2024-25
ENGLISH MEDIUM
RRB-RPF/RPSF SI
PRACTICE BOOK

Youth Competition Times

RRB-RPF/RPSF

Railway Protection Force/Railway Protection Special Force

SI SUB-INSPECTOR

MALE & FEMALE

PRACTICE BOOK

TCS PATTERN

CBT
COMPUTER BASED TEST

SUBJECT	Marks	Questions	Time
ARITHMETIC	35	35	90 Minutes
GENERAL INTELLIGENCE & REASONING	35	35	
GENERAL AWARENESS	50	50	
	120	120	

ANSWERS WITH DETAILED ANALYTICAL EXPLANATION

CONTENT

EXAM PATTERN

Subject	Mark	Question	Time
General Awareness	50	50	90
Mathmatics	35	35	
General Intelligence & Resasoning	35	35	
	120	120	

PRACTICE SET - 1

1. When did archaeologist B.B. Lal carry out excavations at Hastinapura, situated in Meerut district?
(a) 1962-63 (b) 1951-52
(c) 1957-58 (d) 1949-50

2. The foundations of Buddhism are based on ___ great truths and organs _____ path.
(a) Six, Four (b) Two, Eight
(c) Eight, Six (d) Four, Eight

3. Which ruler of the Mamluk Sultanate was the sultan of Delhi from 1236 to 1240?
(a) Aram Shah
(b) Razia Sultana
(c) Ruknuddin Firoz
(d) Nasiruddin Mahmud

4. Which of the following kings was sent by Aurangzeb against Chhatrapati Shivaji Maharaj?
(a) Bahadurshah Zafar (b) Adil Shah
(c) Man Singh (d) Jai Singh

5. Who discovered the sea route to India?
(a) Vasco da Gama
(b) Ibn Battuta
(c) Christopher Columbus
(d) Huen Tsang

6. In year ____ Britishers signed the peace agreement with Odisha's Khonds?
(a) 1848 (b) 1858
(c) 1878 (d) 1868

7. When was the Muslim League founded?
(a) 1914 (b) 1917
(c) 1906 (d) 1902

8. The Poona Pact was related to:
(a) Reserving electoral seats for Depressed classes
(b) Reserving electoral seats for Hindus
(c) Reserving electoral seats for Muslims
(d) Reserving electoral seats for Sikhs

9. Who was the chairman of the drafting committee of the Constituent Assembly?
(a) Dr. B.R. Ambedkar
(b) C. Rajagopalachari
(c) Dr. Rajendra Prasad
(d) Jawaharlal Nehru

10. Which schedule of the Indian Constitution contains the list of states and union territories and their territories?
(a) 8th (b) 12th
(c) 1st (d) 5th

11. Which of the following fundamental duties is added by the 86th Amendment of the constitution in 2002?
(a) To cherish and follow the noble ideals which inspired our national struggle for freedom
(b) To safeguard public property and to abjure violence
(c) Who is a parent or guardian, to provide opportunities for education to his child, or as the case may be, ward between the age of six and fourteen years
(d) To defend the country and render national service when called upon to do so

12. Name the first speaker of the Indian parliament.
(a) GV Mavalankar (b) Rajendra Prasad
(c) KM Munshi (d) BR Ambedkar

13. What does the right to Constitutional Remedies mean?
(a) All linguistic and religious minorities can set up their own education institutions.
(b) If any citizen feels that the fundamental rights have been violated by the State, then they can move to the court.
(c) Any person has the right to move freely and live anywhere in India.
(d) Each and every person is equal before the law, which means everyone will receive the same protection as per the laws of the country.

14. In all Panchayati institutions, not less than _____ of the total number of seats reserved, shall be reserved for women belonging to the Scheduled Castes or, as the case may be, the Scheduled Tribes.
(a) Three–fourths (b) Two–third
(c) Half (d) One–third

15. The budget of a state under President's rule is presented before_____.
(a) Lok Sabha
(b) Prime Minister of India
(c) Rajya Sabha
(d) President of India

16. Which group of organization/institutes is an example of Constitutional bodies in India?
(a) National Human Right Commission, National Commission for Minorities, Election Commission of India
(b) Comptroller and Auditor General of India, National Human Right Commission, Election Commission of India
(c) Election Commission of India, Attorney General of India, Union Public Service Commission
(d) National Commission of India, Securities and Exchange Board of India, Attorney General of India

17. A huge system of billions of stars and cloud of dust and gases is known as:
(a) Universe (b) Galaxy
(c) Constellation (d) World

18. Which strait lies between Russia and a state of the United States of America?
(a) Palk Strait (b) Strait of Magellan
(c) Strait of Dover (d) Bering Strait

19. Which is the sixth largest country of the world in terms of area?
(a) China (b) Australia
(c) India (d) Brazil

20. With which of the following countries does India share its longest land border?
(a) Bhutan (b) Pakistan
(c) Bangladesh (d) Myanmar

21. Which of the following passes connects Sikkim with China ?
(a) Debsa Pass (b) Mana Pass
(c) Nathu La Pass (d) Bara Lacha Pass

22. Which set of statements is true about the river Ganga?
1. **The Ganga rises in the Gangotri glacier near Gaumukh. Here, it is known as the Bhagirathi.**
2. **At Devprayag, the Bhagirathi meets the Alaknanda; hereafter, it is known as the Ganga.**
3. **The Alaknanda has its source in the Satopanth glacier above Kedarnath.**
4. **The Ganga enters the plains at Haridwar**

(a) 1, 2 and 3 (b) 1, 3 and 4
(c) 2, 3 and 4 (d) 1, 2 and 4

23. Black soil, found in the Deccan Traps is considered highly suitable for the cultivation of _____ crops.
(a) Coffee (b) Tea
(c) Cotton (d) Wheat

24. Which of the following states is home to the only mine in the country involved in industrial-scale mining of diamonds?
(a) Chhattisgarh (b) Tamil Nadu
(c) Madhya Pradesh (d) Karnataka

25. 'Bhotiya' is a caste of scheduled tribes of which of the following states in India?
(a) Uttarakhand (b) Rajasthan
(c) Maharashtra (d) Madhya Pradesh

26. Which Five Year Plan of India was Chalked out for the period Spanning 1974 to 1979 with the objective of increasing the employment level, reducing poverty, and attaining self-reliance?
(a) Fifth Five-Year Plan
(b) Second Five-Year Plan
(c) First Five – Year Plan
(d) Third Five- Year Plan

27. Which of the following is the full form of SIDBI?
(a) Small Industries and Domestic Bank of India
(b) Small Inter Development Bank of India
(c) Small Industries Development Bank of India
(d) Small Indian Development Bank for Industry

28. SENSEX is an index of Bombay Stock Exchange's top _____ companies.
(a) 50 (b) 100
(c) 30 (d) 40

29. Which of the following states has the highest population density in India as per Census 2011?
(a) Uttar Pradesh (b) West Bengal
(c) Bihar (d) Madhya Pradesh

30. Solung celebrated on September 1 every year is the most popular festival of Adis Tribe of which state?
(a) Sikkim (b) Meghalaya
(c) Arunachal Pradesh (d) Tripura

31. Who among the following is not an Odissi Dancer?
(a) Kumkum Mohanty (b) Chitra Krishnamurti
(c) Darshana Jhaveri (d) Shagun Bhutani

32. Ustad Amjad Ali khan plays which of the following instruments?
(a) Bansuri (b) Sarod
(c) Shehnai (d) Santoor

33. Which one of the following books is NOT authored by Amartya Sen?
(a) Poverty and Famines
(b) On Economic Inequality
(c) Poverty of India
(d) Resources, values, and development

34. Who was the first Indian citizen to receive the Nobel Prize in literature?
(a) Swami Vivekananda
(b) Sully Prudhomme
(c) Sarojini Naidu
(d) Rabindranath Tagore

35. The Winter Olympic Games came into being in
(a) 1916 (b) 1912
(c) 1920 (d) 1924

36. The commercial unit of electrical energy is .....
(a) Watt (b) Calorie
(c) Kilowatt hour (d) Joule

37. Who proposed the laws of planetary motion?
(a) Isaac Newton (b) Johannes Kepler
(c) Galileo (d) Roger Bacon

38. Some resistors are connected in series in the circuit, the value of current through the circuit is ?
(a) remains the same (b) increases
(c) decreases (d) halves

39. Transformer converts .....
(a) frequency
(b) voltage
(c) current
(d) both current and voltage

40. A bulb filament is made of a _____ metal with ____melting point.
(a) weak, low (b) weak, high
(c) strong, low (d) strong, high

41. Which of the following statements is not correct with respect to substance?
(a) There is no attraction force between particles of matter.
(b) Particles of matter move continuously in fluid and air.
(c) Matter is made up of particles.
(d) There is a inter molecular space between particles of matter.

42. **Name the three elements whose outermost shell has only one electron?**
(a) Magnesium, Calcium and Barium
(b) Lithium, Sodium, Potassium
(c) Helium, Neon and Argon
(d) Magnesium, Helium and Neon

43. **Which of the following statements is not true about acids?**
(a) It forms H^+ in aqueous medium / liquid state.
(b) It is bitter in taste
(c) It converts blue litmus into red
(d) Reacts with metals and bicarbonates to form H_2, CO_2 and salts.

44. **Which of the following classifications is based on atomic numbers?**
(a) Modern Periodic Table
(b) Mendeleev's Periodic Table
(c) Dabereiner's law of trides
(d) Newlands law of octaves

45. **Electric bulbs typically contain chemically inert gases such as ———**
(a) nitrogen (b) chlorine
(c) oxygen (d) hydrogen

46. **Viticulture is :**
(a) Vegetable cultivation (b) Mango cultivation
(c) Grape cultivation (d) Flower cultivation

47. **What is the complete form of RNA?**
(a) Robert Nuclear Acid (b) Retinal Nucleic Sid
(c) Ribo nucleic acid (d) Ribo nuclear acid

48. **Animals from class ..... are warm-blooded animals.**
(a) Aves (b) Reptilia
(c) Amphibian (d) Pisces

49. **Which blood cells help in clotting of blood and stop bleeding?**
(a) Platelets
(b) Both platelets and red blood cells.
(c) Red blood cells
(d) White blood cells

50. **The ECG senses the electric forces generated by ……. .**
(a) Stomach (b) Kidney
(c) Brain (d) Heart

51. **The product of 4 consecutive numbers is always divisible by which of the following numbers?**
(a) 10 (b) 22 (c) 24 (d) 48

52. **Number 0.232323 can be written in rational form as:**
(a) $\frac{23}{999}$ (b) $\frac{23}{99}$ (c) $\frac{23}{9}$ (d) $\frac{23}{990}$

53. **The difference between the greatest and the smallest six-digit numbers is:**
(a) 988888 (b) 999999
(c) 888888 (d) 899999

54. **Four fifths of a number is 12 more than three fourths of the number. Find the number.**
(a) 120 (b) 160
(c) 200 (d) 240

55. **The decimal expansion of $\frac{31}{2.5}$ will terminate after:**
(a) two decimal places
(b) three decimal places
(c) more than three decimal places
(d) one decimal place

56. **If x is integer 0.80000, then what is interval of x?**
(a) $0.79995 < x \le 0.80005$
(b) $0.799905 \le x < 0.800005$
(c) $0.799995 \le x < 0.800005$
(d) $0.79995 \le x < 0.80005$

57. **If $\frac{A}{\sqrt{512}} = \frac{\sqrt{162}}{A}$, find the value of A.**
(a) 144 (b) $12\sqrt{2}$
(c) 288 (d) 72

58. **Simplify the given expression using BODMAS :**
$\frac{4}{11} \times \frac{121}{16} \times 24(75^2 - 55^2) \times \frac{1}{100}$
(a) 1736 (b) 1726
(c) 1746 (d) 1716

59. **Durba got 70% marks in an exam. He obtained 20 out of 25 marks in another exam. If his total score is 78% then what were the maximum marks of the first exam?**
(a) 7.6 (b) 6.25
(c) 7.25 (d) 6

60. **The cost of a washing machine is 40% less than the cost of a TV. If the cost of the washing machine increases by 18% and that of the TV decreases by 10%, then what is the change in the total cost of 5 washing machines and 2 TVs?**
(a) Decreases by 6.5% (b) Decreases by 6.4%
(c) Increases by 6.5% (d) Increases by 6.8%

61. **The price of petrol has been increased by 10% in the new budget. The passenger of a motor vehicle can reduce the consumption to how many %, so that his total expenditure on petrol remains the same?**
(a) 10% (b) $9\frac{1}{11}\%$
(c) 11% (d) $11\frac{1}{9}\%$

62. **Arvind bought an article for ₹ x. He sold it to Biru at a loss of 15%. Biru spent ₹126 on its transportation and sold it to Meenu at a profit of 25%. If Meenu bought it for ₹1475, then find the value of ₹x.**
(a) ₹1,240 (b) ₹1,160
(c) ₹1,320 (d) ₹1,280

63. **A man bought some oranges at a rate of 3 fruits for 1 rupee and some more oranges at the rate of 2 fruits for 1 rupee. At what price will he has to sell the oranges per dozen to get 20% profit?**

(a) ₹ 5 (b) ₹ 4
(c) ₹ 10 (d) ₹ 6

64. The marked price of a cooker is same at four shops I, II, III and IV. Shop I allows two successive discounts of 20% and 15%, shop II allows successive discounts of 18% and 17%, shop III allows successive discounts of 25% and 10% and shop IV allows successive discounts of 15%, 15% and 5% on the marked price of the cooker. Which shop is selling the cooker at the lowest price?

(a) I (b) II
(c) IV (d) III

65. The ratio of the incomes of two persons is 7:5 and the ratio of their corresponding expenses is 9:7. If they save 1700 Rs. and 1100 Rs. consecutively then find the corresponding income of each person?

(a) ₹ 5,000, ₹ 5,000, (b) ₹ 4,500, ₹ 3,500,
(c) ₹ 5,500, ₹ 4,500, (d) ₹ 3,500, ₹ 2,500,

66. The ratio of two number is 3 : 5, If each number is increased by 10, the ratio become 5 : 7 find the smallest number?

(a) 8 (b) 12
(c) 15 (d) 18

67. X and Y started a business. X invested Rs.8000 and Y invested Rs.10,000. After 6 months Z also joined that business with an investment of ₹6000. If there is a profit of Rs.9,660 in 3 year. What is the share of Z.

(a) Rs.1,500 (b) Rs.2,100
(c) Rs.1,900 (d) Rs.1,200

68. A sum of money was invested at simple interest at r% per annum for 3 years. Had the rate of interest been (r + 2)%, it would have fetched ₹ 84 more. Find the sum invested.

(a) ₹ 1,200 (b) ₹ 1,600
(c) ₹ 1,400 (d) ₹ 1,500

69. Suresh borrows ₹ 80,000 at 24% per annum simple interest and Ramesh borrows ₹ 91,000 at 20% per annum simple interest. In how many years will their amounts of debts be equal?

(a) 11 (b) 10
(c) 22 (d) 20

70. A certain sum was invested at 40% p.a compound interest for two years and the interest was compounded annually. If the interest was compounded half-yearly, the amount payable of maturity after two years would have been ₹4,544 more. What was the sum invested?

(a) ₹ 42,500 (b) ₹ 40,000
(c) ₹ 42,000 (d) ₹ 37,500

71. A group of 19 students took an examination, another student joined the group after baking the examination. By including his marks, the average marks of the group increased by 1.5 marks. This student has scored ----- marks more than the average marks without including him.

(a) 25 (b) 30
(c) 24 (d) 28.5

72. Devesh leaves his home every day at 7 am and reaches office at 8:30 am. One day he left his home at 7 am but travelled a fifth of the distance at 5/6 of the usual speed and the rest of the distance at 6/5 of the usual speed. Approximately at what time did Devesh reach office on that day?

(a) 8 : 40 am (b) 8 : 25 am
(c) 8 : 21 am (d) 9 : 36 am

73. A man travels by train and car to reach his office. If he travels 10 km by car and travels the rest by train then he reaches his office in t hours. If he does the exact opposite of it, he reaches office in (t+0.5) hours. If the speeds of the train and car are 50 km/h and 40 km/h respectively, then how much distance does he cover to reach his office?

(a) 100 km. (b) 80 km.
(c) 120 km. (d) 140 km.

74. A train overtakes two persons who are walking at 15 m/s and 35 m/s, respectively, in the same direction as that of the train in 20 seconds and 40 seconds, respectively. The length of the train is :

(a) 800 m (b) 1000 m
(c) 700 m (d) 900 m

75. A train covered a certain distance at a uniform speed. If the train had been 12 km/h faster, it would have taken 8 hours less than the scheduled time. If the train were slower by 12 km/h, the train would have taken 12 hours more than the scheduled time. Find the length of the journey (in km).

(a) 1480 (b) 2860
(c) 2880 (d) 1440

76. If the perimeter of a triangle is 28 cm. Its internal radius is 3.5 cm. Find the area of triangle.

(a) 49 cm^2 (b) 28 cm^2
(c) 35 cm^2 (d) 42 cm^2

77. The radius of a circle is increased by 5%. Find the percentage increase in its area.

(a) 10.25% (b) 21.5%
(c) 10.5% (d) 25%

78. The base of the pyramid is a rectangle whose length and width are 16 cm and 12 cm respectively. If all the lateral edges passing through the top of the right rectangular pyramid are 26 cm in length, find the volume of the pyramid in cubic centimeters.

(a) 1536 (b) 1024
(c) 718 (d) 2072

79. The loan disbursement at ABC bank in the last 5 years is as shown in the table.

Sr. No.	Years	Rupees (in Crore)
1	2016	75
2	2017	85
3	2018	125
4	2019	145
5	2020	190

Which year has the maximum percentage growth in the loan disbursement over the previous years?

(a) 2020 (b) 2017
(c) 2019 (d) 2018

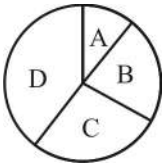
80. How many numbers of three digits are divisible by 8.

(a) 114 (b) 111
(c) 113 (d) 112

81. In a group of students, the number of girls is three-fourth of the number of boys. If two-third of the number of girls and one-half of the number of boys like mango juice, then what fraction of the total number of girls and boys like mango juice?

(a) $\frac{1}{7}$ (b) $\frac{4}{7}$
(c) $\frac{2}{7}$ (d) $\frac{3}{7}$

82. Of the 360 students who sat for class X Board exams, 10% students scored A Grade, 20% students scored B Grade, 30% students scored C Grade and 40% scored D Grade. From the given pie chart, find the total number of students who scored Grade A and Grade B.



(a) 108 (b) 72
(c) 144 (d) 36

83. Find the value of (919+9.019+0.919+9.0019)

(a) 937.3999 (b) 973.9399
(c) 937.9399 (d) 973.9939

84. Find the least number which when added to 1780 makes the sum a perfect square.

(a) 46 (b) 49
(c) 69 (d) 72

85. In a group of class 6 students can speak English, 15 students can speak Hindi and 6 can speak Bengali. Nobody can speak any other language. If 2 students in the class can speak two languages and one person can speak all the three languages, then how many students are there in the class?

(a) 22 (b) 24
(c) 23 (d) 21

86. Select the option that is related to the third term in the same way as the second term is related to the first term.

Mason : Builds :: Mechanic : ?

(a) Cars (b) Tools
(c) Factory (d) Repairs

87. Select the option that is related to the third pattern in the same way as the second pattern is related to the first pattern.

5	10	:	10	5	::	W	X	:	?
20	15		15	20		Z	Y		

(a) | W | Z | | (b) | X | W |
| --- | --- | --- | --- | --- | --- |
| Y | X | | Y | Z |

(c) | W | X | | (d) | X | W |
| --- | --- | --- | --- | --- | --- |
| Z | Y | | Z | Y |

88. In a certain alpha-numeric code, 'PLATE' is written as 45 and 'BLEAK' is written as 13. How will 'PASTE' be written in the same code?

(a) 12 (b) 21
(c) 54 (d) 16

89. In certain language, 'god is great' is coded as 'cp an bo', 'great help done is coded as 'er cp fs' and 'he is great' is coded as 'bo cp dq'. What is the code for 'he is god' in that language?

(a) cp er bo (b) an bo cp
(c) dq bo cp (d) an bo dq

90. Which of the following is not related to this group.

A Rack **B. Window**
C. Door **D. Shutter**

(a) C (b) D
(c) A (d) B

91. If three groups can be formed using the given figures only once, then these groups will be _____.

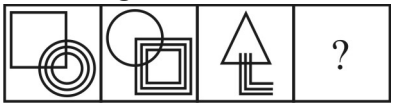
(a) (9, 3, 6), (2, 5, 7) and (1, 4, 8)
(b) (8, 3, 6), (2, 4, 7) and (1, 5, 9)
(c) (9, 3, 7), (2, 4, 6) and (1, 5, 8)
(d) (9, 3, 6), (2, 4, 7) and (1, 5, 8)

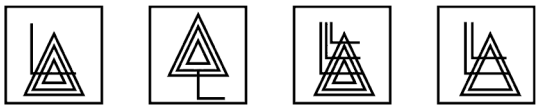
92. Which of the following numbers will replace the question mark (?) in the given series?

7, 9, 15, 49, 191, ?

(a) 966 (b) 911
(c) 961 (d) 916

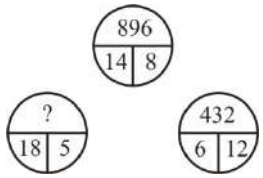
93. Which figure will come in the place of question mark in figure series-





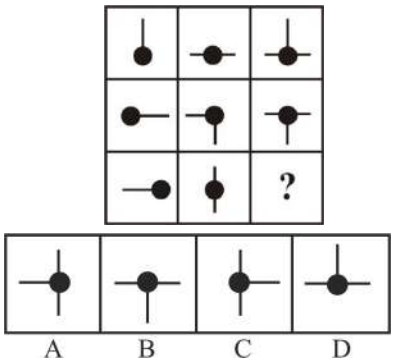
(a) C (b) B
(c) D (d) A

94. Study the given pattern carefully and select the number from among the given options that can replace the question mark (?).



(a) 120 (b) 600
(c) 185 (d) 450

95. Choose the correct figure that appears on the question mark.



(a) C (b) B
(c) D (d) A

96. Pointing at a picture, Yuvika said that the boy in the picture is the son of her father's mother's daughter. How is that boy related to Yuvika?

(a) Mother's brother's son
(b) Father' brother
(c) Father's sister's son
(d) Brother

97. X%Y means X is daughter of Y.
X@Y means X is wife of Y.
X$Y means X is brother of Y.
X&Y means X is the father of Y.
Based on the above information which of the following expression indicated that K is the father-in-law of H.

(a) H@P$J&L%K (b) H@J$L%P&K
(c) H@J$L%K&P (d) H@J$P&L%K

98. If Q means '+, J means '×', T means '–' and K means '÷', then 52 K 4 Q 6 J 12 T 8 = ?

(a) 45 (b) 83
(c) 68 (d) 77

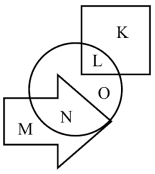
99. If '×' is interchanged with '÷' and '6' is interchanged with '9', then which of the following equations will be correct?

(a) 96 × 3 ÷ 69 = 2207 (b) 69 × 12 ÷ 96 = 552
(c) 96 × 3 ÷ 25 = 576 (d) 69 × 9 ÷ 46 = 736

100. Select the Venn diagram that best represents the relationship between the given set of classes:
Sports, Chess, Tennis

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

101. In the given diagram, circle represents 'boxers' , square represents 'philosophers' and arrow represents 'business women'.



Which of the following letters represents boxers who are not men?

(a) N (b) L
(c) M (d) O

102. Six persons, Aditya, Binod, Chhaya, Dilshan, Eastar and Fatima, trevelled in different months of the same year in January, March, May, July, September and November. None of them travelled after Binod who travelled immediately after Chhaya. Only three people travelled before Eastar. Aditya travelled immediately after Fatima. Dilshan did not travel in the month of May.
Who among them travelled in May?

(a) Fatima (b) Chhaya
(c) Eastar (d) Aditya

103. Three statements are followed by three conclusions numbered I, II and III. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow(s) from the given statement.
Statement:
All lamps are lanterns.
All lanterns are torches.
All torches are candles.

Conclusions:

I. Some candles are lamps

II. All lanterns are lamps

III. No lantern is a lamp

(a) Only conclusion II follows

(b) Only conclusion I and II follows

(c) Only conclusion I follows

(d) None of the conclusions follow

104. Statement: It is good to have patience in the capital market.

Conclusion:

I. There will be good returns on long-term investments.

II. Any person should think from now for their own profit.

(a) Only conclusion I follows.

(b) Neither I or II follows.

(c) Only conclusion I follows.

(d) Either I or II follows.

105. Statement:

The students who passed the exam said, "the exam paper was really difficult and lengthy."

Conclusion:

I. Students are expecting low marks in results.

II. The question paper had many questions out of the course.

(a) Only conclusion II follows.

(b) Only conclusion I follows.

(c) None of the conclusion follows.

(d) Both the conclusions follow.

106. A statement is given followed by two arguments I and II. Read the statements and the arguments carefully and select the appropriate answer from the given options.

Statement :

The government is proposing a ban on the export of wheat for the next 4- weeks in order to contain the rising prices in domestic markets.

Arguments:

I. Floods in various parts of the country has resulted in a steep drop in the output of wheat crop this season.

II. Ban on export of wheat will result in significant penalties in the international markets on non-fulfilment of existing contracts.

(a) Argument II weakens, while argument I strengthens the statement

(b) Both arguments I and II weaken the statement

(c) Argument I weakens, while argument II strengthens the statement

(d) Both arguments I and II strengthen the statement

107. A statement is given followed by two assumptions numbered I and II. You have to assume everything in the statement to be true and decide which of the assumptions is/are implicit in the statement.

Statement:

"In order to retain employee, we must reward them with monthly, benefits", company, chairman tells the manager.

Assumptions:

(i) Monthly benefits will keep the employee happy

(ii) The employees will be punctual

(a) Only assumption II is implicit

(b) Both assumptions I and II are implicit

(c) Only assumption I is implicit

(d) Neither assumption I nor II is implicit

108. Read the given statement and possible courses of action carefully and decide which of the courses of action logically follows from the statement.

Statement:

Rahul has a deadline for a project in just two days and he has not yet started working on his project based on the following course of action, select the correct one.

Courses of action:

(i) He must immediately read a book on time management to avoid such problems in the future.

(ii) He must manage his time efficiently and starts his project without delay.

(iii) He must plan a layout of his project first and then starts following that layout.

(a) Only (ii) is correct

(b) Only (i) is correct

(c) Only(i) and (ii) are correct

(d) Only (ii) and (iii) are correct

109. Question:

X, Y, T, U and V arranged in descending order according to his weight then who will stand in second place from the beginning?

Statement:

1. Weight of X is less than T and U. Weight of U is twice of T.

2. Weight of Y and V is less than X.

(a) Both statement 1 and 2 is sufficient.

(b) Only statement 1 is sufficient.

(c) Only statement 2 is sufficient.

(d) Both statement 1 and 2 are insufficient.

110. Question:
How is Rajesh related to Vijay?
Statement:
I. Rajesh is the only one son of Vijay's mother-in-law.
II. Veena is Rajesh's only sister.
(a) Both data I and II are not sufficient
(b) Data I or II alone is sufficient
(c) Data II alone is sufficient
(d) Data I alone is sufficient

111. K, L, M, N, O and P live on six different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it number 2, and so on till the topmost floor is numbered 6.
L does not live on floor number 5. O and P live on even numbered floors, but not on floor number 6. N lives on floor number 3. K lives immediately below L. O lives immediately above M, but not on floor number 4. Who lives on floor number 5?
(a) O (b) K
(c) P (d) N

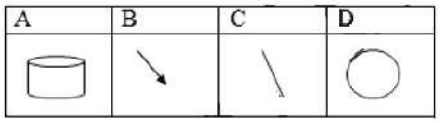
112. Six friends are sitting around a round table facing the centre with equal distances between two neighbours. Sarah is sitting to the immediate left of Laura. Ron is sitting second to the right of Tyler. Sarah is sitting third to the left of Adam. Laura is sitting to the immediate left of Tyler. Tessa is sitting to the immediate right of Ron. Who is sitting to the immediate left of Sarah?
(a) Laura (b) Tessa
(c) Ron (d) Tyler

113. Refer to the following letter, symbol series and answer the question.
D & C N ^ Y T % @ G R I & * H K & Z $ P * ^
How many consonants are there that are immediately preceded by a consonant and immediately followed by symbol ?
(a) Six (b) Two
(c) Four (d) Three

114. Amongst six friends P, Q, R, S, T and U each has different height. T is taller than only two other friends. R is shorter than only one friend. P is shorter than T but taller than S. Q is shorter than U. Who is the third tallest among all the friends ?
(a) Q (b) R
(c) T (d) U

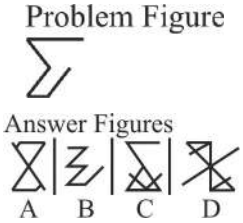
115. The given shape is formed by which of the following figure?
Question figure:

Answer figures:



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

116. The following problem figure is embedded in one of the four answer figures. Choose the correct figure containing the problem figure.



(a) A (b) C
(c) B (d) D

117. Select the option that is related to the third word on the same basis as the second word is related to the first word.
House : Home :: Fault : ?
(a) Crowd (b) Sad
(c) Accept it (d) Peace

118. In a certain code language, if HISTORY is coded as 7326845 and CIVICS is coded as 135312, then VISITOR will be coded as ?
(a) 5323684 (b) 6843532
(c) 8463352 (d) 5323648

119. Fill the right number in blank space.
……., 9, 25, 49, 121, 169
(a) 1 (b) 3
(c) 2 (d) 4

120. If E means '+', F means '×' G means '÷' and H means '–' then the value of 81 H 1 G 17 F 102 G 6 F 34 H 6 = ?
(a) 40 (b) 26
(c) 41 (d) 29

SOLUTION : PRACTICE SET- 1

ANSWER KEY

1. (b)	13. (b)	25. (a)	37. (b)	49. (a)	61. (b)	73. (c)	85. (c)	97. (c)	109. (a)
2. (d)	14. (d)	26. (a)	38. (a)	50. (d)	62. (a)	74. (a)	86. (d)	98. (d)	110. (d)
3. (b)	15. (a)	27. (c)	39. (d)	51. (c)	63. (d)	75. (c)	87. (b)	99. (b)	111. (b)
4. (d)	16. (c)	28. (c)	40. (d)	52. (b)	64. (d)	76. (a)	88. (d)	100. (b)	112. (b)
5. (a)	17. (b)	29. (c)	41. (a)	53. (d)	65. (d)	77. (a)	89. (d)	101. (a)	113. (d)
6. (a)	18. (d)	30. (c)	42. (b)	54. (d)	66. (c)	78. (a)	90. (c)	102. (d)	114. (a)
7. (c)	19. (b)	31. (c)	43. (b)	55. (d)	67. (b)	79. (d)	91. (d)	103. (c)	115. (c)
8. (a)	20. (c)	32. (b)	44. (a)	56. (c)	68. (c)	80. (d)	92. (c)	104. (c)	116. (b)
9. (a)	21. (c)	33. (c)	45. (a)	57. (c)	69. (a)	81. (b)	93. (d)	105. (b)	117. (b)
10. (c)	22. (d)	34. (d)	46. (c)	58. (d)	70. (b)	82. (a)	94. (d)	106. (a)	118. (a)
11. (c)	23. (c)	35. (d)	47. (c)	59. (b)	71. (b)	83. (c)	95. (d)	107. (c)	119. (d)
12. (a)	24. (c)	36. (c)	48. (a)	60. (d)	72. (c)	84. (c)	96. (c)	108. (d)	120. (c)

SOLUTION

1. (b)
In 1951-52, Prof. B.B. Lal carried out excavations at Hastinapura, situated in Meerut district. Interestingly, the excavation at Hastinapura revealed that around 800 B.C. a heavy flood in the Ganga destroyed a considerable portion of polished grey ware settlement.

2. (d)
Buddha preached four Arya Satya (truths) in relation to worldly sufferings. It is called 'Chatwari Aryasatyani in Sanskrit and 'Chatri Ariyasanchani' in Pali.
Following are the four Arya truths of Lord Buddha-
(1) Grief - there is Sorrow in the world.
(2) Grief community - the cause of grief.
(3) Unhappiness - prevention of unhappiness
(4) Prevention of grief - Gaminipratipada is the asexual path for redress, Buddha has described the asexual path for liberation from the worldly sorrows.

These are the eight components of eight fold path : Samyak Vishaya, Samyak Sankalpa, Samyak Aajeev, Samyak Exercise, Samyak Smriti, Samyak Samadhi.

3. (b)
Razia Sultan was the first Muslim female and also only female emperor of Delhi Sultanate. She ruled Delhi for 4 year from 1236 to 1240. She is related with Mamluk or Slave dynasty.

4. (d)
To control the power of Shivaji Maharaj, Aurangzeb sent Jai Singh to Pune. He started rallying all the forces against Shivaji Maharaj. Jai singh had besieged the fort of Purandar as a result a treaty between Jai Singh and Shivaji Maharaj was signed in June 1665 which came to be known as Treaty of Purandar.

5. (a)
Vasco da Gama discovered the sea route to India in the year 1498 AD. Two years after he set his sail from Lisbon, Portugal, Vasco da Gama arrived on the western sea coast of India at Kozhikode (Calicut/Kappakdavu), Kerala. He was welcomed by the local ruler Zamorin and given him special order to established direct trade link with Portugal. This was the first time when a European had arrived in India via the sea.
Hence, Vasco da Gama is credited with the discovery of the sea route to India

6. (a)
In 1846 AD Odisha's Khonds people started a movement under the leadership of Chakra Bisoi. The main issue was the attempt by the government to end human sacrifice (mariah) and introduction of new taxes by the British. After that British signed the peace agreement with Odisha's Khond in 1848. This movement was ended in 1857.

7. (c)
The Muslim League was established on 30 December 1906, in Dhaka, Bangladesh by Aga Khan and Salim Ulla Khan during the tenure of Lord Minto-II. The founders of the Muslim League were: Khwaja Salimullah, Waqar-ul-Mulk, Syed Amir Ali, Syed Nabiullah, Khan Bahadur Ghulam and Mustafa Chaudhary. Muhammad Ali Jinnah joined the league in 1913. The league was dissolved on 14 August 1947.

8. (a)
On 24th September, 1932 along with the efforts of Prominent Congress leaders the Poona Pact was signed in between Mahatma Gandhi and Ambedkar. In accordance with this agreement the separate electorate for the dalits was ended and 147 seats were reserved for them in provincial legislatures. In Central Legislature total 18% seats were reserved for them.

9. (a)
The drafting committee was the most important of all the committees of the Constituent Assembly. It was formed on August 29, 1947. The task of this committee was to consider the draft of the Constitution it was chaired by Dr. Ambedkar. It had seven members, whose names are as follows:-
1. Dr. B.R. Ambedkar (Chairman)
2. N. Gopala Swami Ayyangar
3. Alladi Krishna Swamy Iyer
4. Dr. K.M. Munshi
5. Syed Mohammad Saadulah
6. N. Madhav Rao (he replaced B.L. Mitra, who resigned due to health reasons).
7. T.T. Krishnamchari (he replaced D.P. Khaitan in 1948 after his death).

10. (c)

First Schedule of Indian Constitution	It contains the name of States and Union Territories, and their territorial jurisdiction.
Fifth Schedule	It contains provisions in relation to the administration and control of Scheduled areas and Scheduled tribes
Eighth Schedule	It deals with the 22 official languages recognized by the Indian Constitution viz. Assamese, Bengali, Bodo, Dogri (Dongri), Gujarati, Hindi, Kannada, Kashmiri, Konkani, Mathili (Maithili), Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Santhali, Sindhi, Tamil, Telugu and Urdu.
Twelfth Schedule	It deals with the provisions that specify the powers, authority and responsibilities of Municipalities. It has 18 matters. **Note:** This Schedule was added by the 74th Amendment Act of 1992

11. (c)

The 11 Fundamental duties given in the constitution of India are follows:

(a) To abide by the constitution and respect its ideal and institutions, the National Flag and the National Anthem,

(b) To cherish and follow the noble ideals that inspired the national struggle for freedom,

(c) To uphold and protect the sovereignty, unity and integrity of India,

(d) To defend the country and the render national service when called upon to do so,

(e) To promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities and to renounce practices derogatory to the dignity of women,

(f) To value and preserve the rich heritage of the country's composite culture,

(g) To protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures,

(h) To develop scientific temper, humanism and the spirit of inquiry and reform,

(i) To safeguard public property and to abjure violence,

(j) To strive towards excellence in all spheres of individual and collective activity so that the national constantly rises to higher levels of Endeavour and achievement.

(k) To provide opportunities for education to his child or ward between the age of six and fourteen years. (added by the 86th constitutional Amendment Act, 2002). These fundamental duties were added in Constitution on the recommendation of Swaran Singh Committee (42nd Constitutional Amendment 1976).

12. (a)

G.V. Mavalankar was the first speaker of the Indian Parliament. On 15 May 1952, after the first general elections in independent India, Mavalankar who was representing Ahmedabad for Congress was elected as the Speaker of the first Lok Sabha while Rajendra Prasad was the first President of India. And B.R. Ambedkar was India's first minister of law & justice, and considered as the chief architect of the Constitution of India.

13. (b)

Part III of the Constitution provides for legal remedies for the protection of these rights against their violation by the state or other institution/individuals. The right to Constitutional Remedies gives the citizens the right to approach the Supreme Court or the High Court to get any fundamental right restored in case they are violated. Dr. Ambedkar considered the Right to Constitutional Remedies as the 'heart and soul of the Constitution.

14. (d)

The 73rd and 74th constitutional amendment Act reserved one-third of all seats in Panchayats and urban local bodies for women which includes number of seats reserved for women belonging to SCs and STs. In all Panchayati institutions, not less than one third of the total number of seats reserved, shall be reserved for women belonging to the Scheduled Castes or, as the case may be, the Scheduled Tribes. Reservation of women in Panchayati Raj institution is provided by Article 243(d) of constitution of India.

15. (a)

Article 356 of the Indian Constitution provides for President's rule. Accordingly, it should be known to the President that if the government of a state is not being run according to the Constitution, then he can impose President's rule. With the imposition of President's rule, the government and legislature of the state will be dissolved, the governor will govern as the representative of the President and all the legislative and financial functions of the state will be done by the Parliament of the Union. **Hence, the budget of the state under President's rule will be presented in the Lok Sabha.**

16. (c)

Constitutional bodies in India are established and mentioned by the Constitution of India. They get there authority and power from Constitution itself. Any change in these bodies functioning and working mechanisms require an amendment to the Constitution. Election Commission of India, Union Public Service Commission, Attorney General of India, Comptroller and Auditor General of India, SC and ST Commission and OBC Commission etc are the Constitutional bodies.

17. (b)

A Galaxy is a huge system of billions of stars and clouds of dust and gases. There are millions of such galaxies that make the universe. The milky way is the galaxy that includes our solar system.

18. (d)

Some major straits of the world.

Strait	Connects	Location
Dover Strait	English Channel and North Sea	England-France
Bering Strait	Bering Sea and Chuksi sea	Alaska (US) - Russia

Palk Strait	Palk Bay and Bay of Bengal	India-Sri Lanka
Magellan Strait	Pacific Ocean and South Atlantic Ocean	Chile
North Channel	Irish Sea and Atlantic Ocean	Ireland-England
Florida Strait	Gulf of Mexico and Atlantic Ocean	USA-Cuba

19. (b)

Seven largest countries in the World are (by area) :–

Country

1. Russia 2. Canada 3. China 4. United States
5. Brazil 6. Australia 7. India

Note- Vetican city is the smallest country in the world.

20. (c)

India shares its land borders with seven countries: Pakistan and Afghanistan in the northwest, China , Nepal, and Bhutan in the North and Myanmar and Bangladesh in the east. Towards the south, India has two neighbouring island countries : Sri Lanka and Maldives.

S.N.	Name of the country :	Length of the border (in km)
1.	Bangladesh	4,096.7
2.	China	3,488
3.	Pakistan	3,323
4.	Nepal	1,751
5.	Myanmar	1,643
6.	Bhutan	699
7.	Afghanistan	106
Total		15,106.7

21. (c)

Nathula Pass– Nathu La is a mountain pass in the Dongkya Range of the Himalayas between China's Yadong County in Tibet, and the Indian states of Sikkim and West Bengal in Bengal, South Asia.

Mana Pass– Mana Pass is one of the highest vehicle-accessible passes in the world. It connects Uttarakhand-Tibet and is known for landslides.

Baralacha Pass– Bara-lacha pass is a high mountain pass in Zanskar range, connecting Lahaul district in Himachal Pradesh to Leh district in Ladakh.

Debsa Pass– Debsa Pass is a 5,360-metre-high mountain pass in the Himalaya mountains between the Kullu and Spiti Districts of Himachal Pradesh, India.

22. (d)

The Ganga rises in the Gangotri glacier near Gaumukh. Here, it is known as the Bhagirathi. At Devprayag, the Bhagirathi meets the Alaknanda; hereafter, it is known as the Ganga. The Alaknanda has its source in the Satopanth glacier above Badrinath not Kedarnath. The Ganga enters the plains at Haridwar. Hence, option (d) is the right answer.

23. (c)

The Black soil also known as Regur soil is considered highly suitable for cultivation of cotton crops, therefore it is also known as cotton soil. This soil is mainly found in Deccan trap. It is rich in humus and contains a high percentage of phosphoric acid, phosphorus and ammonia.

24. (c)

The Majhgawan mine located in Panna, Madhya Pradesh is the only mine in the country involved in the industrial scale mining of diamonds. Other diamond mines in India are-

Golkonda (Andhra Pradeh)

Kolur mine (Andhra Pradesh) etc.

25. (a)

State	Tribes
Uttarakhand	Bhotias, Buksa, Jaunsari, Khas, Raji, Tharu.
Rajasthan	Bhils, Damaria, Dhanka, Meenas (Minas), Patelia, Sahariya.
Maharashtra	Warlis, Bhaina, Katkari, Bhunjia, Rathawa, Dhodia.
Madhya Pradesh	Kharia, Bhils, Murias, Birhors, Baigas, Katkari, Kol, Bharia, Gonds.

26. (a)

The Fifth Five Year Plan (1974-79)

The fifth five year plan was prepared and launched by D.P. Dhar with objectives of removal of poverty (Garibi Hatao) and attainment of self-reliance. Promotion of high rate of growth, better distribution of income and significant growth in domestic rate of savings were seen as key instruments. However, this plan was terminated one year before the plan period (in 1978).

27. (c)

The SIDBI (Small Industries Development Bank of India) is a wholly-owned subsidiary of IDBI (Industrial Development Bank of India). It is established under the Special Act of the Parliament 1988 which became operative from April 2, 1990. SIDBI is the Principal financial Institution engaged in promotion, financing and development of the Micro, Small and Medium Enterprises (MSMEs) sector and coordination of the functions of the various institutions engaged in similar activities. Its headquarters as is situated in Lucknow, Uttar Pradesh.

28. (c)

BSE SENSEX, first compiled **in 1986** was calculated on a 'Market Capitalization Weighted' methodology of **30 component** stocks representing large well established and financially sound companies across key sectors. Since **September 1, 2003** S & P **BSE SENSEX** is being calculated on a **free float market capitalization**. SENSEX is a stock market index of 30 well-established and financially sound company.

29. (c)

Density of population is defined as the number of persons per square km. The population density of India in 2011 was 382 per square km.

Bihar – 1106 /km^2

Uttar Pradesh – 829 /km^2

West Bengal – 1028 /km^2

Madhya Pradesh – 236 /km^2

30. (c)

'Solung' is the most popular festival of the Adi Tribe of Arunachal Pradesh which is celebrated on September 1 every year. It is a harvest festival performed after sowing of seeds and transplantation, to seek prosperity and a good harvest.

31. (c)
'Darshana Jhaveri' is not an Odissi Dancer. She is a leading Indian exponent of Manipuri dance an Indian classical dance form.

32. (b)

Ustad Amjad Ali Khan	Sarod
Pt. Hariprasad Chaurasia	Flute
Ustaad Bismillah Khan	Shehnai/Clarinet
Shivkumar Sharma	Santoor
Pt. Ravishankar	Sitar
Kishan Maharaj	Tabla
V. Balsara	Piano
N. Rajan	Violin

33. (c)

Books	Author
Poverty and Famines	Amartya Sen
Poverty of India	Dadabhai Naoroji
On Economic Inequality	Amartya Sen
Resources, values and development	Amartya Sen

34. (d)
Rabinadranath Tagore was the 1st Indian as well as the 1st Asian to be awarded with Nobel Prize in literature in 1913 (in recognition of his work Gitanjali).

35. (d)
The first Winter Games were held in 1924 in Chamonix, France, but they were originally called "Winter sports week".

36. (c)
The commercial unit of electrical energy is kilowatt hour.
One kilowatt hour
$= 1000W \times 1$ hour
$= 1000 \times 3600$
$= 3.6 \times 10^6$Joule

37. (b)
Kepler's laws are three laws of planetary motion discovered by Johonnes Kepler.
Kepler's three laws of Planetary Motion can be stated as follows.
1. The planets moved about the sun in elliptical orbits having the Sun as one of the foci.
2. A radius vector joining any planet to the Sun sweeps out equal areas in equal lengths of time.
3. The squares of the sidereal periods (of revolution) of the planets are directly proportional to the cubes of their mean distances from the Sun.

i.e. $\boxed{T^2 \propto a^3}$

38. (a)
Laws of resistors in series –
- Current through each resistance is same
- Total voltage across the combination = Sum of the voltage drops
- Voltage drop across any resistor is proportional to its resistance.
- Equivalent resistance = Sum of all individual resistance.
- Equivalent resistance is larger than the largest individual resistance.

Laws of resistance in parallel –
- Voltage across each resistance is same and is equal to the applied voltage.
- Total current = sum of the currents through the individual resistance.
- Currents through various resistance are inversely proportional to the individual resistances.
- Reciprocal of equivalent resistance = sum of reciprocals of individual resistance
- Equivalent resistance is less than the smallest individual resistance.

39. (d)
The transformer is a stationary device acting on the principle of electromagnetic induction, which transfer electrical energy from one circuit to another at the same frequency. It changes the level of voltage and current.

40. (d)
A bulb filament is made of a strong metal with high melting point. The filament of an electric bulb is made of tungsten because it has some amazing properties including the highest melting point (34220° C), lowest vapour pressure and greatest tensile strength.

41. (a)
The following statement is true with respect to substance -
- The force of attraction presents between the particles of the substance by which they are bonded to each other.
- The particles of matter move continuously in fluid and air.
- Matter is made up of particles
- There is a inter molecular space between particles of matter.

42. (b)
The outermost shell of lithium, sodium, and potassium elements has only one electron. The electron present in the outermost orbit of any atom is called a valence electron. Whereas the electron present in the inner orbits of an atom is called core electron. The distribution of electrons in orbits and orbitals is called the electronic configuration of an atom.
Electronic configuration of $_3Li - {}_1s^2, {}_2s^1$
Electronic configuration of $_{11}Na\text{-}1s^2, {}_2s^2, {}_2p^6, {}_3s^1$
Electronic configuration of $_{19}K\text{-}1s^2, {}_2s^2, {}_2p^6, {}_3s^2, {}_3p^6, {}_3s^1$

43. (b)
Acids form hydrogen ions (H^+) in a liquid state. Its pH value is less than 7.0. Bransted and Laurie state that acid is the chemical compound that gives hydrogen ion (H^+) to the repulsive compound (alkali). The acid is sour in taste.
Hence option (b) is not true about acids.

44. (a)
The classification of elements in the modern periodic table is based on their atomic numbers. According to the rule of modern periodic table presented by Mozley, "the properties of elements are a periodic function of their atomic numbers." This means that a regular difference in the way elements are arranged in horizontal rows by an increasing order of their atomic numbers. This leads to repetition of qualities, ie, recurrence of properties.

45. (a)
Nitrogen is usually filled into electric bulbs as an inert gas. Nitrogen gas was discovered by Rutherford in 1772. The highest amount of nitrogen gas is found in the atmosphere (78%). This gas is stored as a protein in animals and flora. It is used in industries to make nitric acid and ammonia.

46. (c)
Viticulture is the cultivation of grapes.
Vegetable cultivation → Olericulture
Cultivation of flowers → Floriculture

47. (c)
The complete form of RNA is ribonucleic acid. RNA is a polymeric molecule composed of one or more nucleotides. A nucleotide contains one nitrogenous base, a ribose sugar and a phosphate radical. It contains uracil in place of pyrimidine thiamine.

48. (a)
Warm-blooded animals are defined as the animals which can regulate and maintain constant internal body temperature.They can survive in any temperature range as they can adapt to it easily. They are known as Homoiothermous.

49. (a)
Platelets, or thrombocytes, are small, colorless cell fragments in our blood that form clots and stop or prevent bleeding. Platelets are made in our bone marrow, the sponge like tissue inside our bones.

50. (d)
The ECG senses the electrical forces generated by the heart.

51. (c)
Let 4 consecutive numbers are n, (n+1), (n+2) and (n+3) respectively.
According to the question,
The Product of four consecutive numbers
= n(n+1)(n+2)(n+3)
Where n = 1,2,3,…….
Putting n = 1,
Product of numbers,
= 1 (1+ 1) (1+ 2) (1 + 3)
= 1 × 2 × 3 × 4 = 24
Putting n = 2,
Product of numbers,
= 2×3×4×5 = 24 × 5 = 120
Hence, the product of 4 consecutive numbers is always divisible by 24.

52. (b)
According to the question :-
0.232323....

$$= 0.\overline{23}$$

$$= \frac{23}{99}$$

53. (d)
The largest six-digit number is 999999
The smallest six-digit number is 100000
∴ Required difference = 999999 – 100000 = 899999

54. (d)
Let the number = x
According to the question,

$$\frac{4}{5}x - \frac{3}{4}x = 12$$

$$\frac{16x - 15x}{20} = 12$$

$$x = 240$$

Hence the number is 240.

55. (d)
From question :-

$$\frac{31}{2.5} = \frac{31\times10\times4}{2.5\times10\times4} = \frac{1240}{100} = 12.4$$

Hence, the decimal expansion ends after one decimal place

56. (c)
The required interval of x = $0.799995 \le x < 0.800005$

57. (c)
Given,

$$\frac{A}{\sqrt{512}} = \frac{\sqrt{162}}{A}$$

$$A^2 = \sqrt{8\times8\times8}\times\sqrt{9\times9\times2}$$

$$A^2 = \sqrt{8\times8\times8\times9\times9\times2}$$

$$A = 8 \times 9 \times 4$$

$$A = 288$$

58. (d)

$$\frac{4}{11}\times\frac{121}{16}\times24\left(75^2-55^2\right)\frac{1}{100}$$

From BODMAS,

$$=\frac{11}{4}\times24\left[\left(75+55\right)\left(75-55\right)\right]\times\frac{1}{100}$$

We know that, $\left[\because a^2-b^2=\left(a+b\right)\left(a-b\right)\right]$

$$=66\times\left(130\times20\right)\times\frac{1}{100}$$

$$=66\times2600\times\frac{1}{100}$$

$$=1716$$

59. (b)
Let the maximum marks of the first exam be x.
And the obtained marks = y
According to the first condition,

$$\frac{y}{x} = \frac{70}{100}, \quad y = \frac{7x}{10}$$

According to the second condition,

$$\frac{y+20}{x+25} = \frac{78}{100}$$

$$\frac{7x+200}{x+25} = \frac{78}{10}$$

$$70x + 2000 = 78x + 1950$$

$$8x = 50$$

$$x = 6.25$$

Therefore, maximum marks = 6.25

60.(d)
Let the cost price of TV = ₹ 100
Then the cost price of washing machine = ₹ 60
Total cost price of 5 washing machine and 2TV
= (5 × 60 + 2 × 100) = ₹ 500

Cost price of TV after conversion $= 100\times\frac{90}{100} =$ ₹ 90

Cost price of washing machine after conversion

$$= \frac{60 \times 118}{100} = ₹\ 70.8$$

Total cost price of 5 washing machine and 2TV's after conversion = (5 × 70.8 + 90 × 2) = ₹ 534

Difference = 534 – 500 = ₹ 34

Hence, increasing in percentage $= \frac{34}{500} \times 100 = 6.8\%$

61. (b)

Formula- for such cases,

$$\text{Decrease \%} = \left(\frac{x}{100+x}\right) \times 100$$

Given- Growth = 10%

So, decrease % in 10% consumption,

$$= \left(\frac{10}{100+10}\right) \times 100$$

$$= \frac{1}{11} \times 100 = 9\frac{1}{11}\%$$

62. (a)

On selling Biru $\rightarrow$ SP $= x \times \frac{85}{100} = \frac{17x}{20}$

After expense incurred by Biru on transportation cost price of article for Biru $\left(\frac{17x}{20} + 126\right)$

According to the question

Cost price of article for Meenu $\rightarrow \left(\frac{17x + 2520}{20}\right) \times \frac{125}{100}$

$= ₹\ 1475$

$17x = 295 \times 80 - 2520$

$17x = 23600 - 2520$

$17x = 21080$

$\therefore \quad x = ₹\ 1240$

63. (d)

By first condition,

Cost price of 3 oranges of first type = ₹1

$\therefore$ Cost price of 6 oranges of first type $= \frac{1}{3} \times 6 = ₹\ 2$

By second condition,

Cost price of 2 oranges of second type = ₹1

$\therefore$ Cost price of 6 oranges of second type $= \frac{1}{2} \times 6 = ₹\ 3$

Total cost price of 12 oranges = 2 + 3 = ₹ 5

Cost price of 12 oranges to earn a profit of 20%

$$= 5 \times \frac{120}{100} = ₹\ 6$$

64. (d)

Total discount given by shop I

$$= 100 - \left(\frac{100-20}{100} \times \frac{100-15}{100} \times 100\right) = 32\%$$

Total discount given by shop II

$$= 100 - \left(\frac{100-18}{100} \times \frac{100-17}{100} \times 100\right) = 31.94\%$$

Total discount given by shop III

$$= 100 - \frac{100-25}{100} \times \frac{100-10}{100} \times 100 = 32.5\%$$

Total discount given by shop IV

$$= 100 - \left\{\left(\frac{100-15}{100}\right) \times \left(\frac{100-15}{100}\right) \times \left(\frac{100-5}{100}\right) \times 100\right\}$$

= 100 – 68.63

= 31.36%

It is clear from the above explanation that shop III gives maximum discount, therefore shop III is selling the cooker at the lowest price.

65. (d)

Let,

Their income are 7x and 5x

and expenditure =9y, 7y

$\because$ Income = Expenditure + Savings

$\therefore$ According to the question,

$7x - 9y = 1700$ ……..(i)

$5x - 7y = 1100$ ……..(ii)

From equation (i) and (ii)-

$$\begin{array}{r} 49x - 63y = 11900 \\ -\ 45x + 63y = 9900 \\ \hline 4x = 2000 \end{array}$$

$\Rightarrow x = 500$

Then corresponding income of each person,

$7x = 7 \times 500 = 3500$

$5x = 5 \times 500 = 2500$

66. (c)

Let numbers are 3x and 5x

$$\therefore \frac{3x+10}{5x+10} = \frac{5}{7}$$

$21x + 70 = 25x + 50$

$4x = 20$ or $x = 5$

$\therefore$ Smallest number = 3x= 3 × 5 = 15

67. (b)

The ratio of investment ratio of X, Y and Z =

8000 × 3 : 10000 × 3 : 6000 × 2.5

24000 : 30000 : 15000

8 : 10: 5

Profit = ₹9660

Share of Z profit· $\frac{5}{8+10+5} \times 9660 = \frac{5}{23} \times 9660 = ₹2100$

68. (c)

Given,

Rate = r% Time (t) = 3 years

If rate is (r+2)% then interest fetched ₹84 more

$$\text{Simple Interest} = \frac{P \times R \times T}{100}$$

According to the question,

$$\frac{P \times (r+2) \times 3}{100} - \frac{P \times r \times 3}{100} = 84$$

$$\frac{3P}{100}(r + 2 - r) = 84$$

$6P = 8400$

$P = 1400$

Hence, Sum invested = ₹ 1400

69. (a)

Let time be T years

Given,

$P_1 = ₹\ 80{,}000$ $P_2 = ₹\ 91{,}000$

$R_1 = 24\%$ $R_2 = 20\%$

According to the question,

$$P_1 + \frac{P_1 \times R_1 \times T}{100} = P_2 + \frac{P_2 \times R_2 \times T}{100}$$

$$80000 + \frac{80000 \times 24 \times T}{100} = 91000 + \frac{91000 \times 20 \times T}{100}$$

$$19200\,T - 18200\,T = 91000 - 80000$$

$$1000\,T = 11000$$

$$T = 11 \text{ years}$$

70. (b)

Let Amount = A

According to the question,

$A_2 - A_1 = 4544$

$$\Rightarrow P\left(1+\frac{R_2}{100}\right)^{t_2} - P\left(1+\frac{R_2}{100}\right)^{t_1} = 4544$$

$$\Rightarrow P\left(1+\frac{20}{100}\right)^{4} - P\left(1+\frac{40}{100}\right)^{2} = 4544$$

$$\Rightarrow P\left(\frac{6}{5}\right)^{4} - P\left(\frac{7}{5}\right)^{2} = 4544$$

$$\Rightarrow \frac{1296P}{625} - \frac{49P}{25} = 4544$$

$$\Rightarrow \frac{1296P - 1225P}{625} = 4544$$

$$\Rightarrow 71P = 4544 \times 625$$

$$\therefore P = \frac{4544 \times 625}{71}$$

Hence, P = ₹ 40000

71. (b)

Let the average marks of 19 students = x

$$\text{Now, } \frac{\text{student}_1 + \text{student}_2 + ----+\text{student}_{19}}{19} = x$$

$\Rightarrow \text{student}_1 + \text{student}_2 + \text{-----}+\text{student}_{19} = 19x$ ---- (i)

After including new student–

$$\frac{\text{student}_1 + \text{student}_2 + ----+\text{student}_{20}}{20} = x + 1.5$$

$\text{student}_1 + \text{student}_2 + \text{-----}+\text{student}_{20} = 20x + 30$ --- (ii)

By subtracting equation (i) from equation (ii),

$\text{student}_{20} = 20x + 30 - 19x = x + 30$

It is clear that the student included in the group has scored 30 marks more than the average marks.

72. (c)

Let Devesh's usual speed = x km/hr

Total time taken by Devesh to reach office from his home = 8:30 – 7:00 = 1hour 30 minutes

Distance = Speed × Time

$$= x \times \frac{3}{2}\text{km}$$

According to the question,

Speed to cover $\left(\frac{3x}{2} \times \frac{1}{5}\right)$km distance = $\frac{5x}{6}$km/hr

Remaining distance = $\frac{3x}{2} - \frac{3x}{10} = \frac{12x}{10}$ or $\frac{6x}{5}$km

Speed to cover $\frac{6x}{5}$km = $\frac{6x}{5}$km/hr

Suppose the time taken by Devesh to reach office = t hour.

$$\frac{\frac{3x}{10}}{\frac{5x}{6}} + \frac{\frac{6x}{5}}{\frac{6x}{5}} = t$$

$$\frac{18}{50} + 1 = t$$

$$t = \frac{34}{25} \text{ hours}$$

= 1 hour 21 minutes (approximately)

Therefore, that day Devesh reach office approximately Morning 8 : 21 am

73. (c)

Let the man covers D km. distance to reach the office.

According to the question,

$$\frac{10}{40} + \frac{(D-10)}{50} = t \quad \text{.....(i)}$$

and

$$\frac{10}{50} + \frac{(D-10)}{40} = t + 0.5 \quad \text{.....(ii)}$$

From equation (ii) - equation (i),

$$\frac{10}{50} + \frac{D-10}{40} - \frac{10}{40} - \frac{D-10}{50} = t + 0.5 - t$$

or $$\frac{1}{5} + \frac{D-10}{40} - \frac{1}{4} - \frac{D-10}{50} = 0.5$$

$$\frac{40 + 5D - 50 - 50 - 4D + 40}{200} = 0.5$$

$$D - 20 = 100 \qquad \boxed{D = 120\,\text{Km}}$$

74. (a)

Given that -

Speed of first

Person = 15 m/s

Speed of second person = 35 m/s

Let speed of the train = X m/s

and length of the train = Lm.

According to the question,

(X – 15) = L/20

L = 20X – 300..... (i)

(X – 35) = L/40

L = 40X – 1400 ..... (ii)

eq. (i) = eq. (ii)

20X – 300 = 40X– 1400

20X = 1100

X = 55 m/s

On putting the value of X in eq. (i)

L = 20 × 55 – 300

L = 1100 – 300

L = 800 m

75. (c)

Let the speed of the train be x km/h and the time has taken by t hour.

Total distance = xt km

Case- I

Speed increases by 12 km/h and the time taken reduces by 8 hours.

Then distance = (x + 12) (t – 8)

$\Rightarrow$ xt = (x + 12) (t – 8)

$\Rightarrow$ xt = xt – 8x + 12t – 96

$\Rightarrow$ –8x + 12t = 96 ..... (i)

Case- II

Speed deceases by 12 km/h and the time taken increases by 12 hours

Then distance = (x – 12) (t + 12)

$\Rightarrow$ xt = (x – 12) (t + 12)

$\Rightarrow$ xt = xt + 12x – 12t – 144

$\Rightarrow$ 12x – 12t = 144 ..... (ii)

From eq (i) and (ii) -

x = 60

On putting the value of x in equation (i)

Then t =48

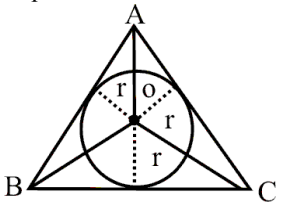
Hence, the length of the journey = xt

= 60 × 48

= 2880 km

76. (a)

According to the question :-



Area of ΔABC = Area of ΔOBC + Area of ΔOAC + Area of ΔOAB

$$= \frac{1}{2}\times r\times BC + \frac{1}{2}\times r\times AC + \frac{1}{2}\times r\times AB$$

$$= \frac{1}{2}\times r\times (BC + AC + AB)$$

$$= \frac{1}{2}\times 3.5\times 28 = 49 \text{ cm}^2$$

77. (a)

Let the radius of circle = x

Increase % in area of the circle

$$= \left(2x + \frac{x^2}{100}\right)\%$$

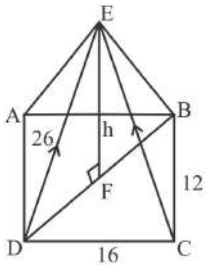
$$= \left(2\times 5 + \frac{(5)^2}{100}\right)\%$$

$$= (10 + 0.25)\%$$

$$= 10.25\%$$

78. (a)

As per question,



Diagonal of rectangle

$$= \sqrt{(16)^2 + (12)^2} \Rightarrow \sqrt{400} = 20 \text{ cm}$$

We draw the perpendicular from the vertex E at the base of the pyramid which is at point F, the height of the pyramid is h and the hypotenuse is 26 cm.

$$\text{Height (h)} = \sqrt{(26)^2 - (10)^2} = \sqrt{576} = 24 \text{ cm}$$

$$\text{Volume of pyramid} = \frac{1}{3}\times \text{Area of base} \times \text{height}$$

$$= \frac{1}{3}\times 16\times 12\times 24$$

$$= 1536 \text{ cm}^3$$

79. (d)

Percentage growth in year 2020

$$= \frac{190-145}{145}\times 100 = \frac{4500}{145} = 31.03\%$$

Percentage growth in year 2017 =

$$= \frac{85-75}{75}\times 100 = \frac{10}{3}\times 4 = 13.33\%$$

Percentage growth in year 2019 =

$$= \frac{145-125}{125}\times 100 = \frac{20}{5}\times 4 = 16\%$$

Percentage growth in year 2018

$$= \frac{125-85}{85}\times 100$$

$$= \frac{40}{85}\times 100$$

$$= 47.05\ \%$$

Hence, in year 2018 has the maximum percentage growth in the loan disbursement over the previous years.

80. (d)

The smallest number of three digits divisible by 8 is 104 and largest number = 992

l = a + (n –1) d

Where, first term (a) = 104

Last term (l) = 992

Common difference (d) = 8

Number of terms (n) = ?

l = 104 + (n – 1) × 8

992 = 104 + 8n – 8

8n = 992 – 96

8n = 896

n = 112

Hence there are 112 three digits numbers which are divisible by 8.

81. (b)

Let the number of boys = 8

the number of girls = $8\times\frac{3}{4}=6$

According to the question,

Number of girls like mange juice = $6\times\frac{2}{3}=4$

Number of boyslike mango juice = $8\times\frac{1}{2}=4$

Required fraction = $\frac{4+4}{8+6}=\frac{8}{14}=\frac{4}{7}$

82. (a)

Total number of students = 360

100% = 360

1%=3.6

Total number of students who scored Grade A and Grade B = 30%

$\therefore$ 30% = 108

83. (c)

Given as,

919 + 9.019 + 0.919 + 9.0019

= 919 + 18.9399

= 937.9399

84. (c)

On adding 69 to the number 1780 it will be 1849, which is a perfect square number.

Thus-

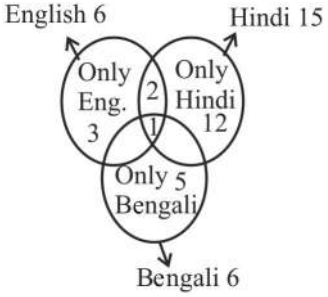
1780 + 69 = 1849

1849 = 43 × 43

$(43)^2 = 1849$

85. (c)

According to the question :-



Total number of students in class = 3 + 2 + 12 + 5 + 1

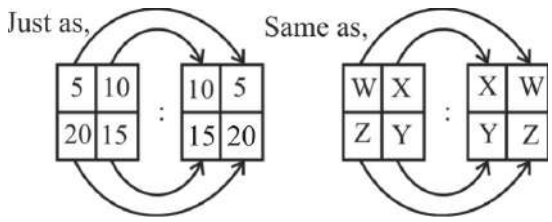
= 23

86. (d)

Just as, Mason builds home. Similarly, Mechanic repairs mechanical equipments.

87. (b)

From question,



88. (d)

Just as,

P L A T E

↓ ↓ ↓ ↓ ↓

16 + 12 + 1 + 20 + 5 = 54 $\xrightarrow{\text{Reverse}}$ 45

and,

B L E A K

↓ ↓ ↓ ↓ ↓

2 + 12 + 5 + 1 + 11 = 31 $\xrightarrow{\text{Reverse}}$ 13

Same as,

P A S T E

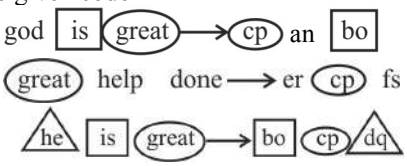
↓ ↓ ↓ ↓ ↓

16 + 1 + 19 + 20 + 5 = 61 $\xrightarrow{\text{Reverse}}$ 16

Hence, PASTE code is 16.

89.(d)

From the given code –



Hence, he → dq

god → an

is → bo

'he is god' will be represented by 'an bo dq'.

90. (c)

Window, door and shutter is related to house, whereas rack is different to this group.

Hence, option (c) is different from the groups.

91. (d)

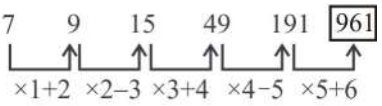
According to the question, correct group are as follows-

(9, 3, 6), (2, 4, 7) and (1, 5, 8)

Hence, option (d) is correct.

92. (c)

The given series is as follows-



Hence, ? = 961

93. (d)

Answer figure A will be next figure in the picture series. So option (d) is correct.

94. (d)

Just as,

$14\times(8)^2 = 896$

And,

$12\times(6)^2 = 432$

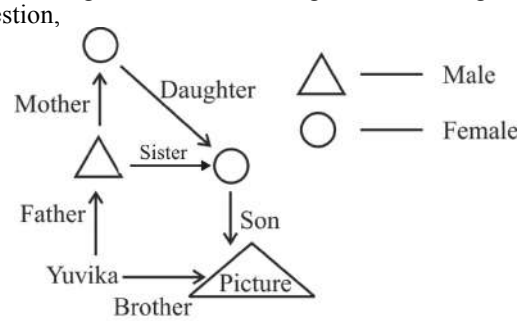
Same as,

$18\times(5)^2 = \boxed{450}$

In this, the square of the number made up of one digit is multiplied by the given two digit number to get the third number.

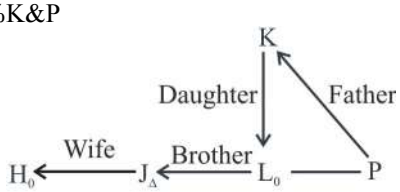
95. (d)
Answer figure A will replace the question mark. So, option (d) is correct.

96. (c)
On drawing blood relation diagram According to the question,



Hence, the boy is the cousin of Yuvika or the son of the father's sister.

97. (c)
On drawing blood relation diagram according to the question,
From option (c) -
H@J$L%K&P



Hence, it clear that H's husband's father is K or K is father-in-law of H.

98. (d)
Given,

$Q \rightarrow +,\ J \rightarrow \times,\ T \rightarrow -,\ K \rightarrow \div$

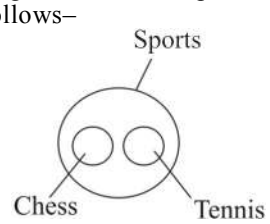
Then, 52 K 4 Q 6 J 12 T 8
$= 52 \div 4 + 6 \times 12 - 8$
$= 13 + 6 \times 12 - 8$
$= 13 + 72 - 8$
$= 85 - 8$
$= 77$

99. (b)
According to question,

$\times \leftrightarrow \div$
$6 \leftrightarrow 9$

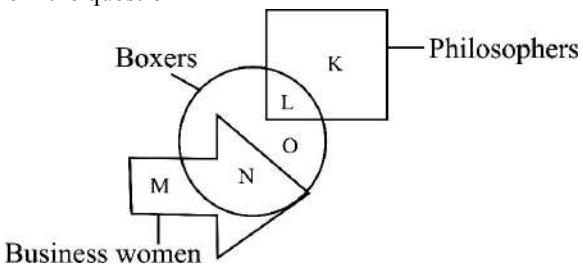
From option (b)-
$69 \times 12 \div 96 = 552$
On interchanging the signs and numbers,
$96 \div 12 \times 69 = 552$
$8 \times 69 = 552$
$552 = 552$
Hence, option (b) will be correct answer.

100. (b)
The Venn diagram relationship between the given classes is as follows–



Chess and Tennis both come under sports. Hence, option (b) is correct.

101.(a)
From the question –

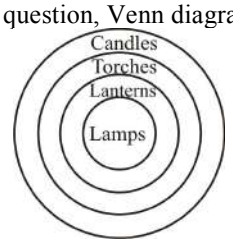


Letter 'N' represents boxers who are not men.

102. (d)

According to the question–	
Travelling month	**Persons**
January	Dilshan
March	Fatima
May	Aditya
July	Easter
September	Chhaya
November	Binod
Hence, it is clear that Aditya travelled in May.	

103.(c)
According to the question, Venn diagram is as follows:–



Conclusion :–
I. (✓)
II. (×)
III. (×)
Hence, it is clear from above that only conclusion I follows.

104. (c)
Only conclusion I follows to the given statement. Hence, option (c) is correct.

105. (b)
According to the statement, the students who passed the exam described the exam's question as extremely difficult and long, which can lead to low marks in their results. The statement only talks about the question paper being difficult and lengthy, not the question paper having out of syllabus questions. Hence, only conclusion I follows the statement.

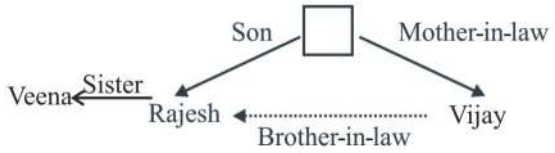
106. (a)
According to the statement Argument II weakens, while argument I strengthens the statements.

107. (c)
Employee retention is a phenomenon where employees choose to stay with their current company and don't actively seek other job prospect. Employee Retention strategies-
(1) Reward and Recognition
(2) Great work environment
(3) Fair compensation and Benefits
(4) Growth opportunities etc.
Hence, Both assumption I and II are implicit.

108. (d)
There are only two days left for Rahul's project to end, and he hasn't started work on it yet. Thus conclusion (ii) and conclusion (iii) will follow the given statement.

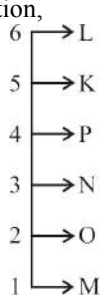
109. (a)
The weight of X is less than T and U and the weight of U is twice as compared to T,
from statement 1,
T, U > X
weight of U is twice of T. This implies that,
U > T > X ..... (1)
from statement 2,
X > Y, V ..... (2)
(1) and (2) together in descending order will be,
U > T > X > Y, V
when weight are arranged in descending order from the beginning, T will come in second place. So both statements 1 and 2 are sufficient.

110. (d)
From statement 1:



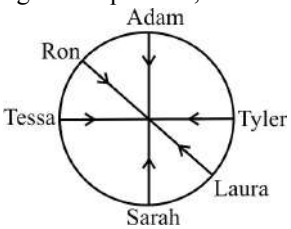
The data given in statement I is sufficient to answer the question whereas in statement II the relation between Veena and Rajesh is stated and there is no mention of Vijay.

111. (b)
According to the question,



Hence, It is clear from above that K lives on floor number 5.

112. (b)
According to the question,



Hence, it is clear that 'Tessa' is sitting to the immediate left of 'Sarah'.

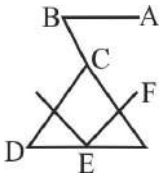
113.(d)
Given,
D & C N ^ Y T % @ G R I & * H K & Z $ P * ^
Hence, required number of consonant as per given question = 3.

114.(a)
On arranging the six friends according to the height,
U > R > Q > T > P > S
Hence, it is clear from above 'Q' is third tallest among all the friends.

115. (c)
The given question figure is made up of the shapes A, C and D.

116. (b)
Question figure given in the question,

Answer figure 'C' out of the given answer figures,



In order of like ABCDEF. So, option (b) is correct.

117. (b)
Just as, house is related to home. Same as, fault is related to sad.

118.(a)
Just as,

H I S T O R Y		C I V I C S
↓ ↓ ↓ ↓ ↓ ↓ ↓	And	↓ ↓ ↓ ↓ ↓ ↓
7 3 2 6 8 4 5		1 3 5 3 1 2

Similarly,
VISITOR = 5323684

119. (d)
The given series is made up of square of prime numbers
$2^2, 3^2, 5^2, 7^2, 11^2, 13^2$
Hence $2^2 = 4$ will be at the blank space

120. (c)
Given,
E → + F → ×
G → ÷ H → –
81 H 1G 17 F 102 G 6 F 34 H 6 (original term)
= 81 – 1 ÷ 17 × 102 ÷ 6 × 34 – 6 (The position after the symbol changed)

$$= 81 - \frac{1}{17} \times 102 \div 6 \times 34 - 6$$

$$= 81 - \frac{6}{6} \times 34 - 6$$

$$= 81 - 34 - 6 = 41$$

PRACTICE SET - 2

1. The Harappan city was found during the excavations on the banks of which river around the year 1920-21?
(a) Jhelum (b) Vyas
(c) Chenab (d) Ravi

2. Which Chinese scholar lived in Vijayawada to study Buddhist text.
(a) Dong Jahongshu (b) Juan Zhang
(c) Kui weeping (d) Dongfang Shuo

3. Sultan of Delhi, transferred his capital from Delhi to Daulatabad.
(a) Iltutmish
(b) Muhammad-bin-Tughlaq
(c) Akbar
(d) Gyasuddin balban

4. When did Nadir Shah invade India and sack Delhi?
(a) 1739 (b) 1761
(c) 1754 (d) 1765

5. When was Goa captured by the Portuguese?
(a) 1605 AD (b) 1590 AD
(c) 1510 AD (d) 1485 AD

6. Who wrote the famous novel 'Anandamath' during the Indian National Movement?
(a) Shachindra Sanyal
(b) Ravindra nath Tagore
(c) Bankimchandra Chattopadhyay
(d) Arvind Ghosh

7. Who was the founder of Homerule League movement?
(a) Sarojini Nayadu
(b) Annie Besant
(c) Josef Baptista
(d) Mohammad Ali Jinnah

8. Who was the founder of the Forward Block party?
(a) Subhas Chandra Bose
(b) Bipin Chandra Pal
(c) Sarat Chandra Bose
(d) Mahatma Gandhi

9. Which committee recommended that Fundamental Duties be included in the Constitution of India?
(a) JB Kripalani Committee
(b) Swarna Singh Committee
(c) AV Thakkar Committee
(d) HC Mookherjee Committee

10. According to _____, the parliament amended the Constitution (42nd Constitutional Amendment) and inserted 'Secular'. Socialist', and Integrity' in the preamble of the constitution.
(a) Article 358 (b) Article 359
(c) Article 368 (d) Article 366

11. The Fundamental Duties in the Indian Constitution were added by which amendment to the Constitution ?
(a) 42^{nd} (b) 43^{rd}
(c) 40^{th} (d) 41^{st}

12. Who acts as the chairman of joint sitting of Lok Sabha and Rajya Sabha.
(a) Senior most member of Rajya Sabha
(b) Loksabha speaker
(c) A nominated member by the President of India
(d) President of India

13. Which Article of the Constitution of India prohibits discrimination on the grounds of religion ?
(a) Article 14 (b) Article 17
(c) Article 16 (d) Article 15

14. Under which Article of the Indian Constitution is there a provision that "the Governor of a state shall at the expiration of every fifth year, constitute a Finance commission to review the financial position of the Panchayats and to make recommendations to this?
(a) 243X (b) 243 I
(c) 243 Y (d) 243H

15. Which among the following Articles of the Indian Constitution deals with Financial Emergency?
(a) Article 260 (b) Article 160
(c) Article 360 (d) Article 460

16. The National Consumer Disputes Redressal Commission (NCDRC) was established in the year _____under the Consumer Protection Act of 1986.
(a) 1987 (b) 1995
(c) 1991 (d) 1988

17. Our solar system is a part of which galaxy?
(a) Bode's (b) Andromeda
(c) Milky Way (d) Triangulum

18. The Bering Strait connects the:
(a) Indian Ocean and Java Sea
(b) Arctic Ocean and Pacific Ocean
(c) Mediterranean Sea and Atlantic Ocean
(d) Atlantic Ocean and Gulf of Hudson

19. Durand Line divides which two countries?
(a) Pakistan–China
(b) Afghanistan–Pakistan
(c) India – Bangladesh
(d) India–Nepal

20. The Radcliffe Line has become the international border between:
(a) India and Bangladesh (b) India and Pakistan
(c) India and Nepal (d) India and China

21. Which of the following is NOT a Himalayan Mountain Pass connecting Uttarakhand with Tibet ?
(a) Shipki La (b) Mana Pass
(c) Mangsha Dhura (d) Niti Pass

22. Which of the following rivers flows from east to west?
(a) Narmada (b) Mahanadi
(c) Krishna (d) Godavari

23. Which soil is well known for its capacity to hold moisture?
(a) Laterite soil (b) Arid soil
(c) Alluvial soil (d) Black soil

24. The Bokaro Steel Plant was set up in India in 1964 with ..... collaboration.

(a) Soviet Union (b) Britain
(c) Switzerland (d) Germany

25. Which multiplier theory states that the economy will flourish the more the government spends?
(a) Earning Multiplier
(b) Keynesian Multiplier
(c) Investment Multiplier
(d) Fiscal Multiplier

26. Which of the following Five-Year Plans was based on the Mahalanobis mode?
(a) Fourth Five-Year Plan
(b) First Five-Year Plan
(c) Third Five-Year Plan
(d) Second Five-Year Plan

27. What does the term ' bank rate' refer to?
(a) Rate if interest charged by a non-scheduled bank on its loans to individuals
(b) Rate of interest charged by a private sector bank on its loans to a commercial bank
(c) Rate of interest charged by scheduled commercial bank on its loan to a private sector bank
(d) Rate of interest charged by a central bank in its loans to a commercial bank

28. According to recommendations of which committee was NSE (National Stock Exchange) established in India?
(a) Rajesh Krishnan Committee
(b) Sri Krishna Committee
(c) Pherwani Committee
(d) Venkatachaliah Committee

29. According to the Census of India 2011 the decadal population growth rate of India for 2001-11 is approximately _____.
(a) 17.64% (b) 20.98%
(c) 12% (d) 14.8%

30. Which of the following festivals is associated with the state of Assam?
(a) Baisakhi (b) Bihu
(c) Onam (d) Pongal

31. Rechungma, Gha to Kito and Chi Rmu are the dance forms of _____.
(a) Sikkim
(b) Manipur
(c) Andaman and Nicobar Islands
(d) Goa

32. 'Cheriyal' a style of painting that has been in news recently, is unique to which state?
(a) Madhya Pradesh (b) Andhra Pradesh
(c) Telangana (d) Karnataka

33. Who wrote the book, 'Why I am Hindu'?
(a) Manmohan Singh (b) Shashi Tharoor
(c) Atal Bihari Vajpayee (d) Narendra Modi

34. Who among the following is NOT a Nobel Prize winner?
(a) Mahatma Gandhi (b) Kailash Satyarthi
(c) Rabindranath Tagore (d) Amartya Sen

35. Which of the following countries hosted the first Commenwealth Games in 1930?
(a) Australia (b) New Zealand
(c) Canada (d) England

36. The work done by a force acting on an object is equal to the amount of force multiplied by the distance travelled in the direction of the force. Which of the following is NOT a unit of work ?
(a) Kgm/sec^2 (b) Kgm^2/sec^2
(c) Newton meter (d) Joule

37. When a body is completely or partially immersed in a fluid, this body experiences a force equal to the weight of the displaced fluid, this principle is known as
(a) Pascal's law
(b) Archimedes' principle
(c) Stocks law
(d) Newton's law of motion

38. The potential difference between the terminals of an electric heater is 60V when it draw of current of 4A from the source. What current will the heater draw if the potential difference is increased to 127.5 V?
(a) 24 A (b) 10 A
(c) 8.5 A (d) 12 A

39. Which of the following devices converts chemical energy into electrical energy?
(a) transformer (b) battery
(c) electric generator (d) wheel

40. Which one of the following is NOT correctly matched?
(a) Penicillin - Alexander Fleming
(b) Electric bulb –Thomas alva Edison
(c) Smallpox Vaccine – Edward Jenner
(d) Telephone – John Logie Baird

41. Which of the following is a chemical change?
(a) Souring of Butter
(b) Making of dry ice from CO_2
(c) Heating a platinum wire
(d) Iron magnetization

42. The number of neutrons in an atom is equal to?
(a) Mass number
(b) Mass number - number of proton in atoms
(c) Atomic number
(d) Number of electrons

43. Which of the following is an alkali?
(a) $Cu(OH)_2$ (b) $Zn(OH)_2$
(c) NaOH (d) $Fe(OH)_3$

44. In the fourth period of the periodic table____ Elements are present?
(a) 8 (b) 38
(c) 28 (d) 18

45. Atomicity of phosphorus is -
(a) 3 (b) 4
(c) 5 (d) 7

46. What is Morphology?
(a) Study of insects
(b) Study of human development
(c) Study of the shape, structure and specific structural properties of the organism
(d) Study of interdependence of organism and environment

47. Which of the following statements is/are incorrect?
A. The complete name of DNA is deoxyribo-nucleic acid.
B. It is a chemical element present in a chromosome that carries genetic properties.
C. DNA is a polynucleotide, the nucleotide is the basic structural unit of DNA which consists of two components.
(a) C and B (b) A and C
(c) Only C (d) Only A

48. **Mammalian animals have ……. .**
(a) One chambered heart
(b) Four chambered heart
(c) Two chambered heart
(d) Three chambered heart

49. **Which of the following elements is part of heme (haem) of human blood?**
(a) Manganese (b) Iron
(c) Cobalt (d) Magnesium

50. **When a person can see only nearby objects, the condition is called?**
(a) Hypermetropia (b) Astigmatism
(c) Myopia (d) Retinopathy

51. **If 3 is added to each odd digit and 2 is subtracted from each even digit in the number 6452851, what will be difference between the largest and smallest digits thus formed?**
(a) 8 (b) 6
(c) 4 (d) 2

52. **Which of the following is not a rational number?**
$\sqrt{3^2+4^2}, \sqrt{12.96}, \sqrt{125}$ and $\sqrt{900}$
(a) $\sqrt{12.96}$ (b) $\sqrt{900}$
(c) $\sqrt{125}$ (d) $\sqrt{3^2+4^2}$

53. **The least number consisting of five - digit which is divisible by 97 is x. What is the sum of the digits of x?**
(a) 13 (b) 15
(c) 17 (d) 16

54. **If $\frac{1}{5}$ of a number multiplied by $\frac{2}{3}$ of the same number gives 480, then the number is?**
(a) 60 (b) 70
(c) 80 (d) 100

55. **Decimal expansion of $\frac{109}{100}$ is:**
(a) $1+\frac{0}{10}+\frac{9}{100}$ (b) $10+\frac{9}{100}$
(c) $1+\frac{9}{100}$ (d) $100+9+\frac{0}{100}$

56. **The least value of x which makes $\frac{65}{x-14}$ an integer, is:**
(a) 1 (b) –51
(c) 79 (d) –1

57. **If $\frac{x}{\sqrt{243}}=\frac{\sqrt{2187}}{x}$, and x is positive, then what is the value of x ?**
(a) 29 (b) 27
(c) 23 (d) 21

58. **Solve it**
$79 + [37 - \{45 - (1 - 36 \div 6 \times 8)\}] = ?$
(a) 33 (b) 24
(c) 59 (d) 41

59. **A student had got few marks from maximum marks probably. These marks were 75% as %. If one more question would be added of one mark in the exam then his obtained marks percentage would have 76%. What were the initial maximum marks of the exam?**
(a) 24 (b) 25
(c) 20 (d) 19

60. **A man's income at first increased by 20% and later on increased again by 30%. Find the total percent increase.**
(a) 58 (b) 54
(c) 60 (d) 56

61. **If a person's salary increases by 11% on first year and on second year decreases by 11%, then what will be the % change in his salary at the beginning of the third year with respect of the initial salary?**
(a) -1.21 (b) -1.23
(c) +1.21 (d) +1.22

62. **40% of the goods are sold at 2% loss while the rest of the goods are sold at 4% profit. If there is a total profit of ₹ 250, then the cost price of goods sold is:**
(a) ₹ 5,625 (b) ₹ 6,525
(c) ₹ 9,000 (d) ₹ 15,625

63. **Vikas buy 5 bananas for ₹4 and sells 4 bananas for ₹5. Find his profit%.**
(a) 55.56% (b) 53.25%
(c) 45.50% (d) 56.25%

64. **During a sale, a TV shop owner offers four different types of successive discounts for any consumer to choose from. Which of the following options will give the best possible price to the shop owner as a percentage of the marked price of an item?**
(a) 25% and 15% (b) 30% and 10%
(c) 35% and 5% (d) 20% and 20%

65. **The ratio of Sand and Macadam in a mixture is 41 : 30. While the mixture of Macadam and cement is 6 : 7. What is the ratio of sand and cement in the mixture?**
(a) 8 : 6 (b) 11 : 7
(c) 77 : 48 (d) 41 : 35

66. **The ratio of two number are 5 : 9. If 6 is added in both numbers then their ratio become 2 : 3. The original number are.**
(a) 25, 45 (b) 10, 18
(c) 15, 27 (d) 5, 9

67. **A, B and C invested capital in the ratio of 2:3:5. The time periods of their investments being in the ratio 4 : 5 : 6. In what ratio would the profits be distributed?**
(a) 08: 15: 20 (b) 05: 15: 30
(c) 08: 15:30 (d) 07: 15: 30

68. **A certain sum invested at 12% simple interest per annum after 5 years yields an interest of ₹19,200. What is the sum invested?**
(a) ₹ 28,000 (b) ₹ 30,000
(c) ₹ 32,000 (d) ₹ 38,000

69. **A sum of money amount to 3 time the original sum in 15 years. In how many years will the original sum amount to 5 times of itself at the same rate of simple interest.**
(a) 35 (b) 30
(c) 25 (d) 20

70. **Divide ₹20609 between A and B, such that the amount (in ₹) of A after 7 years is equal to the amount (in ₹) of B after 9 years, if the interest being compounded yearly at 3 % per annum.**

(a) **A** = ₹10,601, B = ₹10,008
(b) A = ₹10,609, B = ₹10,000
(c) A = ₹10605, B = ₹10,004
(d) A = 10,509, B = ₹10,000

71. The average weight of 14 students of a class is 20 kg. If a student leaves the class the average weight of the class drops by 2 kg. Find the weight of the student (in kg) who left the class.
(a) 43 (b) 49
(c) 45 (d) 46

72. At 3/4 of a usual speed, a person reaches his work-place 15 minutes late. Normally how many minutes does it take to reach the work place?
(a) 42 minute (b) 30 minute
(c) 45 minute (d) 60 minute

73. The distance between two points is travelled by the speed of 60 km/h while going and by 40 km/h during the return journey. If it took a total of 5 hours, then the distance between the two points on one side is:
(a) 120 km (b) 135 km
(c) 150 km (d) 180 km

74. A train running at a uniform speed crosses two people moving in the same direction in 6 seconds and 6.4 seconds respectively. First person speed was 4.5 km/hr and the second person speed was 6.3 km/hr. What was the speed of train in km/hr?
(a) 32.6 (b) 33.3
(c) 35.6 (d) 36

75. A train completes a journey in 8 hours, the first half of the journey is completed at 45 km/hr and the second half of the journey is completed at 55 km/hr. What was the total distance of the journey?
(a) 395 km (b) 296 km
(c) 396 km (d) 391 km

76. The ratio of their corresponding sides of two similar triangles is 1:3 and the area of the larger triangle is 72 cm^2. Find the area of smaller triangle.
(a) 18 cm^2
(b) 8 cm^2
(c) 14 cm^2
(d) 9 cm^2

77. What will be the radius of inner circle of triangle whose sides are 7 cm, 24 cm and 25 cm?
(a) 4 cm (b) 2.5 cm
(c) 3.5 cm (d) 3 cm

78. A lawn in the shape of a rectangle has an area of 7260 m^2 and its sides are in the ratio 5 : 3, Its perimeter is equal to the perimeter of a circular garden. What is the area of the circular garden? $\left(\text{Take } \pi = \frac{22}{7}\right)$
(a) 7260 m^2 (b) 9878 m^2
(c) 9856 m^2 (d) 8712 m^2

79. The following table presents the expenditure of a company on various heads over five years.

Expenditures of a company (in Lakhs)

Year	Expenditature Heads				
	Salary	Transport	Taxes	Advertising	Offers and Promotions
2017	361	93	83	142	52
2018	273	67	65	133	86
2019	645	110	152	108	95
2020	712	108	165	112	48
2021	652	111	132	101	75

(Reference- Expenditures of a company (in Lakhs), Expenditure Heads, Year, Salary, Transport, Taxes, Advertising, Offers and Promotions)
The company's total expenditure in 2017 was approximately what percentage of its total expenditure in 2021?
(a) 71% (b) 61%
(c) 68% (d) 55%

80. Find the geometric mean of the numbers 7, 7^2, 7^3, ... 7^n
(a) $7^{\frac{n+1}{2}}$ (b) $7^{\frac{n-1}{2}}$
(c) $7^{\frac{7}{4}}$ (d) $7^{\frac{4}{7}}$

81. A hundred rupee note measures 15 cm × 8 cm and a bundle of 125 such notes is 2 cm thick. Find the value of the hundred-rupee notes that can be contained in a box of size 48 cm × 36 cm × 30 cm. If the bundles are tightly packed in it without any empty space.
(a) ₹ 30 Lakhs (b) ₹ 33 Lakhs
(c) ₹ 36 Lakhs (d) ₹ 27 Lakhs

82. The length of the longest pole, that could be placed in a room of dimensions 10 m, 8 m and 6 m, is:
(a) 18 m (b) 15 m
(c) $10 \times \sqrt{2}$ m (d) 14 m

83. Which of the following options is the closest approximate value which will come in place of question mark (?) in the following equation?
67.69 + 5.12 - 0.89 ÷ 31.88 = ?
(a) 150 (b) 35
(c) 73 (d) 48

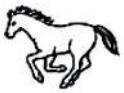
84. Which of these square numbers cannot be expressed as the sum of two prime numbers?
(a) 81 (b) 49
(c) 121 (d) 144

85. In a mid-term exam of class 11, 42% students failed in Mathematics, 54% students failed in Physics and 48% students failed in Chemistry. Only 10% students failed in all the three subjects. 20% students failed in both Physics and Chemistry, 15% students failed in both Chemistry and Mathematics, and 18% students failed in both Physics and Mathematics. What is the percentage of those students who failed in two subjects only?
(a) 33% (b) 43%
(c) 53% (d) 23%

86. Which word would best complete the relation given below ?
Mountain : Valley :: Enemy :?

(a) Unknown (b) Ruthless
(c) Friend (d) Country

87. Select the missing word based on the given related pair.

 **: Pony ::**  **: ?**

(a) Kitten (b) Child
(c) Caterpillar (d) Larva

88. 'TABLE' is related to '726251522' and 'FORMS' is related to '21129148', in the same way as 'CHAIR' is related to '_____'.

(a) 241926189 (b) 241926198
(c) 241296189 (d) 214926189

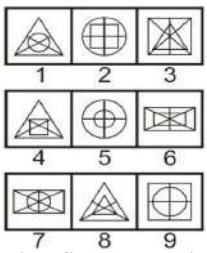
89. In a certain language, 'god is fair ' is coded as 'ge se fa', 'who is god' is coded as 'ge we fa' and 'you are god' is coded as 'ne le fa'. which represents 'is'?

(a) se (b) ge
(c) fa (d) we

90. Three of four options below are related in a certain way. Select the option that is different from others.

(a) Heart (b) Eyes
(c) Hand (d) Nose

91.



Which figure are similar in above series.

(a) 1, 2, 5 ; 8, 6, 4 ; 2, 7, 9
(b) 1, 2, 8 ; 5, 6, 4 ; 3, 7, 9
(c) 1, 2, 8 ; 5, 6, 3 ; 4, 7, 9
(d) 8, 1, 4 ; 5, 2, 9 ; 7, 6, 3

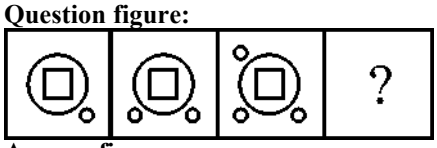
92. Which of the following numbers will replace the question mark (?) in the given series?

87, 66, 53, 46, 43, ?

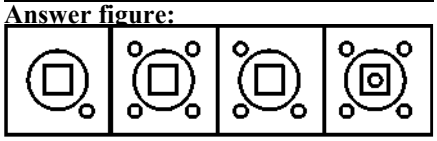
(a) 42 (b) 44
(c) 40 (d) 41

93. Which figure will come in the place of (?) in given series–

Question figure:



Answer figure:



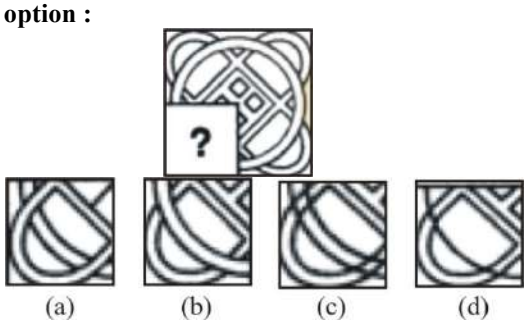
(a) A (b) C
(c) D (d) B

94. Study the given pattern carefully and select the number that can replace the question mark (?) in it.

6	**38**	**9**	**21**	**4**	**6**
10	**8**	**15**	**4**	**6**	**?**

(a) 16 (b) 3
(c) 1 (d) 60

95. Complete the following figure with the correct option :



96. Pointing to a lady, Ajay said, "She is the only daughter of my mother's father. She has two children. Her only son's wife is Reeta."

Ajay is the lady's _____

(a) Son (b) Brother
(c) Nephew (d) Husband

97. Heart is the daughter of Lungs. Also, she has only one sibling, a brother named Kidney. Stomach is the husband of Lungs. Eye and Heart are married to one another. Pancreas is the maternal uncle of Kidney. How is Pancreas related to Lungs?

(a) Wife's Brother (b) Mother's Brother
(c) Father (d) Brother

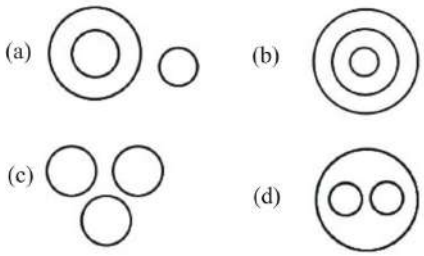
98. If A means '–', C means '+', B means '÷' and E means '×' then the value of 6C 78B 3A 4E 6 = ?

(a) 4 (b) 6
(c) 8 (d) 10

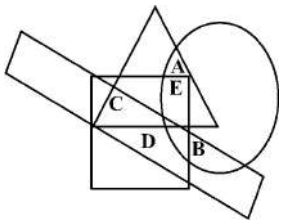
99. In the following equation, if the mathematical operators '+' and, '÷' 2 and 4 are interchanged then which equation is correct?

(a) 4 ÷ 2 + 3 = 6 (b) 2 + 4 ÷ 3 = 3
(c) 4 + 2 ÷ 6 = 1.5 (d) 2 + 4 ÷ 6 = 8

100. Select the Venn diagram that best represents the relationship between computers, desktop and laptops.



101. In the given diagram, the circle represents 'educated persons', the triangle represents 'urban persons', the square represents 'laborious persons', and the rectangle represents 'honest persons'.



Which region represents uneducated, honest, laborious persons who are NOT urban?

(a) D (b) B
(c) E (d) C

102. Each of P, Q, R, S, T, U and V has an exam on a different day of a week starting from Monday and ending of Sunday of the same week. Only three persons have exams between R and V. Only two persons have exams between Q and P. V's exam is on Saturday. Q's exam is immediately before R. Only U's exam is between P and V. T's exam is not held on Wednesday. Q's exam is on Monday. On which day is S's exam held?

(a) Tuesday (b) Sunday
(c) Monday (d) Wednesday

103. Read the given statements and conclusions carefully and decide which of the conclusions logically follows from the statements.

Statements:
(i) All ships are boats.
(ii) All anchors are ships.
Conclusions:
I. All anchors are boats.
II. Some ships are anchors.
III. No anchor is boat
IV. Some boats are anchors.

(a) All four conclusions follow.
(b) Only conclusions I and III follow.
(c) Only conclusions I, II and IV follow
(d) Only conclusion III follows

104. Three statements are followed by four conclusions numbered I, II, III and IV. You have to consider these statements to be true, even if they seem at variance from commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statements:
1. No paint is fresco.
2. No fresco is lacquer.
3. Some paints are lacquers.
Conclusions:
I. No lacquer is paint.
II. No lacquer is fresco.
III. Some frescos are paints
IV. All lacquers are paints

(a) Only conclusion II follows
(b) Only conclusion IV follows
(c) Only conclusions I and IV follow
(d) Only conclusions I and II follow

105. Read the given statement and conclusions carefully. Assuming that the information given in the statement is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statement.

Statement:
The old leaves are replaced by new leaves.
Conclusions:
1. There can be no new leaves without old leaves.
2. Old leaves are useless.

(a) Only conclusion 1 follows.
(b) Only conclusion 2 follows.
(c) Neither conclusion 1 nor 2 follows.
(d) Both conclusions 1 and 2 follow.

106. Read the given statements and decide if the given conclusion is true, false or irrelevant with respect to the statements.

Statements :
I. A is the sister of B.
II. B is the daughter of C.
Conclusion :
B is the enemy of C.

(a) Conclusion drawn is definitely false
(b) Conclusion drawn is probably true
(c) Conclusion drawn is definitely true
(d) Conclusion cannot be drawn

107. Consider the given statement and decide which of the given assumptions is/are implicit in the statement.

Statement :
Many farmers are taking up organic farming
Assumptions
I. Organic farming is easy to practice
II. Organic farming is more beneficial to farmers

(a) Neither assumption I nor II is implicit
(b) Only assumption II is implicit
(c) Either assumption I or II is implicit
(d) Only assumption I is implicit

108. A statement is given followed by two arguments I and II. Read the statement and the arguments carefully and select the appropriate answer from the given option.

Statement :
Use of re-usable cloth bags for shopping will help in reducing pollution caused by indiscriminate use of plastic bags.
Arguments :
I. The government has banned the use of single-use plastic from 1 July 2022.
II. Cloth bags are eco-friendly since they are re-usuable and can be made from scrap fabric that would otherwise go to landfills.

(a) Argument I weakens, while argument II strengthens the statement
(b) Argument II weakens, while argument I strengthens the statement
(c) Both arguments I and II strengthen the statement
(d) Both arguments I and II weaken the statement

109. Question:
Who is shortest among P, Q, R, S and T?
Statement:
I. P is taller than T but shorter than S.
II. Q is shorter than R but taller than T.
III. S is taller than R and P is taller than Q.
Choose the correct option from the followings.

(a) Only statement I is sufficient.
(b) Only statement III is sufficient.
(c) Statement II and either statement I or III is sufficient.
(d) Both statement I and III are sufficient.

110. A question is given, followed by three statements labeled I, II and III. Identify which of the statements is are sufficient to answer the question.

Question:

How is P related to C

Statements:

I: H is the only brother of S and P.

II. P is the wife of L, who is the son-in law of D.

III. D is the mother of S and T is the son-in-law of C.

(a) Data in statements II and III together are sufficient to answer the question.

(b) Data in statements I, II and III together are sufficient to answer the question.

(c) Data in statements I alone is sufficient to answer the question.

(d) Data in statement I, II and III together are not sufficient to answer the question.

111. A certain number of people are sitting in a row, facing north. D sits to the immediate left of F. Only six people sit between S and D. K sits third to the right of F.S sits at the extreme left end of the row. If no other person is sitting in the row, what is the total number of persons seated?

(a) 12 (b) 10

(c) 13 (d) 11

112. Study the given information carefully and answer the question that follows.

In a film school, eight directors, Avan, Paul, Cameron, Dalton, Kovi, Rajamouli, Prabhu and Hund are sitting around a circular table facing the centre. Dalton is third to the left of Hund. Hund is fourth to the right of Kovi. Paul is third to left of Dalton. Avan is third to the left of Paul. Rajamouli is second to the left of Cameron.

How many persons sit between Avan and Prabhu, when counted from the left of Avan?

(a) 2 (b) 1

(c) 0 (d) 3

113. Refer to the following letter, number symbol series and answer the question.

(Left) H ^ 5 T & M 4 @ 5 # 1 4 J 3 P H 9 L ! 5 2 (Right)

If all numbers are dropped from the series, which of the following will be fifth from the right ?

(a) J (b) @

(c) L (d) P

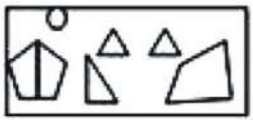
114. A certain number of people are standing together, reach having a different height. A is taller than D, but shorter than F. C is shorter than E and taller than B, Who is taller than F. Only one person is taller than E. And only two persons are shorter than D. If no other person is part of the group, what is the total number of people in the group?

(a) Ten (b) Nine

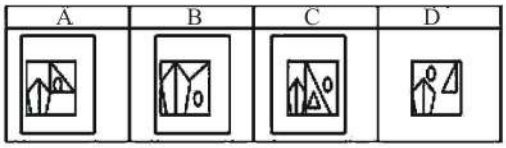
(c) Six (d) Seven

115. Which answer figure is formed using the figure given in the question figure?

Problem figure :



Answer figure :



(a) C (b) D

(c) A (d) B

116. Which of the given Answer Figures is embedded in the given Problem Figure?

Problem Figure

Answer Figures

(a) D (b) B

(c) A (d) C

117. Select the pair from given alternative that are related like the words of the first pair.

Circumvent : Bypass : Comprehensible : ……

(a) Understandable (b) Unclear

(c) Grasping (d) Apprehended

118. In a certain code language, 'CUP' is coded as 'DAO' and 'RAN' is coded as "SEM". How will 'BAD' be coded in that language?

(a) COD (b) CED

(c) CEC (d) COC

119. Choose the correct alternative which will complete the following series :

21, 55, 19, 50, 17, 45, ?

(a) 12 (b) 14

(c) 13 (d) 15

120. If '+' means division,'÷' means subtraction, '–' means multiplication, and '×' means addition, then what is the value of the given expression?

175 –10 + 2 × 165 ÷ 25 + 5 = ?

(a) 1015 (b) 1025

(c) 1035 (d) 1045

SOLUTION : PRACTICE SET- 2

ANSWER KEY

1. (d)	13. (d)	25. (b)	37. (b)	49. (b)	61. (a)	73. (a)	85. (d)	97. (d)	109.(c)
2. (b)	14. (b)	26. (d)	38. (c)	50. (c)	62. (d)	74. (b)	86. (c)	98. (c)	110. (d)
3. (b)	15. (c)	27. (d)	39. (b)	51. (a)	63. (d)	75. (c)	87. (c)	99. (d)	111. (a)
4. (a)	16. (d)	28. (c)	40. (d)	52. (c)	64. (d)	76. (b)	88. (a)	100. (d)	112. (c)
5. (c)	17. (c)	29. (a)	41. (a)	53. (c)	65. (d)	77. (d)	89. (b)	101. (a)	113.(a)
6. (c)	18. (b)	30. (b)	42. (b)	54. (a)	66. (b)	78. (c)	90. (a)	102. (d)	114. (b)
7. (b)	19. (b)	31. (a)	43. (c)	55. (a)	67. (c)	79. (c)	91. (d)	103. (c)	115. (d)
8. (a)	20. (b)	32. (c)	44. (d)	56. (b)	68. (c)	80. (a)	92. (a)	104. (a)	116. (b)
9. (b)	21. (a)	33. (b)	45. (b)	57. (b)	69. (b)	81. (d)	93. (d)	105. (c)	117. (a)
10. (c)	22. (a)	34. (a)	46. (c)	58. (b)	70. (b)	82. (c)	94. (b)	106. (d)	118. (c)
11. (a)	23. (d)	35. (c)	47. (c)	59. (a)	71. (d)	83. (c)	95. (b)	107. (b)	119. (d)
12. (b)	24. (a)	36. (a)	48. (b)	60. (d)	72. (c)	84. (c)	96. (a)	108.(c)	120. (c)

SOLUTION

1. (d)
Harappan city was excavated by Daya Ram Sahni in 1921. It is located on the bank of river Ravi in Montgomery district of Punjab (Pakistan). It is the first site discovered at Indust Valley Civilization. The major findings of the Harappan city were sandstone statues of human anatomy, granaries and bullock carts, great bath, granary, bronze dancing girl, seal of Pashupati, Steatite statue of beard man, a piece of woven cotton.

2. (b)
A chinese scholar named Juan Zhang lived in Vijayawada to study Buddhist texts. Chinese Buddhism is the Chinese branch of Buddhism. Traditions of Buddhism left a deep impact on Chinese culture and civilization for two thousand years. These Buddhist traditions can be seen in Chinese art, politics, literature, philosophy and medicine. More than 65% of the world's Buddhist population lives in China. Due to this reason, The Chinese scholars used to come to India to study the Buddhist text here and the ideas and values of Buddhists were absorbed in China.

3. (b)
In 1325 AD Jauna Khan or Ulugh Khan, the crown prince, sworn the title of Muhammad-bin-Tughlaq, Sultan of Tughlaq dynasty of Delhi after the demise of his father. He was a scholar of Logic, Philosophy, Mathematics, Astronomy etc. He was also interested in Medicine and was skilled in several languages. In 1327 AD he transferred his capital from Delhi to Devagiri which was renamed Daulatabad because he believed that this new capital would be kept safe from Mongol invasions. However, the plan proved to be a great failure and the capital was transferred back to Delhi later. He introduced token currency. He died in Thatta while compaigning in Sindh against Taghi a Turkic slave tribe in 1351.

4. (a)
Emperor Nadir Shah Afshar, the Shah of Persia and the founder of the Iranian Afsharid dynasty of Persia, invaded Northern India and Delhi in March 1739. His army had easily defeated the Mughals at the Battle of Karnal.

5. (c)
Goa was Portugal's first territorial possession in Asia, captured by Alfonso de Albuquerque with the help of Thimmayya and became a Portuguese colony in 1510, when Admiral Alfonso de Albuquerque defeated the Sultan of Bijapur, Yusuf Adil Shah. After defeating Adil Shah, it served as the main Portuguese base in the East for four and a half centuries. On 19 December, 1961 Goa was liberated and made a composite union territory with Daman and Diu. On 30 May, 1987, Goa was conferred statehood and Daman and Diu was made a separate union territory.

6. (c)
Anandamath is a Bengali novel, written by Bankim Chandra Chattopadhyay and it was published in 1882 AD. The novel is set in the event of Sannyasi Rebellion, which took place in the late 18th century in Bengal.

7. (b)
Homerule League movement was an Indian independence movement. It witnessed the growth and spread during the year 1916-1918 AD under the leadership of Annie Besant & Bal Gangadhar Tilak with the aim of the attainment of homerule or a dominion status for India under the British Empire. Tilak launched the Indian Homerule league on 28 April 1916 AD in Puna (Belgaum), Josef Baptista was the President & N.C. Kelkar was the secretary of this league. Annie Besant launched the Homerule league in September 1916 AD in Adyar (Madras). She was the president of her league & George Arundel was the general secretary.

8. (a)
Netaji Subhash Chandra Bose and Jawaharlal Nehru were known for their leftist views in the Indian National Congress Party. Bose had many differences with Mahatma Gandhi on many points of ideology, which led him to resign from Indian National Congress on April 29, 1939. Soon after his resignation Netaji declared the formation of All India Forward Block on

May 3, 1939. Its constitution and programme were adopted on June 22, 1939 in an all India session in Mumbai.

9. (b)

Sardar Swarna Singh Committee recommended inclusion of the Fundamental Duties in the Indian constitution in the year 1976. At the time of adoption, the Indian constitution did not have any fundamental duties because the framers of our constitution did not deem it appropriate to add those duties to the Indian constitution when they were formulating it.

10. (c)

According to Article 368 the Parliament amended the Constitution (42nd Constitutional Amendment) and inserted the words secular, socialist and integrity in the preamble of the constitution.

11. (a)

By the recommendation of Swarna Singh Committee in 1976, 42nd Amendment Act added 10 Fundamental Duties to the Indian Constitution. 86th Amendment Act 2002 later added 11th Fundamental Duty to the list.

- Idea of Fundamental Duties was borrowed from USSR constitution.
- Enumerated in part IV (A) and consist of single Article 51 (A)
- Fundamental duties are non- Justifiable.
- It applies only to citizens and do not extend to foreigners.

12. (b)

The joint sitting of the Parliament is called by the President of India (Article 108) and is presided over by the Speaker of the Lok Sabha or in their absence, by the Deputy Speaker of the Lok Sabha, or in their absence, the Deputy Chairman of the Rajya Sabha.

13. (d)

Article 15 of the fundamental Rights (Part III articles 12 to 35) in the constitution of India prohibits discrimination on the grounds of religion.

14. (b)

Article 243(I) & 243(Y) of Indian Constitution is related to finance commission to review financial position. As per Article 243(I), the governor of a State shall, as soon as may be within one year from the commencement of the constitution (Seventy third Amendment) Act, 1992, and thereafter at the expiration of every fifth year, constitute a finance commission to review the finance commission to review the financial position of the Panchayats and to make recommendations to the Governor as to.

15. (c)

Article 360 (Financial Emergency): If the President is satisfied that a situation has arisen whereby the financial stability or credit of India or of any part of the territory thereof is threatened, he may by a proclamation make a declaration to that effect.

16. (d)

The National Consumer Dispute Redressal Commission or the NCDRC is a quasi-judicial commission established as per the provision of the Consumer Protection Act, 1986. It was established in 1988.

17. (c)

Every Galaxy is a part of Super cluster of galaxies. Our solar system is located in an outer spiral arm of the Milky Way galaxy. Our solar system orbits the center of the Milky Way galaxy. It is significant that, our Milky Way galaxy will someday bump into Andromeda, our closest galactic neighbour, but it won't happen for about five billion years.

18. (b)

Straits	Connects	Location
Bering Strait	Alaska & Russia	Arctic Ocean & Pacific Ocean
Bosporous Strait	Black Sea and Marmara Sea	Turkey
Davis Strait	Baffin Bay and Atlantic Ocean	Greenland-Canada
Sunda Strait	Java Sea and Indian Ocean	Indonesia
Gibraltar Strait	Mediterranean Sea and Atlantic Ocean	Spain-Morocco
Hudson Strait	Gulf of Hudson and Atlantic Ocean	Canada

19. (b)

Name of Lines	Between
McMahon Line	China and India
Durand Line	Pakistan and Afghanistan
Radcliffe Line	India and Pakistan
Maginot Line	Germany and France
Mannerheim Line	Russia and Finland
Oder-Neisse Line	Poland and Germany

20. (b)

Countries	International Boundary
Afghanistan- Pakistan	Durand Line
India- China	McMahon Line
India- Pakistan	Radcliffe Line
USA - Canada	49th Parallel Line
24th Parallel line is the line which demarcates boundary between Pakistan and India in the general area of Rann of Kutch.	

21. (a)

Shipki La Pass is located through Sutlej Gorge. It connects Himachal Pradesh with Tibet. It is India's third border post for trade with China after Lipu Lekh and Nathula Pass.

State/Union territory	Pass
Jammu and Kashmir	Burzail pass, Banihal Pass, Pir-Panjal Pass
Ladakh	Zoji La, Chang-La, Khardung La
Himachal Pradesh	Rohtang Pass, Shipki La, Bara-lacha La
Uttarakhand	Niti Pass, Mana Pass,Muling La, Mangsha Dhura
Arunachal Pradesh	Diphu pass,Pangsau Pass, Bomdi-La