है:

- (a) संदिग्ध भूत
- (b) संभाव्य भविष्य
- (c) अपूर्ण भूत
- (d) सामान्य भविष्य

Q70. निम्नलिखित में से कौन-सा विकल्प तद्भव शब्द का उदाहरण नहीं है?

- (a) बरस
- (b) भक्त
- (c) बरखा
- (d) भौरा

Q71. निम्नलिखित में से कौन सा शब्द तत्सम नहीं है?

- (a) सौभाग्य
- (b) शिक्षा
- (c) सिर
- (d) शीतल

Q72. 'नाक का बाल होना' मुहावरे का सही अर्थ है:

- (a) बहुत परेशान करना
- (b) इज्जत बचाना
- (c) अत्यन्त प्रिय होना
- (d) चापलूस होना

Q73. निम्नलिखित प्रश्न में, चार विकल्पों में से, उस विकल्प का चयन करें जो दी गई लोकोक्ति का सही अर्थ वाला विकल्प है। हाथी निकल गया, दुम रह गई

- (a) थोड़ा-सा शेष रहना
- (b) विपत्ति पर विपत्ति आना
- (c) अधिक प्रयास
- (d) आपसी फूट

Q74. 'लड़का पाठ पढ़ती है।' में अशुद्धि है:

- (a) कर्ता की
- (b) बलाघात की
- (c) अन्विति की
- (d) क्रिया की

Q75. निम्नलिखित में से किस वाक्य में अशुद्धि नहीं है?

- (a) तुम्हारे दो ऐच्छिक विषय ले सकते हो।
- (b) तुम दो ऐच्छिक विषय ले सकते हो।
- (c) तुमने दो ऐच्छिक विषय लिया होगा।
- (d) वह दो ऐच्छिक विषय ले सकते हो।

Q76. दिए गए वाक्य में उचित विशेषण का चयन करके रिक्त स्थान की पूर्ति करें।

लाल किला _____ ईंटों से बना है इसलिए वह लाल रंग का है।

- (a) चार लीटर
- (b) दो
- (c) सारी
- (d) लाल

Q77. गद्यांश के आधार पर, निम्नलिखित वाक्य में प्रयुक्त, रेखांकित शब्द का उचित पर्यायवाची शब्द ज्ञात करें।

वो वे बातें हैं कि एक तो यह छोटा होता है, और दूसरा यह जनवरी नहीं है।

निम्नलिखित गद्यांश के आधार पर पाँच प्रश्न दिए गए हैं। गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न के चार विकल्पों में से सही विकल्प चुनें। कुछ लोगों के लिए फरवरी नीरस हो सकता है, लेकिन इस महीने के साथ दो बातें तो तय हैं। वे बातें हैं कि एक तो यह छोटा होता है, और दूसरा यह जनवरी नहीं है। जनवरी हर साल की शुरुआत में जिन दबावों को लेकर आती है, फरवरी उनसे राहत देती है। जनवरी के अंत तक जिन्हें त्यागने के बारे में सोच रहे होते हैं, फरवरी का आगमन मौन रूप से उनकी पुष्टि कर देता है। अगर आप अपने संकल्पों में प्रगति नहीं कर पा रहे हैं, तो आपको खुद के प्रति कठोर नहीं होना चाहिए। उदाहरण के लिए, आप रोज़ सोचते हैं कि आज से कसरत शुरू करूंगा, लेकिन समय नहीं निकाल पाते, तो दबाव महसूस करने के बजाय सप्ताहांत की सुबह कसरत करने का नियम बनाएं। कहने का आशय है कि खुद को कड़े नियमों से न बांधें। केंट स्टेट यूनिवर्सिटी में मनोविज्ञान की प्रोफेसर एंजेला नील- बार्नेट सुझाव देती हैं कि योग, कसरत या भ्रमण संबंधी संकल्पों को पूरा करने के लिए बेहतर होगा।

डॉ. वैंडरवेल कहते हैं कि अपने प्रिय जन का साथ आपको अपने लक्ष्यों पर नियमित नज़र रखने में मददगार होता है। इनमें से कुछ भी आपको अपने लक्ष्यों की ओर बढ़ने के लिए प्रोत्साहित कर सकती है। डॉ. नील बार्नेट कहते हैं कि संकल्प को पूरा करने में सबसे महत्वपूर्ण यह है कि खुद को कोसने के बजाय छोटी-छोटी जीत का आनंद लें। जो काम आज पूरे नहीं हुए, वे कल होंगे। हर सुबह एक नई उम्मीद लेकर आती है।

- (a) विस्तार
- (b) बड़ा
- (c) लघु
- (d) मनुष्य

Q78. गद्यांश के आधार पर उस विकल्प का चयन करें जिसमें दिया गया तथ्य सही है।

निम्नलिखित गद्यांश के आधार पर पाँच प्रश्न दिए गए हैं। गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न के चार विकल्पों में से सही विकल्प चुनें। कुछ लोगों के लिए फरवरी नीरस हो सकता है, लेकिन इस महीने के साथ दो बातें तो तय हैं। वे बातें हैं कि एक तो यह छोटा होता है, और दूसरा यह जनवरी नहीं है। जनवरी हर साल की शुरुआत में जिन दबावों को लेकर आती है, फरवरी उनसे राहत देती है। जनवरी के अंत तक जिन्हें त्यागने के बारे में सोच रहे होते हैं, फरवरी का आगमन मौन रूप से उनकी पुष्टि कर देता है। अगर आप अपने संकल्पों में प्रगति नहीं कर पा रहे हैं, तो आपको खुद के प्रति कठोर नहीं होना चाहिए। उदाहरण के लिए, आप रोज़ सोचते हैं कि आज से कसरत शुरू करूंगा, लेकिन समय नहीं निकाल पाते, तो दबाव महसूस करने के बजाय सप्ताहांत की सुबह कसरत करने का नियम बनाएं। कहने का आशय है कि खुद को कड़े नियमों से न बांधें। केंट स्टेट यूनिवर्सिटी में मनोविज्ञान की प्रोफेसर एंजेला नील- बार्नेट सुझाव देती हैं कि योग, कसरत या भ्रमण संबंधी संकल्पों को पूरा करने के लिए बेहतर होगा।

डॉ. वैंडरवेल कहते हैं कि अपने प्रिय जन का साथ आपको अपने लक्ष्यों पर नियमित नज़र रखने में मददगार होता है। इनमें से कुछ भी आपको अपने लक्ष्यों की ओर बढ़ने के लिए प्रोत्साहित कर सकती है। डॉ. नील बार्नेट कहते हैं कि संकल्प को पूरा करने में सबसे महत्वपूर्ण यह है कि खुद को कोसने के बजाय छोटी-छोटी जीत का आनंद लें। जो काम आज पूरे नहीं हुए, वे कल होंगे। हर सुबह एक नई उम्मीद लेकर आती है।

- (a) जनवरी हर साल की शुरुआत में जिन दबावों को लेकर आती है, फरवरी उनसे राहत देती है
(b) डॉ. नील बार्नेट के अनुसार अपने प्रिय जन का साथ अपने लक्ष्यों पर नियमित नज़र रखने में मददगार होता है
(c) डॉ. वैडरवेले के अनुसार खुद को कोसने के बजाय छोटी-छोटी जीत का आनंद लेना चाहिए
(d) हमें खुद को कड़े नियमों से बांधना चाहिए

Q79. प्रस्तुत गद्यांश के लिए उचित शीर्षक का चयन करें।

निम्नलिखित गद्यांश के आधार पर पाँच प्रश्न दिए गए हैं। गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न के चार विकल्पों में से सही विकल्प चुनें। कुछ लोगों के लिए फरवरी नीरस हो सकता है, लेकिन इस महीने के साथ दो बातें तो तय हैं। वे बातें हैं कि एक तो यह छोटा होता है, और दूसरा यह जनवरी नहीं है। जनवरी हर साल की शुरुआत में जिन दबावों को लेकर आती है, फरवरी उनसे राहत देती है। जनवरी के अंत तक जिन्हें त्यागने के बारे में सोच रहे होते हैं, फरवरी का आगमन मौन रूप से उनकी पुष्टि कर देता है। अगर आप अपने संकल्पों में प्रगति नहीं कर पा रहे हैं, तो आपको खुद के प्रति कठोर नहीं होना चाहिए। उदाहरण के लिए, आप रोज़ सोचते हैं कि आज से कसरत शुरू करूंगा, लेकिन समय नहीं निकाल पाते, तो दबाव महसूस करने के बजाय सप्ताहांत की सुबह कसरत करने का नियम बनाएं। कहने का आशय है कि खुद को कड़े नियमों से न बांधें। केंट स्टेट यूनिवर्सिटी में मनोविज्ञान की प्रोफेसर एंजेलो नील- बार्नेट सुझाव देती हैं कि योग, कसरत या भ्रमण संबंधी संकल्पों को पूरा करने के लिए बेहतर होगा। डॉ. वैडरवेले कहते हैं कि अपने प्रिय जन का साथ आपको अपने लक्ष्यों पर नियमित नज़र रखने में मददगार होता है। इनमें से कुछ भी आपको अपने लक्ष्यों की ओर बढ़ने के लिए प्रोत्साहित कर सकती है। डॉ. नील बार्नेट कहते हैं कि संकल्प को पूरा करने में सबसे महत्वपूर्ण यह है कि खुद को कोसने के बजाय छोटी-छोटी जीत का आनंद लें। जो काम आज पूरे नहीं हुए, वे कल होंगे। हर सुबह एक नई उम्मीद लेकर आती है।

- (a) संकल्पों में राहत देती फरवरी
(b) निराशा से भरी फरवरी
(c) चिंता करवाती फरवरी
(d) दुख से भरी फरवरी

Q80. गद्यांश के आधार पर, उस विकल्प का चयन करें, जो उचित निष्कर्ष प्रतिपादित करता है।

निम्नलिखित गद्यांश के आधार पर पाँच प्रश्न दिए गए हैं। गद्यांश को ध्यानपूर्वक पढ़ें तथा प्रत्येक प्रश्न के चार विकल्पों में से सही विकल्प चुनें। कुछ लोगों के लिए फरवरी नीरस हो सकता है, लेकिन इस महीने के साथ दो बातें तो तय हैं। वे बातें हैं कि एक तो यह छोटा होता है, और दूसरा यह जनवरी नहीं है। जनवरी हर साल की शुरुआत में जिन दबावों को लेकर आती है, फरवरी उनसे राहत देती है। जनवरी के अंत तक जिन्हें त्यागने के बारे में सोच रहे होते हैं, फरवरी का आगमन मौन रूप से उनकी पुष्टि कर देता है। अगर आप अपने संकल्पों में प्रगति नहीं कर पा रहे हैं, तो आपको खुद के प्रति कठोर नहीं होना चाहिए। उदाहरण के लिए, आप रोज़ सोचते हैं कि आज से कसरत शुरू करूंगा, लेकिन समय नहीं निकाल पाते, तो दबाव महसूस करने के बजाय सप्ताहांत की सुबह कसरत करने का नियम बनाएं। कहने का आशय है कि खुद को कड़े नियमों से न बांधें। केंट स्टेट यूनिवर्सिटी में मनोविज्ञान की प्रोफेसर एंजेलो नील- बार्नेट सुझाव देती हैं कि योग, कसरत या भ्रमण संबंधी संकल्पों को पूरा करने के लिए बेहतर होगा।

डॉ. वैडरवेले कहते हैं कि अपने प्रिय जन का साथ आपको अपने लक्ष्यों पर नियमित नज़र रखने में मददगार होता है। इनमें से कुछ भी आपको अपने लक्ष्यों की ओर बढ़ने के लिए प्रोत्साहित कर सकती है। डॉ. नील बार्नेट कहते हैं कि संकल्प को पूरा करने में सबसे महत्वपूर्ण यह है कि खुद को कोसने के बजाय छोटी-छोटी जीत का आनंद लें। जो काम आज पूरे नहीं हुए, वे कल होंगे। हर सुबह एक नई उम्मीद लेकर आती है।

- (a) हर नई सुबह निराशा का एहसास कराती है
(b) जब हम अपने बनाए संकल्पों पर अडिग नहीं रह पाते, तो अक्सर खुद के प्रति कठोर हो जाते हैं
(c) हम अक्सर फरवरी को मज़े में निकाल देते हैं और फिर बाद में पछतावे से रोने लगते हैं
(d) फरवरी हमें यह बताती है कि हम जनवरी से कितने पीछे और विफलता के कितने करीब चल रहे हैं

Q81. Select the most appropriate ANTONYM of the given word.

Exclusive

- (a) Expansive
(b) Inclusive
(c) Incisive
(d) Extensive

Q82. Select the most appropriate option to fill in the blank.

I am _____ willing to sign this contract with your company.

- (a) nor
(b) none
(c) not
(d) no

Q83. Select the most appropriate synonym for the highlighted word in the given sentence.

An oxygen cylinder is used to deliver oxygen through the patient's nasal orifice.

- (a) origin
(b) ornate
(c) ordained
(d) opening

Q84. Select the most appropriate meaning of the given idiom.

Hard nut to crack

- (a) a difficult person or problem
(b) someone who solves puzzles easily
(c) someone who needs guidance
(d) a person who likes to joke around

Q85. Select the most appropriate ANTONYM of the given word.

ABUNDANCE

- (a) gaiety
(b) scarcity
(c) bounty
(d) generosity

Q86. Select the most appropriate meaning of the given idiom:

know inside out

- (a) To know a little about something
- (b) To know everything by rote memory
- (c) To know something thoroughly
- (d) To always know a lot about every topic

Q87. Fill in the blank with the most appropriate option. She made an _____ to break the record for long jump.

- (a) attack
- (b) intention
- (c) exercise
- (d) attempt

Q88. Select the option that can be used as a one-word substitute for the given group of words.

A person who presents a radio/television programme

- (a) Idol
- (b) Anchor
- (c) Speaker
- (d) Star

Q89. Select the most appropriate option to fill in the blank.

The experience of having climbed to the Mt. Everest changes you _____.

- (a) rarely
- (b) regularly
- (c) completely
- (d) frequently

Q90. Select the option that can be used as a one-word substitute for the given group of words.

The branch of physics concerned with the properties of sound

- (a) Optics
- (b) Photonics
- (c) Mechanics
- (d) Acoustics

Q91. Fill in the missing word to complete the sentences below:

_____ it rained a lot, we enjoyed our holiday.

- (a) In spite of
- (b) Because of
- (c) Because
- (d) Although

Q92. Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph.

A. He often spread rumors that his neighbours were thieves.

B. After being released, one of them sued him for wrongly accusing them.

C. One evening, some of them were arrested by the police.

D. After the investigation, they were proven innocent.

- (a) ABCD
- (b) ADBC
- (c) DCAB
- (d) ACDB

Q93. Select the most appropriate synonym of the highlighted word in the given sentence.

The country has an abundant supply of minerals.

- (a) Artificial
- (b) Sparse
- (c) Ample
- (d) Natural

Q94. Select the most appropriate word to fill in the blank.

Debjyoti's short animation film _____ highlights the stark contrast between the rich and the poor in India.

- (a) poignantly
- (b) strictly
- (c) carelessly
- (d) sweetly

Q95. Select the most appropriate word to fill in the blank.

I'm very certain, Oz, that you gave me the best brains in the world, for I can _____ with them day and night, when all other brains are fast asleep.

- (a) thinking
- (b) thought
- (c) think
- (d) thinks

Q96. Which of the following things did people in ancient India use for body and hair wash?

Read the following passage and answer the questions that follow.

Before the advent of soap, the primary cleansing agent in ancient India was taken from soap nuts (reetha) from the plant *Sapindus saponaria*. The literal translation of *Sapindus* is sap = soap and indus = India. In other words, soap from India!

The nut was used in ancient China as well and its usage spread from India to Middle Asia and then Europe. Soap nuts are boiled to soften them up, and then crushed to filter out the essence which contains the all-important cleansing chemicals. It lathers but in small quantities. Ancient India also used shikai or shikakai (a variant of the acacia plant) as a hair and body cleanser.

The skincare routines of ancient Indians involved the addition of a variety of herbs such as turmeric, tulsi (holy basil), neem (bark and leaves), lotus petals and sandalwood paste amongst others which were common ingredients in their skincare creams.

Another worth mentioning soap in skin care is the Aleppo soap, which originated from the Syrian city of Aleppo. This is considered one of the purest soaps as it is made with all natural ingredients. Aleppo soap does not dry out the skin. It also moisturises and nourishes the skin and is purported to benefit a host of skin problems such as eczema, skin breakouts, inflammatory skin conditions, insect bites, and skin infections. However, the exact origin of the soap is lost in time with the earliest written record dating as far back as the 8th Century AD. After the Crusades, European nations

adopted Aleppo soap and started producing their own variations. However, the ancient city of Aleppo thrived on trade for thousands of years, famous for being the endpoint of the illustrious Silk Road trade route that bridged the East and the West.

Generations of merchant families and manufacturers made the unique soap for thousands of years and the formulation has remained surprisingly unchanged in all this time retaining its original form. Olive oil, sweet bay (laurel) oil, sodium hydroxide and water are the main ingredients of this soap. Bay (*Laurus nobilis*) has remarkable antibacterial and antifungal properties, and could explain some of the benefits of this soap in conditions such as acne, insect bites and skin infections.

- (a) Shikakai
- (b) Neem bark
- (c) Soap nuts (reetha)
- (d) Sandalwood paste

Q97. Which of the following statements is NOT true according to the passage?

Read the following passage and answer the questions that follow.

Before the advent of soap, the primary cleansing agent in ancient India was taken from soap nuts (reetha) from the plant *Sapindus saponaria*. The literal translation of *Sapindus* is sap = soap and indus = India. In other words, soap from India!

The nut was used in ancient China as well and its usage spread from India to Middle Asia and then Europe. Soap nuts are boiled to soften them up, and then crushed to filter out the essence which contains the all-important cleansing chemicals. It lathers but in small quantities. Ancient India also used shikai or shikakai (a variant of the acacia plant) as a hair and body cleanser.

The skincare routines of ancient Indians involved the addition of a variety of herbs such as turmeric, tulsi (holy basil), neem (bark and leaves), lotus petals and sandalwood paste amongst others which were common ingredients in their skincare creams.

Another worth mentioning soap in skin care is the Aleppo soap, which originated from the Syrian city of Aleppo. This is considered one of the purest soaps as it is made with all natural ingredients. Aleppo soap does not dry out the skin. It also moisturises and nourishes the skin and is purported to benefit a host of skin problems such as eczema, skin breakouts, inflammatory skin conditions, insect bites, and skin infections. However, the exact origin of the soap is lost in time with the earliest written record dating as far back as the 8th Century AD. After the Crusades, European nations adopted Aleppo soap and started producing their own variations. However, the ancient city of Aleppo thrived on trade for thousands of years, famous for being the endpoint of the illustrious Silk Road trade route that bridged the East and the West.

Generations of merchant families and manufacturers made the unique soap for thousands of years and the formulation has remained surprisingly unchanged in all this time retaining its original form. Olive oil, sweet bay (laurel) oil, sodium hydroxide and water are the main ingredients of this soap. Bay (*Laurus nobilis*) has remarkable antibacterial and antifungal properties, and could explain some of the benefits of this soap in conditions such as acne, insect bites and skin infections.

- (a) Olive oil, sweet bay (laurel) oil, sodium hydroxide and water are the main ingredients of this soap.
- (b) Aleppo soap is beneficial in a number of skin problems like eczema, skin breakouts etc.
- (c) The ancient city of Aleppo thrived on the trade of their creams for thousands of years.
- (d) After the Crusades, European nations adopted Aleppo soap and started producing their own variations.

Q98. The main theme of the passage is:

Read the following passage and answer the questions that follow.

Before the advent of soap, the primary cleansing agent in ancient India was taken from soap nuts (reetha) from the plant *Sapindus saponaria*. The literal translation of *Sapindus* is sap = soap and indus = India. In other words, soap from India!

The nut was used in ancient China as well and its usage spread from India to Middle Asia and then Europe. Soap nuts are boiled to soften them up, and then crushed to filter out the essence which contains the all-important cleansing chemicals. It lathers but in small quantities. Ancient India also used shikai or shikakai (a variant of the acacia plant) as a hair and body cleanser.

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- (a) natural soaps for skin care in ancient times
- (b) origin of the Aleppo soap
- (c) history of soap in India
- (d) kinds of ingredients in soap making

Q99. Match the words with their meaning:

a. Purported – 1. Maintained

b. Lathers – 2. Professed

c. Retained – 3. Foams

Read the following passage and answer the questions that follow.

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

Q100. In Aleppo soap, which ingredient has the antibacterial and antifungal properties?

Read the following passage and answer the questions that follow.

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- (a) Holy basil
- (b) Lotus petals
- (c) Olive oil
- (d) Bay oil

Q101. Which type of network do we create when we connect two smart phones to transfer some photos through Bluetooth?

- (a) BTN
- (b) PAN
- (c) LAN
- (d) WAN

Q102. What is the primary purpose of virtual memory in a computer system?

- (a) To provide backup for data
- (b) To increase physical storage capacity
- (c) To extend CACHE memory for storage
- (d) To extend RAM capacity by using disk space

Q103. IPv6 addresses have a size of:

- (a) 64 bits
- (b) 128 bits
- (c) 256 bits
- (d) 512 bits

Q104. Which one of the following is not a web browser?

- (a) Internet Explorer
- (b) Firefox
- (c) Fedora
- (d) Google Chrome

Q105. Which of the following internet protocols allows us to access the data over the World Wide Web?

- (a) DNS
- (b) SNMP
- (c) HTTP
- (d) FTP

Q106. Which of the following options in Microsoft Word allows users to create a table by specifying rows and columns?

- (a) Draw Table
- (b) Insert Table
- (c) Table Styles
- (d) Quick Tables

Q107. Which button in the Home tab of Microsoft Word 365 can be used to cut selected text?

- (a) Clipboard icon
- (b) Scissors icon
- (c) Arrow pointing down icon
- (d) Double sheets of paper icon

Q108. Special effects used in introduce slides in a presentation are called

- (a) Custom animation
- (b) Effects
- (c) Transitions
- (d) None of these

Q109. In a spread sheet When we place the mouse pointer over any of the buttons or icons on the toolbars the name of the icon appears as which of the following?

- (a) Horizontal Scroll Bar
- (b) Scroll Bars
- (c) Tooltip
- (d) Docking Toolbars

Q110. Which one of the following basic operations for converting raw input data into useful information is not performed by all computers?

- (a) Inputting
- (b) Storing
- (c) Switching
- (d) Outputting

Q111. Which of the following best encapsulates the role of an operating system's kernel?

- (a) Providing the graphical user interface for user interaction
- (b) Acting as the core interface between applications and the system hardware
- (c) Managing user accounts and access permissions
- (d) Offering a suite of utility programs for file management and system configuration

Q112. Which one of the following is not a language translator?

- (a) Assembler
- (b) Linker
- (c) Interpreter
- (d) Compiler

Q113. _____ monitors users' activity on Internet and transmits that information in the background to someone else.

- (a) Malware
- (b) Spyware
- (c) Adware
- (d) None of the above

Q114. Most projectors now use ____ cable or VGA cable from the computer as their input source.

- (a) HDMI
- (b) Ethernet
- (c) PS/2
- (d) Audio

Q115. Printer image quality is measured in -

- (a) PPM (Page per minute)
- (b) CPS (Character Per second)
- (c) DPL (Dots per line)
- (d) DPI (Dots per Inch)

Q116. Which of the following is not an application software package?

- (a) Red hat linux
- (b) MS Office
- (c) Adobe PageMaker
- (d) Open office

Q117. Application software includes a variety of programs that are designed to meet the information processing needs of ____.

- (a) programmers
- (b) team leaders
- (c) customers
- (d) end users

Q118. Which of the following video conferencing software is commonly used on Windows systems and is owned by Microsoft?

- (a) Meet
- (b) Webex
- (c) GoTo Meeting
- (d) Skype

Q119. Which of the following utilizes personal characteristics such as fingerprints and retinal scans for security access?

- (a) Smart weapon machinery
- (b) Biometrics
- (c) Bio-measurement
- (d) Computer security

Q120. In modern CPUs, what technique is used to execute multiple instructions simultaneously?

- (a) Clock Synchronizing
- (b) Pipelining
- (c) Serial Processing
- (d) Sequential Execution

Solutions

S1. Ans.(d)

Sol. The correct answer is **(d) Arunachal Pradesh**

Explanation:

'**Roppi**' is a popular folk dance from **Arunachal Pradesh**, performed by the **Adi tribe**. It is a traditional dance associated with agricultural activities, especially during the **harvest season**. The dance is performed to express **gratitude towards nature** and to celebrate a good yield.

Key Features of Roppi Dance:

- Primarily performed by the **Adi tribal community**.
- Celebrates **agriculture and harvest**.
- Performed with **energetic movements** and accompanied by traditional music.

Information Booster:

Folk Dances of Arunachal Pradesh:

- **Aji Lamu** – Performed by the Monpa tribe.
- **Pasi Kongki** – Depicts historical events of the Adi tribe.
- **Popir** – Performed by the Galo tribe for religious and cultural occasions.
- **Buiya** – Popular among the Digaru Mishmi tribe.

Additional Knowledge:

- **Kerala** – Kathakali and Mohiniyattam (Classical), Koodiyattam, Thullal, Kolkali, Oppana, and Padayani.
- **Folk dance in Assam** – Bagurumba, Jhumur Dance, Deodhani, Barpeta's Bhortal Nritya
- **Karnataka** – Yakshagana, Dollu Kunitha (Folk dances)

S2. Ans.(d)

Sol. The correct answer is **(d) 73rd Amendment Act**.

Explanation:

The **73rd Constitutional Amendment Act, 1992** was enacted to strengthen the **Panchayati Raj System** in India. It provided for the establishment of the **State Finance Commission (SFC)** to review the financial position of Panchayati Raj Institutions (PRIs) and recommend measures to improve their financial health.

Information Booster:

Key Provisions Related to the State Finance Commission:

1. **Article 243-I:**
 - The **Governor of a state** shall constitute a **State Finance Commission** every **five years**.
 - It will review the **financial position of Panchayati Raj Institutions (PRIs)** and recommend financial devolution.
2. **Major Responsibilities of the SFC:**
 - Distribution of **tax revenues** between the **State and Panchayats**.
 - Suggesting **grants-in-aid** for Panchayati Raj Institutions.
 - Determining methods to improve the **financial position of Panchayats**.
3. **The First State Finance Commission:**
 - Established after the **73rd Amendment Act (1992)** came into effect on **24 April 1993**.

73rd Amendment Act 1992:

- The 73rd Amendment Act (1992) provided **constitutional status** to **Panchayati Raj Institutions (PRIs)**.
- It introduced a **three-tier system** of Panchayati Raj:
 1. **Gram Panchayat** (Village level)
 2. **Panchayat Samiti** (Block level)
 3. **Zila Parishad** (District level)

Additional Knowledge:

- **74th Amendment Act (1992)**: Established the **State Finance Commission for Urban Local Bodies** under **Article 243Y**.
- **76th Amendment Act (1994)**: Reserved **69% of seats for backward classes** in Tamil Nadu (placed under the **9th Schedule**).
- **75th Amendment Act (1994)**: Empowered **Rent Control Tribunals** regarding disputes related to rent, tenancy, and eviction.

S3. Ans.(c)

Sol. The correct answer is **(c) Poverty**

Explanation:

The **Rangarajan Committee on Poverty Estimation** was constituted by the **Planning Commission of India** in **2012**, under the chairmanship of **C. Rangarajan**, a former **Governor of the Reserve Bank of India (RBI)**.

The committee was tasked with **revising the methodology** for estimating **poverty in India** after the **Tendulkar Committee's recommendations (2009)** faced criticism for setting a **low poverty line**.

New Poverty Line (2011-12) recommended by the Committee

- o **Rural areas**: ₹32 per day per person.
- o **Urban areas**: ₹47 per day per person.
- o It increased the **poverty threshold** compared to the **Tendulkar Committee's** recommendation.

Information Booster:

Evolution of Poverty Estimation in India

1. Pre-Independence Efforts:

- o **Dadabhai Naoroji** (1901) in "**Poverty and Un-British Rule in India**" was among the first to estimate poverty.
- o **National Planning Committee (1938)** and **Bombay Plan (1944)** suggested early poverty line calculations.

2. Post-Independence Approaches:

- o **Alagh Committee (1979)**: Defined **separate rural and urban poverty lines** based on **nutritional requirements**.
- o **Lakdawala Committee (1993)**: Introduced **state-specific poverty lines**, focusing on **calorie intake**.

3. Modern Committees & Methodologies:

- o **Tendulkar Committee (2009)**: Shifted to **monthly per capita consumption expenditure**, with poverty lines at **₹816 (rural) & ₹1000 (urban)** for 2011-12.
- o **Rangarajan Committee (2014)**: Recommended **separate consumption baskets** for rural & urban areas, setting new poverty lines at **₹972 (rural) & ₹1407 (urban)**.
- o **SECC (2011)**: Classified households into **automatically excluded, automatically included, and others** for targeted social welfare.

4. Current Approach:

- o **NITI Aayog Task Force** (using **NSSO data**) is responsible for poverty estimation in India.

S4. Ans.(a)

Sol. The correct answer is **(a) Second Plan**

Explanation:

The **Second Five-Year Plan (1956-1961)** is also known as the '**Mahalanobis Plan**' because it was based on the economic model proposed by **Prof. Prasanta Chandra Mahalanobis**.

Information Booster:

Objectives of the Second Five-Year Plan (1956-1961):

- **Increase in National Income** – Aimed at a **25% increase in GDP**.
- **Development of Heavy Industries** – **BHEL, SAIL**, and other major industries were established.
- **Expansion of Public Sector** – Strengthened **PSUs like Hindustan Aeronautics Limited (HAL) and ONGC**.
- **Agriculture & Rural Development** – Introduction of **cooperative farming** and agricultural research.

Prasanta Chandra Mahalanobis:

- **Known as: Father of Indian Statistics**
- **Contributions:**

o Played a crucial role in India's post-independence economic planning.

o Founded the **Indian Statistical Institute (ISI)** in 1931, a premier institution for statistical research and training.

o Developed the **Mahalanobis Distance**, widely used in statistics and machine learning.

• **Honors:**

o Awarded the Padma Vibhushan(1968) for his contributions to science and statistics.

Additional Knowledge:

- **Seventh Plan (1985-1990)** – Focused on **productivity, employment, and technology upgradation.**
- **First Plan (1951-1956)** – Focused on **agriculture, irrigation, and community development.**
- **Fourth Plan (1969-1974)** – Aimed at **growth with stability and self-reliance**

S5. Ans.(c)

Sol. The correct answer is:(c) Troposphere

Explanation:

- The **troposphere** is the **lowest layer** of Earth's atmosphere, extending from the Earth's surface up to around **8 km at the poles** and **18 km at the equator.**
- All major **weather events** like rainfall, storms, winds, clouds, and temperature changes occur in this layer.
- The **temperature decreases with altitude** in this layer (lapse rate).
- It contains about **75% of the atmosphere's total mass** and the **highest concentration of water vapor.**
- The upper boundary of the troposphere is called the **tropopause**, which separates it from the stratosphere.

Information Booster:

- Troposphere is denser than other layers and supports **life and weather systems.**
- **Jet aircrafts** fly near the **tropopause** to avoid turbulence.
- The **greenhouse effect** primarily acts in the troposphere.
- **Air pressure** decreases rapidly with altitude in this layer.
- The average **temperature drop** is about **6.5°C per km.**
- **Weather balloons** collect data from this atmospheric layer.

Additional Information:

• **Stratosphere:**

Located above the troposphere (18–50 km). Contains the **ozone layer**. Temperature increases with height due to ozone absorption of UV rays. **Commercial jets** often cruise here.

• **Mesosphere:**

Lies above the stratosphere (50–80 km). It is the **coldest layer** and burns up most **meteors** entering Earth's atmosphere.

• **Exosphere:**

The **outermost layer** (above 600 km), gradually fading into space. Composed of **very thin gases** like hydrogen and helium. **Satellites** orbit in this region.

S6. Ans.(b)

Sol. The correct answer is (b) The daughter cells have half the number of chromosomes as the mother cell.

Explanation:

Mitosis is a type of **cell division** in which a **single parent cell divides** to form **two identical daughter cells**, each having the **same number of chromosomes** as the mother cell. It ensures that genetic information is passed on **without any reduction** in chromosome number.

Since mitosis is an **equational division**, the chromosome number in the daughter cells **remains the same** as that of the parent cell. The incorrect statement is **option B**, as it incorrectly states that the daughter cells have **half** the number of chromosomes, which is actually true for **meiosis**, not mitosis.

Information Booster:

- **Mitosis occurs in somatic (body) cells** and is responsible for **growth, tissue repair, and asexual reproduction** in unicellular organisms.
- The **four stages of mitosis** are:
 1. **Prophase** – Chromosomes condense, spindle fibers form.
 2. **Metaphase** – Chromosomes align in the center.
 3. **Anaphase** – Sister chromatids separate and move to opposite poles.
 4. **Telophase** – Two new nuclei form, followed by cytokinesis (division of the cytoplasm).
- **Mitosis maintains the diploid (2n) chromosome number** in organisms.

S7. Ans.(b)

Sol. The correct answer is (b) By leading to higher interest rates and reduced private investment

Explanation:

- A **high fiscal deficit** occurs when a government **spends more than its revenue**, leading to increased **borrowing**. When the government **borrow heavily from the market**, it competes with private businesses for available funds, causing **interest rates to rise.**

- This phenomenon is known as "**crowding out**", where **higher interest rates** make borrowing **costlier for private businesses**, leading to a **decline in private investment**. This can **slow down economic growth** and reduce the efficiency of resource allocation.

Information Booster:

- **Fiscal Deficit** = Total Government Expenditure - Total Government Revenue (excluding borrowings).
- A high fiscal deficit can lead to:
 - **Inflation** (if financed by printing more money).
 - **High public debt** (if financed through borrowing).
 - **Crowding out of private investment** (if excessive government borrowing leads to higher interest rates).
- The **Fiscal Responsibility and Budget Management (FRBM) Act, 2003**, was introduced to **control the fiscal deficit** and ensure financial discipline.

Revenue Deficit: It represents the shortfall in a government or business's revenue when total revenue receipts are less than total revenue expenditure.

Formula: Revenue Deficit = Total Revenue Expenditure – Total Revenue Receipts

Debt-to-GDP Ratio: This ratio indicates the proportion of a country's total debt relative to its Gross Domestic Product (GDP), reflecting its ability to repay debts.

Formula: Debt-to-GDP Ratio = Total Debt of the Country / Total GDP of the Country

S8. Ans.(d)

Sol. The Correct Answer is **D: Kumar Sanu**.

Explanation:

In **1993**, **Kumar Sanu** set the **Guinness World Record** by recording **28 songs in one day**. He became one of the most famous playback singers in Bollywood during the 1990s.

Key Points:

- **Kumar Sanu** set the **Guinness World Record** for recording **28 songs** in a single day in **1993**.
- He was one of the most successful **Bollywood playback singers** of the 1990s.
- His achievement was recognized by **Guinness World Records**.
- **Guinness World Records** tracks both human feats and natural extremes.

Additional Information:

- **Udit Narayan:** A famous singer but did not record 28 songs in one day.
- **Krishnakumar Kunnath:** Known as **K.K.**, an iconic singer, but not part of this record.
- **Sonu Nigam:** A celebrated singer, but not associated with this record.

S9. Ans.(d)

Sol. The Correct Answer is **D: 1953**.

Explanation:

Sangeet Natak Akademi was established in **1953** by the Government of India to promote and preserve various forms of Indian **music, dance, and drama**. It is the national academy for the performing arts and works to support and promote **Indian classical and folk arts**.

Key Points:

- **Sangeet Natak Akademi** was founded in **1953**.
- It is the apex body responsible for the promotion of **performing arts in India**.
- The academy organizes **festivals, awards, and research** on **Indian performing arts**.
- The **Sangeet Natak Akademi Award** is given annually to honor outstanding contributions in the field of performing arts.

Additional Information:

- **1961:** **Shankar's International School of Art** was founded, not related to the academy.
- **1963:** Establishment of the **Indian Film Industry**.
- **1949:** Formation of **All India Radio**, not related to performing arts directly.

S10. Ans.(b)

Sol. The Correct Answer is **B: Chief Minister**.

Explanation:

The **Chief Minister** is considered the **real executive** of a state as per the **Constitution of India**. While the **Governor** is the **ceremonial head** of the state, the **Chief Minister** holds the **executive power** and is responsible for running the state's government.

Key Points:

- The **Chief Minister** is the leader of the **state government**. (**Article 164**)
- The **Chief Minister** is appointed by the **Governor**. (**Article 164**)

- The **Chief Minister** heads the **Council of Ministers**. (Article 163)
- The **real executive power** lies with the **Chief Minister**, not the **Governor** or the **Speaker**. (Article 166)

Additional Information:

- **Deputy Chief Minister:** Assists the **Chief Minister** but is not the **real executive**. (No specific Article)
- **Speaker:** The **presiding officer** of the **legislative assembly**, not the executive. (Article 178)
- **Governor:** The **ceremonial head** of the state, but the **executive powers** are vested in the **Chief Minister**. (Article 153)

S11. Ans.(d)

Sol. The Correct Answer is **D: The total amount of money owed by the government to its creditors.**

Explanation:

- **Public Debt** refers to the total **amount of money that a government owes** to external and internal creditors.
- It arises from the **borrowing** of funds to meet the government's **budget deficit** or to finance various projects.
- Public debt is divided into **external debt** (borrowed from foreign sources) and **internal debt** (borrowed from domestic sources).

Key Points:

- Public debt represents the **government's liability** to repay borrowed funds.
- It is a critical component of **fiscal policy** and is often used for **economic development**.
- The government may **issue bonds** or take loans to finance its debts.

Additional Information:

- **The total amount of money owed by the citizens of a country** refers to **private debt**, not public debt.
- **Total investments made by the government** relates to **capital expenditure** and not debt.
- **Total revenue generated by the government** refers to the **income from taxes and other sources**, not debt.

S12. Ans.(c)

Sol. The Correct Answer is **C: Manipur.**

Explanation:

The **Cheiraoba** festival is celebrated as the **New Year** in the state of **Manipur**, typically in the month of **April**. It marks the start of the new lunar year according to the **Meitei calendar** and involves various cultural and religious festivities.

Key Points:

- **Cheiraoba** is celebrated as the **New Year** festival in **Manipur**.
- It is celebrated with **joy** and **festivities**, including traditional dances and feasts.
- The festival marks the beginning of the **Meitei lunar calendar**.

Additional Information:

- **Karnataka:** Celebrates **Ugadi** as its New Year festival.
- **Goa:** Celebrates **Gudi Padwa** as the New Year festival.
- **Uttarakhand:** Celebrates **Baisakhi** or **Nanda Devi Mela** in some regions.

S13. Ans.(c)

Sol. The Correct Answer is **C: Calcium hydroxyapatite.**

Explanation:

The main component of tooth enamel is **Calcium hydroxyapatite**, a **mineral** form of **calcium phosphate**. It provides the hardness and strength needed to protect teeth from decay.

Key Points:

- **Tooth enamel** is primarily composed of **Calcium hydroxyapatite**.
- It is the hardest substance in the human body.
- **Calcium hydroxyapatite** forms the outer layer of the teeth and helps protect them from wear and cavities.

Additional Information:

- **Calcium** is an essential mineral but is not the correct term for tooth enamel.
- **Sodium** is not involved in the formation of tooth enamel.
- **Hydrochloric acid** is a strong acid, but it doesn't contribute to tooth enamel.

S14. Ans.(b)

Sol. The correct answer is: **(B) Government of India Act**

Explanation:

The **Government of India Act of 1919** introduced the system of **dyarchy** in the provinces of British India. Dyarchy was a system of dual government, where executive authority was divided between elected Indian ministers and appointed British officials. Under this system, provinces were divided into two categories: one where the British government retained control (called reserved subjects), and another where Indian ministers had control (called transferred subjects). This Act aimed to introduce a limited form of self-government but was still largely controlled by the British.

Information Booster:

- The Act was a response to the growing demands for reforms and political representation from Indian leaders like **Gopal Krishna Gokhale** and **Bal Gangadhar Tilak**.
- It created a bicameral legislature at the **central level** with an **elected lower house** and a **nominated upper house**.
- Though dyarchy gave Indian ministers some authority over certain subjects, real power still rested with the British officials, leading to dissatisfaction among many nationalists.

Additional Knowledge:

- **Indian Councils Act:** This Act was passed in 1861 to increase Indian representation in the legislative councils.
- **Rowlatt Act:** Enacted in 1919, this Act allowed the British government to arrest and detain individuals without trial, leading to widespread protests.
- **Vernacular Press Act:** Enacted in 1878, this Act was aimed at curbing the freedom of the press in Indian languages.

S15. Ans.(d)

Sol. The correct answer is: **(D) Kathak**

Explanation:

Shovana Narayan is a renowned **Kathak** dancer and a recipient of the **Padma Shri** for her exceptional contribution to Indian classical dance. Kathak is one of the eight classical dance forms of India, originating from North India.

Shovana Narayan is celebrated for her mastery of this intricate dance form, known for its graceful movements, rhythmic footwork, and storytelling through expressive gestures. She has contributed significantly to the popularization and preservation of Kathak.

Information about Kathak:

- The word '**Kathak**' is derived from the Sanskrit word '**Katha**', which means **story**. It is a storytelling dance form that involves expressive gestures, footwork, and rhythmic patterns.
- Kathak is known for its **intricate footwork** (known as **Tatkar**), **spins** (known as **Chakkars**), and expressive **facial expressions** (known as **Abhinaya**).
- The dance is accompanied by classical Indian music, often in **Hindustani classical** tradition, and can include both **tabla** and **sarangi**.
- The **three main gharanas** (schools of Kathak) are **Jaipur**, **Lucknow**, and **Banaras**, each with its own distinct style and repertoire.

Information Booster:

- **Bharatanatyam:** This dance form is from **Tamil Nadu** and is one of the oldest classical dances of India.
- **Manipuri:** Originating from **Manipur**, this dance form is known for its graceful and fluid movements, distinct from Kathak.
- **Odissi:** This classical dance comes from **Odisha** and involves intricate body movements and postures.

S16. Ans.(c)

Sol. The correct answer is: **(C) Constitution (One Hundred and Second Amendment) Act, 2018**

Explanation:

The **Constitution (One Hundred and Second Amendment) Act, 2018** is related to the establishment of the **National Commission for Backward Classes (NCBC)** in India. This amendment elevated the NCBC to a **constitutional body**, giving it the same status as the **National Commission for Scheduled Castes (NCSC)** and the **National Commission for Scheduled Tribes (NCST)**. The amendment empowered the President of India to include any backward class in the **Central List** of Backward Classes after consulting the NCBC, ensuring greater representation and rights for backward classes.

Information Booster:

- Prior to the 102nd Amendment, the NCBC was a statutory body established under an Act of Parliament, but it was given constitutional status through this amendment.
- The amendment **changed** Article 338B of the Constitution and introduced a new Article, **342A**, which deals with the **identification of backward classes**.
- It made provisions for the **central government** to define **Socially and Educationally Backward Classes (SEBC)** for the purpose of providing reservations.

Additional Knowledge:

- **Constitution (Eighty-sixth Amendment) Act, 2002:** This amendment focused on the **right to education** by making education a fundamental right for children between 6 to 14 years of age.
- **Constitution (One hundred and fourth Amendment) Act, 2019:** This amendment dealt with the **extension of reservation** for **Scheduled Castes (SCs)** and **Scheduled Tribes (STs)** in the **Lok Sabha and State Assemblies**.
- **Constitution (Eighty-fourth Amendment) Act, 2001:** This amendment relates to the **reservation of seats** in the **Lok Sabha and State Assemblies** for Scheduled Castes and Tribes, based on population census data.

S17. Ans.(a)

Sol. The correct answer is: **(A) All of a, b and c**

Explanation:

Table tennis, a widely popular sport today, has had several historical names. Some of the early names include:

- **Gossima:** This was one of the earliest names used for the sport in the late 19th century in England.
- **Whiff-whaff:** Another name used in the early stages, referencing the sound of the ball being hit back and forth.
- **Ping-pong:** The name "Ping-pong" became a popular brand name and has often been used synonymously with table tennis, particularly in the United States and other countries.

Information Booster:

- **Gossima** was the name used for a variant of the game in the 19th century, and it was played on a lawn tennis table with makeshift equipment.
- The name **Whiff-whaff** referred to the light, bouncing sound of the ball as it was struck back and forth in early forms of the game.
- **Ping-pong** became the most widely recognized term and was trademarked by the game's commercial manufacturers, **J. Jaques & Son Ltd.**, who marketed it in the late 1800s.
- The game evolved from early forms of lawn tennis, where people started using a table and improvised equipment to play indoors.

S18. Ans.(b)

Sol. The correct answer is: **(B) Camphor**

Explanation:

Camphor is a crystal-like, **white compound** with a **strong pungent aroma** and taste. It is commonly used in various applications, including in medicinal products, religious rituals, and as a moth repellent.

Camphor is purified through the process of **sublimation**, where the solid directly transforms into a gas and then re-condenses into a pure solid, leaving impurities behind. This property of sublimation is utilized to obtain high-purity camphor.

Information Booster:

- It is a **terpene** compound, extracted from the wood of the **camphor tree** (*Cinnamomum camphora*), though synthetic versions are also available.
- Camphor is often used in **medicinal products** like balms and ointments for its cooling and soothing effects.
- It has applications in **religious practices**, such as in **arti** ceremonies, where it is burned as a symbol of purification.
- Camphor is known for its **sublimation property**, which makes it useful for purifying the substance by directly converting it into vapor and back into solid form.

Additional Knowledge:

- **Lye:** This refers to **caustic soda (NaOH)** or **potassium hydroxide (KOH)**, which are highly alkaline and used in cleaning and soap making.
- **Caustic Potash:** This is **KOH**, a strong base, commonly used in the manufacture of soft soaps and fertilizers.
- **Soda Ash:** This is **sodium carbonate (Na₂CO₃)**, used in glass manufacturing and in water treatment.

S19. Ans.(c)

Sol. The correct answer is: **(C) Chandra and Bhaga**

Explanation:

At **Tandi**, near **Keylong** in **Himachal Pradesh**, the two major rivers **Chandra** and **Bhaga** meet to form the **Chenab River**. This confluence is significant as the **Chenab** is one of the major rivers of the Indian subcontinent, flowing through the states of Himachal Pradesh and Jammu and Kashmir before entering Pakistan. The confluence of these two rivers is a key feature of the river systems in the northern Himalayas.

Information Booster:

- The **Chandra River** originates from the **Chandra Tal** lake in the **Spiti Valley**.
- The **Bhaga River** originates from the **Bhaga Glacier** near the **Baralacha La** pass in Himachal Pradesh.
- The **Chenab River** is one of the major rivers of the **Indus River System**, which has great significance for both India and Pakistan.
- The confluence point is located in a **beautiful region** of Himachal Pradesh, surrounded by the majestic **Himalayas**.

Additional Knowledge:

- **Panzara and Waghur :** The **Panzara** and **Waghur** rivers are tributaries of the **Tapti River** in **western India**.
- **Bindusara and Sabari :** **Bindusara** is a Mauryan emperor, not a river. The **Sabari River** is a tributary of the **Godavari River**, flowing through the **Telangana** region of India.
- **Penuganga and Warda :** The **Penuganga** and **Warda** rivers are located in the **Peninsular region** of India. **Penuganga** is a tributary of the **Godavari River**, and **Warda** is a tributary of the **Wardha River**.

S20. Ans.(d)

Sol. The correct answer is: **(D) Kerala**

Explanation:

According to the **Census of India 2011**, **Kerala** had the least population growth among the given states. The state recorded a population growth rate of just **4.91%** during the decade from 2001 to 2011.

This relatively low growth rate is due to several factors, including high literacy rates, widespread access to healthcare, lower birth rates, and effective family planning policies. Kerala's focus on education, women's empowerment, and social welfare programs has contributed to its demographic stability.

Information Booster:

- Kerala's focus on **social welfare** programs and **family planning** has played a key role in controlling its population growth.
- Kerala's relatively **high standard of living** and social progress have led to a conscious choice by many families to have fewer children.
- The state's **urbanization** and widespread **awareness about contraception** also contribute to its low population growth rate.

Additional Knowledge:

- **Bihar:** Bihar recorded one of the highest population growth rates in India during the 2011 Census, with a growth rate of **25.07%**.
- **Tamil Nadu:** Tamil Nadu had a moderate population growth rate of **15.6%** during the 2001-2011 period, reflecting its effective social and health policies.
- **Haryana:** Haryana also experienced significant population growth, with a rate of **19.9%** according to the Census 2011.

S21. Ans.(b)

Sol. Given: 395, 366, 337, 308, 279, ?

Logic: Difference of consecutive term is 29.

$$395 - 366 = 29$$

$$366 - 337 = 29$$

$$337 - 308 = 29$$

$$308 - 279 = 29$$

$$279 - ? = 29$$

$$279 - 29 = ?$$

$$? = 250$$

So, the missing term is **250**.

Thus, correct option is (b).

S22. Ans.(d)

Sol. Given: _ T W R U _ S N Q L _ J M H K _ I D G _

Now, we check each options.

Option (a): YQOEB (Not Follow)

Y T / W R / U Q / S N / Q L / Q J / M H / K E / I D / G B

Option (b): ZQNEC (Not Follow)

Z T / W R / U Q / S N / Q L / N J / M H / K E / I D / G C

Option (c): ZPNFC (Not Follow)

Z T / W R / U P / S N / Q L / N J / M H / K E / I D / G C

Option (d): YPOFB (Follow)

Y T / W R / U P / S N / Q L / Q J / M H / K F / I D / G B

So, the pattern is **(- 5)** between two letters.

Thus, correct option is (d).

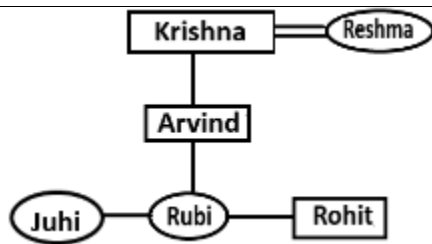
S23. Ans.(b)

Sol. Rubi and Juhi are sisters. Krishna is Juhi's father's father.

Reshma is the mother of Arvind. Arvind is the father of Rohit, who is the only brother of Rubi.

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

From the given information family diagram will be

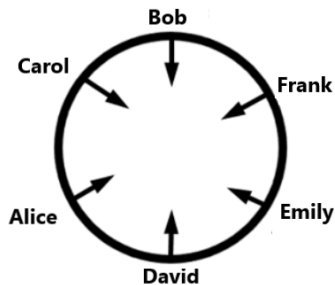


Krishna is **Father's father** of Rohit.
Thus, correct option is (b).

S24. Ans.(b)

Sol. Given:

Six people Alice, Bob, Carol, David, Emily, and Frank are sitting around a circular table facing towards the centre.
David sits adjacent to both Alice and Emily.
Carol sits to the immediate right of Bob.
Alice and Bob are not immediate neighbors.
Frank and Alice are not immediate neighbors.
From the above information following seating arrangement will be -



From the above seating arrangement **Frank** sits to the immediate left of Bob.
Correct answer is (b) **Frank**.

S25. Ans.(d)

Sol. Given:

In a hotel, there are five guests – X, Y, Z, W, and V staying on five different floors.
The bottommost floor is numbered as 1, and the floor immediately above it is numbered as 2, and so on.
X, Y, and Z do not have rooms on floor number 1.
V stays on the topmost floor.
Y stays on the floor number 3.
X does not stay on floor number 2.

From the given information arrangement will be.

Floors	Persons
5	V
4	X
3	Y
2	Z
1	W

On 1 floor number does W stay.
Thus, correct option is (d).

S26. Ans.(b)

Sol. Given words:

1. BUTTERFLY 2. BEE 3. BREEZE 4. BUSH 5. BEETLE

BEE – Starts with B-E-E

BEETLE – Starts with B-E-E, same as BEE, but T comes after E, so BEE comes first.

BREEZE – Starts with B-R, which comes after B-E, so BREEZE comes after both BEE and BEETLE.

BUSH – Starts with B-U, which comes after B-R, so after BREEZE.

BUTTERFLY – Starts with B-U, same as BUSH, next letters T and S, and since S < T, BUSH comes before BUTTERFLY.

So, the final order is: **25341**

2. BEE 5. BEETLE 3. BREEZE 4. BUSH 1. BUTTERFLY

Thus, correct option is (b).

S27. Ans.(d)

Sol. Logic: $1st \times 4 - 3$

A) (11 : 41)

$$11 \times 4 = 44$$

$$44 - 3 = 41$$

follows the pattern.

B) (9 : 33)

$$9 \times 4 = 36$$

$$36 - 3 = 33$$

follows the pattern.

C) (10 : 37)

$$10 \times 4 = 40$$

$$40 - 3 = 37$$

follows the pattern.

D) (12 : 46)

$$12 \times 4 = 48$$

$$48 - 3 = 45$$

This does not work. The result is 45, but the second number is 46.

Thus, correct option is (d).

S28. Ans.(c)

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: Each Letter + 4 = Next

a). RVZD

$$R + 4 = V, V + 4 = Z, Z + 4 = D$$

b). BFJN

$$B + 4 = F, F + 4 = J, J + 4 = N$$

c). UYCF

$$U + 4 = Y, Y + 4 = C, C + 4 = G \neq F$$

d). KOSW

$$K + 4 = O, O + 4 = S, S + 4 = W$$

So, **UYCF** (Does not follow +4 pattern)

Thus, correct option is (c).

S29. Ans.(a)

Sol. Given: 'COLONY' is coded as '48' and 'INTERCHANGE' is coded as '88'.

Logic: Number of letters $\times 8$ = Code

$$\text{COLONY (6 letters)} \rightarrow 48 \rightarrow 6 \times 8 = 48$$

$$\text{INTERCHANGE (11 letters)} \rightarrow 88 \rightarrow 11 \times 8 = 88$$

Applying the pattern to MOUNTAIN

$$\text{MOUNTAIN has 8 letters.} \rightarrow 8 \times 8 = 64.$$

Therefore, **MOUNTAIN** $\rightarrow 64$.

Thus, the correct option is (a) 64

S30. Ans.(c)

Sol. Given:

(Left) 7 & 3 Ω 9 5 5 & 4 6 @ 8 \$ # 1 * £ 5 (Right)

Logic: Even number | Symbol | Odd number.

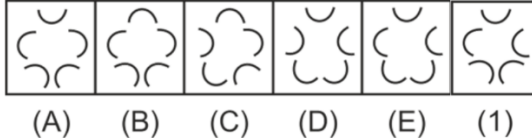
There is **no** symbol that satisfies the condition. symbols are immediately preceded by an even number and also immediately followed by an odd number.

Thus, the correct option is: (C) None

S31. Ans.(a)

Sol. Logic: From A to B, one curve opens/closes, from B to C, two curves open/close, from C to D, three curves open/close, and from D to E, the pattern repeats in series (anticlockwise)—thus, answer (1) correctly follows the same transformation logic.

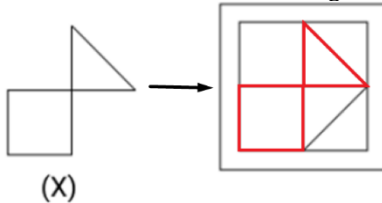
The complete figure series is given below:



Thus, the correct option is **(a) 1**.

S32. Ans.(c)

Sol. The correct embedded figure is shown below:



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

S33. Ans.(c)

Sol. Given:

(Left) 8 £ 6 @ & % 4 6 @ 8 \$ 7 & 3 Ω 9 # 1 * 4 5 (Right)

Logic: Even | Symbol | Odd

(Left) 8 £ 6 @ & % 4 6 @ 8 \$ 7 & 3 Ω 9 # 1 * 4 5 (Right)

There is only one such symbol, which is immediately preceded by an even number and also immediately followed by an odd number.

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

S34. Ans.(d)

Sol. Given:

Letter	A	B	C	D
Sign	÷	×	+	-

Resultant = 99

Logic: BODMAS

Operation preference wise	Symbol
Brackets	[], (), { }
Orders, of	(power), √(root), of
Division	÷
Multiplication	×
Addition	+
Subtraction	-

Let's check all the options:

Option (a): 28 A 39 D 3 B 12 C 7 **(Incorrect)**

$$= 28 \div 39 - 3 \times 12 + 7$$

$$= 0.71 - 3 \times 12 + 7$$

$$= 0.71 - 36 + 7$$

$$= 7.71 - 36$$

$$= -28.29$$

Option (b): 28 B 39 C 3 A 12 D 7 **(Incorrect)**

$$= 28 \times 39 + 3 \div 12 - 7$$

$$= 28 \times 39 + 0.25 - 7$$

$$= 1092 + 0.25 - 7$$

$$= 1092.25 - 7$$

$$= 1085.25$$

Option (c): 28 C 39 B 3 D 12 A 7 **(Incorrect)**

$$= 28 + 39 \times 3 - 12 \div 7$$

$$= 28 + 39 \times 3 - 1.714$$

$$= 28 + 117 - 1.714$$

$$= 145 - 1.714$$

$$= 143.26$$

Option (d): 28 D 39 A 3 C 12 B 7 (Correct)

$$= 28 - 39 \div 3 + 12 \times 7$$

$$= 28 - 13 + 12 \times 7$$

$$= 28 - 13 + 84$$

$$= 28 - 13 + 84$$

$$= 112 - 13$$

$$= 99$$

Thus, the correct option is **(d) 28 D 39 A 3 C 12 B 7**

S35. Ans.(d)

Sol. Given:

Statement:

$$1. P < Q = R < T = M$$

$$2. J < N < P$$

After arranging in the sequence is:

$$J < N < P < Q = R < T = M.$$

Now, evaluating the conclusions:

$$(a) R < J: J < N < P < Q = R \text{ False}$$

$$(b) J > T: J < N < P < Q = R < T \text{ False}$$

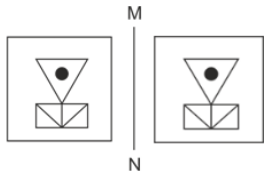
$$(c) N > R: N < P < Q = R \text{ False}$$

$$(d) M > J: J < N < P < Q = R < T = M. \text{ True.}$$

The correct answer is **(d) M > J.**

S36. Ans.(d)

Sol. The mirror image of the given letter/ number as shown below



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

S37. Ans.(c)

Sol. Shift each letter by 1: IMAGINATION \rightarrow JNBHJBOJPO

Alphabetical: B, B, H, J, J, L, N, O, O, P, U

6th letter from left = J

Thus, correct option is (c).

S38. Ans.(d)

Sol. Given:

A, B, C, D, G, H and I are sitting around a circular table facing the centre of the table.

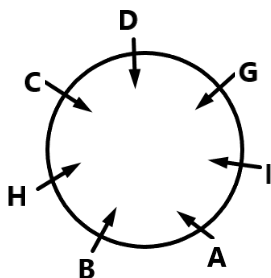
Only B sits between H and A.

A sits third to the left of D.

G sits to the immediate left of D.

C is not an immediate neighbour of A.

From the above information following seating arrangement will be -



From the above seating arrangement H sits third to the left of I.
Correct answer is (d) H.

S39. Ans.(c)

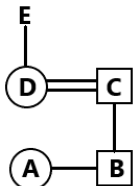
Sol. Given: 'P + Q' means 'P is the sister of Q'.

Symbols	+	-	×	÷
Relations	Sister	Son	Husband	Daughter

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

If 'A + B - C × D ÷ E'?

From the given information blood relation tree will be.



A is daughter's daughter of E.

Thus, correct option is (c).

S40. Ans.(b)

Sol. Given:

$$21 \times 8 - 18 + (64 \div 2) + 32 = 64$$

Operation preference wise	Symbol
Brackets	[], (), { }
Orders, of	(power), $\sqrt{\text{root}}$, of
Division	÷
Multiplication	×
Addition	+
Subtraction	-

Let's put the options:

A) 8 and 18

New Expression:

$$21 \times 18 - 8 + (64 \div 2) + 32 = 64$$

$$21 \times 18 - 8 + 32 + 32 = 64$$

$$378 - 8 + 32 + 32 = 64$$

$$378 - 8 + 32 + 32 = 64$$

$$442 - 8 = 64$$

$$434 = 64 \text{ (Incorrect)}$$

B) 8 and 2

New Expression:

$$21 \times 2 - 18 + (64 \div 8) + 32 = 64$$

$$21 \times 2 - 18 + 8 + 32 = 64$$

$$42 - 18 + 8 + 32 = 64$$

$$82 - 18 = 64$$

$$64 = 64 \text{ (Correct)}$$

Thus, correct option is (b).

S41. Ans.(a)

Sol. Given:

Percentage of Illiterate Males = 18%.

Percentage of Literate Males = 36%.

Percentage of Illiterate Females = 14%.

Percentage of Literate Females = 32%.

Number of Illiterate Males = 648

Solution: Since the number of illiterate males is given as 648,

The total population:

$$\frac{18}{100} \times P = 648$$

$$P = \frac{648 \times 100}{18} = 3600$$

So, the total population of the city is 3600

$$\text{Literate Males} = \frac{36}{100} \times 3600 = 1296$$

$$\text{Literate Females} = \frac{32}{100} \times 3600 = 1152$$

$$\text{Difference} = 1296 - 1152 = 144$$

S42. Ans.(a)

Sol. Given: $4 : 16 :: 7.3 : x$

$$4 : 32 :: 7 : y$$

We need to find the ratio of x to y

Formula Used:

For the proportion $a : b :: c : d$, we have $a \times d = b \times c$

Solution:

From the first proportion:

$$4 : 16 :: 7.3 : x$$

$$\frac{4}{16} = \frac{7.3}{x}$$

$$x = \frac{7.3 \times 16}{4} = \frac{116.8}{4} = 29.2$$

From the second proportion:

$$4 : 32 :: 7 : y$$

$$\frac{4}{32} = \frac{7}{y}$$

$$y = \frac{7 \times 32}{4} = \frac{224}{4} = 56$$

Now, the ratio of x to y

$$\frac{x}{y} = \frac{29.2}{56} = \frac{73}{140}$$

S43. Ans.(c)

Sol. Given:

$$\frac{3}{8} + \frac{1}{8} + \frac{5}{16} + \frac{2}{8} - 2$$

Solution:

$$\frac{3}{8} + \frac{1}{8} + \frac{5}{16} + \frac{2}{8} - 2$$

$$= \frac{6 + 2 + 5 + 4 - 32}{16}$$

$$= \frac{-15}{16}$$

S44. Ans.(c)

Sol. Given:

$$40^{-7} \div (40^{19} \times 40^4)$$

Formula Used:

$$a^m \div a^n = a^{m-n}$$

$$a^m \times a^n = a^{m+n}$$

Solution:

$$40^{-7} \div (40^{19} \times 40^4)$$

$$\Rightarrow 40^{-7} \div 40^{(19+4)}$$

$$\Rightarrow 40^{-7} \div 40^{23}$$

$$\Rightarrow 40^{-7-23} = 40^{-30}$$

$$\therefore 40^{-7} \div (40^{19} \times 40^4) = 40^{-30}$$

S45. Ans.(d)
Sol. Given:

Ayush travels from Chandigarh to Ludhiana at 77 km/hr and returns at 63 km/hr.

Distance between Chandigarh and Ludhiana = 97 km.

Formula Used:

For a round trip with different speeds for the same distance:

$$\text{Average Speed} = \frac{2xy}{x+y}$$

Where x and y are the speeds during the onward and return journeys.

Solution:

Let: $x = 77$ km/hr, $y = 63$ km/hr

$$\text{Average Speed} = \frac{2 \times 77 \times 63}{77 + 63} = \frac{9702}{140} = 69.3 \text{ km/hr}$$

S46. Ans.(a)
Sol. Given:

We need to find the value of $\sqrt{256} + \sqrt{0.0121} - \sqrt{4.41}$.

Solution:

$$\begin{aligned} & \sqrt{256} + \sqrt{0.0121} - \sqrt{4.41} \\ &= 16 + 0.11 - 2.1 \\ &= 16.11 - 2.1 \\ &= 14.01 \end{aligned}$$

S47. Ans.(b)
Sol. Given:

Tap A fills the cistern in 2 hours

Tap B fills the cistern in 64 hours

Tap C empties the cistern in 2 hours

Formula Used:

$$\text{Time} = \frac{\text{Work}}{\text{Total Rate}}$$

Solution:

$$\text{Rate of tap A} = \frac{1}{2}$$

$$\text{Rate of tap B} = \frac{1}{64}$$

$$\text{Rate of tap C} = -\frac{1}{2} \text{ (negative since it's an emptying tap)}$$

$$\text{Total rate} = \frac{1}{2} + \frac{1}{64} - \frac{1}{2} = \frac{1}{64}$$

$$\text{Time to fill half cistern} = \frac{1}{2} \div \frac{1}{64} = \frac{1}{2} \times 64 = 32 \text{ hours}$$

Alternate Solution:

LCM of 2, 64 = 64 units (assume total capacity of cistern = 64 units)

$$\text{Tap A fills} = \frac{64}{2} = 32 \text{ units/hour}$$

$$\text{Tap B fills} = \frac{64}{64} = 1 \text{ unit/hour}$$

$$\text{Tap C empties} = \frac{64}{2} = 32 \text{ units/hour}$$

$$\text{Net efficiency} = 32 + 1 - 32 = 1 \text{ unit/hour}$$

$$\text{Half of the cistern} = \frac{64}{2} = 32 \text{ units}$$

$$\text{Time to fill 32 units} = \frac{32}{1} = 32 \text{ hours}$$



S48. Ans.(a)

Sol. Given: Average of first 101 even numbers is

Formula Used:

$$\text{Average} = \frac{\text{First term} + \text{Last term}}{2}$$

Solution:

First even number = 2

101th even number = $2 \times 101 = 202$

$$\text{Average} = \frac{2 + 202}{2} = \frac{204}{2} = 102$$

Average of first n even numbers = $(n + 1)$

Total even numbers (n) = 101

$$\Rightarrow \text{Average} = n + 1 = 101 + 1 = 102$$

S49. Ans.(a)

Sol. Given: Kalpana's marks = 621

Kalpana's percentage = 69%

Sudha's marks = 522

Solution: Total Marks = $621 / 69 \times 100 = 900$

Sudha's Percentage = $(522 / 900) \times 100 = 58\%$

S50. Ans.(c)

Sol. Given: Cost Price (CP) of 1 litre = ₹50

Selling Price (SP) of 1 litre = ₹54

Oil sold = 900 ml = 0.9 litre

Formula Used: Profit = SP - CP

Profit Percentage = $(\text{Profit} / \text{CP}) \times 100$

Solution: CP for 0.9 litre = $50 \times 0.9 = 45$

Profit = $54 - 45 = 9$

Profit % = $9 / 45 \times 100 = 20\%$

S51. Ans.(a)

Sol. Given: Total investment = ₹50,000

Part invested at 10%, rest at 12%

Time = 2 years

Total interest received = ₹11,640

Formula Used: Simple Interest:

$$SI = P \times R \times T / 100$$

Solution: Let first part (at 10%) = ₹x

Then second part (at 12%) = ₹(50,000 - x)

Interest from first part:

$$SI_1 = \frac{x \times 10 \times 2}{100} = \frac{20x}{100}$$

Interest from second part:

$$SI_2 = \frac{(50000 - x) \times 12 \times 2}{100} = \frac{24(50000 - x)}{100}$$

Total interest:

$$\frac{20x}{100} + \frac{24(50000 - x)}{100} = 11640$$

$$20x + 24(50000 - x) = 1164000$$

$$20x + 1200000 - 24x = 1164000$$

$$-4x = 1164000 - 1200000$$

$$-4x = -36000$$

$$x = 9000$$

$$\Rightarrow \text{First part} = ₹9,000$$

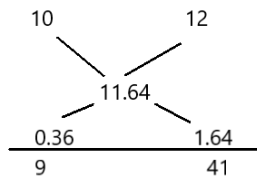
$$\Rightarrow \text{Second part} = ₹50,000 - ₹9,000 = ₹41,000$$

Alternate Solution:

$$\text{In 1 year interest received} = \frac{11640}{2} = 5820$$

$$\text{Net rate of interest} = \frac{5820}{50000} \times 100 = 11.64\%$$

Now,



$$9 + 41 \text{ unit} = 50000$$

$$50 \text{ unit} = 50000$$

$$1 \text{ unit} = 1000$$

$$\text{So, } 9 \text{ unit} = ₹9,000 \text{ and } 41 \text{ unit} = ₹41,000$$

S52. Ans.(a)

Sol. Given: We are asked to find how many prime numbers lie between 1 and 30.

Concept Used: A prime number is a number greater than 1 that has no positive divisors other than 1 and itself.

Solution: Prime Numbers between 1 and 30:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29

There are 10 prime numbers between 1 and 30

S53. Ans.(c)

Sol. Given: Gain = 25%

Loss = 15%

Difference in amount = ₹800

Solution: Let the cost price of the furniture be ₹ x.

Selling price when the man sells at a 25% gain:

$$\text{Selling Price at 25\% gain} = x + (25/100) \times x = 1.25x$$

Selling price when the man sells at a 15% loss:

$$\text{Selling Price at 15\% loss} = x - (15/100) \times x = 0.85x$$

According to the problem, the difference between the two selling prices is ₹800:

$$1.25x - 0.85x = 800$$

$$0.40x = 800$$

$$x = 800 / 0.40 = 2000$$

The cost price of the furniture is ₹ 2000.

S54. Ans.(c)

Sol. Given: 270 persons can complete the job in 10 days

180 persons take up the same job

Concept used

Work is constant, so $\text{Persons} \times \text{Days} = \text{constant}$

$$\Rightarrow P_1 \times D_1 = P_2 \times D_2$$

$$270 \times 10 = 180 \times x$$

$$x = \frac{270 \times 10}{180} = 15 \text{ days}$$

Correct answer is (C) } 15 days.

S55. Ans.(a)

Sol. Given: Ratio of copper to zinc in brass = 13 : 7

Total weight of brass = 100 kg

Formula Used:

$$\text{Weight of component} = \frac{\text{Component's ratio part}}{\text{Total ratio sum}} \times \text{Total weight}$$

Solution:

$$\text{Total parts} = 13 + 7 = 20$$

$$\text{Zinc part} = 7$$

$$\text{Zinc weight} = \frac{7}{20} \times 100 = 35 \text{ kg}$$

S56. Ans.(a)

Sol. Given:

Ravi is younger than Kishan by 3 years.

The ratio of their ages is 7 : 8

Solution:

Let the age of Ravi be $7x$ and the age of Kishan be $8x$

The difference between Kishan's and Ravi's age:

$$8x - 7x = 3$$

$$3x = 3$$

$$x = 1$$

$$\text{Kishan's age} = 8x = 8 \times 1 = 8 \text{ year}$$

Thus, Kishan is 8 years old

S57. Ans.(d)

Sol. Given :

Ratio of their length and breadth = 3 : 2

Ratio of its perimeter and area = 5 : 9

Solution :

The length of rectangle will be = $3x$

and the breadth of rectangle will be = $2x$

Now the perimeter of rectangle = $2(3x + 2x) = 10x$ Eq (1)

Area of rectangle = $3x \times 2x = 6x^2$ Eq (2)

Now the ratio of its perimeter and area is given as 5 : 9

So we can form the equation by using Eq (1) and Eq (2) as :

$$\Rightarrow \frac{10x}{6x^2} = \frac{5}{9}$$

$$\Rightarrow \frac{5}{3x} = \frac{5}{9}$$

$$\Rightarrow x = 3$$

Hence the breadth of rectangle will be :

$$\Rightarrow 2 \times 3 = 6 \text{ metre}$$

Hence the correct answer is "6 metre".

S58. Ans.(b)

Sol. Given:

The length of the circular path is 432 m.

Soham's speed is 12 m/sec, and Rohan's speed is 9 m/sec.

They start from the same point and run in the same direction.

Formula Used:

Relative speed = Soham's speed - Rohan's speed

Time to meet = Distance / Relative speed

Solution:

Relative speed = 12 m/sec - 9 m/sec = 3 m/sec

Time taken to meet for the first time = $432/3 = 144$ seconds

Thus, they will meet for the first time in 144 seconds.

S59. Ans.(a)

Sol. Given: An article's price is increased successively by:

1st Increase = 25%

2nd Increase = 40%

3rd Increase = 45%

We are required to find the **net percentage increase**.

Formula Used:

Successive Percentage Increase Formula:

When percentages are applied successively:

$$\text{Net \%} = A + B + (A \times B)/100$$

We apply this formula **step-by-step**.

Solution:

Apply first two increases:

Let $A = 25\%$, $B = 40\%$

Net after two increases = $25 + 40 + (25 \times 40)/100$

= $65 + 10 = 75\%$

Now apply third increase of 45% on the result (75%):

New A = 75%, B = 45%

Net = $75 + 45 + (75 \times 45)/100$

= $120 + 33.75 = 153.75\%$

S60. Ans.(c)

Sol. Given:

Volume of the hemisphere = $155,232 \text{ cm}^3$

$\pi = 22/7$

Formula Used:

Volume of a hemisphere = $\frac{2}{3}\pi r^3$

Where V is the volume of the hemisphere and r is the radius.

Solution:

$$155,232 = \frac{2}{3} \times \frac{22}{7} \times r^3$$

$$155,232 = \frac{44}{21} \times r^3$$

$$r^3 = \frac{155,232 \times 21}{44}$$

$$r^3 = \frac{3,252,872}{44} = 74088$$

$$r = \sqrt[3]{74088} = 42 \text{ cm}$$

$$\text{Half of the radius} = \frac{r}{2} = \frac{42}{2} = 21 = 21 \text{ cm}$$

The half of the radius of the hemisphere is 21 cm.

S61. Ans.(b)

Sol. सही उत्तर: विकल्प (B) है।

व्याख्या:

'जिस पर अभियोग लगाया गया हो' वाक्यांश के लिए उपयुक्त शब्द 'अभियुक्त' है। 'अभियुक्त' का अर्थ होता है वह व्यक्ति जिस पर किसी अपराध का आरोप लगाया गया हो।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A	"अपराधी" - यह व्यक्ति के बारे में है जो अपराध करता है, लेकिन यह वाक्यांश में उपयुक्त नहीं है।
B	"अभियुक्त" - यह सही शब्द है, क्योंकि 'अभियुक्त' वह व्यक्ति होता है जिस पर कोई आरोप या अभियोग लगाया गया हो।
C	"भुक्तभोगी" - इसका अर्थ होता है 'जिसने किसी कठिनाई या पीड़ा को झेला हो', यह वाक्यांश से मेल नहीं खाता।
D	"अभियोगी" - यह शब्द 'अभियुक्त' से भिन्न है, क्योंकि 'अभियोगी' वह व्यक्ति होता है जो अभियोग लगता है, न कि जिस पर अभियोग लगाया गया हो।

S62. Ans.(b)

Sol. सही उत्तर: विकल्प (B) है - किस्सा।

व्याख्या:

विकल्प	विश्लेषण
A	"दुनिया" - यह स्त्रीलिंग है, क्योंकि यह 'भूमिका' या 'संसार' के अर्थ में आता है और इसके साथ किसी स्त्रीलिंग का गुण जुड़ा है।
B	"किस्सा" - यह पुलिंग है, क्योंकि यह 'कहानी' या 'वृत्तांत' के रूप में प्रयोग होता है और इसका लिंग पुलिंग होता है।
C	"सलाह" - यह स्त्रीलिंग है, क्योंकि यह एक राय या मार्गदर्शन के रूप में प्रयोग होता है।
D	"अदालत" - यह स्त्रीलिंग है, क्योंकि यह न्यायालय, न्याय का स्थान दर्शाता है और यह स्त्रीलिंग शब्द है।

अतिरिक्त जानकारी:

"किस्सा" शब्द पुलिंग है, जबकि बाकी सभी शब्द स्त्रीलिंग हैं।

S63. Ans.(a)

Sol. सही उत्तर: विकल्प (A) है - से।

व्याख्या:

वाक्य "कल हमारे यहाँ के मंदिर _____ एक पालकी गई।" में "से" कारक शब्द का प्रयोग सही है। यह वाक्य यह बता रहा है कि मंदिर से एक पालकी गई थी, यानी मंदिर से यह कार्य हुआ।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A	"से" - यह सही है, क्योंकि "से" का प्रयोग स्थान के लिए होता है, और यहाँ यह "मंदिर से" के अर्थ में उपयुक्त है।
B	"को" - यह गलत है, क्योंकि "को" का प्रयोग किसी कर्म के लिए होता है, लेकिन यहाँ वह सही नहीं है।
C	"द्वारा" - यह गलत है, क्योंकि "द्वारा" का प्रयोग जब क्रिया का कर्ता व्यक्त किया जाता है, तब किया जाता है। यहाँ "मंदिर से" होना चाहिए।
D	"ने" - यह गलत है, क्योंकि "ने" का प्रयोग कर्ता के लिए होता है, लेकिन यहाँ "मंदिर से" का प्रयोग उचित है।

अतिरिक्त जानकारी:

कारक और उनके कारक चिन्ह:

कारक	संकेत/चिन्ह	परिभाषा	उदाहरण
कर्ता कारक	'ने'	संज्ञा या सर्वनाम के जिस रूप से क्रिया करने वाले का बोध हो, उसे कर्ता कारक कहते हैं।	रमेश ने पुस्तक पढ़ी।, मोहन ने पत्र लिखा।
कर्म कारक	'को'	संज्ञा या सर्वनाम के जिस रूप पर क्रिया का प्रभाव या फल पड़ता है, उसे कर्म कारक कहते हैं।	उसने सुनील को पढ़ाया।, मोहन ने चोर को पकड़ा।
करण कारक	'से', 'द्वारा'	जिस साधन से अथवा जिसके द्वारा क्रिया पूरी की जाती है, उसे करण कारक कहते हैं।	रहीम गेंद से खेलता है।, आदमी चोर को लाठी द्वारा मारता है।
सम्प्रदान कारक	'को' (के लिए)	जिस व्यक्ति के लिए क्रिया की जाती है, उसे सम्प्रदान कारक कहते हैं।	सुनील रवि के लिए गेंद लाता है।, माँ बच्चे को खिलौना देती है।
अपादान कारक	'से'	जिस संज्ञा या सर्वनाम से किसी वस्तु का अलग होना या उस पर से किसी चीज का हटना मालूम होता है।	गंगा हिमालय से निकलती है।, वृक्ष से पत्ता गिरता है।
सम्बन्ध कारक	'का', 'की', 'के'	संज्ञा या सर्वनाम के जिस रूप से एक वस्तु का सम्बन्ध दूसरी वस्तु से जाना जाता है।	राहुल की किताब मेज पर है।, सुनीता का घर दूर है।
अधिकरण कारक	'में', 'पर'	संज्ञा के जिस रूप से क्रिया के आधार का बोध होता है, उसे अधिकरण कारक कहते हैं।	घर पर माँ है।, सड़क पर गाड़ी खड़ी है।
सम्बोधन कारक	कोई चिन्ह नहीं	संज्ञा या जिस रूप से किसी को पुकारने तथा सावधान करने का बोध होता है, उसे सम्बोधन कारक कहते हैं।	रमा! देखो कैसा सुन्दर दृश्य है।, खबरदार!

S64. Ans.(b)

Sol. सही उत्तर: विकल्प (B) है।

व्याख्या:

विकल्प B "संधि - समास" सुमेलित नहीं है। 'संधि' और 'समास' दोनों अलग-अलग व्याकरणिक तत्व हैं, जो एक दूसरे के विलोम नहीं हो सकते। संधि दो ध्वनियों के मिलन को कहा जाता है, जबकि समास दो या दो से अधिक शब्दों के मिलकर एक नया शब्द बनाने की प्रक्रिया है। अतः ये दोनों शब्द विलोम नहीं हो सकते।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A	"प्रलय - सृष्टि" - यह सही विलोम युग्म है, क्योंकि 'प्रलय' का अर्थ विनाश है और 'सृष्टि' का अर्थ सृजन है।
B	"संधि - समास" - यह गलत है, क्योंकि संधि का विलोम शब्द 'विग्रह' है। समास का विलोम शब्द 'व्यास' है।
C	"सार्थक - निरर्थक" - यह सही विलोम युग्म है, क्योंकि 'सार्थक' का अर्थ है जो अर्थपूर्ण हो और 'निरर्थक' का अर्थ है जो निरर्थक हो।
D	"निरामिष - सामिष" - यह सही विलोम युग्म है, क्योंकि 'निरामिष' का अर्थ है मांसाहार से रहित और 'सामिष' का अर्थ है मांसाहारी।

अतिरिक्त जानकारी:

विलोम युग्म वे शब्द होते हैं जिनका अर्थ एक-दूसरे के विपरीत होता है, जैसे 'गर्मी - सर्दी' या 'दिन - रात'।

S65. Ans.(d)

Sol. सही उत्तर: विकल्प (D) है।

व्याख्या:

'मूक' का अर्थ होता है 'जो बोल न सके' या 'चुप'। इसका विलोम 'वाचाल' होगा, जिसका अर्थ होता है 'जो बहुत बोलता हो' या 'बातूनी'।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A	"विद्वान" - इसका अर्थ होता है 'ज्ञानी' या 'ज्ञानी व्यक्ति', जो 'मूक' के विलोम से संबंधित नहीं है।
B	"कुटिल" - इसका अर्थ होता है 'चालाक' या 'धूर्त', जो 'मूक' के विलोम से मेल नहीं खाता।
C	"मूर्ख" - इसका अर्थ होता है 'बेवकूफ', जो 'मूक' के विलोम के रूप में उपयुक्त नहीं है।
D	"वाचाल" - यह सही विलोम है, क्योंकि 'वाचाल' का अर्थ होता है 'जो बहुत बोलता हो' या 'बातूनी', जो 'मूक' के विपरीत है।

S66. Ans.(a)

Sol.

सही उत्तर: विकल्प (A) है।

व्याख्या: "पुत्री, सुता, तनय" शब्दों में सभी पर्यायवाची नहीं हैं।

•→**पुत्री** का अर्थ है "बेटी"।

•→**सुता** का अर्थ भी "बेटी" या "पुत्री" हो सकता है, लेकिन यह शब्द आमतौर पर संस्कृत में प्रयोग होता है।

•→**तनय** का अर्थ होता है "पुत्र" (लड़का), जो "पुत्री" और "सुता" से भिन्न है।

इसलिए, इन तीनों शब्दों का पर्यायवाची होना गलत है, क्योंकि "तनय" "पुत्री" और "सुता" के विपरीत अर्थ में आता है।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
(A) पुत्री, सुता, तनय	यह सही नहीं है, क्योंकि "तनय" का अर्थ "पुत्र" होता है, जबकि बाकी शब्द "बेटी" के लिए हैं।
(B) गंगा, भागीरथी, मन्दाकिनी	यह सही है, क्योंकि ये सभी गंगा नदी के पर्यायवाची हैं।
(C) तलवार, शमशीर, असि	यह सही है, क्योंकि ये सभी "तलवार" के पर्यायवाची हैं।
(D) रवि, भास्कर, दिनकर	यह सही है, क्योंकि ये सभी "सूर्य" के पर्यायवाची हैं।

S67. Ans.(b)

Sol. सही उत्तर: B. सिपाही चोर को पकड़ता है।

व्याख्या:

सकर्मक क्रिया वह होती है जिसमें क्रिया का सीधा असर किसी वस्तु, व्यक्ति या प्राणी पर पड़ता है, यानी इसमें एक वस्तु या प्राणी (कर्म) जुड़ा होता है। इसे "को" या "को" के पर्याय से व्यक्त किया जाता है।

सकर्मक क्रिया का उदाहरण:

"सिपाही चोर को पकड़ता है।" वाक्य में "पकड़ता" क्रिया है और इसका असर "चोर" पर पड़ रहा है। यहां "चोर" कर्म है, जिसे पकड़ने की क्रिया का असर हो रहा है। इसलिए यह सकर्मक क्रिया है।

अन्य विकल्पों का विश्लेषण:

(a) सिपाही युद्ध में लड़ता है। : यहां "लड़ता है" एक अकर्मक क्रिया है, क्योंकि इसमें कोई स्पष्ट कर्म (व्यक्ति या वस्तु) नहीं है जिस पर क्रिया का असर हो।

(c) सिपाही तेज दौड़ता है। : यहां "दौड़ता है" भी अकर्मक क्रिया है, क्योंकि इसमें कोई कर्म नहीं है जिस पर क्रिया का असर हो।

(d) सिपाही बहुत कम सोता है। : "सोता है" भी अकर्मक क्रिया है, क्योंकि इसमें कोई कर्म नहीं है, केवल क्रिया का कार्य हो रहा है।

निष्कर्ष:

"सिपाही चोर को पकड़ता है" वाक्य में सकर्मक क्रिया का प्रयोग हुआ है।

S68. Ans.(c)

Sol. सही उत्तर: C) गिराना

उत्तर की व्याख्या:

प्रेरणार्थक क्रिया वह क्रिया होती है, जो किसी कार्य को प्रेरित करती है या कार्य को उत्पन्न करती है।

गिराना (विकल्प C) एक प्रेरणार्थक क्रिया है, क्योंकि यह किसी वस्तु को नीचे की ओर ले जाने के लिए प्रेरित करती है। उदाहरण के तौर पर, अगर आप किसी वस्तु को गिराते हैं, तो इस क्रिया से किसी कार्य को उत्पन्न किया जाता है।

अन्य विकल्पों का विश्लेषण:

विकल्प	शब्द का प्रकार	कारण
(A) उठना	सामान्य क्रिया	यह स्वयं में एक प्राकृतिक क्रिया है, जो किसी कार्य के लिए प्रेरित नहीं करती।
(B) चमकना	सामान्य क्रिया	यह केवल किसी वस्तु की स्थिति को दिखाता है, प्रेरणात्मक नहीं।
(C) गिराना	प्रेरणार्थक क्रिया	यह किसी वस्तु को गिराने की क्रिया को दर्शाता है, जो एक उद्देश्य को प्रेरित करती है।
(D) देना	सामान्य क्रिया	यह भी सामान्य क्रिया है, जो किसी वस्तु को देना दर्शाता है।

निष्कर्ष: सही उत्तर C) गिराना है, क्योंकि यह एक प्रेरणार्थक क्रिया है, जो किसी कार्य को उत्पन्न करने के लिए प्रेरित करती है।

S69. Ans.(a)

Sol. सही उत्तर: विकल्प (A) संदिग्ध भूत है।

व्याख्या:

"तुमने गाया होगा" वाक्य में "होगा" शब्द का प्रयोग **संदिग्ध भूत काल** के रूप में किया गया है। इस वाक्य में किसी कार्य के भूतकाल में होने की संभावना या शक व्यक्त किया जा रहा है, न कि निश्चित रूप से उस कार्य का होना।

संदिग्ध भूत काल वह काल होता है जब किसी कार्य के होने पर शक या अनुमान व्यक्त किया जाता है।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A	संदिग्ध भूत - यह सही उत्तर है, क्योंकि "तुमने गाया होगा" वाक्य में शक या अनुमान व्यक्त किया जा रहा है कि यह कार्य भूतकाल में हुआ होगा।
B	संभाव्य भविष्य - यह गलत है, क्योंकि वाक्य भूतकाल के संदर्भ में है, न कि भविष्य के।
C	अपूर्ण भूत - यह काल तब होता है जब कार्य भूतकाल में अधूरा था, लेकिन यहाँ ऐसा नहीं है।
D	सामान्य भविष्य - यह काल भविष्य में होने वाले कार्य को व्यक्त करता है, जो इस वाक्य में नहीं है।

अतिरिक्त जानकारी:

काल के भेद, परिभाषा और उनके उदाहरण:

काल का प्रकार	भेद	परिभाषा/पहचान	उदाहरण
वर्तमान काल	सामान्य वर्तमान काल	क्रिया का वह रूप जिससे क्रिया का वर्तमान में होना पाया जाता है उसे 'सामान्य वर्तमान काल' कहते हैं। क्रिया जो भी वर्तमान में सामान्य रूप से होती है, वह क्रिया सामान्य वर्तमान काल की कहलाती है।	राम पढ़ता है।
	अपूर्ण वर्तमान काल	क्रिया के जिस रूप से यह बोध हो कि वर्तमान काल में कार्य अभी पूर्ण नहीं हुआ है बल्कि अभी वह चल रहा है वह अपूर्ण वर्तमान काल कहलाता है।	मैं अभी पढ़ रहा हूँ।
	पूर्ण वर्तमान काल	क्रिया के जिस रूप से कार्य के अभी पूरे होने का पता चलता है, उसे पूर्ण वर्तमान काल कहते हैं।	वह आया है।
	संदिग्ध वर्तमान काल	क्रिया के जिस रूप से वर्तमान काल क्रिया के होने या करने पर शक हो, उसे संदिग्ध वर्तमान काल कहते हैं। जिन वाक्यों के अंत में ता होगा, ती होगी, ते होंगे आदि आते हैं, उसे संदिग्ध वर्तमान काल कहते हैं।	राम पढ़ता होगा।
	तत्कालिक वर्तमान काल	तत्कालिक वर्तमान काल हिंदी व्याकरण में एक विशेष प्रकार के वर्तमान काल को दर्शाता है, जिसमें क्रिया का प्रयोग उस कार्य को व्यक्त करने के लिए होता है जो तुरंत वर्तमान में हो रहा होता है।	मैं अभी खा रहा हूँ।
	संभाव्य वर्तमान काल	संभाव्य वर्तमान काल हिंदी व्याकरण में एक विशेष प्रकार के वर्तमान काल को दर्शाता है, जिसमें क्रिया का प्रयोग उस कार्य को व्यक्त करने के लिए होता है जो अभी तक निर्धारित नहीं हो चुका है, लेकिन जिसका होने का संभावना होता है।	वह आज शायद पढ़ रहा होगा।
भूतकाल	सामान्य भूतकाल	क्रिया के जिस रूप से काम के सामान्य रूप से बीते समय में पूरा होने का बोध हो, उसे सामान्य भूतकाल कहते हैं।	मोहन गया।
	आसन्न भूतकाल	क्रिया के जिस रूप से पता चले कि कोई काम अभी-अभी पूरा हुआ है, उसे आसन्न भूतकाल कहते हैं।	वह आ चुका है।
	पूर्ण भूतकाल	जिस क्रिया रूप से यह पता चले कि कोई काम बहुत समय पहले पूरा हो चुका था, उसे पूर्ण भूतकाल कहते हैं।	वह सो चुका था।
	अपूर्ण भूतकाल	जिन शब्दों से यह पता चले कि काम भूतकाल में शुरू हो चुका था और अभी समाप्त नहीं हुआ है, उसे अपूर्ण भूतकाल कहते हैं।	वह सो रहा था।
	संदिग्ध भूतकाल	भूतकाल की जिस क्रिया से कार्य होने में अनिश्चितता अथवा संदेह प्रकट होता है वह क्रिया संदिग्ध भूतकाल कहलाती है।	कल शायद वह स्कूल गया था।
	हेतुहेतुमद भूतकाल	यदि भूतकाल में एक क्रिया के होने या न होने पर दूसरी क्रिया का होना या न होना निर्भर करता है, तो वह हेतुहेतुमद भूतकाल क्रिया कहलाती है।	मैं खाना खा लेता, परन्तु मुझे जाना था।
भविष्यकाल	सामान्य भविष्यकाल	क्रिया के जिस रूप से उसके सामान्य रूप में भविष्य में होने का पता चले, उसे सामान्य भविष्य काल कहते हैं।	सुधांशु कल घर जाएगा।
	संभाव्य भविष्यकाल	क्रिया के जिस रूप से आगे कार्य होने या करने की संभावना का पता चले, उसे संभाव्य भविष्य काल कहते हैं।	रमेश शायद कल दिल्ली से आएगा।
	हेतुहेतुमद भविष्यकाल	यदि भूतकाल में एक क्रिया के होने या न होने पर दूसरी क्रिया का होना या न होना निर्भर करता है, तो वह हेतुहेतुमद भूतकाल क्रिया कहलाती है।	राधा विद्यालय आएगी तो मैं भी आऊँगी।

S70. Ans.(b)

Sol. सही उत्तर: विकल्प (B) है।

व्याख्या:

"भक्त" एक तत्सम शब्द है, जिसका अर्थ है "ज्यों का त्यों" लिया गया संस्कृत शब्द। यह शब्द संस्कृत से बिना किसी रूप परिवर्तन के हिंदी में उपयोग किया जाता है। अन्य विकल्प तद्भव शब्दों के उदाहरण हैं, क्योंकि इन शब्दों में संस्कृत से रूप परिवर्तन हुआ है।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A. बरस	"बरस" तद्भव शब्द है, जिसका संस्कृत शब्द "वर्ष" है। इसमें रूप परिवर्तन हुआ है।
B. भक्त	"भक्त" एक तत्सम शब्द है, जो संस्कृत के "भक्त" से बिना किसी रूप परिवर्तन के लिया गया है।
C. बरखा	"बरखा" तद्भव शब्द है, जिसका संस्कृत शब्द "वर्षा" है। इसमें उच्चारण परिवर्तन हुआ है।
D. भौरा	"भौरा" तद्भव शब्द है, जिसका संस्कृत शब्द "भ्रमर" है। इसमें भी रूप परिवर्तन हुआ है।

अतिरिक्त जानकारी:

तत्सम शब्दों में संस्कृत से कोई रूप परिवर्तन नहीं होता, जैसे "अग्नि", "हिंदी", "अज्ञान"। वहीं तद्भव शब्दों में संस्कृत शब्दों में रूप परिवर्तन होता है, जैसे "बरस" (वर्ष), "बरखा" (वर्षा), और "भौरा" (भ्रमर)।

S71. Ans.(c)

Sol.

सही उत्तर: विकल्प (C) है।

व्याख्या:

तत्सम शब्द वे होते हैं जो सीधे संस्कृत से आए होते हैं और उनके रूप में कोई परिवर्तन नहीं हुआ होता। "सौभाग्य," "शिक्षा," और "शीतल" सभी संस्कृत से आए शब्द हैं और इनका रूप बिना किसी बदलाव के हिंदी में उपयोग किया जाता है।

लेकिन "सिर" एक देशज शब्द है, जो संस्कृत से नहीं आया है, और इसका रूप बदलकर हिंदी में उपयोग होता है।

सभी विकल्पों का विश्लेषण:

विकल्प	शब्द	प्रकार	मूल्यांकन
(A)	सौभाग्य	तत्सम	✓ सही – यह संस्कृत से आया है, और इसका रूप वही है।
(B)	शिक्षा	तत्सम	✓ सही – यह संस्कृत से आया है, और इसका रूप वही है।
(C)	सिर	देशज	✗ सही – यह संस्कृत से नहीं आया, बल्कि हिंदी का देशज शब्द है।
(D)	शीतल	तत्सम	✓ सही – यह संस्कृत से आया है, और इसका रूप वही है।

अतिरिक्त जानकारी:

- तत्सम शब्द संस्कृत से सीधे आए होते हैं और हिंदी में उनका रूप परिवर्तित नहीं होता।
- देशज शब्द वे होते हैं जो हिंदी या किसी अन्य भारतीय भाषा में उत्पन्न होते हैं और संस्कृत से नहीं आए होते।

S72. Ans.(c)

Sol. सही उत्तर: विकल्प (C) है।

व्याख्या:

'नाक का बाल होना' मुहावरे का अत्यन्त प्रिय होना अर्थ है। यह मुहावरा तब प्रयोग में आता है जब किसी व्यक्ति के लिए किसी की बहुत प्रियता या महत्व को व्यक्त किया जाता है। इसका इस्तेमाल विशेष रूप से तब होता है जब कोई व्यक्ति किसी के लिए बहुत प्रिय या महत्वपूर्ण होता है।

सभी विकल्पों का विश्लेषण:

विकल्प	कथन	सही/गलत	विवरण
A	बहुत परेशान करना	गलत	'नाक का बाल होना' का अर्थ परेशान करना नहीं है, बल्कि यह प्रियता से संबंधित है।
B	इज्जत बचाना	गलत	'नाक का बाल होना' का अर्थ इज्जत बचाने से नहीं है।
C	अत्यन्त प्रिय होना	सही	यह मुहावरा किसी व्यक्ति के अत्यधिक प्रिय या महत्व को व्यक्त करता है।
D	चापलूस होना	गलत	यह मुहावरा चापलूसी से संबंधित नहीं है।

S73. Ans.(a)

Sol. सही उत्तर: विकल्प (A) है - थोड़ा-सा शेष रहना।

व्याख्या:

"हाथी निकल गया, दुम रह गई" यह लोकोक्ति उस स्थिति को व्यक्त करती है, जब किसी बड़े कार्य या प्रयास का अधिकांश भाग पूरा हो जाता है, लेकिन अंत में कुछ बहुत छोटा या नगण्य हिस्सा बच जाता है। इसका अर्थ होता है थोड़ा-सा शेष रहना।

यह वाक्य तब प्रयोग होता है जब बहुत बड़े कार्य के पूरे होने के बाद केवल उसका अंतिम और नगण्य हिस्सा बचा रहता है, जिसे महत्वपूर्ण नहीं माना जाता।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A	"थोड़ा-सा शेष रहना" - यह सही है, क्योंकि यह "हाथी निकल गया, दुम रह गई" के अर्थ के अनुसार है।
B	"विपत्ति पर विपत्ति आना" - यह गलत है, क्योंकि यह लोकोक्ति विपत्ति के बारे में नहीं बताती है।
C	"अधिक प्रयास" - यह गलत है, क्योंकि लोकोक्ति का अर्थ अधिक प्रयास से संबंधित नहीं है।
D	"आपसी फूट" - यह भी गलत है, क्योंकि यह लोकोक्ति आपसी फूट के बारे में नहीं है।

अतिरिक्त जानकारी:

"हाथी निकल गया, दुम रह गई" का उपयोग तब किया जाता है जब मुख्य उद्देश्य पूरा हो चुका होता है, लेकिन कुछ अत्यधिक छोटा या अधिक महत्वपूर्ण नहीं बचा होता है।

S74. Ans.(d)

Sol. सही उत्तर: विकल्प (D) है।

व्याख्या:

वाक्य 'लड़का पाठ पढ़ती है' में अशुद्धि क्रिया की है। क्रिया का रूप कर्ता के लिंग और वचन से मेल नहीं खा रहा है। 'लड़का' पुरुषलिंग का है, इसलिए क्रिया 'पढ़ती है' स्त्रीलिंग के रूप में नहीं हो सकती। सही वाक्य 'लड़का पाठ पढ़ता है' होना चाहिए, क्योंकि क्रिया का रूप कर्ता के लिंग और वचन के अनुसार पुरुषलिंग में होना चाहिए।

S75. Ans.(b)

Sol. सही उत्तर: विकल्प (B) है।

व्याख्या:

वाक्य 'तुम दो ऐच्छिक विषय ले सकते हो' में कोई अशुद्धि नहीं है। यह वाक्य व्याकरणिक रूप से सही है और इसमें 'तुम' के साथ 'ले सकते हो' का प्रयोग उचित है।

सभी विकल्पों का विश्लेषण:

विकल्प	विश्लेषण
A	"तुम्हारे दो ऐच्छिक विषय ले सकते हो।" - यह वाक्य गलत है, क्योंकि 'तुम्हारे' का प्रयोग यहाँ ठीक नहीं है। 'तुम' के साथ 'तुम दो ऐच्छिक विषय ले सकते हो' होना चाहिए।
B	"तुम दो ऐच्छिक विषय ले सकते हो।" - यह वाक्य सही है, क्योंकि यह व्याकरणिक दृष्टि से ठीक है।
C	"तुमने दो ऐच्छिक विषय लिया होगा।" - यह वाक्य गलत है, क्योंकि 'तुमने' के साथ 'लिया' का प्रयोग सही नहीं है। 'तुमने' के बाद 'लिया' नहीं, 'लिया होगा' होना चाहिए।
D	"वह दो ऐच्छिक विषय ले सकते हो।" - यह वाक्य गलत है, क्योंकि 'वह' के साथ 'ले सकते हो' का प्रयोग ठीक नहीं है। 'वह' के साथ 'ले सकते हैं' होना चाहिए।

S76. Ans.(d)

Sol. सही उत्तर विकल्प (D) है।

व्याख्या:

वाक्य में उपयुक्त विशेषण "लाल" है, क्योंकि "लाल किला" का संदर्भ लाल रंग से है। वाक्य में कहा जा रहा है कि लाल किला लाल रंग का है, और यह "लाल" विशेषण किला के रंग को दर्शाता है। इसलिए, "लाल किला लाल ईंटों से बना है" सही है।

सभी विकल्पों का विश्लेषण:
अतिरिक्त जानकारी:

विकल्प	विशेषण	व्याख्या
A	चार लीटर	गलत, यहाँ "लीटर" शब्द का प्रयोग संदर्भ में गलत है।
B	दो	गलत, "दो" का प्रयोग सही संदर्भ में नहीं है।
C	सारी	गलत, "सारी" का प्रयोग यहां उपयुक्त नहीं है।
D	लाल	सही, यह लाल किला के रंग को स्पष्ट करता है।

विशेषण शब्द संज्ञा की विशेषता, रूप, आकार, रंग या गुण बताता है, जैसे - खुश चेहरा, लंबा आदमी, सुंदर फूल।

विशेषण:

जो शब्द संज्ञा या सर्वनाम की विशेषता बताते हैं, उन्हें विशेषण कहते हैं।

विशेषण जिससे संबंधित होता है, उसे विशेष्य कहते हैं।

विशेषण की विशेषता बताने वाला शब्द प्रविशेषण कहलाता है।

उदाहरण:

राम बहुत तेज दौड़ता है।

"राम" → विशेष्य (संज्ञा)

"तेज़" → विशेषण

"बहुत" → प्रविशेषण

विशेषण के चार प्रमुख भेद:

भेद	परिभाषा	उदाहरण	उपभेद
1. गुणवाचक विशेषण	संज्ञा के गुण-दोष बताने वाले शब्द	सुंदर, दयालु, लाल, लंबा, पुराना	- भाववाचक - कालवाचक - स्थानवाचक - रंग, आकार, दशा आदि
2. परिमाणवाचक विशेषण	संज्ञा की मात्रा (नाप-तौल) का बोध	बहुत दूध, थोड़ा पानी, एक किलो चावल	(i) निश्चित परिमाणवाचक (ii) अनिश्चित परिमाणवाचक
3. संख्यावाचक विशेषण	संज्ञा की संख्या का बोध	दो बच्चे, हर आदमी, पाँचों सैनिक	(i) निश्चित संख्यावाचक (ii) अनिश्चित संख्यावाचक (iii) पूर्णांकवाचक (iv) अपूर्णांकवाचक (v) कर्मवाचक (vi) आवृत्तिवाचक (vii) समुदायवाचक (viii) विभागबोधक
4. सार्वनामिक विशेषण	जो सर्वनाम संज्ञा के पहले आकर उसकी विशेषता बताएँ	यह लड़का, वह पुस्तक, कौन बच्चा	(i) निश्चयवाचक (ii) अनिश्चयवाचक (iii) सम्बन्धवाचक (iv) प्रश्नवाचक

S77. Ans.(c)

Sol. "वो वे बातें हैं कि एक तो यह छोटा होता है, और दूसरा यह जनवरी नहीं है।"

सही उत्तर: C (लघु)

व्याख्या: "छोटा" का पर्यायवाची "लघु" है, जो आकार या मात्रा में कम होने का संकेत देता है। "विस्तार", "बड़ा", और "मनुष्य" इन सभी शब्दों का इस संदर्भ में कोई संबंध नहीं है।

S78. Ans.(a)

Sol. सही उत्तर: A (जनवरी हर साल की शुरुआत में जिन दबावों को लेकर आती है, फरवरी उनसे राहत देती है)

व्याख्या: गद्यांश में उल्लेख किया गया है कि फरवरी, जनवरी के दबावों से राहत प्रदान करती है। यह विकल्प गद्यांश में दिए गए विचारों के अनुरूप है। बाकी विकल्प गद्यांश में उल्लिखित विचारों से मेल नहीं खाते हैं।

S79. Ans.(a)

Sol. सही उत्तर: A (संकल्पों में राहत देती फरवरी)

व्याख्या: गद्यांश में फरवरी को संकल्पों से जुड़ी राहत देने वाले महीने के रूप में चित्रित किया गया है। यह शीर्षक गद्यांश के मुख्य विचारों को सबसे बेहतर तरीके से व्यक्त करता है।

S80. Ans.(b)

Sol. सही उत्तर: B (जब हम अपने बनाए संकल्पों पर अडिग नहीं रह पाते, तो अक्सर खुद के प्रति कठोर हो जाते हैं)

व्याख्या: गद्यांश में यह बताया गया है कि यदि हम अपने संकल्पों पर टिक नहीं पाते, तो खुद को कठोर रूप से आलोचना करते हैं। यह निष्कर्ष इस विचार के साथ मेल खाता है। अन्य विकल्पों का गद्यांश से कोई संबंध नहीं है।

S81. Ans.(b)

Sol. The correct antonym of the given word is (b) **Inclusive**.

Exclusive: restricted or limited to a particular group. (विशिष्ट, सीमित)

Example: The school is exclusive to high-achieving students.

Inclusive: not excluding any group or individual; open. (समावेशी)

Example: The meeting was inclusive of all staff members.

Synonyms: private, limited, elite.

Antonyms: inclusive, open, all-encompassing.

Meanings of other options:

- (a) **expansive**: covering a wide area (विस्तृत)
- (c) **incisive**: sharp, clear, and analytical (तीव्र बुद्धिमान)
- (d) **extensive**: wide-reaching or broad (व्यापक)

S82. Ans.(c)

Sol. The correct option to fill in the blank is (c) **not**.

Explanation: The sentence conveys **negation of willingness**, and the grammatically correct way to negate a verb phrase is with "**not**".

"I am not willing" is a standard construction.

Example:

✓ I am not ready to leave yet.

✗ I am no ready to leave yet.

Meanings of other options:

- (a) **nor** – used to connect two negative ideas (और न ही) – doesn't fit structure
- (b) **none** – refers to zero quantity (कोई नहीं) – not grammatically correct here
- (d) **no** – used before a noun (e.g., no help) – not with a verb phrase

S83. Ans.(d)

Sol. The correct synonym of the given word is (d) **Opening**.

Orifice: A bodily opening or hole, especially one that opens into the body, such as a mouth or nostril. (छिद्र / छेद / मुख)

Example: The orifice must be cleaned before inserting the medical device.

Opening: A hole or space through which something can pass. (छेद / रास्ता)

Example: The medicine was applied through a small opening in the skin.

Synonyms: aperture, hole, passage, slit

Antonyms: closure, blockage, seal, plug

Meanings of all the other given options:

- Origin:** The point at which something begins. (मूल / उद्गम)
- Ornate:** Highly decorated or elaborate. (सजावटी / अलंकृत)
- Ordained:** Officially appointed or established. (अभिषिक्त / ठहराया गया)

S84. Ans.(a)

Sol. Option (a) is the correct meaning of the given idiom.

Hard nut to crack: This idiom refers to a problem or a person that is particularly difficult to solve or deal with. (कठिन समस्या या व्यक्ति जिसे सुलझाना या संभालना मुश्किल हो)

Example: This math puzzle is a hard nut to crack.

Other related idioms and their meanings:

- Tough cookie** – A determined and resilient person.
- A tall order** – A task or request that is difficult to fulfill.
- Pain in the neck** – An annoying or troublesome person or thing.

S85. Ans.(b)

Sol. The correct antonym of the given word is (b) **scarcity**.

Abundance: a large quantity or plenty of something. (प्रचुरता, भरपूर मात्रा)

Example: There was an abundance of crops after the good monsoon.

Scarcity: a state of being in short supply or insufficient. (कमी, अभाव)

Example: The village suffered from water scarcity in summer.

Synonyms: plenty, profusion, overflow, surplus.

Antonyms: scarcity, dearth, deficiency, shortage.

Meanings of other options:

- (a) **gaiety**: the state of being cheerful (हर्ष)
- (c) **bounty**: generosity or reward (इनाम, उदारता)
- (d) **generosity**: the quality of being kind and generous (उदारता)

S86. Ans.(c)

Sol. Option (c) is the correct meaning of the given idiom.

Know inside out: To be extremely familiar with or thoroughly understand something. (किसी चीज़ को अच्छी तरह से जानना या समझना)

Example: She knows the project inside out, so she can answer any question about it.

Other related idioms and their meanings:

- **By heart** – To memorize something word-for-word.
- **Have a handle on** – To understand something well.
- **Be in the know** – To be well-informed.

S87. Ans.(d)

Sol. The correct option to fill in the blank is (d) **attempt**.

Explanation: "Attempt" means to try to do something, especially something difficult. (Hindi: प्रयास)

Example: He made an attempt to win the championship.

Why other options are incorrect:

- (a) **Attack** – aggressive action (आक्रमण)
- (b) **Intention** – an aim or plan (इरादा)
- (c) **Exercise** – physical activity (व्यायाम)

S88. Ans.(b)

Sol. The correct one-word for the given group of words is (b) **Anchor**.

"**Anchor**" refers to someone who presents and coordinates a TV or radio show. (समाचार प्रस्तुतकर्ता)

Example: The anchor kept the debate lively with his sharp questions.

Meanings of the other options:

- (a) **Idol**: someone admired or worshipped (आदर्श)
- (c) **Speaker**: someone who speaks (वक्ता)
- (d) **Star**: a famous or celebrated performer (सितारा)

S89. Ans.(c)

Sol. The correct option to fill in the blank is (c) **completely**.

Explanation: The experience of climbing Mt. Everest is life-altering, and thus the adverb completely correctly describes the profound impact. (पूरी तरह से)

Example: Travelling alone for a year changed him completely.

Explain why other options are incorrect:

- (a) **rarely**: infrequently (कभी-कभार)
- (b) **regularly**: in a regular manner (नियमित रूप से)
- (d) **frequently**: often (अक्सर)

S90. Ans.(d)

Sol. The correct one-word for the given group of words is (d) **Acoustics**.

Acoustics is the branch of physics that deals with the study of sound and its properties.

Example: The hall was designed with excellent acoustics.

Meanings of the given other options:

- (a) **Optics**: Study of light (प्रकाश का अध्ययन)
- (b) **Photonics**: Study of the generation and manipulation of light (फोटॉन आधारित तकनीक का अध्ययन)
- (c) **Mechanics**: Study of motion and forces (गति और बल का अध्ययन)

S91. Ans.(d)

Sol. The correct option to fill in the blank is (d) **although**.

Explanation: The sentence contrasts two actions: raining and enjoying. "Although" introduces a concession or contrast. (Hindi: हालांकि)

Example: Although she was tired, she continued working.

Explain why other options are incorrect:

- (a) **In spite of**: Needs a noun/gerund after it; not suitable before a clause. (Hindi: के बावजूद)
- (b) **Because of**: Shows reason, not contrast. (Hindi: के कारण)
- (c) **Because**: Also shows cause, not contrast. (Hindi: क्योंकि)

S92. Ans.(d)

Sol. Let's examine the logical and chronological flow:

- **A** starts the narrative by stating that *he spread false rumors* about his neighbours being thieves.
- **C** logically follows — due to those rumors, *some neighbours were arrested*.
- **D** comes next — after investigation, *they were proven innocent*.
- **B** ends the sequence — *one of them sues him* for the false accusations.

So, the correct sequence is:

A (rumors) → C (arrest) → D (proven innocent) → B (legal action)

S93. Ans.(c)

Sol. The correct synonym of the given word is (c) ample.

Abundant: Present in large quantities; more than sufficient. (Hindi: प्रचुर मात्रा में)

Example: There is abundant rainfall in the coastal region.

Ample: Enough or more than enough; plentiful. (Hindi: पर्याप्त/बहुत अधिक)

Example: There was ample space for all the guests at the wedding.

Synonyms: ample, plentiful, copious, profuse

Antonyms: scarce, sparse, insufficient, lacking

Meanings of all the other given options:

- (a) **Artificial:** Man-made, not natural (कृत्रिम)
- (b) **Sparse:** Thinly dispersed or scattered (विरल)
- (d) **Natural:** Existing in or caused by nature (प्राकृतिक)

S94. Ans.(a)

Sol. The correct option to fill in the blank is (a) poignantly.

Explanation: "Poignantly" is an adverb meaning "in a way that evokes a keen sense of sadness or regret." It perfectly suits the emotional tone of showing a "stark contrast" between rich and poor.

Example: The film poignantly depicted the struggles of street children.

Why others are incorrect:

- (b) **strictly:** in a rigid or firm manner (कठोरता से) – doesn't match tone
- (c) **carelessly:** without care or concern (लापरवाही से) – wrong meaning
- (d) **sweetly:** in a pleasant or kind manner (मिठास से) – does not fit emotional context

S95. Ans.(c)

Sol. Use 'think' to fill in the blank.

Since the subject is singular in nature 'think' has to be used to fill the blank.

Another way to deduce the answer is the modal verb right before the blank. Modal verbs take base form of verbs.

Whereas 'thinks' is used when a third person is being referred to in the present.

'Thought' is used in past tense.

'ing' form of a verb is used when the action continues.

S96. Ans.(a)

Sol. The correct answer is option (a).

The passage clearly says "**Ancient India also used shikai or shikakai... as a hair and body cleanser.**" This confirms it was directly used for washing.

Other options:

- (b) **Neem bark** – Used in skincare creams, not directly for washing.
- (c) **Soap nuts** – Also used, but shikakai is specifically mentioned for **hair and body**.
- (d) **Sandalwood paste** – Used in skincare, not for washing.

S97. Ans.(c)

Sol. The correct answer is option (c).

The passage mentions Aleppo **thrived on the trade** but specifically of **soap**, not creams. So this option is factually incorrect.

Other options:

- (a) **Correctly** describes the soap ingredients.
- (b) **Mentioned** in benefits of Aleppo soap.
- (d) **Stated** directly in the paragraph.

S98. Ans.(a)

Sol. The correct answer is option (a).

The passage discusses **reetha, shikakai, herbal creams, and Aleppo soap** — all **natural cleansing agents** used historically. Hence, it focuses on **natural skin-care solutions in ancient times**.

Incorrect options:

- (b) and (c) are partial coverage.
- (d) is too narrow — ingredients are only part of the topic.

S99. Ans.(a)

Sol. The correct answer is option (a).

•→**Purported** = Professed (कहा गया / दावा किया गया)

- **Lathers** = Foams (झाग बनाना)
 - **Retained** = Maintained or kept (बनाए रखना)
- Hence, the correct matching is:
- a - 2 (Purported – Professed)
 - b - 3 (Lathers – Foams)
 - c - 1 (Retained – Maintained)

S100. Ans.(d)

Sol. The correct answer is option (d).

The passage clearly states that **bay oil (laurel oil)** has **remarkable antibacterial and antifungal properties**.

Other options are incorrect:

- **(a)** Holy basil – Mentioned for ancient Indian skin care.
- **(b)** Lotus petals – Used in Indian creams.
- **(c)** Olive oil – Good for moisture but not specifically stated for antibacterial use.

S101. Ans.(b)

Sol. When two smartphones are connected using Bluetooth for tasks like file transfer, they form a **Personal Area Network (PAN)**. PAN is a small-scale network created for short-range communication between personal devices such as phones, tablets, and laptops. Bluetooth is a common technology used for establishing PANs.

Important Key Points:

1. PANs usually cover a range of **up to 10 meters**.
2. Devices in a PAN can communicate **directly without central infrastructure**.
3. Other technologies for PAN include infrared and NFC (Near Field Communication).

Knowledge Booster:

- BTN is **not a valid networking term**; it may appear as a distractor.
- LAN (Local Area Network) typically connects multiple computers over a **larger area like an office or school**, using Wi-Fi or Ethernet—not Bluetooth.
- WAN (Wide Area Network) connects devices over **large distances**, such as the internet—not used for short-range personal file sharing.

S102. Ans.(d)

Sol. The correct answer is (d) To extend RAM capacity by using disk space

- **Virtual memory** is a memory management technique that allows a computer to compensate for physical memory shortages by temporarily transferring data from random access memory (RAM) to disk storage.
- It gives the illusion to users and programs that there is almost unlimited RAM, even though the computer's physical memory (RAM) is limited.
- The disk space (usually on the **hard disk or solid-state drive**) is used as an extension of the RAM, which helps in running larger programs or more applications simultaneously than would be possible with the limited physical memory alone.

Information Booster:

- **Physical Memory (RAM):** This is the main memory of the system, which is fast but limited in size.
- **Swap Space:** The portion of the disk used by the operating system to simulate additional memory is called **swap space**.
- **Page File:** On Windows, the swap space is usually referred to as the **page file**. On Unix-based systems, it's known as **swap space**.
- **Memory Paging:** Virtual memory uses a technique called **paging**, where data is divided into **pages** that can be swapped between RAM and disk.

Additional Information:

- **(a) To provide backup for data:** This is not the purpose of virtual memory. Backup refers to data duplication for security, which is handled by other systems like cloud storage or external backups.
- **(b) To increase physical storage capacity:** Virtual memory does not increase physical storage; it uses disk space to extend the effective size of RAM.
- **(c) To extend CACHE memory for storage:** Cache memory is different from virtual memory; it's a small, high-speed memory used to store frequently accessed data.

S103. Ans.(b)

Sol. The correct answer is **(b) 128 bits**

Explanation:

- **IPv6 (Internet Protocol version 6)** addresses are **128-bit** identifiers for devices on a network.
- This allows for a vastly larger address space compared to **IPv4**, which uses **32-bit** addresses.
- IPv6 can support approximately **3.4×10^{38} unique addresses**, ensuring scalability for future internet growth.

Information Booster:

- IPv6 was developed by the **IETF (Internet Engineering Task Force)** to overcome IPv4 exhaustion.
- Written in **hexadecimal**, separated by colons (e.g., 2001:0db8:85a3::8a2e:0370:7334).
- Includes features like **simplified header format, auto-configuration, and improved security with IPsec**.
- Transition mechanisms like **Dual Stack and Tunneling** help in migration from IPv4 to IPv6.
- Officially standardized in **1998 (RFC 2460)**, replacing IPv4 gradually.

S104. Ans.(c)

Sol. Web browsers are software applications designed to retrieve, display, and navigate content on the World Wide Web. Among the options provided, **Fedora is not** a browser but a Linux-based operating system. The other three—Internet Explorer, Firefox, and Google Chrome—are all designed specifically to access and interact with websites.

Important Key Points:

1. A browser enables users to interact with web content using standard protocols like HTTP and HTTPS.
2. Internet Explorer, Firefox, and Chrome are well-known GUI-based browsers with support for extensions and modern web technologies.
3. Fedora serves as an operating platform, not as a tool for web navigation.

Knowledge Booster:

- Internet Explorer:** Developed by Microsoft, now replaced by Edge.
- Firefox:** Open-source browser by Mozilla known for privacy features.
- Google Chrome:** Built on Chromium, widely used for its speed and integration with Google services.

S105. Ans.(c)

Sol. Correct Answer: (C) HTTP

Explanation:

- HTTP stands for **HyperText Transfer Protocol**.
- It is the primary protocol used to access and transfer web pages on the **World Wide Web**.

Information Booster:

- HTTP works on **port 80** and supports **web communication** between browser and server.
- It enables users to view websites, send requests, and receive responses.

Additional Information:

- **DNS:** Translates domain names to IP addresses, doesn't transfer web pages.
- **SNMP:** Used for network device management, not for web access.
- **FTP:** Used for file transfer between computers, not for browsing websites.

S106. Ans.(b)

Sol. The **Insert Table** feature in Microsoft Word provides a grid interface or dialog box where you can directly specify the exact number of rows and columns you need. This method is the most straightforward way to generate a structured table, compared to drawing freehand or applying preformatted styles.

Important Key Points:

1. **Insert Table** lets you pick rows and columns via a visual grid or by entering numbers in a dialog.
2. **Draw Table** requires manually sketching each cell, which is less precise for uniform layouts.
3. **Table Styles** applies formatting to an existing table but does not create one.
4. **Quick Tables** offers prebuilt table templates, not custom row-and-column specifications.

Knowledge Booster:

- Use **Insert Table** → "**Insert Table...**" dialog when you need large or irregular tables beyond the grid's default size.
- Draw Table** is ideal for complex layouts (merged cells, irregular shapes) but can be time-consuming for simple tables.
- After inserting, switch to the **Layout** tab to quickly add or remove rows and columns.
- Apply **Table Styles** and **Shading** afterward to maintain a consistent professional look.

S107. Ans.(b)

Sol. In the Home tab of Microsoft Word 365, the **Scissors icon** represents the **Cut** function. It is used to remove selected text or objects and place them in the clipboard for later use.

Important Key Points:

1. **Cut Functionality:** The **Cut** button removes the selected text or item from its original location and stores it in the clipboard.
2. **Shortcut Key:** The same function can also be performed using the keyboard shortcut **Ctrl + X**.
3. **Clipboard Integration:** After cutting, the content remains in the clipboard, allowing users to paste it elsewhere in the document.

4. **Icon Representation:** The scissors icon universally represents the cut operation across most applications, ensuring intuitive understanding.

Knowledge Booster:

- Clipboard icon:** This icon opens the clipboard panel, displaying items stored in the clipboard but does not perform the cut function.
- Arrow pointing down icon:** This might represent dropdown options or sorting features, but it is unrelated to cutting text.
- Double sheets of paper icon:** This represents the **Copy** function, which duplicates the selected text without removing it from its original location.

S108. Ans.(c)

Sol. Transitions refer to the special visual effects applied to slides when one slide changes to another during a presentation. These effects control how the presentation moves from one slide to the next, enhancing the visual appeal and helping maintain audience attention.

They can include fades, wipes, dissolves, pushes, and other motion effects. Transitions are applied to entire slides, not to individual elements within a slide.

Important Key Points:

1. Transitions occur **between slides**, not within a single slide.
2. They are different from **custom animations**, which are used to animate text or objects **within** a slide.
3. Transition effects can include sound and timing controls to manage how and when slides appear.

Knowledge Booster:

- Transitions can be found in the **Transitions** tab in MS PowerPoint.
- You can apply the same transition to all slides or use different transitions for each.
- To make a professional presentation, use transitions sparingly to avoid distraction.

S109. Ans.(c)

Sol. When you hover the mouse pointer over a toolbar icon in a spreadsheet program like Microsoft Excel, a small label appears showing the **name or function** of that icon. This label is known as a **tooltip**. It helps users understand what each button does without needing to click on it.

Important Key Points:

1. Tooltips improve user experience by providing quick, context-aware help.
2. They are a **common feature** in most graphical user interfaces, not just in Excel.
3. Tooltips often appear after a short delay and may include shortcut keys or brief descriptions.

Knowledge Booster:

- **Horizontal Scroll Bar** allows you to move left or right across the worksheet—it doesn't show icon names.
- **Scroll Bars** are vertical or horizontal bars used to scroll through content, unrelated to icons or labels.
- **Docking Toolbars** refer to the ability to attach toolbars to the edges of the window—they don't show text labels.

S110. Ans.(c)

Sol. Every computer follows a sequence of operations to convert raw data into meaningful output:

- Inputting:** Entering data into the system
- Storing:** Saving data temporarily or permanently
- Processing:** CPU operations on data
- Outputting:** Displaying or printing results
- Controlling:** Directing the flow of operations

Switching is not a standard operation performed by all computers — it's a hardware-level or network-specific term, not a core part of basic data processing.

Important Key Points:

1. Computers universally perform input, processing, storage, output, and control operations.
2. "Switching" is more relevant in networking or electrical design, not basic computing functions.

Knowledge Booster:

- Von Neumann architecture** defines the five basic computer operations: Input, Store, Process, Output, Control.
- Networking and logic circuits use "switching," but general computers do not use it as a standard operational step.

S111. Ans.(b)

Sol. The correct answer is (B) Acting as the core interface between applications and the system hardware

Explanation:

- The **kernel** is the central component of an operating system that manages system resources and acts as an intermediary between hardware and software.

- It is responsible for managing system resources such as memory, processor time, and input/output devices, allowing software applications to interact with the hardware without direct access.
- The kernel facilitates the execution of programs by allocating resources, managing hardware devices, and ensuring that system processes run smoothly.

Information Booster:

- The **kernel** manages low-level tasks such as memory management, process scheduling, and device control.
- It ensures security and stability by enforcing system-level restrictions and managing access to system resources.
- The **kernel** is critical for multitasking, enabling multiple applications to run simultaneously without interfering with each other.
- It operates at a privileged level (kernel space) and provides services to higher-level software running in user space.
- The kernel also handles system calls, which are requests made by programs to perform operations that require hardware access.

S112. Ans.(b)

Sol. Language translators are programs that convert high-level or low-level source code into machine-readable form. These include:

- Assembler:** Converts assembly language into machine code.
- Compiler:** Translates the entire high-level code into machine code at once.
- Interpreter:** Translates and executes code line by line.

A **linker**, on the other hand, is used after translation. It connects various object code files and libraries to produce a single executable program. It doesn't translate code, so it's **not** categorized as a language translator.

Important Key Points:

1. Language translators are essential for converting programming code into executable form.
2. Assemblers, compilers, and interpreters handle source-to-machine code conversion directly.
3. Linkers handle post-translation tasks like symbol resolution and memory address allocation.

Knowledge Booster:

- Linker:** Combines compiled code and library modules into one program.
- Loader:** Loads the final executable into memory.
- Preprocessor:** Handles directives before actual translation begins.

S113. Ans.(b)

Sol. **Spyware** is a type of **malicious software** designed to **secretly track a user's activity** on their device and send that data—such as browsing habits, keystrokes, or login details—to third parties, often without the user's knowledge or consent.

Important Key Points:

1. **Spyware** operates **silently in the background**, gathering sensitive information.
2. It may be bundled with free software or installed through phishing or malicious websites.
3. Its main purpose is to **monitor and transmit user data** without authorization.

Knowledge Booster:

- **Malware** is a broad term that includes spyware, viruses, trojans, and ransomware.
- **Adware** displays unwanted advertisements but does not necessarily track or transmit personal data.
- **Rootkits** can be used to hide spyware and make it more difficult to detect.

S114. Ans.(a)

Sol. Most modern projectors use either **HDMI (High-Definition Multimedia Interface)** or **VGA (Video Graphics Array)** cables as input sources from computers. HDMI is more commonly used now because it carries both high-quality video and audio signals over a single cable.

Important Key Points:

1. HDMI supports **digital video and audio** in a single connection, making setup simpler and cleaner.
2. VGA is an older **analog** standard that only transmits video.
3. HDMI has largely replaced VGA in newer projectors, laptops, and desktops.

Knowledge Booster:

- **Ethernet** cables are used for network connections, not video display.
- **PS/2** cables were once used for connecting keyboards and mice—not video output.
- **Audio** cables carry sound only, not visual signals, and cannot be used for video projection.

S115. Ans.(d)

Sol. The correct answer is **DPI (Dots per Inch)**. **DPI** measures the resolution of printed images, indicating the number of dots a printer places per inch to create a high-quality output.

Important Key Points:

- **Higher DPI** results in sharper and more detailed print quality.
- Standard print resolutions range from **300 DPI to 1200 DPI**, with professional printers reaching **2400 DPI or higher**.
- **Laser and inkjet printers** use **DPI** to determine print sharpness, especially for images and graphics.

Knowledge Booster:

- **PPM (Page per Minute)** measures printing speed, not quality.
- **CPS (Characters Per Second)** is relevant for **dot matrix printers**, determining character printing speed.
- **DPL (Dots Per Line)** is an incorrect term; **DPI** is the standard for print quality measurement.

S116. Ans.(a)

Sol. The correct answer is **Red Hat Linux**. **Red Hat Linux** is an operating system, not an application software package. It serves as a foundation for running applications and managing hardware resources.

Important Key Points:

- **Red Hat Linux** is a **Linux-based operating system**, providing an environment for executing software applications.
- Unlike **application software**, it handles **system-level tasks**, managing memory, processes, and security.
- Used widely in **enterprise environments**, especially for **servers and networking**.

Knowledge Booster:

- **MS Office** is an **application software suite** containing programs like Word, Excel, and PowerPoint.
- **Adobe PageMaker** is a **desktop publishing software** for designing print layouts.
- **OpenOffice** is an **open-source productivity suite** similar to MS Office, featuring applications like Writer and Calc.

S117. Ans.(d)

Sol. The correct answer is: **(d) end users**.

Explanation:

Application software is developed to address the specific needs of **end users**—those who use the software to perform tasks such as word processing, accounting, or gaming. These programs help the end users complete their work or personal tasks by providing user-friendly interfaces and efficient tools designed for their needs.

Information Booster:

1. Examples of application software include Microsoft Word, Excel, Photoshop, and web browsers.
2. **End users** are typically non-technical users who operate the software to achieve personal or professional goals.
3. Application software is different from system software, which is responsible for managing hardware and basic functions of a computer system.
4. **End users** might include individuals, small businesses, or large organizations, each with varying software needs.

Additional Information:

1. **Programmers:** programmers are responsible for writing software.
2. **Customers:** Customers are users of the products or services that a business provides.

S118. Ans.(d)

Sol. **Skype** is a video teleconferencing software developed by **Microsoft**. It enables users to make **voice and video calls**, send instant messages, and share files. Microsoft acquired Skype in **2011**, and it has since been integrated into various Microsoft services like **Office 365** and **Microsoft Teams**. Skype remains one of the most widely used communication tools across **Windows, Mac, iOS, and Android**.

Important Key Points:

1. **Skype** is a **video teleconferencing** tool owned by **Microsoft**.
2. **Microsoft acquired Skype** in **2011**, integrating it into its ecosystem.
3. **Supports video calls, voice calls, instant messaging, and file sharing.**
4. **Available on Windows, Mac, iOS, and Android platforms.**

Knowledge Booster:

- **Google Meet** is part of **Google Workspace**, mainly used for professional meetings.
- **Cisco Webex** specializes in **enterprise-level conferencing** and online collaboration.
- **GoTo Meeting** is used by businesses for **remote meetings and webinars**, offering advanced control features.

S119. Ans.(b)

Sol. **Biometrics** is the technology that uses **unique physical or behavioral traits**—such as **fingerprints, iris patterns, or voice recognition**—to authenticate a person's identity. It is widely used in access control and security systems.

Important Key Points:

1. **Biometric systems** include technologies like **facial recognition**, **fingerprint scanning**, and **retinal scans**.
2. Common in devices such as **smartphones**, **ATMs**, and **workplace access controls**.

Knowledge Booster:

- Smart weapon machinery** may incorporate biometrics but isn't the defining concept.
- Bio-measurement** is a broader term for measuring biological data, not limited to security.
- Computer security** is a general domain encompassing **software, hardware, and procedures**—biometrics is one of its methods.

S120. Ans.(b)

Sol. The correct answer is: (B) Pipelining

Explanation:

- **Pipelining** is a technique used in modern **Central Processing Units (CPUs)** to execute **multiple instructions simultaneously** by dividing the instruction cycle into different stages.
- While one instruction is being executed, another can be decoded, and a third can be fetched, all at the same time — like an assembly line.

Information Booster:

- Pipelining increases **instruction throughput** and improves **CPU performance**.
- The stages typically include **Fetch, Decode, Execute, Memory Access, and Write Back**.
- It allows for **parallelism** within the processor.
- Advanced CPUs may also use **superscalar** architecture and **out-of-order execution** for even more efficiency.
- Pipelining can be affected by **hazards** (data, control, and structural).

Additional Information:

- **Clock Synchronizing:** Ensures operations happen in step with the CPU clock but doesn't enable parallel instruction execution.
- **Serial Processing:** Executes one instruction at a time, sequentially — not parallel.
- **Sequential Execution:** Same as serial; no overlap of instruction execution.

