

## RPF Constable Mock

**Q1.** Where is the headquarters of the Telecom Regulatory Authority of India (TRAI) located?

- (a) Chennai
- (b) New Delhi
- (c) Mumbai
- (d) Kolkata

**Q2.** What is the term for money spent on purchasing assets such as land, buildings, machines, and other equipment?

- (a) Investment
- (b) Expenditure
- (c) Distribution
- (d) Consumption

**Q3.** Which of the following is not a part of the Preamble of the Constitution of India?

- (a) Liberty
- (b) Indian Flag
- (c) Equality
- (d) Justice

**Q4.** In Formula 1, different flags are used to convey important messages to drivers. What does the white flag indicate?

- (a) Warning of fast-moving vehicles on the track
- (b) Warning about the condition of a vehicle's tires on the track
- (c) Warning of slow-moving vehicles on the track
- (d) Information about the vehicle

**Q5.** Which river is the city of Jabalpur situated on?

- (a) Bhima
- (b) Brahmaputra
- (c) Mahanadi
- (d) Narmada

**Q6.** Who is the current Cabinet Minister in the Ministry of Women and Child Development?

- (a) Mr. Jagat Prakash Nadda
- (b) Mr. Chaudhary Birender Singh
- (c) Smt. Smriti Zubin Irani
- (d) Mr. Anant Geete

**Q7.** Who was the first Muslim President of India?

- (a) Mr. Muhammad Iqbal
- (b) Dr. A.P.J. Abdul Kalam
- (c) Dr. Zakir Husain
- (d) Dr. Manmohan Singh

**Q8.** Public service commission in India was established by which of the following British act?

- (a) Indian Independence Act 1947
- (b) Government of India Act 1935
- (c) Government of India Act 1919
- (d) Government of India Act 1858

**Q9.** Which country is the largest producer of natural rubber?

- (a) Liberia
- (b) China
- (c) Thailand
- (d) Sri Lanka

**Q10.** Which sport is Michael Jordan associated with?

- (a) Rugby
- (b) Basketball
- (c) Lawn Tennis
- (d) Football

**Q11.** The Augusta Masters Trophy is associated with which sport?

- (a) Golf
- (b) Cricket
- (c) Baseball
- (d) Football

**Q12.** Which of the following languages is not an official language of any state in India?

- (a) Punjabi
- (b) Gujarati
- (c) Odia
- (d) Khasi

**Q13.** What is the capital city of Arunachal Pradesh?

- (a) Tezu
- (b) Tawang
- (c) Roing
- (d) Itanagar

**Q14.** What does G2E stand for in e-governance?

- (a) Government to Elegance
- (b) Government to Employees
- (c) Government to Ethics
- (d) Government to Electricity

**Q15.** What does the Buddhist symbol Dharmachakra represent?

- (a) First Sermon
- (b) Birth
- (c) Last Sermon
- (d) Death

**Q16.** What is the symbol for phosphorus?

- (a) Ph
- (b) Pr
- (c) H
- (d) P

**Q17.** Who administers the oath to the Prime Minister of India?

- (a) Governor
- (b) Chief Justice
- (c) Vice President
- (d) President

**Q18.** What is the SI unit for density?

- (a)  $\text{kg/m}^2$
- (b)  $\text{kg/m}^3$
- (c)  $\text{kg}\cdot\text{m}$
- (d)  $\text{kg m}^2/\text{m}^3$

**Q19.** When was the Second Battle of Panipat fought?

- (a) 1825 AD
- (b) 1500 AD
- (c) 1600 AD
- (d) 1556 AD

**Q20.** What is the full form of "PPF"?

- (a) Public Potential Fund
- (b) Private Provident Fund
- (c) Public Provident Fund
- (d) Personal Provident Fund

**Q21.** Which state does parliament member Radheshyam Biswas belong to?

- (a) Assam
- (b) Uttar Pradesh
- (c) Kerala
- (d) Maharashtra

**Q22.** What is the folk dance of Goa?

- (a) Mando
- (b) Gagor
- (c) Chakwa
- (d) Lur

**Q23.** Under which schedule of the Indian Constitution are the names of states and their territorial jurisdictions listed?

- (a) Fourth
- (b) Ninth
- (c) Fifth
- (d) First

**Q24.** Which of the following is used in the glass, soap, and paper industry?

- (a) Sodium Carbonate
- (b) Carbon Dioxide
- (c) Milk of Magnesia
- (d) Potassium Nitrate

**Q25.** In which state is the 'Group of Monuments at Hampi', a World Heritage Site, located?

- (a) Gujarat
- (b) Karnataka
- (c) Kerala
- (d) Tamil Nadu

**Q26.** Which of the following is not a Union Territory?

- (a) Chandigarh
- (b) Puducherry
- (c) Dadra and Nagar Haveli
- (d) Tripura

**Q27.** What is the chemical formula for magnesium hydroxide?

- (a)  $\text{MgOH}$
- (b)  $\text{Mg}(\text{OH})_2$
- (c)  $\text{MgOH}_3$
- (d)  $\text{Mg}_2\text{OH}$

**Q28.** What is the refractive index of ice?

- (a) 1.31
- (b) 0
- (c) 0.5
- (d) 1.1

**Q29.** What is the national tree of India?

- (a) Coconut Tree
- (b) Banyan Tree
- (c) Chinar Tree
- (d) Palm Tree

**Q30.** Which newspaper was started by Sir Firozshah Mehta?

- (a) Good Times
- (b) Bombay Chronicle
- (c) Deccan Chronicle
- (d) Deccan Times

**Q31.** Who is known as the Martin Luther of India?

- (a) Lord Ripon
- (b) Bal Gangadhar Tilak
- (c) Dayanand Saraswati
- (d) Subhas Chandra Bose

**Q32.** The coloured bands of light rays are called \_\_\_\_\_.

- (a) Frequency
- (b) Bandwidth
- (c) Wavelength
- (d) Spectrum

**Q33.** What is the chemical name of Vitamin E?

- (a) Calciferol
- (b) Ascorbic Acid
- (c) Tocopherol
- (d) Phylloquinone

**Q34.** In which state is the Boramdeo Temple located?

- (a) Chhattisgarh
- (b) Delhi
- (c) Assam
- (d) Goa

**Q35.** In which state is Odantapuri University located?

- (a) West Bengal
- (b) New Delhi
- (c) Punjab
- (d) Bihar

**Q36.** What is the capital of Japan?

- (a) Beijing
- (b) Cairo
- (c) Tokyo
- (d) Yerevan

**Q37.** Where is the D.Y. Patil Stadium located?

- (a) Mumbai
- (b) Chennai
- (c) Panaji
- (d) Shillong

**Q38.** What is the study of spiders called?

- (a) Agronomy
- (b) Ethology
- (c) Anthology
- (d) Arachnology

**Q39.** What is the currency of the United Kingdom (Great Britain and Northern Ireland)?

- (a) Dinar
- (b) Dollar
- (c) Ringgit
- (d) Pound Sterling

**Q40.** What is a saline lake separated from the sea by sandbars and spits called?

- (a) Tectonic
- (b) Rain-fed
- (c) Lagoon
- (d) Glacier

**Q41.** How many pairs of chromosomes do dogs have?

- (a) 23 pairs
- (b) 12 pairs
- (c) 32 pairs
- (d) 39 pairs

**Q42.** Which planet is known as the 'Roman God of War'?

- (a) Earth
- (b) Pluto
- (c) Venus
- (d) Mars

**Q43.** Who was the chairman of the Order of Business Committee of the Constituent Assembly?

- (a) Sardar Vallabhbhai Patel
- (b) Dr. Rajendra Prasad
- (c) K.M. Munshi
- (d) Pandit Jawaharlal Nehru

**Q44.** In which state is Roopkund Lake located?

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

**Q45.** What is the full form of ITTF in sports?

- (a) International Table Tennis Federation
- (b) International Tennis Federation
- (c) International Team Handball Federation
- (d) International Tchoukball Federation

**Q46.** Which of the following tiger reserves is located in Madhya Pradesh?

- (a) Panna National Park
- (b) Bandipur National Park
- (c) Manas National Park
- (d) Nagarhole National Park

**Q47.** Which is the largest natural satellite on Earth?

- (a) Charon
- (b) Phobos
- (c) Deimos
- (d) Moon

**Q48.** Who is the current bowling coach of the Indian men's cricket team?

- (a) Javagal Srinath
- (b) Venkatesh Prasad
- (c) Paras Mampre
- (d) Ramesh Powar

**Q49.** Where is the Dihang-Dibang Biosphere Reserve located?

- (a) Odisha
- (b) Rajasthan
- (c) Andhra Pradesh
- (d) Arunachal Pradesh

**Q50.** What is the duration of the Eighth Five-Year Plan?

- (a) 1992 to 1997
- (b) 1993 to 1998
- (c) 1994 to 1999
- (d) 1990 to 1995

**Q51.** Find the next number in the series.

62, 46, 67, 51, 72, ?

- (a) 93
- (b) 98
- (c) 56
- (d) 88

**Q52.** If a mirror is placed on the shaded line then which of the following options will be the correct image of the given figure?

**VIDEO**



- (a) VIDEO
- (b) OEVIV
- (c) OEVIA
- (d) OEVIV

**Q53.** In this question, two statements showing relationship are given followed by three conclusions i, ii and iii. Assuming that the statements are true, find out which of the conclusions is/are definitely true.

Statement:

$$P > Q, R \leq S, T \leq R < Q \geq U$$

Conclusion:

- (i)  $T < P$
- (ii)  $U \leq P$
- (iii)  $S < Q$
- (a) None of the following follows
- (b) all follow
- (c) Only (i) and (iii) follow
- (d) Only (i) follows

**Q54.** In this question, two statements are given followed by two conclusions I and II. Considering both the conclusions given in the statement to be true, consider both the conclusions together and decide which of them follows logically and beyond reasonable doubt on the basis of the information given in the statement.

Statements: All birds are crows. All blocks are buildings.

conclusion:

- (i) Some birds are blocks.
  - (ii) Some crows are birds.
- Select the appropriate option from the following options

- (A) Only conclusion i follows
- (B) Only conclusion ii follows
- (C) Either i or ii follows
- (D) Neither i nor ii follows
- (E) Both i and ii follow
- (a) D
- (b) B
- (c) C
- (d) A

**Q55.** Read the given information carefully and then answer the given question.

Four professionals A, B, C and D of different professions i.e. cook, engineer, doctor and cricket player are sitting around a circular table facing the center (not necessarily in the same order) in such a way that there is an equal distance between them.

- (i) Doctor and cook are sitting opposite to each other
- (ii) D is not the neighbor of the doctor
- (iii) B sits second to the left of the cricket player.

(iv) A sits immediate left of D

Which of the following statements is true?

- (a) Doctor is sitting opposite to A
- (b) Cook is sitting to the immediate left of Engineer
- (c) B is a cricket player
- (d) C and D are neighbours.

**Q56.** In a certain code language, if SUPPLY is coded as VXSSOB, then how is CHAIN coded in that language ?

- (a) FKDQL
- (b) EJCPK
- (c) FKDLQ
- (d) EJCKP

**Q57.** Four of the following five are alike in some way and hence form a group. Which one does not come in this group ?  
horse, lion, dog, cat, stable

- (a) horse
- (b) cat
- (c) dog
- (d) stable

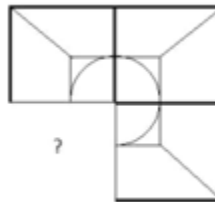
**Q58.** In this question two statements are given followed by four conclusions. You have to assume all the information given in the statements to be true and then consider the conclusions together and decide which of them logically follows beyond reasonable doubt from the information given in the statements.

Statements: Some insects are dots. All nuts are dots.

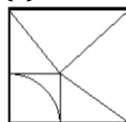
conclusion:

- (i) Some dots are insects.
- (ii) All dot is nut.
- (iii) Some dots are nuts.
- (iv) All insects are dot.
- (a) Only (i) and (iii) follow
- (b) Only (iii) and (iv)
- (c) Only (i) and (ii)
- (d) Only (ii) and (iv)

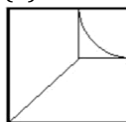
**Q59.** Select the correct option that will complete the picture pattern in the given picture.



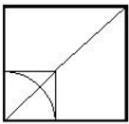
(a)



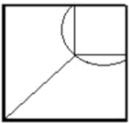
(b)



(c)



(d)



**Q60.** Place the option in place of the question mark that follows the same logic as the first pair.

71234 : 494 :: 23176 : ??

- (a) 19
- (b) 476
- (c) 98
- (d) 199

**Q61.** In this question the relationship between different elements is shown in the statement. After this two conclusions are given.

Statement:

$T \geq S \geq L = M \geq Q > D$

Conclusion:

- (i)  $T \geq M$
- (ii)  $L > D$

Select the appropriate option from the following options

- (A) Only conclusion I follows
- (B) Only conclusion II follows
- (C) Either I or II follows
- (D) Neither I nor II follows
- (E) Both I and II follow
- (a) A
- (b) C
- (c) B
- (d) E

**Q62.** Pointing to a woman a boy said, "She is the only daughter-in-law of my father's father. How is that woman related to the boy?

- (a) aunt
- (b) mother
- (c) grandmother
- (d) wife

**Q63.** Four of the following five are alike in some way and hence form a group. Which one does not come in this group?

- (a) Z
- (b) E
- (c) R
- (d) N

**Q64.** In this question a statement is given followed by two conclusions I and II. You have to assume all the information given in the statement to be true and then consider both the conclusions together and decide which of them logically follows beyond reasonable doubt from the information given in the statement.

Statement: Only those who score more than 70% marks in the board examination will get admission in ABC Engineering College. Vinod got 76% marks in the board exam.

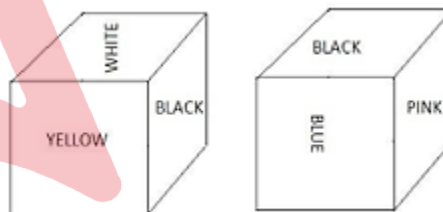
conclusion:

- (i) Vinod is eligible for admission in ABC Engineering College.
- (ii) Vinod will go to ABC Engineering College.

Select the appropriate option from the following options

- (A) Only conclusion I follows
- (B) Only conclusion II follows
- (C) Either I or II follows
- (D) Neither I nor II follows
- (E) Both I and II follow
- (a) D
- (b) E
- (c) B
- (d) A

**Q65.** Each part of the dice is colored black, white, pink, blue, orange and yellow as shown in the given figure. What color will be on the white front?



- (a) Orange
- (b) Blue
- (c) Yellow
- (d) Black

**Q66.** Read the following statements and answer the following questions.

A@B means A is the mother of B

A#B means A is the father of B

A\$B means A is brother of B

A%B means A is sister of B

What is the relation of P to S in the equation P@Q@R\$S?

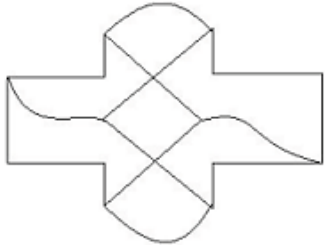
- (a) grandmother
- (b) mother
- (c) cousin
- (d) Aunty

**Q67.** Place the option in place of the question mark that follows the same logic as the first pair.

R : Y :: C : ??

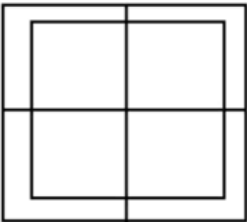
- (a) F
- (b) L
- (c) M
- (d) J

**Q68.** How many straight lines are there in the given figure?



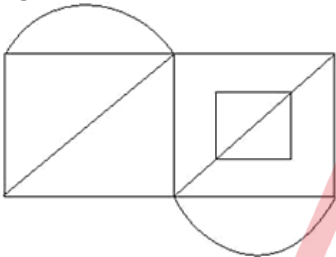
- (a) 14
- (b) 10
- (c) 18
- (d) 15

**Q69.** How many squares are there in the given figure?



- (a) 10
- (b) 9
- (c) 8
- (d) 12

**Q70.** How many right triangles can be made from the given figure?



- (a) 5
- (b) 4
- (c) 14
- (d) 6

**Q71.** In a certain code language, if SPORT is coded as 1916151820, then how is CRICKET coded in that language?

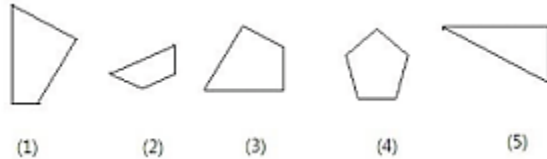
- (a) 3198311502
- (b) 3198311250
- (c) 3189311520
- (d) 3183911502

**Q72.** Identify the water image of the given image from the following options:

**WATCH**

- (a) **MA1CH**
- (b) **W1TAW**
- (c) **W1TAW**
- (d) **H1TAW**

**Q73.** Select the correct option from the following options that forms a complete square (3 out of 5 pictures given below)



- (a) 1, 3, 5
- (b) 1, 3, 4
- (c) 2, 3, 4
- (d) 2, 3, 5

**Q74.** A is brother of B. C is sister of B. D is father of C. How is B related to D?

- (a) niece
- (b) father
- (c) son (or) daughter
- (d) Cousin, paternal uncle, maternal cousin or sister

**Q75.** In this question a passage is given followed by a statement. Read the passage carefully and judge the statement on the basis of the given passage.

China has formulated a national executive policy to fight pollution. Under this, they have imposed many restrictions on the use of coal. Thermal power stations were closed and people were not allowed to burn coal, even for home consumption. Apart from creating norms for vehicular emissions, several precautionary measures were taken to keep an eye on air pollution. According to records, this year alone in China, 1,37,000 people died due to PM 2.5 vehicle emissions.

It is true that Beijing's air quality has improved, yet the government has not been able to achieve its goals. The Chinese government has admitted that pollution in 231 out of 338 Chinese cities set by them has not reduced pollution to the limit of their target. To deal with this, a second three-year executive policy has been prepared.

Statement: The Chinese government has imposed several restrictions on the use of coal to fight pollution.

Choose the appropriate one from the following options

- A - The statement is definitely true.
- B - The statement is probably true.
- C - The statement cannot be determined.
- D - The statement is definitely wrong.

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

**Q76.** Place the option in place of the question mark that follows the same logic as the first pair.

Chef : Food :: Butcher : ??

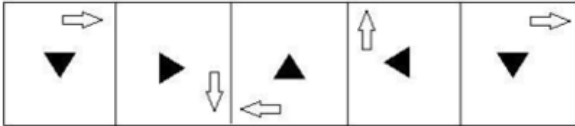
- (a) Meat
- (b) Clothes
- (c) Shoe
- (d) Film

**Q77.** Four of the following five are alike in some way and hence form a group. Which one does not come in this group?

DB, MK, PN, XV, ZW

- (a) PN
- (b) ZW
- (c) DB
- (d) XV

**Q78.** Which of the following will be the next figure from the given options for the given series?



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

**Q79.** Find the next number in the series.

18, 37, 76, 155, 314, ?

- (a) 942
- (b) 794
- (c) 633
- (d) 947

**Q80.** Find the next number in the series.

201, 203, 207, 215, 231, ?

- (a) 263
- (b) 251
- (c) 273
- (d) 255

**Q81.** Read the given information carefully and then answer the given question.

Four professionals A, B, C and D of different professions i.e. cook, engineer, doctor and cricket player are sitting around a circular table facing the center (not necessarily in the same order) in such a way that there is an equal distance between them.

(i) Doctor and cook are sitting opposite to each other

(ii) D is not the neighbor of the doctor

(iii) B sits second to the left of the cricket player.

(iv) A sits immediate left of D

Who is an engineer?

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

**Q82.** In this question a passage is given followed by a statement. Read the passage carefully and judge the statement on the basis of the given passage.

China has formulated a national executive policy to fight pollution. Under this, they have imposed many restrictions on the use of coal. Thermal power stations were closed and people were not allowed to burn coal, even for home consumption. Apart from creating norms for emissions from vehicles, several precautionary measures were taken to keep an eye on air pollution. According to records, this year alone in China, 1,37,000 people died due to PM 2.5 vehicle emissions.

It is true that Beijing's air quality has improved, yet the government has not been able to achieve its goals. The Chinese government has admitted that pollution in 231 out of 338 Chinese cities set by them has not reduced pollution to the limit of their target. To deal with this, a second three-year executive policy has been prepared.

Statement: A large number of people died in China because they were not allowed to burn coal for consumption in their homes.

Choose the appropriate one from the following options

- A - The statement is definitely true.
- B - The statement is probably true.
- C - The statement cannot be determined.
- D - The statement is definitely wrong.

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

**Q83.** Find the next number in the series.

27, 35, 51, 75, 107, ?

- (a) 131
- (b) 147
- (c) 156
- (d) 139

**Q84.** Place the option in place of the question mark that follows the same logic as the first pair.

Insect : Larva :: Butterfly : ??

- (a) Caterpillar
- (b) Pony
- (c) Farrow
- (d) Tad

**Q85.** Read the given information carefully and then answer the given question.

Four professionals A, B, C and D of different professions i.e. cook, engineer, doctor and cricket player are sitting around a circular table facing the center (not necessarily in the same order) in such a way that there is an equal distance between them.

- (i) Doctor and cook are sitting opposite to each other
- (ii) D is not the neighbor of the doctor
- (iii) B sits second to the left of the cricket player.
- (iv) A sits immediate left of D

Who is sitting second to the left of the cook?

- (a) doctor
- (b) Engineer
- (c) B
- (d) A

**Q86.** The average of 7 numbers is 75. The average remains the same after removing one number. Find the removed number.

- (a) 73
- (b) 71
- (c) 77
- (d) 75

**Q87.** Find the area of a right-angled triangle with a hypotenuse of 104 cm and a base of 40 cm.

- (a) 1910 cm<sup>2</sup>
- (b) 1960 cm<sup>2</sup>
- (c) 1920 cm<sup>2</sup>
- (d) 1990 cm<sup>2</sup>

**Q88.** The price of milk is increased from Rs. 36 to Rs. 40. Find the percentage increase in its price.

- (a) 11.11%
- (b) 11.22%
- (c) 11.18%
- (d) 11.25%

**Q89.** The base of a parallelogram is three times its height. If its area is 1083 cm<sup>2</sup>, find the base and height (in cm).

- (a) 36 and 12
- (b) 45 and 15
- (c) 57 and 19
- (d) 30 and 10

**Q90.** What is the remainder when 6839424 is divided by 9?

- (a) 8
- (b) 0
- (c) 4
- (d) 6

**Q91.** Find the percentage profit earned by a shopkeeper who buys an item for Rs. 785 and sells it for Rs. 942.

- (a) 20%
- (b) 10%
- (c) 15%
- (d) 25%

**Q92.** If the volume of a conference room is 1188 m<sup>3</sup> and its floor area is 99 m<sup>2</sup>, find the height of the room.

- (a) 17 m
- (b) 12 m
- (c) 21 m
- (d) 18 m

**Q93.** Solve:  $\frac{14 \times 210 \div 15 + 14}{210 \div 14 - 1} = ?$

- (a) 14
- (b) 15
- (c) 13
- (d) 12

**Q94.** A box contains 40 Galaxy chocolates. Sunil can eat 34 Galaxy chocolates. What percentage of chocolates are left in the box?

- (a) 15%
- (b) 12%
- (c) 14%
- (d) 18%

**Q95.** The difference between compound interest and simple interest on a certain amount at 10% per annum for two years is Rs. 523. Find the invested amount.

- (a) Rs. 52300
- (b) Rs. 42300
- (c) Rs. 62300
- (d) Rs. 72300

**Q96.** A merchant sells an item for Rs. 336 and earns a profit of 12%. Find the cost price of the item.

- (a) Rs. 300
- (b) Rs. 430
- (c) Rs. 397
- (d) Rs. 350

**Q97.** A train moving at a speed of 27 meters per second takes only 8 seconds to pass a signal board. Find the length of the train.

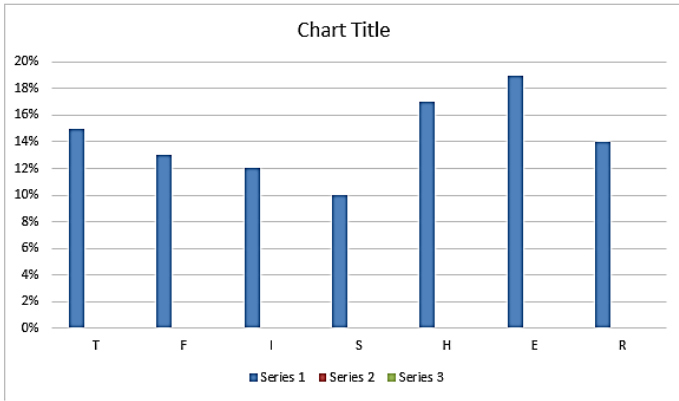
- (a) 146 m
- (b) 246 m
- (c) 216 m
- (d) 166 m



**Q98.** Instruction: Study the following bar graph and then answer the given question:

Total Expenditure (100%): Rs. 45000

How much more amount should be added to the educational fees so that it equals the combined expenses on rent (R) and household (H) expenses?



- (a) Rs. 7,500
- (b) Rs. 5,400
- (c) Rs. 6,400
- (d) Rs. 4,400

**Q99.** Which of the following numbers is divisible by 12?

- (a) 372685
- (b) 362684
- (c) 342684
- (d) 352684

**Q100.** A person travels at  $(5/6)$ th of his normal speed and reaches his destination 33 minutes late. Find the normal time taken.

- (a) 165 minutes
- (b) 150 minutes
- (c) 75 minutes
- (d) 100 minutes

**Q101.** If the principal amount is Rs. 26000, then find the total amount after 3 years at 10% per annum compound interest. (in Rupees)

- (a) 35606
- (b) 34606
- (c) 37606
- (d) 36606

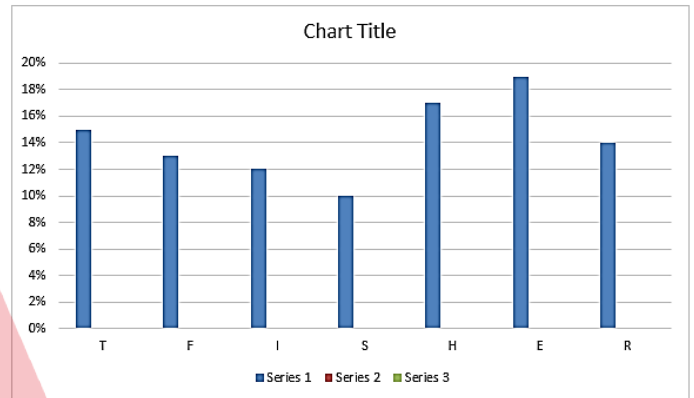
**Q102.** The ratio of the ages of X and Y is 9:10. If the sum of their ages is 133, find the difference between their ages.

- (a) 6
- (b) 9
- (c) 7
- (d) 8

**Q103.** B is twice as efficient as C, and A is thrice as efficient as B. If all they are paid a total salary of Rs. 94248, how much is the salary received by A?

- (a) Rs. 62286
- (b) Rs. 62832
- (c) Rs. 65268
- (d) Rs. 65682

**Q104.** Instruction: Study the following bar graph and then answer the given question: Total Expenditure (100%) is Rs. 45000. Find the combined expenses on rent (R), educational fees (E), and transport (T).



- (a) Rs. 21100
- (b) Rs. 19100
- (c) Rs. 21600
- (d) Rs. 22100

**Q105.** Vijay invested Rs. 4350 and received Rs. 5220 after two years. If he invested at simple interest, find the rate of interest.

- (a) 12.5%
- (b) 8%
- (c) 15%
- (d) 10%

**Q106.** A school student purchased three different types of pens in the ratio 5:6:4, priced at Rs. 5, Rs. 10, and Rs. 15 respectively. If the student spent Rs. 290 in total, find the number of pens bought at Rs. 10 each.

- (a) 12
- (b) 14
- (c) 18
- (d) 16

**Q107.** Find the value of x:

$$(x^3) \div 14 = 1568$$

- (a) 28
- (b) 30
- (c) 32
- (d) 26

**Q108.** A shopkeeper sells two items for Rs. 891 each. On one item, he gains 10% and on the other, he incurs a 10% loss. Find the overall percentage of profit or loss.

- (a) 4% profit
- (b) 1% loss
- (c) 1% profit
- (d) 4% loss

**Q109.** A, B, and C divide a cash prize between them in the ratio 3:5:7. If C receives Rs. 49000, find the total amount received by A and B combined.

- (a) Rs. 65,000
- (b) Rs. 44,000
- (c) Rs. 80,000
- (d) Rs. 56,000

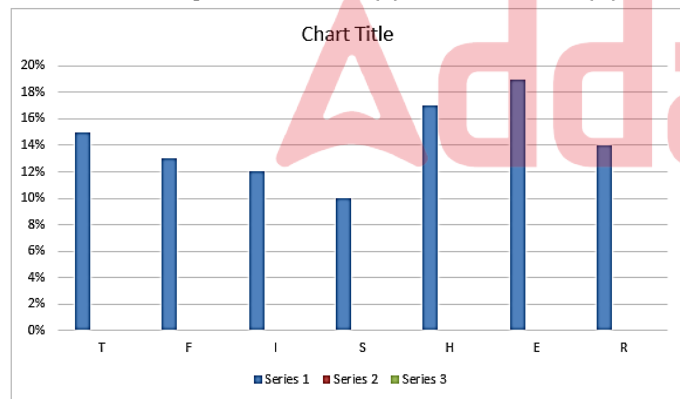
**Q110.** 25% of 66.67% of 75% of 80% of a number is 512. Find 40% of this number.

- (a) 2040
- (b) 2048
- (c) 2068
- (d) 2058

**Q111.** A train takes 23 seconds to cross a signal at starting end of a 260 m long bridge. If the train takes 49 seconds to cross the bridge, find the length of the train.

- (a) 270 m
- (b) 330 m
- (c) 230 m
- (d) 430 m

**Q112.** Study the following bar graph and then answer the given question: Total Expenditure (100%) is Rs. 45000. Find the combined expenses on food (F) and household (H).



- (a) Rs. 13,500
- (b) Rs. 21,500
- (c) Rs. 15,500
- (d) Rs. 19,500

**Q113.** Solve:  $\frac{1}{8} + \frac{3}{4} - \frac{5}{8} = ?$

- (a) 0.3
- (b) 0.45
- (c) 0.5
- (d) 0.25

**Q114.** Find the fraction for X,

$X = 0.68999\dots\dots\dots$

- (a) 621/900
- (b) 631/900
- (c) 641/900
- (d) 612/900

**Q115.** Solve:  $79 - [23 - (84 \div 7 - (16 - 16 \div 4) \div 4)]$

- (a) 61
- (b) 63
- (c) 67
- (d) 65

**Q116.** Find the average of an arithmetic progression whose first term is 45 and the last term is 57.

- (a) 49
- (b) 53
- (c) 55
- (d) 51

**Q117.** The least common multiple of two numbers is 182, and their greatest common divisor is 13. If one number is 13, find the other number.

- (a) 182
- (b) 143
- (c) 132
- (d) 121

**Q118.** Which of the following numbers is divisible by 15?

- (a) 43642650
- (b) 42642650
- (c) 45642650
- (d) 44642650

**Q119.** In a national-level examination, 650 students participated. 47% of the students scored between 81-100%, 23% scored between 61-80%, and the rest scored between 41-60%. Find the number of students who scored between 41-60%.

- (a) 180
- (b) 120
- (c) 165
- (d) 195

**Q120.** A company's expenses were Rs. 43500 in the first quarter of the financial year, Rs. 46500 in the second quarter, and Rs. 57600 in the third quarter. If the overall quarterly average expense during the financial year is Rs. 54075, find the expenses for the final quarter of the financial year. (in Rupees)

- (a) 64800
- (b) 67600
- (c) 68700
- (d) 68400

## S1. Ans.(b)

**Sol.** The headquarters of the Telecom Regulatory Authority of India (TRAI) is located in New Delhi. TRAI is a regulatory body established by the Government of India in 1997 to regulate the telecommunications sector in India.

Its main purpose is to create and enforce fair and transparent policies in the telecom industry, ensuring a dynamic and competitive market. The choice of New Delhi for its headquarters is strategic due to the city's status as the nation's capital, facilitating coordination with governmental bodies and policymakers.

Therefore, the correct answer is (b) New Delhi.

## S2. Ans.(a)

**Sol.** The term for money used to purchase long-term assets like land, buildings, machinery, and other equipment is "Investment." This term refers to the allocation of resources, usually financial, in expectation of generating income or profit.

Unlike expenditures or consumption that reflect immediate costs or the usage of goods and services, investment is about the future yield or benefit from the assets acquired. This type of financial activity is crucial in business and economic growth as it often leads to capital formation and job creation. Hence, the correct answer is (a) Investment.

## S3. Ans.(b)

**Sol.** The Preamble of the Indian Constitution outlines the guiding principles and fundamental values of the nation. It mentions ideals like Liberty, Equality, and Justice, but does not specifically mention the Indian Flag. The Preamble aims to reflect the aspirations and values of the sovereign people of India, embodying concepts like democratic governance, secularism, and a welfare state. The Indian Flag, although a national symbol of pride and unity, is not a constituent element of the Preamble's text. Therefore, the correct answer is (b) Indian Flag.

## S4. Ans.(c)

**Sol.** In Formula 1 racing, the use of different flags serves as a crucial communication tool between race officials and drivers. The white flag has a specific and important role. It indicates the presence of a slow-moving vehicle on the track, warning the racing drivers to be cautious.

This flag is essential for maintaining safety standards during the race, as high-speed racing environments can become hazardous with unexpected slow-moving vehicles on the track. The awareness and adherence to these flag signals are vital for the safety and orderliness of the sport.

Therefore, the correct answer is (c) Warning of slow-moving vehicles on the track.

## S5. Ans.(d)

**Sol.** Jabalpur, a significant city in the Indian state of Madhya Pradesh, is situated on the banks of the Narmada River. This river is one of the holiest rivers in India, known for its scenic beauty and religious significance. Jabalpur city, famous for its marble rock formations along the river, has a rich historical and cultural heritage.

The Narmada River plays a vital role in the life of the people of Jabalpur, contributing to the agricultural, economic, and cultural aspects. It's a lifeline that supports a diverse ecosystem and sustains various communities. Hence, the correct answer is (d) Narmada.

## S6. Ans.(c)

**Sol.** The Ministry of Women and Child Development in India plays a crucial role in formulating policies and programs for the welfare of women and children. The Cabinet Minister heading this ministry is a key position, often held by a senior member of the government.

Smt. Smriti Zubin Irani - Minister of Women and Child Development; and Minister of Minority Affairs. ( Cabinet Ministers of India 2023)

This role involves overseeing various initiatives related to women's empowerment, child protection, and development programs. The minister is responsible for legislating and implementing policies aimed at improving the health, education, and economic status of women and children in India.

## S7. Ans.(c)

**Sol.** Dr. Zakir Husain holds the distinction of being the first Muslim President of India. He served as the third President of India from 13 May 1967 until his death on 3 May 1969. His presidency was marked by his dedication to education and his work in promoting national integration. Before becoming President, Dr. Husain had a distinguished academic career, including serving as the Vice Chancellor of Aligarh Muslim University. His tenure as President was significant in setting a precedent for the diverse representation in India's highest constitutional office, reflecting the country's secular and inclusive values. Hence, the correct answer is (c) Dr. Zakir Husain.

## S8. Ans.(c)

**Sol.** The Public Service Commission in India was established by the Government of India Act 1919. Hence Central Public Service Commission was set up in 1926 to recruit Civil servants. The Government of India Act of 1919 created a new office of the High Commissioner for India in London.

In 1886, Lord Dufferin established a "Public Service Commission" headed by Sir Charles Aitchison to investigate the problems of India's civil services.

**S9. Ans.(c)**

**Sol.** Thailand is renowned as the world's largest producer of natural rubber, a critical agricultural commodity used globally in various industries. The country's climate and soil conditions are conducive to rubber tree cultivation, making it a suitable location for rubber plantations.

Thailand's rubber industry plays a significant role in the global market, influencing prices and supply. The production of natural rubber in Thailand not only contributes significantly to the country's economy but also supports the livelihoods of numerous farmers and workers involved in the sector.

Hence, the correct answer is (c) Thailand.

**S10. Ans.(b)**

**Sol.** Michael Jordan, widely regarded as one of the greatest basketball players of all time, is synonymous with the sport of basketball.

His extraordinary career in the National Basketball Association (NBA), primarily with the Chicago Bulls, is marked by numerous accolades, including six NBA championships and five Most Valuable Player (MVP) Awards. Jordan's impact on basketball extends beyond his on-court achievements; he became a global cultural icon, influencing the popularity of the NBA around the world. His athletic prowess, competitive spirit, and marketing appeal have left an indelible mark on the sport. Therefore, the correct answer is (b) Basketball.

**S11. Ans.(a)**

**Sol.** The Augusta Masters Trophy is closely associated with the sport of Golf. This prestigious trophy is awarded to the winner of the Master's Tournament, one of the four major championships in professional golf.

Held annually at the Augusta National Golf Club in Georgia, USA, the Masters is known for its iconic green jacket given to its champions. The tournament, founded by legendary golfer Bobby Jones and investment banker Clifford Roberts, has a rich history and is considered a highlight of the golfing calendar. Thus, the correct answer is (a) Golf.

**S12. Ans.(d)**

**Sol.** Khasi is not an official language of any state in India. While Punjabi, Gujarati, and Odia are the official languages of Punjab, Gujarat, and Odisha respectively, Khasi, despite being a prominent language spoken by the Khasi people in Meghalaya, does not have the status of a state's official language.

India's linguistic diversity is immense, with several languages and dialects, but only a few have the distinction of being recognized as official languages at the state level. Therefore, the correct answer is (d) Khasi.

**S13. Ans.(d)**

**Sol.** The capital city of Arunachal Pradesh is Itanagar. Itanagar, located in the northeastern part of India, is one of the newer capital cities in the country.

It serves as the political and administrative hub of Arunachal Pradesh. The city is known for its rich cultural heritage and scenic beauty, including historical sites like the Ita Fort, which dates back to the 14th-15th centuries.

Itanagar's status as the capital reflects the state's unique cultural and geographical identity. Thus, the correct answer is (d) Itanagar.

**S14. Ans.(b)**

**Sol.** In e-governance, G2E stands for Government to Employees. This term refers to the relationship and digital interactions between government bodies and their employees. G2E initiatives focus on using technology to streamline governmental processes, enhance the efficiency of public services, and improve communication channels within government departments.

It includes providing online services, resources, and information to government employees, facilitating better workflow and productivity. Therefore, the correct answer is (b) Government to Employees.

**S15. Ans.(a)**

**Sol.** The Buddhist symbol Dharmachakra, which means "Wheel of Dharma," represents the Buddha's First Sermon at Sarnath, where he shared the teachings of the Four Noble Truths and the Eightfold Path.

This sermon marked the turning of the Wheel of Dharma and the beginning of Buddha's teaching journey after achieving enlightenment.

The Dharmachakra symbolizes the spread of Buddha's teachings throughout the world and is a central emblem in Buddhism. Therefore, the correct answer is (a) First Sermon.

**S16. Ans.(d)**

**Sol.** The chemical symbol for phosphorus is P. Phosphorus is a non-metallic element in the nitrogen group and is vital for life.

It plays a key role in biological molecules like DNA and RNA and is an essential nutrient for plants and animals.

The symbol P is derived from phosphorus's Latin name 'phosphorus,' meaning "light-bearer," reflecting its property of emitting light in the dark when exposed to oxygen. Therefore, the correct answer is (d) P.

**S17. Ans.(d)**

**Sol.** The President of India administers the oath of office to the Prime Minister.

The Prime Minister's oath is a formal and constitutionally required procedure for assuming the office. It signifies the Prime Minister's commitment to uphold the Constitution and the laws of India.

This ceremony usually takes place at the Rashtrapati Bhavan, the official residence of the President, and marks the beginning of the Prime Minister's term. Thus, the correct answer is (d) President.

**S18. Ans.(b)**

**Sol.** The SI unit for density is kilograms per cubic meter ( $\text{kg}/\text{m}^3$ ). Density is a measure of mass per unit volume.

The standard metric unit,  $\text{kg}/\text{m}^3$ , is used universally in scientific and engineering contexts. It provides a way to quantify how much mass is packed into a given volume of a substance, helping to characterize materials and their properties. Therefore, the correct answer is (b)  $\text{kg}/\text{m}^3$ .

**S19. Ans.(d)**

**Sol.** The Second Battle of Panipat was fought in the year 1556 AD. This historic battle was fought between the forces of the Mughal Emperor Akbar and the army of Hemu, a Hindu king. The battle was crucial in establishing Akbar's reign and marked a significant event in the Mughal conquest of India. The victory at Panipat solidified Mughal power in the region and opened the path for their extensive rule. Hence, the correct answer is (d) 1556 AD.

**S20. Ans.(c)**

**Sol.** The full form of "PPF" is the Public Provident Fund. The PPF is a popular long-term investment scheme in India, offering tax benefits and attractive interest rates.

It is a government-backed savings and investment plan that encourages individuals to manage their retirement savings. With its tax-exempt status and guaranteed returns, the PPF is an essential component of retirement planning for many in India. Therefore, the correct answer is (c) Public Provident Fund.

**S21. Ans.(a)**

**Sol.** Radheshyam Biswas is a Member of Parliament from Assam. He represents the Karimganj constituency in the Lok Sabha, the lower house of India's Parliament. His political affiliation and representation of Assam are significant in the context of the northeastern region's unique socio-political landscape.

As an MP, Biswas' role includes addressing the issues and aspirations of his constituency and contributing to national policy-making. Therefore, the correct answer is (a) Assam.

**S22. Ans.(a)**

**Sol.** The folk dance of Goa is Mando. It is a traditional dance form that reflects the rich cultural heritage of the state, influenced by its history as a Portuguese colony.

Mando is characterized by graceful movements and often accompanied by melodious music, reflecting the blend of Goan folklore with Portuguese influences. This dance is a vital part of Goan festivals and celebrations, showcasing the state's unique blend of Eastern and Western cultural elements. Thus, the correct answer is (a) Mando.

**S23. Ans.(d)**

**Sol.** The names of states and their territorial jurisdictions in India are listed under the First Schedule of the Indian Constitution.

This schedule is crucial as it defines the political boundaries of each state and Union Territory, providing a legal and constitutional basis for their existence. The First Schedule is an essential component of the Constitution, as it outlines the country's federal structure and administrative divisions. Therefore, the correct answer is (d) First.

**S24. Ans.(a)**

**Sol.** Sodium Carbonate is widely used in the glass, soap, and paper industries. In glass manufacturing, it acts as a flux to lower the melting point of silica. In the soap industry, it is used as a builder or filler to enhance the cleaning properties of detergents. In papermaking, it is part of the process of pulp production.

Sodium carbonate's versatility in various industrial applications stems from its alkaline properties and efficacy in various chemical processes. Hence, the correct answer is (a) Sodium Carbonate.

**S25. Ans.(b)**

**Sol.** The 'Group of Monuments at Hampi' is located in Karnataka. Hampi, a UNESCO World Heritage Site, is renowned for its vast ruins of the ancient Vijayanagara Empire and its impressive architectural remains, including temples, royal complexes, and market streets. The site symbolizes the historical and cultural significance of the Vijayanagara period and is an important destination for both historical study and tourism. Therefore, the correct answer is (b) Karnataka.

**S26. Ans.(d)**

**Sol.** Tripura is not a Union Territory; it is a state in India.

Union Territories are regions governed directly by the Central Government of India and have a different administrative and political status than states. Chandigarh, Puducherry, and Dadra and Nagar Haveli are Union Territories, whereas Tripura, with its state government, falls under the standard state administration framework. Therefore, the correct answer is (d) Tripura.

**S27. Ans.(b)**

**Sol.** The chemical formula for magnesium hydroxide is  $\text{Mg}(\text{OH})_2$ . It is a compound typically used as an antacid to relieve heartburn, sour stomach, or acid indigestion, and as a laxative for short-term, rapid emptying of the bowel.

Its formula represents one magnesium ion bonded to two hydroxide ions. Magnesium hydroxide is also used in various applications, such as flame retardant and wastewater treatment. Hence, the correct answer is (b)  $\text{Mg}(\text{OH})_2$ .

**S28. Ans.(a)**

**Sol.** The refractive index of ice is 1.31. This physical property measures how much light is bent, or refracted when entering a material. Ice's refractive index indicates how light behaves as it passes through it, which is crucial in phenomena like the formation of rainbows in ice crystals in the atmosphere. Understanding the refractive index of ice also has implications in environmental studies and physics. Therefore, the correct answer is (a) 1.31.

**S29. Ans.(b)**

**Sol.** The national tree of India is the Banyan Tree. Known scientifically as *Ficus benghalensis*, the banyan tree is revered and holds great significance in Indian culture and tradition. It is often associated with longevity and wisdom and features prominently in various Indian mythological and religious contexts. The banyan tree's vast spreading roots and branches symbolize India's unity and diversity. Therefore, the correct answer is (b) Banyan Tree.

**S30. Ans.(b)**

**Sol.** The Bombay Chronicle was a newspaper started by Sir Ferozshah Mehta.

It was an influential English-language newspaper in Bombay, now Mumbai, and played a significant role in the Indian independence movement.

The Bombay Chronicle was known for its nationalist stance and its advocacy for political and social reforms during the British Raj.

The newspaper served as a platform for expressing liberal and nationalist views, contributing significantly to the public discourse of the time.

**S31. Ans.(c)**

**Sol.** Swami Dayanand Saraswati is often referred to as the Martin Luther of India. He was the founder of the Arya Samaj, a Hindu reform movement, and a significant figure in the cultural and religious rejuvenation of India during the 19th century.

Dayanand Saraswati's efforts to reform Hinduism, his emphasis on the return to the Vedas, and his message against superstition and ritualism draw parallels to Martin Luther's reformation in Christianity. His teachings and reforms had a profound impact on the socio-religious fabric of India. Hence, the correct answer is (c) Dayanand Saraswati.

**S32. Ans.(d)**

**Sol.** The coloured bands of light rays are collectively referred to as its "Spectrum." When light passes through a prism, it is dispersed into its component colours, forming a spectrum. This dispersion occurs because different colours (or wavelengths) of light bend by different amounts upon passing through a medium like a prism.

The spectrum is a fundamental concept in physics and is used in a variety of scientific fields to study and analyze light properties. Therefore, the correct answer is (d) Spectrum.

**S33. Ans.(c)**

**Sol.** The chemical name of Vitamin E is Tocopherol. It is a group of eight fat-soluble compounds, with alpha-tocopherol being the most active form in humans. Vitamin E is known for its antioxidant properties and is crucial for maintaining skin health and supporting the immune system.

It's commonly found in various foods, including vegetable oils, nuts, and green leafy vegetables. Due to its antioxidant activity, Vitamin E helps protect cells from damage caused by free radicals. Thus, the correct answer is (c) Tocopherol.

**S34. Ans.(a)**

**Sol.** The Boramdeo Temple is located in the state of Chhattisgarh, India. This temple, often referred to as the "Khajuraho of Chhattisgarh," is known for its exquisite architecture and intricate carvings.

The temple, made of brick and stone, is an outstanding example of ancient Indian art and architectural skill, drawing numerous tourists and history enthusiasts. Its location amidst the picturesque Maikal mountains adds to its allure and historical significance. Therefore, the correct answer is (a) Chhattisgarh.

**S35. Ans.(d)**

**Sol.** Odantapuri University, also known as Odantapura or Uddandapura, was an ancient Buddhist Mahavihara located in what is now Bihar, India. This university was a renowned centre of learning, attracting scholars from various parts of the world.

The historical significance of Odantapuri lies in its contribution to Buddhist studies and its role in the spread of Buddhism. It is one of the examples of India's rich educational heritage in ancient times. Hence, the correct answer is (d) Bihar.

**S36. Ans.(c)**

**Sol.** The capital of Japan is Tokyo. Tokyo is not only Japan's capital city but also its largest city, known for its blend of traditional culture and modern technology.

As a global financial centre and a hub for technology, culture, and government, Tokyo plays a vital role in both Japan's national affairs and international presence. The city's unique mix of historical sites and cutting-edge architecture makes it a fascinating destination for tourists and business travellers alike. Therefore, the correct answer is (c) Tokyo.

**S37. Ans.(a)**

**Sol.** The D.Y. Patil Stadium is located in Mumbai, Maharashtra, India. It is a multi-purpose stadium, primarily used for cricket and football matches.

The stadium is named after Dr. D.Y. Patil, an Indian educator and the founder of the D.Y. Patil Group. Known for its state-of-the-art facilities, the stadium has hosted several notable sporting events and matches, including IPL cricket games. Its location in Mumbai, a prominent city in India, makes it a central venue for major sporting events. Hence, the correct answer is (a) Mumbai.

**S38. Ans.(d)**

**Sol.** The study of spiders is called Arachnology. Arachnology is a branch of zoology that deals with the study of arachnids, a class that includes spiders, scorpions, ticks, and mites. Arachnologists research various aspects of arachnid biology, behaviour, taxonomy, and ecology.

This field of study is important for understanding the role of these creatures in ecosystems, as well as their impact on agriculture and human health. Therefore, the correct answer is (d) Arachnology.

**S39. Ans.(d)**

**Sol.** The currency of the United Kingdom (Great Britain and Northern Ireland) is the Pound Sterling. The Pound Sterling, symbolized by £, is one of the world's oldest and most widely recognized currencies. As the UK's official currency, it plays a crucial role in the global financial market. The Pound Sterling is known for its stability and is a key currency in international trade and finance. Therefore, the correct answer is (d) Pound Sterling.

**S40. Ans.(c)**

**Sol.** A saline lake that is separated from the sea by sandbars and spits is called a Lagoon. Lagoons are shallow bodies of water situated along coastlines, often characterized by their saline or brackish nature. They are formed when sandbars or coral reefs partially enclose an area of seawater.

Lagoons can be found in various parts of the world and serve as important ecological habitats for a variety of marine life. They are also significant for local economies, often supporting fishing and tourism activities. Thus, the correct answer is (c) Lagoon.

**S41. Ans.(d)**

**Sol.** Dogs have 39 pairs of chromosomes. Chromosomes are structures within cells that contain DNA and carry genetic information. The number of chromosome pairs is specific to each species.

In dogs, the 39 pairs of chromosomes determine everything from the dog's coat colour and texture to its susceptibility to certain diseases. Understanding canine genetics is important for breeding, veterinary medicine, and studying canine evolution. Hence, the correct answer is (d) 39 pairs.

**S42. Ans.(d)**

**Sol.** Mars is known as the 'Roman God of War'. In Roman mythology, Mars was the god of war, and the planet Mars was named after him due to its reddish appearance, reminiscent of blood and warfare. Mars is the fourth planet from the Sun and is often visible to the naked eye on Earth. Its distinct red colour is due to iron oxide (rust) on its surface. Mars has been the subject of much scientific study and exploration, particularly for its potential to host life. Therefore, the correct answer is (d) Mars.

**S43. Ans.(c)**

**Sol.** Order of Business Committee: Headed by Dr. K.M. Munshi. House Committee.

Purpose:

To plan and prioritize the Assembly's work agenda.

To ensure efficient and timely completion of tasks.

Recommending the order in which topics would be discussed.

**S44. Ans.(d)**

**Sol.** Roopkund Lake is located in the state of Uttarakhand, India. It is situated in the Himalayas and is famously known as the 'Skeleton Lake' due to the presence of human skeletons found at its edge.

The lake is a popular trekking destination and is surrounded by rock-strewn glaciers and snow-clad mountains. The mystery of the skeletons has intrigued scientists and historians, making it a subject of research and fascination. Hence, the correct answer is (d) Uttarakhand.

**S45. Ans.(a)**

**Sol.** The full form of ITTF in sports is the International Table Tennis Federation. The ITTF is the governing body for all international table tennis associations.

The organization is responsible for the rules and regulations of table tennis and oversees major international table tennis competitions, including the World Championships. The ITTF plays a pivotal role in promoting the sport worldwide and fostering international competition and cooperation. Therefore, the correct answer is (a) International Table Tennis Federation.

**S46. Ans.(a)**

**Sol.** Panna National Park is a tiger reserve located in Madhya Pradesh. This national park is known for its significant tiger population and is a part of India's Project Tiger initiative. Panna National Park boasts a rich biodiversity, including various species of wildlife and flora. It plays a vital role in the conservation of tigers and other wildlife in India.

The park's landscape includes dense forests, waterfalls, and gorges, contributing to its ecological significance. Hence, the correct answer is (a) Panna National Park.

**S47. Ans.(d)**

**Sol.** The largest natural satellite of Earth is the Moon. The Moon is Earth's only natural satellite and plays a crucial role in influencing the planet's tides, weather, and climate. It is the fifth-largest natural satellite in the Solar System and the second-densest satellite among those whose densities are known. The Moon's gravitational influence is the main driver of Earth's tides and has a stabilizing effect on Earth's axial tilt. Therefore, the correct answer is (d) Moon.

**S48. Ans.(c)**

**Sol.** Paras Mampre (bowling coach), Vikram Rathore (batting coach), T Dilip (fielding coach), Nitin Patel (physio) and Soham Desai (strength and conditioning coach). Gary Stead is the head coach of New Zealand for the T20 World Cup 2022. He is a former Kiwi cricketer who played five Tests.

**S49. Ans.(d)**

**Sol.** The Dihang-Dibang Biosphere Reserve is located in Arunachal Pradesh, India. It is named after the Dihang and Dibang rivers and is one of the most biodiverse regions in the Eastern Himalayas. The reserve includes several rare and endemic species of flora and fauna, making it an important area for biodiversity conservation.

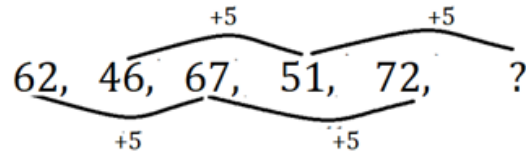
It also holds significant cultural importance, as it is home to various indigenous tribes. The reserve's ecological significance makes it a critical area for ecological research and conservation efforts. Hence, the correct answer is (d) Arunachal Pradesh.

**S50. Ans.(a)**

**Sol.** The duration of the Eighth Five-Year Plan in India was from 1992 to 1997. The Five-Year Plans are a series of centralized economic and social initiatives aimed at developing different aspects of the country's economy. The Eighth Plan focused on the modernization of industries, human resource development, and increasing employment opportunities. These plans are instrumental in shaping India's economic policies and development trajectory. Therefore, the correct answer is (a) 1992 to 1997.

**S51. Ans.(c)**

**Sol.**



$51+5 = 56$

**S52. Ans.(d)**

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

**S53. Ans.(d)**

**Sol.** I. On combining (i) and (iii), we get

$T \leq R < Q < P$

$T < P$

Conclusion (I) follows

II.  $P > Q \geq U$

No definite result between P and U.

Conclusion (II) does not follow

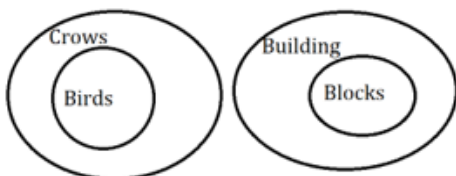
III.  $Q > R \leq S$

No definite result between Q and S.

Conclusion (III) does not follow

**S54. Ans.(b)**

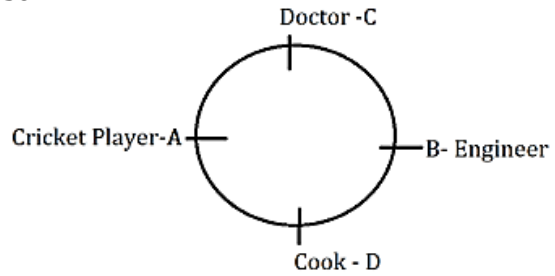
**Sol.**



Only conclusion ii follows

**S55. Ans.(b)**

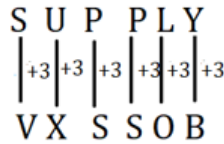
**Sol.**



Cook i.e. D is sitting to the immediate left of Engineer i.e B

**S56. Ans.(c)**

**Sol.**



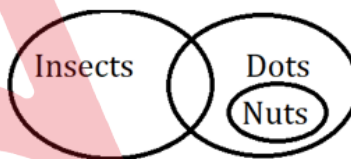
Similarly, CHAIN is coded as FKDLQ

**S57. Ans.(d)**

**Sol.** Horse, Lion, Dog, Cat belongs to the animal group while Stable is a place where horses resides.

**S58. Ans.(a)**

**Sol.**



Only (i) and (iii) follow

**S59. Ans.(b)**

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

**S60. Ans.(d)**

**Sol.** Logic: Sum of the digit on left side and right side are equal.

$7+1+2+3+4 = 4+9+4 = 17$

$2+3+1+7+6 = 19 = 1+9+9$

**S61. Ans.(d)**

**Sol.**  $T \geq M$

This conclusion I is true.

$L > D$

Conclusion II is true.

Both conclusions are true.

**S62. Ans.(b)**

**Sol.** The woman is the only daughter-in-law of the boy's father's father, which means she is the wife of the boy's father. Therefore, the woman is the boy's mother.

**S63. Ans.(b)**

**Sol.**  $Z = 26$ ,  $E = 5$ ,  $R = 18$ ,  $N = 14$ .

E is the odd one out. Because the alphabetical place value of E is not an even number



**S64. Ans.(d)**

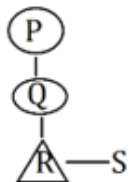
**Sol.** Based on the statement, Vinod has scored more than 70% marks in the board examination, which makes him eligible for admission in ABC Engineering College. Therefore, conclusion I follows.

There is no information given that guarantees Vinod will choose to attend ABC Engineering College, so conclusion II does not necessarily follow.

Hence, the correct answer is option (d) Only conclusion I follows.

**S65. Ans.(b)****Sol.**

Black Yellow White  
 Black Pink Blue  
 Blue is opposite to White.

**S66. Ans.(a)****Sol.**

P is the grandmother of S.

**S67. Ans.(d)**

**Sol.**  $R+7 = Y$   
 $C+7 = J$

**S68. Ans.(a)**

**Sol.** There are 14 straight lines in the given figure.

**S69. Ans.(a)**

**Sol.** There is total 10 squares in the given figure.

**S70. Ans.(d)**

**Sol.** There are 6 right angled triangles in the given figure.

**S71. Ans.(c)**

**Sol.** Logic: Place value of alphabets is coded.

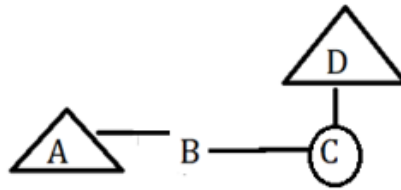
S P O R T  
 19 16 15 18 20  
 C R I C K E T  
 3 18 9 3 11 5 20

**S72. Ans.(c)**

**Sol.** Option (c) is the correct answer.

**S73. Ans.(a)**

**Sol.** 1, 3, 5 that forms a complete square

**S74. Ans.(c)****Sol.**

B can be son or daughter of D.

**S75. Ans.(b)**

**Sol.** The statement that the Chinese government has imposed several restrictions on the use of coal to fight pollution is definitely true. This is directly supported by the passage, which states that as part of their national executive policy to combat pollution, the Chinese government closed thermal power stations and prohibited the burning of coal for home consumption. Therefore, the statement is definitely true

**S76. Ans.(a)**

**Sol.** A chef is related to food as a butcher is related to meat. The relationship is based on their respective professions and the primary material they work with. A chef prepares food, and a butcher handles meat.

**S77. Ans.(b)**

**Sol.**  $D-B=2,$   
 $M-K=2,$   
 $P-N=2,$   
 $X-V=2,$   
 $Z-W=3\neq 2$

**S78. Ans.(c)**

**Sol.** Option (c) is the correct answer.

**S79. Ans.(c)**

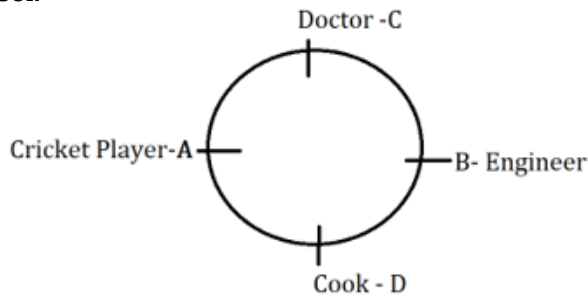
**Sol.**  $18 \times 2 + 1 = 37$   
 $37 \times 2 + 2 = 76$   
 $76 \times 2 + 3 = 155$   
 $155 \times 2 + 4 = 314$   
 $314 \times 2 + 5 = 633$

**S80. Ans.(a)****Sol.**

$201 + 2^1 = 203$   
 $203 + 2^2 = 207$   
 $207 + 2^3 = 215$   
 $215 + 2^4 = 231$   
 $231 + 2^5 = 263$

S81. Ans.(d)

Sol.



B is an engineer.

S82. Ans.(b)

Sol. The statement that a large number of people died in China because they were not allowed to burn coal for consumption in their homes is not supported by the passage. While the passage mentions restrictions on the use of coal, it does not directly link these restrictions to people's deaths. The deaths mentioned in the passage are attributed to PM 2.5 vehicle emissions, not the restriction on coal burning. Therefore, the statement is not supported by the passage, and the correct answer is option (b) D - The statement is definitely wrong.

S83. Ans.(b)

Sol.  $27+8 \times 1=35$

$35+8 \times 2=51$

$51+8 \times 3=75$

$75+8 \times 4=107$

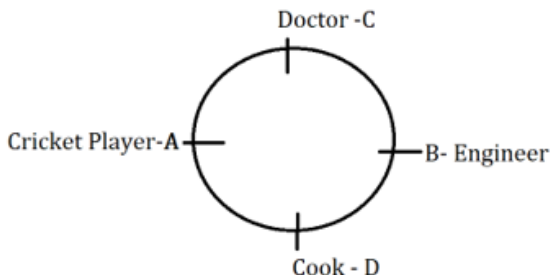
$107+8 \times 5=147$

S84. Ans.(a)

Sol. The logic behind this analogy is that the first term undergoes a transformation or metamorphosis into the second term. In this case, an insect transforms into a larva. Similarly, a butterfly transforms from a caterpillar.

S85. Ans.(a)

Sol.



Doctor is sitting second to the left of cook.

S86. Ans.(d)

Sol. Sum of 7 numbers =  $7 \times 75=525$

After excluding one number,

The sum of remaining six numbers =  $6 \times 75=450$

Excluding number =  $525-450 = 75$

S87. Ans.(c)

Sol.

$$\text{Hypotenuse}^2 = \text{Base}^2 + \text{Height}^2$$

$$10816 = 1600 + \text{Height}^2$$

$$\text{Height}^2 = 10816 - 1600$$

$$\text{Height}^2 = 9216$$

$$\text{Height} = 96\text{cm}$$

$$\text{Area} = \frac{1}{2} \times 40\text{ cm} \times 96\text{ cm}$$

$$\text{Area} = 20 \times 96 = 1920\text{cm}^2$$

S88. Ans.(a)

Sol.

$$\text{Percentage Increase} = \left[ \frac{\text{New Price} - \text{Old Price}}{\text{Old Price}} \right] \times 100$$

$$\text{Percentage Increase} = \left[ \frac{40 - 36}{36} \right] \times 100$$

$$\text{Percentage Increase} \approx 11.11\%$$

S89. Ans.(c)

Sol. Let the height of the parallelogram be 'h' cm.

Base = 3h cm.

Area of a parallelogram, A = base  $\times$  height

$$1083 = 3h \times h$$

$$h^2 = 361$$

$$h = 19\text{ cm}$$

So, base = 57 cm

S90. Ans.(b)

Sol. Add up the digits of the number and find the remainder when that sum is divided by 9.

$$6 + 8 + 3 + 9 + 4 + 2 + 4 = 36$$

Now, find the remainder when 36 is divided by 9:

$$36 \div 9 = 4 \text{ with a remainder of } 0$$

So, the remainder is 0.

S91. Ans.(a)

Sol.

$$\text{Percentage Profit} = \left[ \frac{\text{Selling Price} - \text{Cost Price}}{\text{Cost Price}} \right] \times 100$$

$$\text{Percentage Profit} = \left[ \frac{942 - 785}{785} \right] \times 100$$

$$\text{Percentage Profit} = \left( \frac{1}{5} \right) \times 100 = 20\%$$

S92. Ans.(b)

Sol.

Floor area is  $99\text{ m}^2$  that means  $L \times W = 99$

Volume = Length  $\times$  Width  $\times$  Height

$$\text{Volume} = L \times W \times H = 1188$$

$$H = \frac{1188}{L \times W} = \frac{1188}{99}$$

$$H = 12\text{ m}$$

**S93. Ans.(b)**

**Sol.**

$$\frac{14 \times 210 \div 15 + 14}{\frac{210 \div 14 - 1}{14 \times 14 + 14}} = \frac{14 \times 15}{15 - 1} = 15$$

**S94. Ans.(a)**

**Sol.**

$$\text{Percentage Left} = \left[ \frac{\text{Total Chocolates} - \text{Chocolates Eaten}}{\text{Total Chocolates}} \right] \times 100$$

$$\text{Percentage Left} = \left[ \frac{(40 - 34)}{40} \right] \times 100 = 15\%$$

**S95. Ans.(a)**

**Sol.**

$$\text{Difference in interests} = \text{Principal} \left( \frac{R}{100} \right)^2$$

$$523 = \text{Principal} \left( \frac{10}{100} \right)^2$$

$$\text{Principal} = \text{Rs. } 52300$$

**S96. Ans.(a)**

**Sol.**

$$\text{Cost Price of the item} = 336 \times \frac{100}{112} = \text{Rs. } 300$$

**S97. Ans.(c)**

**Sol.**

$$\begin{aligned} \text{Length of the train} &= \text{Speed of train} \times \text{Time} \\ &= 27 \frac{m}{s} \times 8s = 216 m \end{aligned}$$

**S98. Ans.(b)**

$$\text{Sol. Expenses on rent and household expenses} = 14 + 17 = 31\%$$

$$\text{Expenses on educational fees} = 19\%$$

$$31\% - 19\% = 12\%$$

$$12\% \text{ of } 45000 = \text{Rs. } 5400$$

**S99. Ans.(c)**

**Sol.** Divisibility of 12: A number must be divisible by 4 and 3.

Divisibility of 4: The last two digit of the given numbers must be divisible by 4.

Divisibility of 3: The sum of all the digits of the given number must be divisible by 3.

So,

342684 is perfectly divisible by 12.

**S100. Ans.(a)**

**Sol.**

$$\text{Speed } 6 : 5$$

$$\text{Time } 5 : 6$$

$$1 \text{ unit} = 33 \text{ minutes}$$

$$\text{Normal time taken} = 33 \times 5 = 165 \text{ minutes}$$

**S101. Ans.(b)**

**Sol.**

$$\text{Amount} = \text{Principal} \left( 1 + \frac{r}{100} \right)^t$$

$$\text{Amount} = 26000 \left( 1 + \frac{10}{100} \right)^3$$

$$\text{Amount} = 26000 \times \frac{11}{10} \times \frac{11}{10} \times \frac{11}{10} = \text{Rs. } 34606$$

**S102. Ans.(c)**

**Sol.**

Let the ages of X and Y be  $9x$  and  $10x$  respectively. According to the question,

$$9x + 10x = 133$$

$$19x = 133$$

$$x = \frac{133}{19} = 7$$

The difference in their ages will be  $10x - 9x = x = 7$

**S103. Ans.(b)**

**Sol.** Efficiency of A, B and C are 6 unit per day, 2 unit per day and 1 unit per day respectively.

$$\text{Share of A} = \frac{6}{6+2+1} \times 94248 = \text{Rs. } 62,832$$

**S104. Ans.(c)**

**Sol.** Combined Expenses on rent, educational fees, transport =  $14 + 19 + 15 = 48\%$

$$100\% - 45000$$

$$48\% - 21600$$

**S105. Ans.(d)**

**Sol.**

$$\begin{aligned} SI &= \frac{P \times R \times T}{100} \\ 5220 - 4350 &= 870 = \frac{4350 \times R \times 2}{100} \\ R &= 10\% \end{aligned}$$

**S106. Ans.(a)**

**Sol.** Let the number of pens bought at Rs. 5, Rs. 10, and Rs. 15 each be  $5x$ ,  $6x$ , and  $4x$ , respectively.

$$5x \times 5 + 6x \times 10 + 4x \times 15 = 290$$

$$25x + 60x + 60x = 290$$

$$145x = 290$$

$$x = 2$$

Number of pens bought at Rs. 10 =  $6x = 12$

**S107. Ans.(a)**

**Sol.**

$$(x^3) \div 14 = 1568$$

$$x^3 = 21952$$

$$x = \sqrt[3]{21952}$$

$$x = 28$$

**S108. Ans.(b)**

**Sol.**

If the selling price of two items are same.

First CP:SP = 10 - 11

Second, 10 - 9

After equating both SP we get, 90 - 99

And, 110 - 99

Total CP: SP = 200 - 198

Loss %  $\frac{200-198}{200} \times 100 = 1\%$

**S109. Ans.(d)**

**Sol.** Amounts they receive be 3x, 5x, and 7x, respectively.

7x = 49000

x = 7000

Total Amount = 3x + 5x = 8x

Total Amount received by A and B = 8 × 7000 = Rs. 56,000

**S110. Ans.(b)**

**Sol.**

Let the number be x

25% of 66.67% of 75% of 80% of a number = 512

$$\frac{1}{4} \times \frac{2}{3} \times \frac{3}{4} \times \frac{4}{5} \times x = 512$$

x = Rs. 5120

$$40\% \text{ of } x = \frac{40}{100} \times 5120 = 2048$$

**S111. Ans.(c)**

**Sol.**

Let the length of train be t m.

$$\text{Time} = \frac{\text{distance}}{\text{time}}$$

$$\text{Time} = \frac{t}{23} = \frac{t+260}{49}$$

$$49t = 23t + 5980$$

$$26t = 5980$$

$$t = 230 \text{ m}$$

**S112. Ans.(a)**

**Sol.** Total expenses on food and household = 13%+17% = 30%

100% = 45000

1% = 450

30% = Rs. 13500

**S113. Ans.(d)**

**Sol.**

$$\frac{1}{8} + \frac{3}{4} - \frac{5}{8} = ?$$

$$\frac{1+6-5}{8} = \frac{2}{8} = \frac{1}{4} = 0.25$$

**S114. Ans.(a)**

**Sol.** X = 0.68999..... (1)

Multiply by 1000 in equation (1)

$$1000X = 689.999.....(2)$$

Multiply by 100 in equation (1)

$$100X = 68.9999.....(3)$$

Subtract eq. (2)- (1)

$$900X = 621$$

$$X = \frac{621}{900}$$

**S115. Ans.(d)**

**Sol.** 79 - [23 - (84 ÷ 7 - (16 - 16 ÷ 4) ÷ 4)]

$$79 - [23 - (84 \div 7 - (16 - 4) \div 4)]$$

$$79 - [23 - (84 \div 7 - 12 \div 4)]$$

$$79 - [23 - (12 - 3)]$$

$$79 - [23 - 9]$$

$$79 - 14 = 65$$

**S116. Ans.(d)**

**Sol.**

$$\text{Average} = \frac{[a + l]}{2} = \frac{45+57}{2} = \frac{102}{2} = 51$$

**S117. Ans.(a)**

**Sol.** H.C.F × L.C.M = first number × second number

$$182 \times 13 = 13 \times \text{second number}$$

$$\text{second number} = 182$$

**S118. Ans.(a)**

**Sol.** A number is divisible by 15 only if it is divisible by 5 and 3.

A number is divisible by 3 when the sum of the digits of the given numbers are divisible by 3.

A number is divisible by 5 when the last digit of the number is either 0 and 5.

43642650 is divisible by 15.

**S119. Ans.(d)**

**Sol.** No. of students who scored between 41-60% = 100 - (23+47) = 30%

$$30\% \text{ of } 650 = 195$$

**S120. Ans.(c)**

**Sol.** Total Expenses for the Year = Overall Quarterly Average Expense × 4

$$\text{Total Expenses for the Year} = \text{Rs. } 54075 \times 4$$

$$\text{Total Expenses for the Year} = \text{Rs. } 216300$$

Expenses for the Final Quarter = Total Expenses for the Year - (Expenses in Q1 + Expenses in Q2 + Expenses in Q3)

$$\text{Expenses for the Final Quarter} = 216300 - (43500 + 46500 + 57600) = 216300 - 147600 = \text{Rs. } 68700$$