

Q1. Choose the set of number that is similar to the following set.

- (16, 63, 65)
 (a) (14, 25, 26)
 (b) (19, 42, 15)
 (c) (13, 84, 85)
 (d) (16, 28, 12)

Q2. In a code language, BEAUTIFUL is written as 6153636027186336. How would WATER be written in the same code language?

- (a) 693601554
 (b) 693601555
 (c) 410456123
 (d) 493601554

Q3. Select the combination of letters that when arranged in the gaps of the given letter will complete the series.

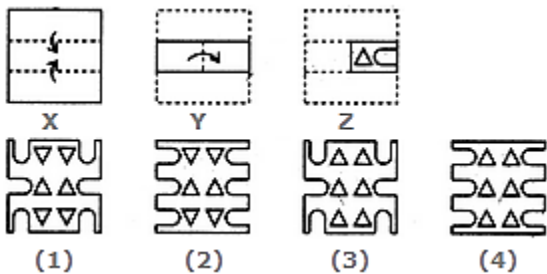
t _ r _ to _ n _ r _ n t _ n

- (a) onrtoor
 (b) orrtoon
 (c) nnrtoor
 (d) onrnoor

Q4. Three of the following four letter are alike in a certain way and one is different. Pick the odd one out

- (a) 1728
 (b) 4096
 (c) 15625
 (d) 3374

Q5. Choose a figure which would most closely resemble the unfolded form of Figure (Z).



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

Q6. Two statements are given followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known fact decide which of the conclusion logically follow(s) from the statements.

Statement:

All cold is hot.
 Some hot are calm.

Conclusion :-

- I. Some calm are hot.
 II. All hot are cold.
 III. Some hot are cold.
 (a) None of the conclusion follow.
 (b) Only conclusion I follow.
 (c) Only conclusion II follow.
 (d) Only conclusion I and III follow.

Q7. Select the term that will come at the place of ?.

- 7, 9, 21, 67, ?, 1371
 (a) 274
 (b) 273
 (c) 275
 (d) 276

Q8. Arrange the following words in the same way they are placed in dictionary.

1. Perfectly
 2. Perform
 3. Percentage
 4. Performance
 5. Perfect
 (a) 14325
 (b) 42315
 (c) 35124
 (d) 41253

Q9. If INTELLIGENT is coded as 109 how would you code SORRY?

- (a) 79
- (b) 76
- (c) 95
- (d) 84

Q10. Select the number-pair in which the two numbers are related in the same way as are the two numbers of the following.

9: 810

- (a) 5: 150
- (b) 7: 350
- (c) 21: 444
- (d) 3: 35

Q11. Which two signs should be interchanged in the following equation to make equation correct?

$$105 \times 5 \div 3 - 29 + 75 = 109$$

- (a) \div and \times
- (b) $-$ and \div
- (c) $+$ and \times
- (d) $+$ and $-$

Q12. Which answer figure will complete the pattern in the question figure?

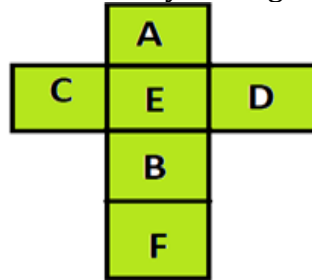


- (a)
- (b)
- (c)
- (d)

Q13. 'Hydrogen' is related to 'Henry Cavendish' in the same way 'Oxygen' is related to:

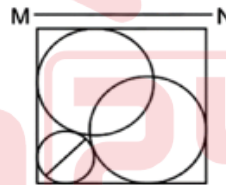
- (a) Rutherford
- (b) Carl Wilhelm Scheele
- (c) William Herschel
- (d) Louis Gay-Lussac

Q14. Select the opposite pairs in a cube that cannot be formed by folding the given sheet along the lines.



- I. A- E
 - II. A-B and E-F
 - III. C-E and E-D
- (a) Only I and III
 - (b) Only I
 - (c) Only II and III
 - (d) Only II

Q15. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



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

Q16. An amount of Rs. 6900 is divided among three friends named Shalu, Shalini, and Shubhi. If the amount is divided in the ratio of 7:6:10 then find the sum of the share of Shalini and Shubhi.

- (a) 3000
- (b) 2100
- (c) 3900
- (d) 4800

Q17. Find the number of triangles in the given figure.



- (a) 38
- (b) 35
- (c) 32
- (d) 31

Q18. Three of the following four letter are alike in a certain way and one is different. Pick the odd one out?

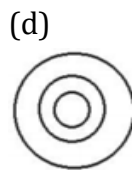
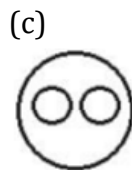
- (a) GTQJ
- (b) HSPK
- (c) NMJQ
- (d) ZABY

Q19. Choose the set of number that is similar to the following set.

- (16,136,17)
- (a) (16, 120, 15)
 - (b) (8, 35, 10)
 - (c) (4, 44, 7)
 - (d) (6, 30, 14)

Q20. Select the Venn diagram that best illustrates the relationship between the following classes
Indoor games, Table Tennis, Outdoor Games

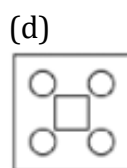
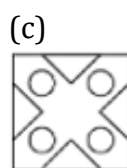
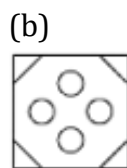
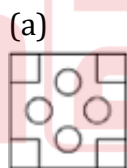
- (a)
-
- (b)
-



Q21. Neelam is the wife of Suresh. They have two daughters Nisha and Nancy. Suresh is the son-in-law of Ram Krishan and Reena. How is Neelam related to Reena?

- (a) Mother
- (b) Sister
- (c) Daughter
- (d) Niece

Q22. A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.



Q23. Select the number-pair in which the two numbers are related in the same way as are the two numbers of the following.

19: 342

- (a) 15: 240
- (b) 17: 306
- (c) 16: 240
- (d) 13: 182

Q24. Select the option that is related to the third term in the same way as the second term is related to the first term.

ASFUJHK: PQSFUHZ: : LMGHERT:

- (a) OIVSTNS
- (b) GIVSTNO
- (c) IGVSTNO
- (d) VGISTNO

Q25. Three of the following four letter are alike in a certain way and one is different. Pick the odd one out?

- (a) Wheat
- (b) Gram
- (c) Mustard
- (d) Maize

Q26. What is the theme for World Kidney Day 2024?

- (a) Kidney Health for Everyone
- (b) Advancing Equitable Access to Care
- (c) Kidney Health for All – Advancing Equitable Access to Care and Optimal Medication Practice
- (d) Global Kidney Awareness

Q27. The "Security Belt-2024" exercise is a joint exercise between:

- (a) USA, India, and Australia
- (b) China, Iran, and Russia
- (c) Japan, South Korea, and the Philippines
- (d) France, Germany, and the UK

Q28. The first-ever overseas office of Numaligarh Refinery was opened in:

- (a) Nepal
- (b) Bangladesh
- (c) Sri Lanka
- (d) Myanmar

Q29. Which ministry announced the Electric Mobility Promotion Scheme 2024?

- (a) Ministry of New and Renewable Energy
- (b) Ministry of Road Transport and Highways
- (c) Ministry of Heavy Industries
- (d) Ministry of Environment, Forest and Climate Change

Q30. The 'Pradhan Mantri Samajik Utthan evam Rozgar Adharit Jankalyan (PM-SURAJ)' portal was launched by:

- (a) The President of India
- (b) The Prime Minister of India
- (c) The Union Minister for Social Justice and Empowerment
- (d) The Finance Minister of India

Q31. Who played Socrates to the first generation of the English educated Young men of Bengal?

- (a) Swami Vivekananda
- (b) Rai Narain Bose
- (c) Henry Vivian Derozio
- (d) Drinkwater Bethune

Q32. By the Charter Act of 1813 the Indian trade except in _____ was thrown open to all British subjects.

- (a) Tea
- (b) Spices
- (c) Coffee
- (d) Cotton

Q33. Which one of the following movement started from Dandi March?

- (a) Swadeshi Movement
- (b) Non-Cooperation Movement
- (c) Civil Disobedience Movement
- (d) Quit India Movement

Q34. The famous INA trails took place in the Red Fort, Delhi in____

- (a) 1945
- (b) 1946
- (c) 1944
- (d) 1947

Q35. Which of the following positions is not appointed by the President of India?

- (a) Chief Minister of States
- (b) Prime Minister
- (c) Chief Justice of India
- (d) Attorney General of India

Q36. According to the Indian Constitution, at one time, a person can be the Governor of a maximum number of how many State/States?

- (a) Three
- (b) Two
- (c) The maximum number is not fixed
- (d) One

Q37. Who can participate in the debate of Lok Sabha despite not being a member of parliament?

- (a) Vice President
- (b) Solicitor General of India
- (c) Comptroller and Auditor General of India
- (d) Attorney General of India

Q38. Under which Article of the Constitution of India can the President take over the administration of a state, in case its constitutional machinery breaks down?

- (a) Article 360
- (b) Article 356
- (c) Article 352
- (d) Article 89

Q39. The type of volcano made up of exploded rock blasted out of a central vent at a high velocity is

- (a) Cinder cone
- (b) Composite volcano
- (c) Shield volcano
- (d) Relict Mountain

Q40. In which of the following Indian states does the tribe of 'Nyishi' belong?

- (a) Bihar
- (b) Arunachal Pradesh
- (c) Chhattisgarh
- (d) Tamil Nadu

Q41. Tides occur in the oceans and seas due to which among the following?

- 1. Gravitational force of the Sun.
 - 2. Gravitational force of the Moon
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 & 2
 - (d) Neither 1 nor 2

Q42. With whom did Camillo Golgi receive the Nobel Prize in 1906 for his work on the structure of the nervous system?

- (a) Lina Aletti
- (b) Cesare Lombroso
- (c) Ettore Marchiafava
- (d) Santiago Ramon y Cajal

Q43. 'The Autobiography of an Unknown Indian' is the autobiography of ____.

- (a) UV Swaminathan Iyer
- (b) Anna Chandy
- (c) Nirad C. Chaudhuri
- (d) Inder Kumar Gujral

Q44. Banks issue KCC to support credit in agriculture. KCC stands for _____.

- (a) Kisan Credit Certificate
- (b) Krishi Credit Card
- (c) Krishi Credit Certificate
- (d) Kisan Credit Card

Q45. Which of the following is applied on the top of the matchsticks?

- (a) Red phosphorus
- (b) White phosphorus
- (c) Potassium sulfate
- (d) No option is correct.

Q46. Valency of an element depends on which of the following?

- I. Number of losing electron
 - II. Number of gaining electron
 - III. Number of sharing electron
- (a) Only I and II
 - (b) Only I and III
 - (c) Only II and III
 - (d) All I, II and III

Q47. Which of the following statement(s) is/are **CORRECT**?

I. Oils containing unsaturated fatty acids should be used for cooking.

II Animal fats have saturated carbon chains.

III. Saturated fatty acids are generally harmful for health.

- (a) Only I and II
- (b) Only I and III
- (c) Only II and III
- (d) All I, II and III

Q48. Why does a fountain pen leak in aeroplane flying at a height?

- (a) Because of reduced viscosity of the ink in the pen
- (b) Because of increased viscosity of the ink in the pen
- (c) Because of higher atmospheric pressure outside the pen
- (d) Because of lower atmospheric pressure outside the pen

Q49. The Total Expenditure of The Union Budget 2023-24 is:

- (a) 39 Lakh Crore
- (b) 41 Lakh Crore
- (c) 45.03 Lakh Crore
- (d) 47 Lakh Crore

Q50. What does GDP mean?

- (a) The total value of all goods and services produced in the country during a period of 1 year
- (b) The total value of all stocks and shares in the country during a period of 1 year
- (c) The total value of all capital goods produced in the country during a period of 1 year
- (d) The total value of all consumer goods produced in the country during a period of 1 year

Q51. What is the perimeter of triangle ABC if the length of AP is 6cm and the length of BC is 7cm, given that the incircle of the triangle touches the sides AB, BC, and CA at points P, Q and R respectively?

- (a) 26
- (b) 25
- (c) 24
- (d) 20

Q52. If a rower takes 24 hours to travel 144 km upstream and 9 hours to travel the same distance downstream, what is the speed (in km/hr.) of the boat in still water?

- (a) 5 km/hr.
- (b) 11km/hr.
- (c) 8 km/hr.
- (d) 22 km/hr.

Q53. ΔABC is similar to ΔDEF . The area of $\Delta ABC = 576\text{cm}^2$ and the area of ΔDEF is 400cm^2 . If the altitude of $\Delta ABC = 10.2$ cm, then the corresponding altitude of ΔDEF is?

- (a) 8.5 cms
- (b) 4.2 cm
- (c) 6.9 cm
- (d) 7.2 cm

Q54. If $\frac{\sin\alpha + \cos\alpha}{\sin\alpha - \cos\alpha} = \frac{9}{5}$ then find $\cos\alpha + \sin\alpha$

- (a) $\frac{9}{\sqrt{54}}$
- (b) $\frac{9}{\sqrt{53}}$
- (c) $\frac{19}{\sqrt{53}}$
- (d) $\frac{49}{\sqrt{54}}$

Q55. Find the value of $(1 - \sec\beta + \tan\beta)(1 + \operatorname{cosec}\beta + \cot\beta)$

- (a) 2
- (b) 1
- (c) -1
- (d) 0

Q56. From the top of a 60m high lighthouse above sea level, the angle of depression of a ship sailing directly towards it changes from 45° to 60° . What is the distance travelled by the ship during the period of observation?

- (a) 39.64m
- (b) 34.64 m
- (c) 15.4 m
- (d) 25.4 m

Q57. What is the value of $(A - 15B)$, if $(5x - 2y)^3 - (5x + 2y)^3 = y [Ax^2 + By^2]$

- (a) -100
- (b) 60
- (c) -60
- (d) 100

Q58. What is the value of larger number among two numbers whose HCF and LCM are 12 and 144 respectively and their ratio is 4:3?

- (a) 84
- (b) 36
- (c) 48
- (d) 60

Q59. Find the simplified value of $\sqrt{14 + 6\sqrt{5}}$

- (a) $3 - \sqrt{5}$
- (b) $3 + \sqrt{5}$
- (c) $8 + \sqrt{5}$
- (d) $8 - \sqrt{5}$

Q60. If $x + \frac{1}{x} = \sqrt{2}$ then find $x^{32} + x^{28} - x^{24} + x^{20} - x^{16} + x^{12} + 4 =$

- (a) 4
- (b) -4
- (c) 0
- (d) 1

Q61. A number P which is 60% more than Q, Q is 30% less than R and R is 25% more than S. Find Q: R: S:P

- (a) 35:50:40:56
- (b) 56:50:40:35
- (c) 56:35:50:40
- (d) 56:40:50:35

Q62. An equilateral triangle of sides 8cm. Find the product of its in-radius and circum-radius (correct up to 2 decimals)

- (a) 10.69 cm^2
- (b) 10.68 cm^2
- (c) 10.67 cm^2
- (d) 10.65 cm^2

Q63. What is the weight of a metallic pipe with a length of 7.49 m, external radius of 3.5 cm and internal radius of 2.5cm, given that the weight of 1 cubic centimeter of the metal is 6.5 gm

(take $\pi = \frac{22}{7}$)

- (a) 92.806 kg
- (b) 81.706 kg
- (c) 90.806 kg
- (d) 91.806kg

Q64. If the size of each biscuit packet is $5\text{cm} \times 3\text{cm} \times 1.5\text{cm}$, how many packets can be stored in a cardboard box that has dimensions of $125\text{cm} \times 21\text{cm} \times 4.5\text{cm}$?

- (a) 525
- (b) 530
- (c) 480
- (d) 512

Q65. If some chocolates are bought at a rate of 12 for Rs. 200 and an equal number at a rate of 9 for Rs. 120, and all the chocolates are sold at a rate of 12 for Rs. 200, then What is the gain or loss percentage in the entire transaction?

- (a) 50% loss
- (b) 50% gain
- (c) 10% loss
- (d) 10% gain

Q66. Rashi buys two types of pulses, the first type at 75 per kg and the second type at 120per kg. In what ratio should Rashi mix the first type of pulses with the second type so that, by selling each kg of the pulse's mixture at 125 per kg, she makes a profit of 25%?

- (a) 4: 5
- (b) 5: 4
- (c) 3: 4
- (d) 4: 3

Q67. Arjun invested his money in the following ways: If the interest on sum of Rs. H at 9% per annum for four years is four times the interest on sum of Rs. L at 11% for 5 years. Which of the following relation is correct between H and L (correct up to 1 decimal place).

- (a) $H = 6.2 L$
- (b) $H = 6.1 L$
- (c) $H = 5.1 L$
- (d) $H = 2.6 L$

- Q68.** If the compound interest on a certain sum is Rs 9009 at the rate of 20% per annum for 3 years. The sum (in Rs) is
- (a) Rs.12375
 (b) Rs. 12475
 (c) Rs.11375
 (d) Rs. 10375

- Q69.** The efficiencies of Naman, Aman and Pawan are in ratio 5: 8: 3. Working together they can complete a work in 40 days. Naman and Aman worked together for 20 days. The remaining work will be completed by Pawan alone in?
- (a) $125\frac{1}{3}$ days
 (b) $126\frac{2}{3}$ days
 (c) $126\frac{1}{3}$ days
 (d) $127\frac{2}{3}$ days

- Q70.** In a company, average of monthly salary of 50 employees of a company is 25000. If the average salary of two officers is 95000 each and the average salary of 8 supervisors is 60000, then what is the average salary (in) of the remaining employees?
- (a) Rs. 14500
 (b) Rs. 13500
 (c) Rs. 12500
 (d) Rs. 15500

- Q71.** Two friends Lalit and Mayank started travelling towards each other at the same time, from Delhi to Noida and Noida to Delhi respectively. After meeting each other Lalit took 25 hours and Mayank took 'x' hours to reach Noida and Delhi respectively. If the speed of Lalit and Mayank are 100km/hr and 125km/hr then Find the value of x.
- (a) 16 hours
 (b) 10 hours
 (c) 12 hours
 (d) 15 hours

- Q72.** If a big sphere of radius 10cm is cut to make small balls of radius 2cm, then how many numbers of balls can be made?
- (a) 27
 (b) 64
 (c) 122
 (d) 125

Directions (73-75): The following table shows the productions of food grains (in million tons) in a state for the period 1999 - 2000 to 2003 - 2004.

Read the table and answer the questions

Production (in million tons)				
Year	Wheat	Rice	Barley	Other cereals
1999-2000	680	270	250	450
2000-2001	800	420	440	300
2001-2002	680	350	320	460
2002-2003	720	400	380	500
2003-2004	820	560	410	690

- Q73.** In which year the production of food grains was minimum?
- (a) 1999-2000
 (b) 2002-2003
 (c) 2001-2002
 (d) 2003-2004

- Q74.** How many percent of increase of wheat production in the year 2002-2003 with respect to the previous year (correct up to 1 decimal place)?
- (a) 6%
 (b) 5.9%
 (c) 5.7%
 (d) 5.6%

- Q75.** Production of barley is how much percent of production of rice in the year 2001-2002?
- (a) 91.3%
 (b) 91.5%
 (c) 91.4%
 (d) 91.6%

- Q76.** Select the most appropriate option that can substitute the highlighted segment in the given sentence.
 She was well-prepared for the exam, **however she** could not finish on time.
- (a) nonetheless she
 (b) so she
 (c) hence she
 (d) as a result she

Q77. Select the most appropriate option to fill in the blank.

To succeed in your career, it's essential to develop strong _____ skills.

- (a) communication
- (b) culinary
- (c) acrobatic
- (d) horticultural

Q78. Identify the INCORRECTLY spelled word in the given sentence.

Her fascination with the cosmos led her to pursue a career in astrofysics.

- (a) Fascination
- (b) Cosmos
- (c) Astrofysics
- (d) Pursue

Q79. Select the INCORRECTLY spelled word.

- (a) Liasion
- (b) Exaggerate
- (c) Accommodate
- (d) Maintenance

Q80. Select the sentence with the appropriate use of adverb of frequency.

- (a) Ravi has been to Mumbai many times.
- (b) Ravi went to Mumbai for a business meeting.
- (c) Ravi rarely visits Mumbai.
- (d) Ravi moved to Mumbai last year.

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

Meticulous

- (a) Careless
- (b) Conscientious
- (c) Imprecise
- (d) Haphazard

Q82. Select the most appropriate ANTONYM of the highlighted word.

The **dense** fog made it almost impossible to see the road ahead.

- (a) Impenetrable
- (b) Puzzling
- (c) Sparse
- (d) Opaque

Q83. Select the most appropriate option that can substitute the highlighted segment in the given sentence.

We all enjoyed **ourselves in the trip to the beach** last weekend.

- (a) ourselves in the trip to the beaches
- (b) ourselves on a trips to the beach
- (c) ourself on the trips to the beach
- (d) ourselves on the trip to the beach

Q84. Select the most appropriate option to fill in the blank.

His _____ manner made everyone feel welcome at the event.

- (a) jovial
- (b) hostile
- (c) morose
- (d) indifferent

Q85. Rearrange the parts of the sentence in correct order.

Our

P. was a thrilling

Q. mountain climbing expedition

R. and unforgettable experience

S. in the Himalayas

- (a) PQSR
- (b) PSQR
- (c) SQRP
- (d) QSPR

Q86. Select the correct direct form of the given sentence.

The family members said, "We have lived here for a long time."

- (a) The family members said that they had been lived here for a long time.
- (b) The family members said that they have lived here for a long time.
- (c) The family members said that they have been lived here for a long time.
- (d) The family members said that they had lived there for a long time.

Q87. Select the correct active form of the given sentence.

The product was developed by the company's research team over several years.

- (a) The company's research team develops the product over several years.
- (b) The company's research team is developing the product over several years.
- (c) The company's research team developed the product over several years.
- (d) The company's research team has developed the product over several years.

Q88. Select the most appropriate ANTONYM of the highlighted word.

His calm **demeanor** helped to defuse the tense situation.

- (a) Comportment
- (b) Misconduct
- (c) Serene
- (d) Placid

Q89. Select the correct passive form of the given sentence.

John is sending the email to his boss.

- (a) The email is being sent to his boss by John.
- (b) The email was sent to his boss by John.
- (c) The email has been sent to his boss by John.
- (d) The email is sent to his boss

Q90. Select the most appropriate option to fill in the blank.

He has experienced _____ challenges in his life so he is well-equipped to tackle the situation.

- (a) numerous
- (b) minimal
- (c) rare
- (d) few

Q91. The question below consists of a set of labelled sentences. Out of the four options given, select the most logical order of the sentences to form a coherent paragraph.

P. It is important to maintain a healthy diet to stay fit.

Q. It can be done by consuming fruits and vegetables which are essential for a well-balanced diet.

R. Junk food should be avoided as it can have negative impacts on health.

S. And drinking enough water is also crucial for staying healthy.

- (a) RQSP
- (b) QRPS
- (c) RQPS
- (d) PQSR

Q92. Select the most appropriate meaning of the highlighted idiom in the given sentence.

After failing the exam, he had to **face the music** from his parents.

- (a) Enjoy a musical performance
- (b) Confront the consequences of one's actions
- (c) Listen to a particular type of music
- (d) Play music to relieve stress

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

The sudden noise in the dark room was **disconcerting**.

- (a) Reassuring
- (b) Unsettling
- (c) Comforting
- (d) Calming

Q94. Select the most appropriate option that can substitute the highlighted segment in the given sentence.

She is interested in the arts, **as well as sports**.

- (a) besides sports
- (b) not only sports
- (c) but sports
- (d) or sports

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

Despite facing numerous obstacles, she remained _____ in her pursuit of success.

- (a) tenacious
- (b) indecisive
- (c) complacent
- (d) hesitant

Directions (96-100): In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number.

In the world of technology, innovations _____ (1) at a rapid pace, and smartphones have become a _____ (2) part of our daily lives. With new features constantly being _____ (3), it can be hard to keep up with the latest _____ (4). Smartphones have come a long way since their inception, with the first model _____ (5) back to the 20th century when it was a basic communication device.

Q96. Select the most appropriate option to fill in blank number 1.

- (a) happen
- (b) occur
- (c) develop
- (d) increase

Q97. Select the most appropriate option to fill in blank number 2.

- (a) significant
- (b) useless

- (c) obsolete
- (d) costly

Q98. Select the most appropriate option to fill in blank number 3.

- (a) introduced
- (b) removed
- (c) maintained
- (d) replaced

Q99. Select the most appropriate option to fill in blank number 4.

- (a) invention
- (b) brand
- (c) trend
- (d) model

Q100. Select the most appropriate option to fill in blank number 5.

- (a) dated
- (b) turning
- (c) linking
- (d) tracing

Solutions

S1. Ans.(c)

Sol.

(16, 63, 65) is the triplet of right angle triangle.

In the same way,

(13, 84, 85) is also the triplet of right angle triangle.

S2. Ans.(a)

Sol.

Logic : (Place Value $\times 3$)

B	E	A	U	T	I	F	U	L
↓2	↓5	↓1	↓21	↓20	↓9	↓6	↓21	↓12
6	15	3	63	60	27	18	63	36

W	A	T	E	R
↓23	↓1	↓20	↓5	↓18
69	3	60	15	54

S3. Ans.(a)

Sol.

t_o r_n t_o n_t r_n t_o n_t r_n

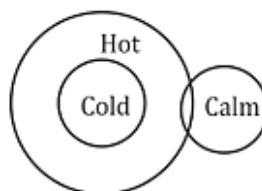
S4. Ans.(d)

Sol. Except option 'd' are all the cubes of numbers.

S5. Ans.(a)

S6. Ans.(d)

Sol.



Only conclusion I and III follows.

S7. Ans.(b)

Sol.

7, 9, 21, 67, 273, 1371

$\times 1+2$ $\times 2+3$ $\times 3+4$ $\times 4+5$ $\times 5+6$

S8. Ans.(c)

Sol.

Correct order is -

Percentage, Perfect, Perfectly, Perform, Performance.

(3) (5) (1) (2) (4)

S9. Ans.(d)

Sol.

I	N	T	E	L	L	I	G	E	N	T	A	E	I	O	U
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
3	+14	+20	+2	+12	+12	+3	+7	+2	+14	+20	1	2	3	4	5
S	O	R	R	Y											
19	+4	+18	+18	+25	=	84									

S10. Ans.(a)

Sol.

$$9:9^3 + 9^2 = 729 + 81 = 810$$

$$5:5^3 + 5^2 = 125 + 25 = 150$$

S11. Ans.(a)

Sol.

$$105 \times 5 \div 3 - 29 + 75 = 109$$

Change \div & ' \times '

$$\Rightarrow 105 \div 5 \times 3 - 29 + 75 = 109$$

$$\Rightarrow 21 \times 3 - 29 + 75 = 109$$

$$\Rightarrow 63 - 29 + 75 = 109$$

$$\Rightarrow 138 - 29 = 109$$

$$\Rightarrow 109 = 109$$

S12. Ans.(c)

S13. Ans.(b)

Sol.

Henry Cavendish discovered hydrogen.

Similarly,

Oxygen was discovered by Carl Wilhelm Scheele.

S14. Ans.(a)

Sol.

Opposite pairs will be

A - B, E - F, C - D

So, I & III cannot be formed.

S15. Ans.(d)

S16. Ans.(d)

Sol.

Shalu : Shalini : Shubhi

$$7x : 6x : 10x$$

$$7x + 6x + 10x = 6900$$

$$23x = 6900$$

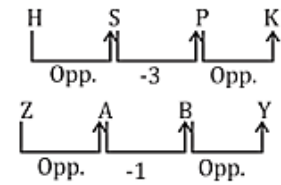
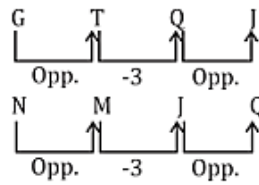
$$x = 300$$

So, Sum of the amount of Shalini and Shubhi = $16x = 16 \times 300 = 4800$

S17. Ans.(d)

S18. Ans.(d)

Sol.



S19. Ans.(a)

Sol.

$$\text{Logic} = \left[\text{III}^{\text{rd}} \text{ No.} \times \frac{\text{I}^{\text{st}} \text{ no.}}{2} \right] = \text{II}^{\text{nd}} \text{ no.}$$

(16, 136, 17)

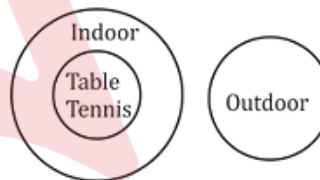
$$\Rightarrow 17 \times \frac{16}{2} = 17 \times 8 = 136$$

\Rightarrow (16, 120, 15)

$$\Rightarrow 15 \times \frac{16}{2} = 15 \times 8 = 120$$

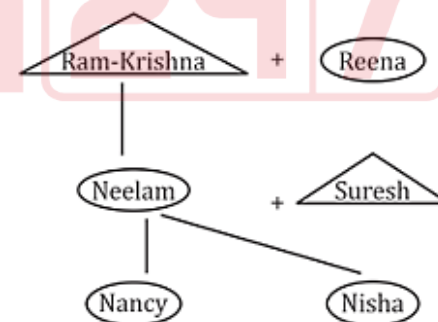
S20. Ans.(b)

Sol.



S21. Ans.(c)

Sol.



Neelam is the daughter of Reena.

S22. Ans.(a)

S23. Ans.(c)

Sol.

$$19 : 342 \Rightarrow 19 \times 18 = 342$$

$$16 : 240 \Rightarrow 16 \times 15 = \boxed{240}$$

S24. Ans.(b)

Sol. Opposite letter starts from the right-hand side.

S25. Ans.(d)

Sol. Except Maize, all are Rabi Crops.

S26. Ans.(c)

Sol. The Correct answer is (c)

The theme for World Kidney Day 2024 is "Kidney Health for All – Advancing equitable access to care and optimal medication practice"

S27. Ans.(b)

Sol. The correct answer is (b)

The "Security Belt-2024" exercise is a joint exercise between China, Iran, and Russia

S28. Ans.(b)

Sol. The correct answer is (b)

India's Numaligarh Refinery Limited (NRL) has opened its first overseas office in Dhaka. The office will serve as a liaison office for the company.

India-Bangladesh Friendship Pipeline Project

- The India-Bangladesh Friendship Pipeline Project was jointly inaugurated by Indian Prime Minister Narendra Modi and Bangladesh Premier Sheikh Hasina virtually on March 18, 2023. This project marks the first supply of petroleum products from a cross-border pipeline to Bangladesh.
- The pipeline has a capacity to transport 1 Million Metric Tonnes Per Annum (MMTPA) of high-speed diesel and has been completed at a total estimated cost of over Rs 375 crore. Over Rs 285 crore has been spent for the construction of the Bangladesh portion of the pipeline under an Indian government grant.
- Since the pipeline's inauguration last year, 42 TMT of diesel worth USD 34 million (Rs 282 crore) has been exported to Bangladesh. The pipeline has facilitated cross-border supply of high-speed diesel in a faster and more economical manner with a minimal carbon footprint. This has created a sustainable, reliable and cost-effective way of transporting high-speed diesel to Bangladesh.

- NRL has diversified its business into new areas beyond their core business as a downstream company.
- A 130 KM Indo-Bangla Friendship Pipeline (IBFPL) for transporting products from its terminal at Siliguri to Bangladesh was set up.
- NRL has also set up the Country's first bamboo-based 2G Bio-Refinery through a joint venture company Assam Bio-Refinery Pvt. Under Open Acreage Licensing Policy (OALP) they have ventured into the upstream exploration and production business.

Numaligarh Refinery Limited (NRL)

- Numaligarh Refinery Limited (NRL) was established on 22nd April 1993 as a company. It was established in accordance with the provisions made in the historic Assam Accord which was signed on 15th August 1985.
- India's first refinery was set up at Digboi in 1901. Until 1947, this was the only refinery with a capacity of 0.50 million metric tonnes per annum (MMTPA).
- The present HPCL's Mumbai Refinery was the first modern refinery to be set up after independence by Esso in 1954.
- This was followed by setting up of refineries by other oil majors, like Burmah Shell and Caltex in Mumbai (BPCL) and Visakhapatnam (HPCL). Since then, refineries were established by the government, private sector, and joint ventures.

S29. Ans.(c)

Sol. The Correct answer is (c)

The Electric Mobility Promotion Scheme 2024 was announced by the Ministry of Heavy Industries. This ministry is primarily responsible for promoting the development of heavy industries in India, including automotive, heavy engineering, machine tools, electrical, and other industries. The Electric Mobility Promotion Scheme is part of India's efforts to reduce its greenhouse gas emissions and dependence on fossil fuels by encouraging the adoption of electric vehicles (EVs) across the country.

The scheme aims to support the comprehensive adoption of electric vehicles by providing various incentives for their purchase, establishing charging infrastructure, and promoting domestic manufacturing of electric vehicles and their components. This aligns with the government's broader vision of transitioning to cleaner sources of energy and making India a global hub for electric vehicle manufacturing.

S30. Ans.(b)

Sol. The Correct answer is (b)

The 'Pradhan Mantri Samajik Utthan evam Rozgar Adharit Jankalyan (PM-SURA)' portal was launched by the Prime Minister of India, Narendra Modi .

This initiative is part of the government's efforts to enhance social upliftment and create employment opportunities based on the unique needs and challenges of different communities in India. The portal aims to provide a comprehensive platform that integrates various social welfare schemes and employment programs to ensure more efficient and accessible delivery of benefits to the targeted beneficiaries.

S31. Ans.(c)

Sol. Henry Louis Vivian Derozio was an Indian poet and assistant headmaster of Hindu College, Kolkata, a radical thinker and one of the first Indian educators to disseminate Western learning and science among the young men of Bengal.

S32. Ans.(a)

Sol. Charter Act of 1813, was an Act of the Parliament of the United Kingdom which renewed the charter issued to the British East India Company, and continued the Company's rule in India. However, the Company's commercial monopoly was ended, except for the tea trade and the trade with China.

S33. Ans.(c)

Sol. The Salt March, also known as the Dandi March and the Dandi Satyagraha, was an act of Non-violent civil disobedience in colonial India initiated by Mohandas Karamchand Gandhi to produce salt from the seawater in the coastal village of Dandi, as was the practice of the local populace until British officials introduced taxation on salt production, deemed their sea-salt reclamation activities illegal, and then repeatedly used force to stop it.

S34. Ans.(a)

Sol. The Indian National Army trials, which are also called the Red Fort trials, were the British Indian trial by courts-martial of a number of officers of the Indian National Army (INA) between November 1945 and May 1946, for charges variously for treason, torture, murder and abetment to murder during World War II.

S35. Ans.(a)

Sol. In the states, the Chief Ministers are appointed by the Governor and not by the President, while the Governor is appointed by the President.

S36. Ans.(c)

Sol. According to the Indian Constitution, at one time, a person can be the Governor of a maximum of any number of states, the maximum number is not fixed.

S37. Ans.(d)

Sol. The Attorney General of India is the Indian Government's Chief legal adviser and he is the primary lawyer in the Supreme Court of India. He can attend the meetings of both houses of the Parliament but cannot vote there.

S38. Ans.(b)

Sol.

- It confers a power upon the President to be exercised where he is satisfied that a situation has arisen where the government of a State cannot be carried on in accordance with the provisions of the Constitution.

- President's rule is also called Constitutional Emergency or State Emergency.
- President can assume to himself all or any of the functions of the Government of the State and all or any of the powers vested in or exercisable by the Governor or anybody or authority in the State other than the Legislature of the State.

S39. Ans.(a)

Sol. Cinder cones are the simplest type of volcano. They are built from particles and blobs of congealed lava ejected from a single vent. As the gas-charged lava is blown violently into the air, it breaks into small fragments that solidify and fall as cinders around the vent to form a circular or oval cone.

S40. Ans.(b)

Sol. Nyishi is one of the major ethnic groups and major tribes in the north-eastern state of Arunachal Pradesh.

S41. Ans.(c)

Sol. • The periodical rise and fall of the sea level is known as tide.

- The Moon's gravitational pull is the major cause of a tide
- Sun's gravitational pull and centrifugal force due to the gravitational pull of the earth to a lesser extent so causes types

S42. Ans.(d)

Sol. Camillo Golgi received the Nobel Prize in 1906 for his work on the structure of the nervous system. He shared his novel prize with Santiago Ramon y Cajal.

- Golgi and the Spanish biologist Santiago Ramón y Cajal were jointly given the Nobel Prize in Physiology or Medicine in 1906 "in recognition of their work on the structure of the nervous system".

S43. Ans.(c)

Sol. "The Autobiography of an Unknown Indian" is the 1951 autobiography of Indian writer Nirad C. Chaudhuri.

This Autobiography is divided into four books, each of which consists of a preface and four chapters. The first book is titled "Early Environment" and its four chapters are: 1) My Birth Place, 2) My Ancestral Place, 3) My Mother's Place and 4) England.

S44. Ans.(d)

Sol. Banks issue KCC to support credit in agriculture. KCC stands for Kisan Credit card.

- The Kisan Credit Card (KCC) scheme is a credit scheme introduced in August 1998 by Indian public sector banks to issue Kisan credit cards to the farmers of India.
- This scheme was prepared by the National Bank for Agriculture and Rural Development (NABARD) on the recommendations of the R. V. Gupta Committee.

S45. Ans.(a)

Sol. The correct answer is (a) Red phosphorus. Red phosphorus is commonly applied on the top of matchsticks to facilitate the ignition process. It is less reactive than white phosphorus and provides a safer and more controlled way of igniting the matchstick when struck against a suitable surface.

S46. Ans.(d)

Sol. The number of electrons within the outer shell of the element determine its valency. To calculate the valency of an element (or molecule, for that matter), there are multiple methods. The valency of an atom is equal to the number of electrons in the outer shell if that number is four or less. So all the above statement are correct.

S47. Ans.(d)

Sol. Oils are unsaturated carbon compounds. So they have double or triple bonds. Double and triple bonds are easy to be digested or to be broken. Unsaturated fatty acids (vegetable oils) are 'healthy'. Animal fats generally contain saturated fatty acids which are said to be harmful for health. Oils containing unsaturated fatty acids should be chosen for cooking.

S48. Ans.(d)

Sol. The atmospheric pressure decreases with altitude because gas molecules which make up the air concentrate near lower altitude in response to Earth's gravity. Hence, air pressure is low at higher altitudes. Due to this difference in air pressure, the air inside the pen forces the ink to come out.

S49. Ans.(c)

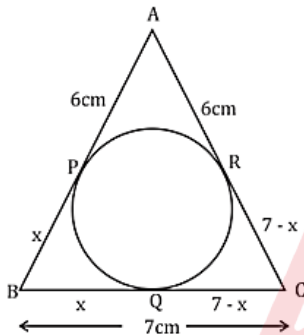
Sol. The total expenditure in BE 2023-24 is estimated at `45,03,097 crore(45.03 Lakh Crore) of which total capital expenditure is `10,00,961 crore(10 Lakh Crore).

S50. Ans.(a)

Sol. National Income is one of the basic concepts in Macro Economics. National Income means the total income of the Nation. The aggregate economic performance of the whole economy is measured by the National Income data. National Income refers to the total value of all final goods and services produced in the country during a period of 1 year.

S51. Ans.(a)

Sol.



$\Rightarrow AP = AR = 6$ [Tangent from common point are equal in length]

\Rightarrow Let $BQ = x$ cm

$CQ = 7 - x$ cm

$CQ = CR = 7 - x$ cm

$BQ = BP = x$ cm

Perimeter of $\Delta ABC = x + 6 + x + 7 - x + 7 - x + 6$

$= 26$ cm

S52. Ans.(b)

Sol.

$$(\text{Downstream Speed}) = B + S = \frac{144}{9} = 16 \text{ km/hr} \quad (1)$$

$$(\text{Upstream Speed}) = B - S = \frac{144}{24} = 6 \text{ km/hr} \quad (2)$$

Solve (1) & (2)

$$B + S = 16 \text{ km/hr}$$

$$B - S = 6 \text{ km/hr}$$

$$\frac{2B}{2} = \frac{22}{2}$$

$$B = 11 \text{ km/hr}$$

S53. Ans.(a)

Sol.

$$\frac{\text{Area of } \Delta ABC}{\text{Area of } \Delta DEF} = \frac{(\text{Altitude of } \Delta ABC)^2}{(\text{Altitude of } \Delta DEF)^2}$$

$$\frac{576}{400} = \frac{(10.2)^2}{(\text{Altitude of } \Delta DEF)^2}$$

$$\text{Altitude of } \Delta DEF = 8.5 \text{ cm}$$

S54. Ans.(b)

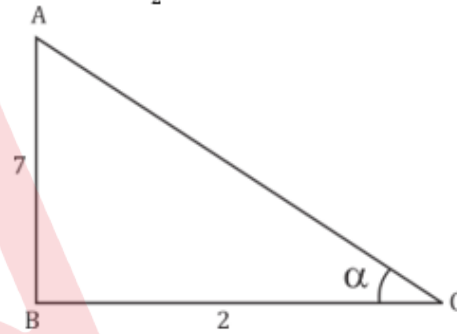
Sol.

$$\text{If } \frac{\sin \alpha + \cos \alpha}{\sin \alpha - \cos \alpha} = \frac{9}{5}$$

$$\Rightarrow 5 \sin \alpha + 5 \cos \alpha = 9 \sin \alpha - 9 \cos \alpha$$

$$\Rightarrow 14 \cos \alpha = 4 \sin \alpha$$

$$\Rightarrow \tan \alpha = \frac{7}{2}$$



So,

$$H = \sqrt{49 + 4} = \sqrt{53}$$

$$\cos \alpha + \sin \alpha = \frac{2}{\sqrt{53}} + \frac{7}{\sqrt{53}} = \frac{9}{\sqrt{53}}$$

S55. Ans.(a)

Sol.

$$(1 - \sec \beta + \tan \beta) (1 + \operatorname{cosec} \beta + \cot \beta)$$

$$\Rightarrow \left(1 - \frac{1}{\cos \beta} + \frac{\sin \beta}{\cos \beta}\right) \left(1 + \frac{1}{\sin \beta} + \frac{\cos \beta}{\sin \beta}\right)$$

$$\Rightarrow \frac{(\cos \beta - 1 + \sin \beta)}{\cos \beta} \left(\frac{1 + \sin \beta + \cos \beta}{\sin \beta}\right)$$

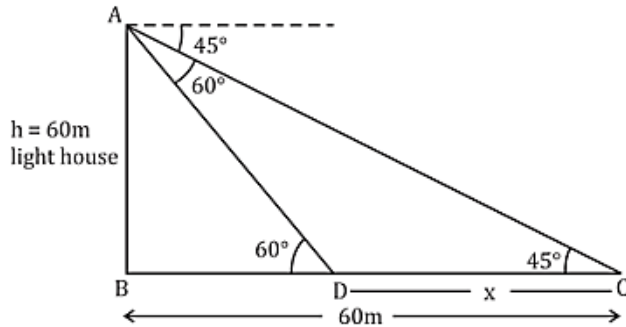
$$\Rightarrow \frac{[(\cos \beta + \sin \beta) - 1] [(\cos \beta + \sin \beta) + 1]}{\cos \beta \sin \beta}$$

$$\Rightarrow \frac{(\cos \beta + \sin \beta)^2 - 1}{\cos \beta \sin \beta}$$

$$\Rightarrow \frac{\cos^2 \beta + \sin^2 \beta + 2 \cos \beta \sin \beta - 1}{\cos \beta \sin \beta}$$

$$\Rightarrow \frac{1 + 2 \cos \beta \sin \beta - 1}{\cos \beta \sin \beta}$$

$$\Rightarrow \frac{2 \cos \beta \sin \beta}{\cos \beta \sin \beta} = 2$$

S56. Ans.(d)**Sol.**In $\triangle ABC$

$$\tan 45^\circ = \frac{AB}{BC}$$

$$1 = \frac{60}{BC}$$

$$BC = 60 \text{ cm}$$

Let $x = DC$ In $\triangle ABD$

$$\tan 60^\circ = \frac{AB}{BD}$$

$$\sqrt{3} = \frac{60}{BD} \Rightarrow BD = \frac{60}{\sqrt{3}} \times \frac{\sqrt{3}}{\sqrt{3}} = 20\sqrt{3} \text{ m.}$$

So, distance travelled in observation period $\Rightarrow DC = BC - BD$

$$= 60 - 20\sqrt{3}$$

$$= 25.36 \sim 25.4 \text{ m}$$

S57. Ans.(c)**Sol.**

$$(5x - 2y)^3 - (5x + 2y)^3$$

$$\Rightarrow \text{We know } a^3 - b^3 = (a - b)(a^2 + b^2 + ab)$$

$$\Rightarrow (5x - 2y - 5x - 2y) [(5x - 2y)^2 + (5x + 2y)^2 + (5x - 2y)(5x + 2y)]$$

$$\Rightarrow (-4y) [25x^2 + 4y^2 - 20xy + 25x^2 + 4y^2 + 20xy + 25x^2 - 4y^2]$$

$$\Rightarrow -4y [75x^2 + 4y^2]$$

$$\Rightarrow y [-300x^2 - 16y^2]$$

On comparing

$$A = -300$$

$$B = -16$$

$$\text{So, } (A - 15B) = [-300 - 15 \times (-16)] = \boxed{-60}$$

S58. Ans.(c)**Sol.**

Let 1st no = $4x$

2nd no = $3x$

$$\text{LCM} \times \text{HCF} = 1^{\text{st}} \text{ no.} \times 2^{\text{nd}} \text{ no.}$$

$$144 \times 12 = 4x \times 3x$$

$$144 \times 12 = 12x^2$$

$$\boxed{x = 12}$$

Larger no is 48.

S59. Ans.(b)**Sol.**

$$\sqrt{14 + 6\sqrt{5}}$$

$$\Rightarrow \sqrt{9 + 5 + 6\sqrt{5}}$$

$$\Rightarrow \sqrt{(3)^2 + (\sqrt{5})^2 + 2 \times 3 \times \sqrt{5}}$$

$$\Rightarrow \sqrt{(3 + \sqrt{5})^2} = 3 + \sqrt{5}$$

S60. Ans.(c)**Sol.**

$$x + \frac{1}{x} = \sqrt{2}$$

In this case $x^4 = -1$ always

$$\Rightarrow x^{32} + x^{28} - x^{24} + x^{20} - x^{16} + x^{12} + 4$$

$$\Rightarrow (x^4)^8 + (x^4)^7 - (x^4)^6 + (x^4)^5 - (x^4)^4 + (x^4)^3 + 4$$

$$\Rightarrow (-1)^8 + (-1)^7 - (-1)^6 + (-1)^5 - (-1)^4 + (-1)^3 + 4$$

$$\Rightarrow 1 - 1 - 1 - 1 - 1 - 1 + 4$$

$$= 5 - 5 = 0$$

S61. Ans.(a)**Sol.**

$$P : Q : R : S$$

$$8 : 5$$

$$7 : 10$$

$$5 : 4$$

$$\frac{280 : 175 : 250 : 200}{5 : 4}$$

$$P : Q : R : S \Rightarrow 56 : 35 : 50 : 40$$

$$\text{But in Question} \Rightarrow Q : R : S : P = 35 : 50 : 40 : 56$$

S62. Ans.(c)**Sol.**

Side (a) = 8 cm

Inradius of equilateral triangle = $\frac{a}{2\sqrt{3}}$

Circumradius of equilateral $\Delta = \frac{a}{\sqrt{3}}$

$$\text{Product} = \frac{a}{2\sqrt{3}} \times \frac{a}{\sqrt{3}} = \frac{a^2}{6} = \frac{8 \times 8}{6} = \frac{32}{3}$$

$$= 10.67 \text{ cm}^2$$

S63. Ans.(d)**Sol.**

Volume of metallic pipe = $\pi h (R^2 - r^2)$

$$= \frac{22}{7} \times 749 [(3.5)^2 - (2.5)^2]$$

$$= 14,124 \text{ cm}^3$$

$$\text{Weight} = 14,124 \times 6.5 \times \frac{1}{1000} = 91.806 \text{ kg}$$

S64. Ans.(a)**Sol.**

Size of biscuit packet = $l = 5 \text{ cm}, b = 3 \text{ cm}, h = 1.5 \text{ cm}$

Size of cardboard = $l = 125 \text{ cm},$

$b = 21 \text{ cm}$

$h = 4.5 \text{ cm}$

Let the no of biscuit be n .

$$n \times 5 \times 3 \times 1.5 = 125 \times 21 \times 4.5$$

$$n = \frac{125 \times 21 \times 4.5}{5 \times 3 \times 1.5}$$

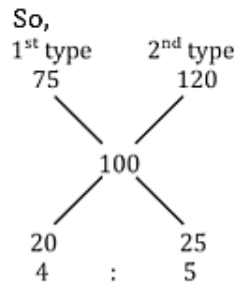
$$n = 525$$

S65. Ans.(d)**Sol.**

Chocolates	Price
12 _{x9} _____	200 _{x9}
9 _{x12} _____	120 _{x12}
108 _____	1800
108 _____	1440
Total C.P. ⇒ 216 _____	3240
S.P. 12 _{x18} _____	200 _{x18}
Total S.P. 216 _____	3600
Gain % ⇒ $\frac{3600-3240}{3600} \times 100 = 10\%$	

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

$$\text{C.P of mixture} = \frac{125 \times 100}{125} = \text{Rs. } 100$$



Required ratio = 4 : 5

S67. Ans.(b)**Sol.**

$$\frac{H \times 9 \times 4}{100} = \frac{4 \times L \times 11 \times 5}{100}$$

$$36H = 55 \times 4 \times L$$

$$9H = 55L$$

$$\boxed{H = 6.1L}$$

S68. Ans.(a)**Sol.**

$$20\% = \frac{1}{5}$$

Principal	Amount
5	: 6
5	: 6
5	: 6
<hr/>	
125	: 216

$$\text{C. Interest} \quad 216 - 125 = 91 \text{ units}$$

$$91 \text{ units} \quad \text{Rs. } 9009$$

$$1 \text{ unit} \quad \text{Rs. } 99$$

$$\text{Sum} \quad 99 \times 125 = \text{Rs. } 12,375$$

S69. Ans.(b)**Sol.**

$$\text{Total Efficiency} = 5 + 8 + 3 = 16$$

$$\text{Total Work} = 16 \times 40 = 640 \text{ unit}$$

$$\text{Work done by Naman \& Aman} = (5 + 8) \times 20 = 260 \text{ units}$$

$$\text{Remaining Work} = 640 - 260 = 380 \text{ units}$$

$$\text{Work has to be done by Pawan} = 380 \text{ units}$$

$$\text{No. of days} = \frac{380}{3} = 126 \frac{2}{3} \text{ days}$$

S70. Ans.(a)**Sol.**

$$\text{Total salary of 50 employees} = 50 \times 25000$$

$$= \text{Rs. } 12,50,000$$

$$\text{Total salary of 2 officers} = 2 \times 95000$$

$$= 1,90,000$$

$$\text{Total Salary of 8 supervisors} = 4,80,000$$

$$\text{Total Salary of Remaining 40 employees} = (1250000 - 190000 - 480000) = 5,80,000$$

$$\text{Now, Average of salary of remaining employees} = \frac{580000}{40} = \text{Rs. } 14500$$

S71. Ans.(a)**Sol.**

$$\text{We know that, } \frac{S_1}{S_2} = \sqrt{\frac{t_2}{t_1}}$$

$$\Rightarrow \frac{S_L}{S_M} = \sqrt{\frac{t_M}{t_L}}$$

$$\Rightarrow \frac{100}{125} = \sqrt{\frac{x}{25}}$$

$$\Rightarrow \frac{100 \times 100}{125 \times 125} = \frac{x}{25} \Rightarrow x = 16 \text{ hours}$$

S72. Ans.(d)**Sol.**

$$\text{Volume of big sphere} = \text{volume of small balls} \times n$$

$$\frac{4}{3} \times \pi \times (10)^3 = \frac{4}{3} \times \pi \times (2)^3 \times n$$

$$n = \frac{10 \times 10 \times 10}{2 \times 2 \times 2} = 125$$

S73. Ans.(a)**Sol.**

$$\text{Total production in 1999 - 2000, } 680 + 270 + 250 + 450 = 1650$$

$$\text{Total Production in 2000 - 2001} = 1960$$

$$\text{Total Production in 2002 - 2003} = 2000$$

$$\text{Total Production in 2001 - 2002} = 1810$$

$$\text{Total production in 2003 - 2004} = 2480$$

So, the production of food grains is minimum in the year 1999 - 2000

S74. Ans.(b)**Sol.**

$$\% \text{ of Wheat production} = \frac{720-680}{680} \times 100$$

$$= \frac{40}{680} \times 100 = 5.9\%$$

S75. Ans.(c)**Sol.**

$$\text{Required Percentage} = \frac{320}{350} \times 100 = 91.4\%$$

S76. Ans.(a)

Sol. The given sentence shows a contrast between being well-prepared for the exam and not finishing on time.

- The word "however" is used to show this contrast. The most appropriate substitution for "however" in this context would be "nonetheless" because it also indicates a contrast.
- Thus, the correct option is (a) nonetheless she.

S77. Ans.(a)

Sol. Communication skills: These involve the ability to convey information clearly and effectively, both verbally and in writing.

- Strong communication skills are vital for building relationships, working in teams, and ensuring that your ideas are understood and valued by others.
- In the context of career success, communication skills are essential regardless of the field you work in.
- Therefore, the correct answer is (a) communication.
- Culinary skills: These refer to the ability to cook and prepare food.
- Acrobatic skills: These involve physical abilities related to performing acrobatic feats, such as balancing, tumbling, and aerial maneuvers.
- Horticultural skills: These refer to the knowledge and expertise related to the cultivation of plants, including aspects like plant breeding, landscape design, and pest management.

S78. Ans.(c)

Sol. In the given sentence, the word "astrofysics" is spelled incorrectly. The correct spelling is "astrophysics."

Meanings of the given words:

- Fascination: A strong interest or attraction toward something or someone, often compelling a person to learn more or become involved with the subject.

- Cosmos: Refers to the universe as an ordered and harmonious system, encompassing all celestial bodies, such as stars, planets, and galaxies.
- Astrophysics is a branch of astronomy that deals with the physical properties and processes of celestial objects and phenomena, such as the behavior of stars, galaxies, and other cosmic entities.
- Pursue: To follow or chase after something, often with the goal of achieving, attaining, or accomplishing it.

S79. Ans.(a)

Sol. "Liasion" is incorrectly spelled. The correct spelling is "liaison."

Meanings of the given words:

- A liaison is a person who acts as a link or connection between two or more parties, facilitating communication and collaboration.
- Exaggerate: To represent something as more significant, extreme, or dramatic than it actually is.
- Accommodate: To adapt or adjust to particular conditions, needs, or preferences.
- Maintenance: The act of keeping something in proper condition or working order through regular care, repair, or upkeep.

S80. Ans.(c)

Sol. Adverbs of frequency describe how often an action occurs.

- The sentence "Ravi rarely visits Mumbai." uses the adverb of frequency "rarely" to describe the frequency of Ravi's visits to Mumbai.
- Thus, the correct answer is (c) Ravi rarely visits Mumbai.

S81. Ans.(b)

Sol. Meticulous refers to showing great attention to detail or being very careful and precise in completing tasks or projects.

- Conscientious means being thorough, careful, and diligent, ensuring that tasks are performed with a high degree of attention to detail and a strong sense of responsibility.

- Thus, the most appropriate synonym for "Meticulous" is (b) Conscientious.
- Antonyms: Careless, negligent, inattentive, haphazard, sloppy.
- Synonyms: Thorough, careful, diligent, attentive, **conscientious**.

Meanings of the words given in the options:

- Careless: Not paying sufficient attention to detail or not being thorough, leading to mistakes or oversights.
- Imprecise: Lacking accuracy or exactness; not providing clear or specific information.
- Haphazard: Characterized by a lack of organization, planning, or order; random or chaotic.

S82. Ans.(c)

Sol. Dense means having a high concentration of matter or being closely packed together, but it can also refer to someone who is slow-witted or not very intelligent.

- Sparse: Thinly dispersed or scattered; not densely packed or crowded.
- Thus, the most appropriate antonym for "dense" is (c) Sparse.
- Antonyms: **Sparse**, thin, airy, clear, transparent.
- Synonyms: Thick, compact, crowded, concentrated, heavy.

Meanings of the words given in the options:

- Impenetrable: Not allowing anything to pass through; impossible to be penetrated or entered.
- Puzzling: confusing or difficult to understand, often causing one to ponder or consider various possibilities or explanations.
- Opaque: Not able to be seen through; not transparent or translucent.

S83. Ans.(d)

Sol. The correct answer to this question is option (d), "ourselves on the trip to the beach."

- In terms of grammar, the use of "ourselves" as a reflexive pronoun is correct because it refers back to the subject of the sentence. Here, "we" is the subject, and "ourselves" is used to show that the action of enjoying the trip is being done by the subject to themselves.

- The preposition "on" is used correctly to show that the subject enjoyed themselves while participating in the activity of the trip.
- "On" is the appropriate preposition to use when referring to participating in an activity or event, such as "on a trip" or "on a rollercoaster."
- Additionally, the use of "the" before "beach" is correct because the speaker is referring to a specific beach that the group went to. When talking about a specific object or place, we use "the" before it.
- Overall, option (d) is the correct choice because it uses the correct reflexive pronoun and preposition, and also correctly uses the definite article "the" before the specific beach that the group went to.

S84. Ans.(a)

Sol. The word "jovial" means cheerful, friendly, and good-humored.

- In the context of the sentence, "jovial" is the most appropriate choice to fill in the blank because it describes a manner that is welcoming and inviting, putting others at ease and creating a positive atmosphere.
- In contrast, the other options listed are all negative adjectives that would not be appropriate to describe someone who is making others feel welcome.
- Hostile implies aggression or unfriendliness.
- Morose suggests sadness or depression.
- Indifferent implies a lack of interest or care.
- None of these words would accurately describe someone who is making others feel welcome and comfortable at an event.

S85. Ans.(d)

Sol. Q: "Mountain climbing expedition" is the subject of the sentence, so it should come first. Therefore, the correct option must begin with "Q."

- S: "In the Himalayas" provides additional information about the location of the expedition, so it should come after "Q."
- P: "Was a thrilling" is the verb phrase that describes the expedition, so it should come next.
- R: "And unforgettable experience" provides additional information about the nature of the expedition, so it should come last.
- Therefore, the correct option must be "QSPR."

S86. Ans.(d)

Sol. The correct answer is option d.

- The given sentence is 'Direct Speech'.
- **Direct Speech** - Reporting the message of the speaker in the exact words as spoken by him.
- The given sentence is an 'Assertive Sentence.'
- Sentences that make a statement are called assertive sentences. These sentences may be positive, negative, false, or true statements.
- While changing it into an indirect form, we consider following rules.
- Reported Verb- 'Said' remains unchanged.
- Conjunction - In the Assertive sentence conjunction 'That' is used.
- Tense- Present perfect (Subject + has/have+V3+Object) changes to Past perfect (Subject+had+V3+Object)
- The sentence thus formed is - The family members said that they had lived there for a long time.

S87. Ans.(c)

Sol. Active Voice- It denotes that the noun or pronoun that acts as the subject in the sentence is the doer of the action. In other words, the subject performs the action or acts upon the verb.

Passive Voice- represents that the subject is one acted upon by the action or verb in the sentence. It can also be said that the passive voice indicates that the subject in the sentence is no longer active but passive.

- The sentence is an example of passive voice having form:
- Obj. + was/were + V3 + by + obj.
- When it is converted into active voice, following rule must be followed:
- Sub + V₂ + obj.

S88. Ans.(b)

Sol. Demeanor means outward behavior or conduct, especially as it relates to one's personality or attitude.

- Misconduct means unacceptable or inappropriate behavior.
- Thus, the correct answer is (b) Misconduct.

- Synonyms: behavior, conduct, bearing, manner, attitude, disposition, comportment, mannerism
- Antonyms: **misconduct**, misbehavior, ill-mannered, rude, disrespectful, impolite, uncivil.

Meanings of the other given words:

- Comportment: manner in which one conducts oneself.
- Serene: calm, peaceful, and untroubled; tranquil.
- Placid: not easily upset or excited; calm and peaceful.

S89. Ans.(a)

Sol. Active Voice- It denotes that the noun or pronoun that acts as the subject in the sentence is the doer of the action. In other words, the subject performs the action or acts upon the verb.

Passive Voice- represents that the subject is one acted upon by the action or verb in the sentence. It can also be said that the passive voice indicates that the subject in the sentence is no longer active but passive.

- The sentence is an example of active voice having form:
- Subject + is/am/are+ v1+ ing + object.
- When it is converted into passive voice, following rule must be followed:
- Object+ is/am/are+ being+ V3+ by + subject.

S90. Ans.(a)

Sol. The most appropriate option to fill in the blank is "numerous".

- The sentence implies that the person being referred to has experienced many challenges in life, which has equipped them with the necessary skills to handle the current situation.
- The word "numerous" means "a large number of" or "many", which fits perfectly in the context of the sentence.
- The other options, such as "minimal", "rare", and "few", do not fit in the context of the sentence as they suggest that the person has faced very few challenges in their life.
- Therefore, option (a) "numerous" is the most appropriate option to fill in the blank.

S91. Ans.(d)

Sol. The most logical order of the sentences to form a coherent paragraph is option (d) PQSR.

- P. This sentence establishes the overall theme and importance of maintaining a healthy diet.
- Q. This sentence provides a specific suggestion for achieving a healthy diet by including fruits and vegetables.
- S. This sentence introduces the additional aspect of drinking enough water for overall health.
- R. This sentence warns against the consumption of junk food due to its negative impacts on health.

S92. Ans.(b)

Sol. The correct meaning of the idiom "face the music" in the given sentence is (b) Confront the consequences of one's actions.

- "Facing the music" in this context means that the person had to confront and accept the consequences of his failure.
- Example: After forgetting to complete his homework, Tom had to face the music from his teacher the next day in class.

S93. Ans.(b)

Sol. Disconcerting means causing someone to feel uneasy, confused, or anxious.

- Unsettling means causing someone to feel disturbed or uneasy.
- Thus, "Unsettling" is the most appropriate synonym for the word "disconcerting" in the given sentence.
- Synonyms: **unsettling**, disturbing, discomfiting, upsetting.
- Antonyms: calming, reassuring, comforting, soothing.

The meanings of the other words given:

- Reassuring: making someone feel less worried or fearful.
- Comforting: providing comfort or solace; easing one's distress.
- Calming: making someone feel less agitated or anxious.

S94. Ans.(a)

Sol. Option (a) "besides sports" is the correct substitution for the highlighted segment.

- The phrase "besides" indicates that the person has an interest in the arts in addition to sports. It conveys the idea of having multiple interests without implying any contrast or exception.
- Therefore, option (a) effectively maintains the meaning of the original sentence while providing a suitable alternative.

S95. Ans.(a)

Sol. The most appropriate option to fill in the blank in the given sentence is (a) tenacious.

- The sentence talks about the person's pursuit of success despite facing numerous obstacles.
- "Tenacious" means having a strong determination to keep going despite difficulties or obstacles, which perfectly fits in the given context.

Meanings of the other given words:

- Indecisive means unable to make decisions quickly and effectively, which is the opposite of what the sentence is conveying.
- Complacent means being too satisfied with one's achievements and not motivated to do better, which is also not appropriate in the given context.
- Hesitant means being uncertain or reluctant to take action, which is also not appropriate in the given context as it contradicts the person's determination to pursue success despite obstacles.

S96. Ans.(a)

Sol. The word that can be filled in the blank is 'happen' to make the sentence grammatically and contextually correct.

- 'Happen' is used to describe events or occurrences, particularly when they take place unexpectedly or rapidly.
- As per the context, the word 'happen' fits in very well & hence, it is the correct option.

Meaning of other words:

- Occur - to take place or happen, especially without being planned.
- Develop - to grow, progress, or evolve through a process of evolution, natural growth, differentiation, or a concerted effort.
- Increase - to make or become greater in size, amount, intensity, or degree.
- Thus, all the other given words have different meanings and do not fit in the context of the sentence.

S97. Ans.(a)

Sol. The word that can be filled in the blank is 'significant' to make the sentence grammatically and contextually correct.

- 'Significant' means sufficiently great or important to be worthy of attention or noteworthy.
- As per the context, the word 'significant' fits in very well & hence, it is the correct option.

Meaning of other words:

- Useless - not fulfilling or not expected to achieve the intended purpose or desired outcome.
- Obsolete - no longer produced or used; out of date.
- Costly - expensive in terms of resources or money.
- Thus, all the other given words have different meanings and do not fit in the context of the sentence.

S98. Ans.(a)

Sol. The word that can be filled in the blank is 'introduced' to make the sentence grammatically and contextually correct.

- 'Introduced' means to bring something into use or operation for the first time.
- As per the context, the word 'introduced' fits in very well & hence, it is the correct option.

Meaning of other words:

- Removed - to take something away or off from the position occupied.
- Maintained - to cause or enable a condition or state of affairs to continue.

- Replaced - to provide or find a substitute for something, especially a person or thing no longer available.
- Thus, all the other given words have different meanings and do not fit in the context of the sentence.

S99. Ans.(c)

Sol. The word that can be filled in the blank is 'trend' to make the sentence grammatically and contextually correct.

- 'Trend' means a general direction in which something is developing or changing.
- As per the context, the word 'trend' fits in very well & hence, it is the correct option.

Meaning of other words:

- Invention - the action of inventing something, typically a process or device.
- Brand - a particular identity or image regarded as an asset.
- Model - a standard or example for imitation or comparison.
- Thus, all the other given words have different meanings and do not fit in the context of the sentence.

S100. Ans.(d)

Sol. The word that can be filled in the blank is 'tracing' to make the sentence grammatically and contextually correct.

- 'Tracing' means finding or discovering something by investigation.
- As per the context, the word 'tracing' fits in very well & hence, it is the correct option.

Meaning of other words:

- Dated - to establish or ascertain the date of a particular event or period.
- Turning - the action of changing direction or moving in a different course.
- Linking - to connect or join physically or in thought or function.
- Thus, all the other given words have different meanings and do not fit in the context of the sentence.