

All India Mock: SSC CGL Mock On 16th & 17th March 2024

Q1. 'Kunchikal Falls' is related to 'Karnataka' in the same way 'Kynrem Falls' is related to ' ____ '

- (a) Meghalaya
- (b) Maharashtra
- (c) Odisha
- (d) Assam

Q2. Select the set in which the number are related in the same way as are the number of the following set.

(12,144 ,1728)

- (a) (13, 169, 2177)
- (b) (11, 121, 1331)
- (c) (17, 289, 4813)
- (d) (21, 421, 9261)

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

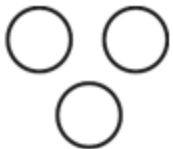
h _ l _ _ e l _ o _ _ _ l _

- (a) eohlheol
- (b) eohlheo
- (c) johlheo
- (d) eohlhelo

Q4. Select the Venn diagram that best illustrates the relationship between the following classes.

Family, Mother, Father

(a)



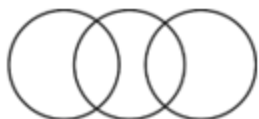
(b)



(c)



(d)





SSC MAHAPACK

SSC CGL, CHSL, CPO,
MTS, GD, JHT



Selection ka Saathi

Q5. Select the option that is related to the third term in the same way as the second term is related to the first term.

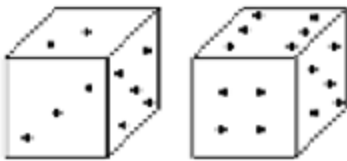
2986:2689::4378:

- (a) 3478
- (b) 4378
- (c) 4387
- (d) 3487

Q6. Pointing to a woman, a child said, "she is the mother of my father's sister". How is the woman related to this child?

- (a) Son
- (b) Grandmother
- (c) Daughter
- (d) None of these

Q7. How many points will be on the face opposite to the face which contains 5 points?



- (a) 5
- (b) 4
- (c) 6
- (d) 1

Q8. Which number will replace the question mark(?)

5, 10, 13, 52, 57, ?

- (a) 63
- (b) 341
- (c) 342
- (d) 340

Q9. Three of the following four letter are alike in a certain way and one is different. Pick the odd one out.

- (a) 12:132
- (b) 15: 210
- (c) 16: 240
- (d) 18: 296

Q10. What is the angle between the two hands of a clock when the time shown by the clock is 5:30 p.m(in clockwise direction)?

- (a) 25°
- (b) 20°
- (c) 15°
- (d) 30°

Q11. Select the number-pair in which the two number are related in the same way as are the two numbers of the following number-pair.

27: 243

- (a) 64: 1024
- (b) 125: 625
- (c) 8: 64
- (d) 4: 32

Q12. 6 years ago, the ratio of ages of Suman and Sapan is 4:8 and 6 years hence, the ratio of their ages will be 5: 7. Find the sum of their present ages.

- (a) 20 years
- (b) 25 years
- (c) 18 years
- (d) 24 years

Q13. Which answer figure will complete the pattern in the question figure?



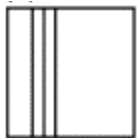
(a)



(b)



(c)



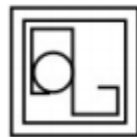
(d)



Q14. From the given answer figures, select the one in which the question figure is hidden/embedded.



(a)



(b)



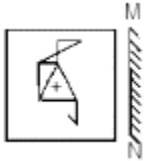
(c)



(d)



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



(a)



(b)



(c)



(d)



Q16. Arrange the following words in a logical and meaningful order.

1. Shopping
2. Eat
3. Market
4. Fruit
5. Wash

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

Q17. If DISCOUNT is coded as EKVGT AUB then how will 'DEFINITE' be coded as?

- (a) EGIMSOAN
- (b) EGIMSOAM
- (c) EGIMSOZM
- (d) EGJMSOZM

Q18. Select the option that is related to the third letter in the same way as the second letter is related to the first.

STREAM: 18201913115 :: PROFIT:?

- (a) 2517162096
- (b) 2510162076
- (c) 2518162096
- (d) 1518162096

Q19. Select the set in which the number are related in the same way as are the number of the following set.

(27,50,58)

- (a) (30, 56, 64)
- (b) (25, 45, 75)
- (c) (19, 40, 50)
- (d) (18, 80, 82)

Q20. Which two signs should be interchanged in the following equation to make it correct?

$$10+2 \div 3^2-8 \times 4=26$$

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

Q21. A piece of paper is folded and punched as shown in the question figures. From the given figures, indicate how it will appear when opened.



(a)



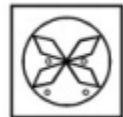
(b)



(c)



(d)



Q22. In the question two statements are given, followed by three conclusions, I, II and III. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement:

Some girls are boys.

Some boys are women.

No women is men.

Conclusion:

- I. Some boys are men.
- II. Some boys are girls.
- III. Some men are not women.
- (a) All conclusion follows
- (b) None follows
- (c) Only conclusion I follow
- (d) Only conclusion II and III follow.

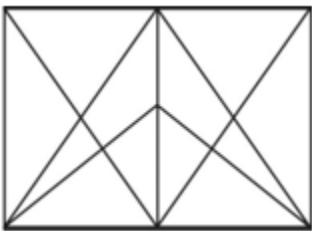
Q23. In a row of 30 students, Raman is sitting at 12th position from the start and Sheetal is sitting at 13th position from the end. How many numbers of students are sitting between them?

- (a) 4
- (b) 5
- (c) 6
- (d) 8

Q24. All the four directions are placed in a clock in such a way that East direction is at numeral 3, North at 12, West at 9 and South at 6. If North direction is shifted to 5, then to what numeral West direction will shift?

- (a) 2
- (b) 1
- (c) 12
- (d) 8

Q25. How many triangles are there in the following figure?



- (a) 26
- (b) 31
- (c) 28
- (d) 29

Q26. Which state recently won the UN-Habitat's World Habitat Awards 2023 for Jaga Mission, a 5T initiative of the state?

- (a) Bihar
- (b) Odisha
- (c) Punjab
- (d) Haryana

Q27. India is hosting the G-20 summit in 2023. In which year G-20 was founded?

- (a) 1997
- (b) 1998
- (c) 1999
- (d) 1994

Q28. What is the name of the initiative of Prime Minister Narendra Modi to build close ties between the youth of the Northeast Region?

- (a) Yuva Saathi
- (b) Yuva Saarthi
- (c) Yuva Sahayak
- (d) Yuva Sangam

Q29. What is the theme for World Press Freedom Day 2023?

- (a) Shaping a Future of Rights: Freedom of Expression as a Driver for all other human rights
- (b) Preserving the Environment through Journalism
- (c) Protecting Human Rights through Free and Fair Media
- (d) Promoting Love and Understanding through Media

Q30. Who has been appointed as the chairman and managing director of Coal India Limited?

- (a) Polavarapu Mallikharjuna Prasad
- (b) N. Baijendra Kumar
- (c) Pramod Agrawal
- (d) Piyush Goyal

Q31. Consider the following statements regarding the advantages of the subsidiary alliance for British?

- (a) The British acquired valuable territories as subsidiary payments
- (b) The British indirectly controlled the defence and foreign affairs of the protected ally
- (c) Both (a) and (b)
- (d) None of these

Q32. Who among the following was the first President of all India Anti-Untouchability League (later changed to Harijan Sewak Samaj)?

- (a) Ghanshyam Das Birla
- (b) B.R. Ambedkar
- (c) M.K. Gandhi
- (d) None of these

Q33. Consider the following statements?

Assertion (A): The Poona Pact defeated the purpose of the Communal Award.

Reason (R): It paved the way for the reservation of seats in the Parliament and the State Assemblies for the SC and ST people.

- (a) Both (A) and (R) are true and (R) is the correct explanation of (A)
- (b) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
- (c) (A) is true, but (R) is false
- (d) (A) is false, but (R) is true

Q34. What was the committee appointed by Lord Curzon to reform the police department?

- (a) Fraizer Committee
- (b) Raleigh Committee
- (c) Hunter Commission
- (d) Thomas Committee

Q35. Which one of the following statements about the All India Services is correct?

- (a) The rules of recruitment to the All India Services are determined by the UPSC.
- (b) The All India Services may be created by an Act of Parliament.
- (c) The conditions of service to the All India Services may be altered by the UPSC.
- (d) The endorsement of the Rajya Sabha is not essential for the creation of the All India Services.

Q36. Which of the following statements is/are correct regarding the Directive Principles of the State Policy?

I. In case of a conflict between the Directive Principles and Fundamental Rights, the Directive Principles shall prevail in the court.
II. Fundamental rights are not unlimited and citizens are subject to reasonable restrictions. The Directive Principles are subject to any constitutional limitations.

- (a) Only I
- (b) Only II
- (c) Both I & II
- (d) Neither of I & II

Q37.Assertion (A): In India, every State has a High Court in its territory.

Reason (R): The Constitution of India provides a High Court in each State.

- (a) Both A and R are individually true and R is the correct explanation of A.
- (b) Both A and R are individually true but R is not the correct explanation of A
- (c) A is true but R is false.
- (d) A is false but R is true.

Q38. Consider the following statements:

1. A person who has held office as a permanent Judge of a High Court cannot plead or act in any court or before any authority in India except of the Supreme Court.
2. A person is not qualified for appointment as a Judge of a High Court in India unless he has for at least five years held a judicial office in the territory of India.

Which of the statement(s) given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Q39. The active volcano Stromboli is located in which sea?

- (a) North Sea
- (b) Java Sea
- (c) Tyrrhenian Sea
- (d) South China Sea

Q40. Which of the following latitudinal belt is known as the 'Roaring Forties'?

- (a) 40° to 50° South
- (b) 0° to 5° South
- (c) 50° to 60° South
- (d) 3° to 45° South

Q41. Identify the CORRECT statement about cyclones:

- (a) High speed winds circulate around a high pressure region
- (b) The coastline of India is not vulnerable to cyclones
- (c) The wind direction is clockwise in southern hemisphere and anticlockwise in northern hemisphere
- (d) The wind direction is clockwise in both hemispheres

Q42. Padma vibhushan awarded Umayalpuram K. Sivaraman is a _____ player.

- (a) Mridangam
- (b) Violin
- (c) Tabla
- (d) Veena

Q43. Thetakudi Harihara Vinayakram, an Indian percussionist, is known for popularizing which of the following musical instruments?

- (a) Tabla
- (b) Sarangi
- (c) Ghatam
- (d) Sitar

Q44. Which of the following novels is set in the background of life in New Delhi after the declaration of Emergency in the 1970's?

- (a) Such a Long Journey
- (b) The Heart Has its Reasons
- (c) Rich Like Us
- (d) The House of Blue Mangoes

Q45. Which of the following has been designated as the self-regulatory origination for Micro finance institutions in India?

- (a) Jan-Dhan
- (b) Sab-Dhan
- (c) Dhan
- (d) Sa-Dhan

Q46. As per the Census of India 2011, which state has the highest percentage of Scheduled Tribe population to total Scheduled Tribe population in India?

- (a) Madhya Pradesh
- (b) Jharkhand
- (c) Gujarat
- (d) Chhattisgarh

Q47. Pancreatic juice requires which medium for their action?

- (a) Acidic
- (b) Basic
- (c) Neutral
- (d) All option are correct.

Q48. What is the purpose of adding Gypsum to the cement?

- (a) For lubrication
- (b) To slow down its rate of setting
- (c) To increase its rate of setting
- (d) To make it strong

Q49. The gravitational force of attraction between two bodies is _____ the distance between the two bodies.

- (a) Inversely proportional to the
- (b) Directly proportional to the square of
- (c) Inversely proportional to the square of
- (d) Directly proportional to the

Q50. Calculate the power (in W) of an engine if it can perform 120 J of work in 3 seconds.

- (a) 360
- (b) 80
- (c) 180
- (d) 40

Q51. What will be the ratio of the height of building X to the height of building Y, if it is given that the angles of elevation of their tops are 30° and 45° respectively, as observed from a point exactly midway between the two buildings.

- (a) 3: 1
- (b) $\sqrt{3}$:1
- (c) 1: $\sqrt{3}$
- (d) 1: 1

Q52. A, B and C invested in a company with their capitals in the ratio 4 : 9 : 6. A increased his capital by 50% after 4 months, B increased his capital by $33\frac{1}{3}\%$ after 6 months and C withdrew 50% of his capital after 8 months, from the starting of the company. If the total profit at the end of a year was Rs 86,800, then the difference between the shares of A and B in the profit was:

- (a) Rs. 1388.8
- (b) Rs. 21526.4
- (c) Rs. 22915.2
- (d) Rs. 21527.4

Q53. If three pipes X, Y, and Z can fill the tank in 10 hours, 15 hours, and 20 hours, respectively, are opened at different times on the same day. Pipe X is opened at 7 a.m., Pipe Y is opened at 8 a.m., and Pipe Z is opened at 10 a.m, then after how many hours of opening the first pipe, will the tank be completely filled?

(a) $5\frac{8}{13}$ hours

(b) $2\frac{8}{13}$ hours

(c) $4\frac{8}{13}$ hours

(d) $5\frac{7}{13}$ hours

Q54. Two circles touch each other externally at point Z. XY is a direct common tangent to the two circles, X and Y are point of contacts and $\angle ZXY=45^\circ$. Find $\angle XYZ$.

(a) 55°

(b) 45°

(c) 35°

(d) 135°

Q55. The denominator of a fraction is 3 less than the numerator of a fraction. If 2 is added to the numerator and 5 is subtracted from the denominator then obtained fraction is in the ratio of 7:6. Find the original fraction

(a) $69/66$

(b) $68/65$

(c) $65/68$

(d) $73/66$

Q56.

Find the value of $\{2+12(\sin^6 \theta + \cos^6 \theta) - 18(\sin^4 \theta + \cos^4 \theta)\}$

(a) -4

(b) 0

(c) 2

(d) 1

Q57. A ship can go 10 km upstream and 15 km downstream in 90 minutes. The same boat can also go 10 km downstream and 5 km upstream in 50 minutes. Find how much time it will take to go 30 km downstream.

(a) 9 hours

(b) 5 hours

(c) 2 hours

(d) 1 hour

Q58. Of the three numbers, first number is 4 times the second number and the second number is 3 times the third number. If the average of all the three numbers are 448. Find the sum of first number and second number.

(a) 1260

(b) 810

(c) 800

(d) 1250

Q59. Due to floods, a migration took place in Bihar, as a result of which individuals started migrating to Uttar Pradesh. If the population of Uttar Pradesh increased by 35.62% due to migration from State Bihar, but later all the migrated individuals returned to Bihar, what percentage decrease would be observed in the population of Uttar Pradesh as a result of this migration?

- (a) 16.16%
- (b) 26.26%
- (c) 26.16%
- (d) 22.22%

Q60. What is the perimeter of a rectangular plot, if its perimeter is one-third of the area of a triangular field with sides 119m, 120m, and 169m?

- (a) 2380m
- (b) 7140m
- (c) 2580m
- (d) 7000m

Q61. If a person paid back $\frac{7}{5}$ of the money borrowed on simple interest after two years, what was the rate of interest?

- (a) 35%
- (b) 30%
- (c) 20%
- (d) 25%

Q62. A sphere of volume 4851m^3 is kept inside a cubical box. Find the total surface area of cubical box.

- (a) 1600m^2
- (b) 1646m^2
- (c) 2640m^2
- (d) 2646m^2

Q63. Jahanvee can do the dishes alone in 16 hours, but when she is assisted by Gauri, they are able to complete the same work in 12 hours. What is the amount of time (in hours) that Gauri would take to do the dishes alone?

- (a) 36 hours
- (b) 48 hours
- (c) 64 hours
- (d) 40 hours

Q64. An amount of Rs. 15,000 is distributed among X, Y, and Z in the ratio of 3:4:5 respectively, such that they receive notes of Rs. 50, Rs. 20, and Rs. 10 respectively. What is the ratio of the number of notes of each denomination received by them?

- (a) 3:25:10
- (b) 25:10:3
- (c) 10:3:25
- (d) 3:10: 25

Q65. In a circle with center O and radius 17 cm, AB and CD are two parallel chords of lengths x cm and 30 cm respectively, and both the chords are on the opposite side of O. If the distance between AB and CD is 23 cm, the value of x is:

- (a) 20cm
- (b) 14cm
- (c) 15cm
- (d) 16cm

Q66. What is the value of compound interest earned on a principal amount of Rs. 6500, for a duration of two years, at a rate of 25% per annum for the first year and 35% per annum for the second year?

- (a) Rs.4468.65
- (b) Rs.4468.75
- (c) Rs. 4400.75
- (d) Rs. 4302.65



Q67. If a certain number of articles were sold, where half of them were sold at a profit of 25% and the remaining half were sold at a profit of 40%, and if all the articles had been sold at a profit of 25%, the total profit would have been Rs. 90 less than the previous total profit, what was the cost price of 200 articles?

- (a) 1400
- (b) 2000
- (c) 1000
- (d) 1200

Q68. How much percentage decrease in speed did Giri experience while traveling from office to home when his car had some problem and it took him $14\frac{2}{7}\%$ more time than usual to reach home?

- (a) 10%
- (b) 12.5%
- (c) 15.5%
- (d) 20.5%

Q69. What is the ratio of the speed of the boat in still water to the speed of the stream if a boat takes 25 seconds to cover a distance of 375 meters upstream and 15 seconds to return to the starting point?

- (a) 4: 1
- (b) 1: 4
- (c) 2: 5
- (d) 5: 2

Q70.

In a triangle XYZ, O is a point of YZ such that $\frac{XY}{XZ} = \frac{YO}{OZ}$. If $\angle Y = 58^\circ$ and $\angle Z = 42^\circ$, then measure of $\angle YXO$ is equal to

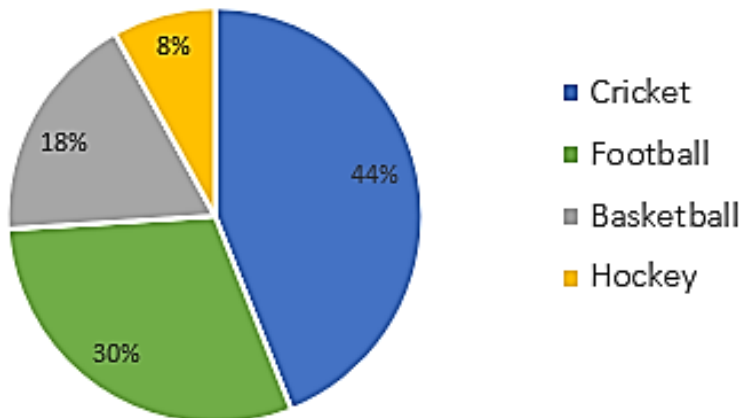
- (a) 130°
- (b) 80°
- (c) 90°
- (d) 40°

Q71. What is the average speed (in km/h) of a car that travels at 60 km/h for 40 minutes, 70 km/h for 50 minutes, and 90 km/h for 90 minutes during its entire journey?

- (a) 67.77 km/hr
- (b) 77.77km/hr
- (c) 75km/hr
- (d) 87.77km/hr

Directions (72-75): The given pie-chart shows favorite sport of students of a school.

Sport



Q72. In the given pie-chart, if there were 6600 students in all, then how many of them like cricket?

- (a) 2904
- (b) 528
- (c) 1980
- (d) 1188

Q73. What will be the central angle of Hockey?

- (a) 29.4°
- (b) 28.8°
- (c) 108°
- (d) 118°

Q74. If there are 2500 students in the school, what is the difference between the number of students who prefer football and the number of students who prefer basketball?

- (a) 400
- (b) 528
- (c) 300
- (d) 96

Q75. The number of students who prefer football is what percentage of the number of students who prefer cricket?

- (a) 60%
- (b) 65.5%
- (c) 69.5%
- (d) 68.18%

Q76. Select the most appropriate synonym of the given word.

Resolution

- (a) Confrontation
- (b) Indecision
- (c) Determination
- (d) Negotiation

Q77. Select the most appropriate ANTONYM of the given word.

Abstract

- (a) Theoretical
- (b) Conceptual
- (c) Concrete
- (d) Philosophical

Q78. Select the INCORRECTLY spelt word.

- (a) Monotonous
- (b) Accomodation
- (c) Thorough
- (d) Delicious

Q79. Select the option that can be used as a one-word substitute for the given group of words.

A person who studies the stars and planets

- (a) Botanist
- (b) Astronomer
- (c) Archaeologist
- (d) Entomologist

Q80. Rearrange the parts of the sentence in correct order.

- With technology, education has taken
P. are now available online
Q. a new leap of courses
R. from top universities across the globe
S. and learning materials
- (a) QSRP
(b) PSQR
(c) SQPR
(d) SRQP

Q81. Select the most appropriate option that can substitute the highlighted segment in the given sentence.

The **expertise** of the company was evident in their innovative product design.

- (a) magnitude
(b) intricacy
(c) longevity
(d) prowess

Q82. Select the most appropriate option to complete the given sentence.

The athlete's performance in the tournament _____ their commitment and preparation.

- (a) diluted
(b) demonstrated
(c) obscured
(d) diminished

Q83. Select the most appropriate meaning of the highlighted idiom in the given sentence.

"I am sure once you get a hang of it, it will be **a piece of cake!**" the instructor assured me.

- (a) It will be extremely difficult
(b) It will be easy
(c) It will be time-consuming
(d) It will be disappointing

Q84. Select the most appropriate meaning of the highlighted idiom in the given sentence.

The politician started to **throw in the towel** when he realized he was losing the debate.

- (a) Start fighting
(b) Begin arguing
(c) Begin to surrender
(d) Start to dominate

Q85. Choose the incorrectly spelt word.

- (a) Enviroment
(b) Empowerment
(c) Improvement
(d) Treatment

Q86. Select the option that expresses the given sentence in active voice.

The research paper had been written by the team of scientists.

- (a) The team of scientists had written the research paper.
(b) The team of scientists has written the research paper.
(c) The team of scientists will write the research paper.
(d) The team of scientists will have written the research paper.

Q87. Identify the most appropriate ANTONYM of the highlighted word in the given sentence.

The company's profit **soared** after launching the new product.

- (a) Plummeted
- (b) Ascended
- (c) Elevated
- (d) Mounted

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

Obfuscate

- (a) Clarify
- (b) Confuse
- (c) Muddle
- (d) Blur

Q89. Identify the segment that contains a grammatical error in the following sentence:

The discovery of the new planet have brought excitement and fascination to the scientific community, leading to many new research projects being launched.

- (a) The discovery of the new planet
- (b) have brought excitement and fascination
- (c) to the scientific community
- (d) many new research projects being launched

Q90. Select the most appropriate option that can substitute the highlighted segment in the given sentence.

Having studied diligently, he **achieves remarkable success** in the examination.

- (a) has achieved remarkable success
- (b) achieved remarkable success
- (c) have achieves remarkable success
- (d) No substitution required

Q91. Select the most appropriate option to fill in the blank and complete the collocation. She is making _____ progress in her piano lessons.

- (a) steady
- (b) abrupt
- (c) rugged
- (d) severe

Q92. Select the option that expresses the given sentence in passive voice.

Scientists have discovered a new species of butterfly in the rainforest.

- (a) A new species of butterfly has discovered in the rainforest by scientists.
- (b) Scientists have been discovering a new species of butterfly in the rainforest.
- (c) The rainforest has been discovered to have a new species of butterfly by scientists.
- (d) A new species of butterfly has been discovered by scientists in the rainforest.

Q93. Parts of the following sentence have been given as options. Select the option that contains a grammatical error.

She needs to understands that she cannot always get her way.

- (a) She needs to understands
- (b) that she cannot always
- (c) get her way.
- (d) She needs

Q94. 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. The environment benefits from it, and so does the local community.
- Q. Solar power is not just a great source of clean energy.
- R. It also creates jobs and contributes to local economies.
- S. In fact, it's a multi-faceted solution with far-reaching impacts.

- (a) PSQR
- (b) SRPQ
- (c) QRSP
- (d) QSPR

Q95. Select the correct indirect form of the given sentence.

Sapna said to her friend, 'What a hectic day!'

- (a) Sapna exclaimed sorrowfully that it can be a hectic day.
- (b) Sapna told her that it was a hectic day.
- (c) Sapna said joyfully that it was a hectic day.
- (d) Sapna exclaimed that it was a hectic day.

Directions (96-100): In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

In the era of environmental awareness, understanding climate change has become _____ (1) for every individual. It is primarily a result of _____ (2) activities that have led to the accumulation of greenhouse gases in our atmosphere. Increased temperatures have an impact on the world's _____ (3), causing melting ice caps and rising sea levels. It's also leading to more severe and frequent _____ (4). On the positive side, efforts are being made to slow down climate change, with countries around the world _____ (5) to reduce carbon emissions.

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

- (a) essential
- (b) optional
- (c) unlikely
- (d) improbable

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

- (a) natural
- (b) human
- (c) animal
- (d) geological

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

- (a) economy
- (b) oceans
- (c) deserts
- (d) forests

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

- (a) earthquakes
- (b) windstorms
- (c) droughts
- (d) extreme weather events

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

- (a) pledging
- (b) refusing
- (c) avoiding
- (d) considered

Solutions

S1. Ans.(a)

Sol. Kunchikal falls is located in Karnataka and Kynrem falls is located in Meghalaya.

S2. Ans.(b)

Sol.

$$(12, 144, 1728) \Rightarrow (12, 12^2, 12^3)$$

By option (c)

$$(11, 121, 1331) \Rightarrow (11, 11^2, 11^3)$$

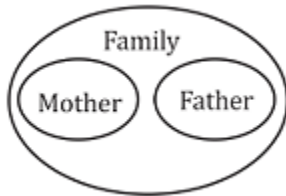
S3. Ans.(d)

Sol.



S4. Ans.(c)

Sol.



S5. Ans.(a)

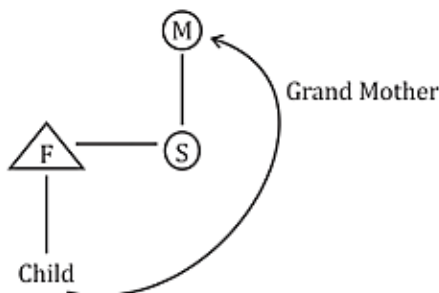
Sol.

$$\Rightarrow 2986 \xrightarrow{\text{Arranged in Ascending Order}} 2689$$

$$\Rightarrow 4378 \xrightarrow{\text{Arranged in Ascending Order}} 3478$$

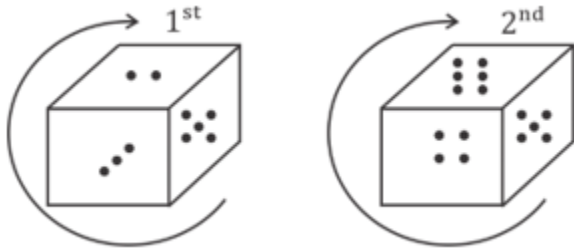
S6. Ans.(b)

Sol.



S7. Ans.(d)

Sol.



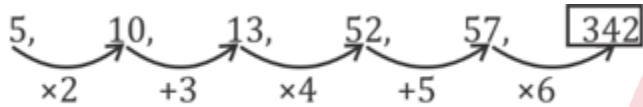
1st ⇒ $\begin{matrix} \bullet & \bullet & \bullet \\ \bullet & & \\ \bullet & & \end{matrix}$

2nd ⇒ $\begin{matrix} \bullet & \bullet & \bullet \\ \bullet & \bullet & \\ \bullet & \bullet & \bullet \end{matrix}$

So, • (1 point) will be on the opposite side of $\begin{matrix} \bullet & \bullet & \bullet \\ \bullet & & \\ \bullet & & \end{matrix}$ (5 points)

S8. Ans.(c)

Sol.



S9. Ans.(d)

Sol. Logic: $\rightarrow n : n(n - 1)$

Option (a) $12 : 12 \times 11 = 132$ (True)

Option (b) $15 : 15 \times 14 = 210$ (True)

Option (c) $16 : 16 \times 15 = 240$ (True)

Option (d) $18 : 18 \times 17 = 306 \neq 296$ (False)

S10. Ans.(c)

Sol.

Angle between Minute & hour hand

$$= \left| \frac{60 \times \text{time in hr} - 11 \times \text{time in min}}{2} \right|$$

$$= \left| \frac{60 \times 5 - 11 \times 30}{2} \right|$$

$$= \frac{30}{2} = 15^\circ$$

S11. Ans.(a)

Sol.

Given $27 : 243$

$$\begin{matrix} \downarrow & \downarrow \\ 3^3 & 3^5 \end{matrix}$$

By Option (a) $\begin{matrix} 64 & : & 1024 \\ \downarrow & & \downarrow \\ 4^3 & & 4^5 \end{matrix}$

S12. Ans.(c)

Sol.

$$\begin{array}{l} \text{Suman} \quad : \quad \text{Sapan} \\ 6 \text{ years Ago } \quad 4 \quad : \quad 8 \Rightarrow 4 \times 1 \end{array}$$

$$6 \text{ years Hence } \quad 5 \times 2 \quad : \quad 7 \times 2 \Rightarrow 2 \times 2$$

12 years \rightarrow 6 unit

1 year \rightarrow 0.5 unit

Age of suman before 6 years = 2 years

Age of Sapan before 6 years = 4 years

Present age of Suman & Sapan are 8 years & 10 years respectively

Sum of their ages = 8 + 10 = 18 years

S13. Ans.(a)

S14. Ans.(c)

S15. Ans.(d)

S16. Ans.(a)

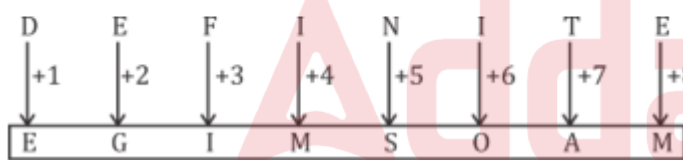
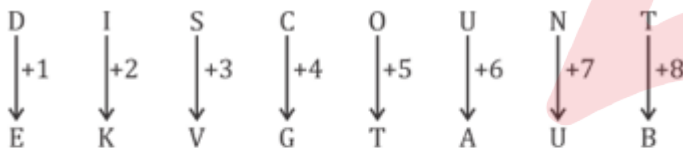
Sol. Shopping \rightarrow Market \rightarrow Fruit \rightarrow Wash \rightarrow Eat

Correct Order \rightarrow 1, 3, 4, 5, 2

(Decreasing order of number of alphabets)

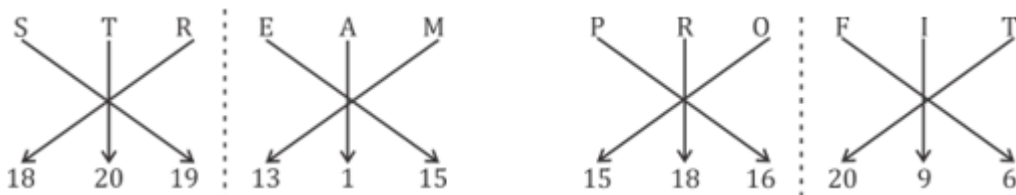
S17. Ans.(b)

Sol.



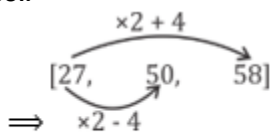
S18. Ans.(d)

Sol.



S19. Ans.(a)

Sol.



Logic :- $[n, 2n - 4, 2n + 4]$

Option (a) $[30, 2 \times 30 - 4, 2 \times 30 + 4] = [30, 56, 64]$

S20. Ans.(a)

Sol. $10 + 2 \div 3^2 - 8 \times 4$

By Option (a) \div, \times

$\Rightarrow 10 + 2 \times 3^2 - 8 \div 4$

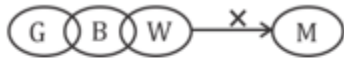
$\Rightarrow 10 + 2 \times 9 - 2$

$\Rightarrow 10 + 18 - 2 = 28 - 2 = 26$

S21. Ans.(c)

S22. Ans.(d)

Sol.



Conclusion

- | | |
|-------|------------------|
| (I) | (\times) |
| (II) | (\checkmark) |
| (III) | (\checkmark) |

S23. Ans.(b)

Sol. Total Student = 30

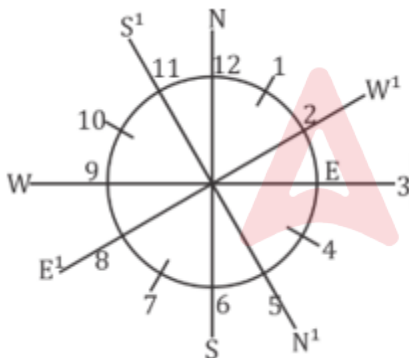
Position of Raman from start = 12

Position of Sheetal from end = 13

No. of students between them = $30 - (12 + 13)$
 $= 30 - 25 = 5$

S24. Ans.(a)

Sol.



S25. Ans.(b)

Sol. There are 31 triangles in the given triangle .

S26. Ans.(b)

Sol. Odisha won the UN-Habitat's World Habitat Awards 2023 for Jaga Mission, a 5T initiative of the state.

Details:

- The awards recognize and highlight innovative, outstanding and revolutionary housing ideas, projects and programmes from across the world.

Odisha Static Facts:

- Capital: Bhubaneshwar
- National Parks: Bhitarkanika National Park, Simlipal National Park
- Folk Dance: Dalkhai



S27. Ans.(c)

Sol. The G20 was founded in 1999.

Details:

- The G20 was founded in 1999 after the Asian financial crisis as a forum for Finance Ministers and Central Bank Governors to discuss global economic and financial issues.
- The G20 Summit is held annually, under the leadership of a rotating Presidency.
- This year India has the presidency of the G-20.

S28. Ans.(d)

Sol. The Yuva Sangam registration portal was launched in New Delhi.

Details:

- The Yuva Sangam is an initiative of Prime Minister Narendra Modi to build close ties between the youth of the Northeast Region and the rest of India under the spirit of Ek Bharat Shreshtha Bharat.
- Under the initiative, over 20 thousand youth will travel across the country and gain a unique opportunity for cross-cultural learning.

S29. Ans.(a)

Sol. The theme for World Press Freedom Day 2023 is "Shaping a Future of Rights: Freedom of Expression as a Driver for all other human rights."

- World Press Freedom Day is observed annually on May 3 to raise awareness about the importance of freedom of the press, and it was first proclaimed by UNESCO in 1991.
- In 1993, the United Nations General Assembly (UNGA) declared May 3 as World Press Freedom Day.

S30. Ans.(a)

Sol. The Union government has appointed Polavarapu Mallikharjuna Prasad as the Chairman and Managing Director (CMD) of Coal India Limited.

- He is presently serving as the CMD of Central Coalfields Ltd (CCL) in Ranchi. Prior to this, he worked as the Director of Technical (P&P) at Northern Coalfields Limited (NCL) and Executive Director (Coal Mining) at NTPC.
- In 2019, he was appointed as CMD of Bharat Coking Coal Limited (BCCL).
- Coal India Limited is a Maharatna Public Sector Undertaking (PSU) and is the largest coal-producing company in the world.
- The Union coal ministry has set a target for Coal India Limited to produce 1012 MT of coal by 2023-24.

S31. Ans.(c)

Sol. British advantages of Subsidiary alliance: The British acquired valuable territories as subsidiary payment. The Indian rulers maintained large armies for the British. The British indirectly controlled the defence and foreign affairs of the protected ally. They could also overthrow the Indian ruler and annex their territories whenever they wished to. Other European powers had little access to the courts of the Indian rulers and could not influence them.

S32. Ans.(a)

Sol. Its parent organization was the All India Anti Untouchability League founded by Mahatma Gandhi earlier on 30 September 1932. This was later renamed Harijan Sevak Sangh. Its first president was Ghanshyam Das Birla and the secretary was Amritlal Takkar.

S33. Ans.(a)

Sol. The Poona Pact defeated the purpose of the Communal Award, and It paved the way for the reservation of seats in the Parliament and the State Assemblies for the SC and ST people.

S34. Ans.(a)

Sol. In 1902-03, a Police Commission was established for the Police reforms under Sir Andrew Frazer and Lord Curzon. It recommended the appointment of Indians at officer level in the police.

S35. Ans.(b)

Sol.

- The All India Services comprises the three prestigious civil services of India and they are the Indian Administrative Service (IAS); Indian Police Service (IPS); and Indian Forest Service (IFS).
- The officers of these three civil services acts in accordance with the All India Services Rules that includes paying, department, leave, several allowances and etc.
- All India Service can be created only if the Council of States (Rajya Sabha) declares, by resolution supported by not less than a two-thirds majority, that it is necessary in the national interest to create one or more such All India Services.

S36. Ans.(b)

Sol. Fundamental rights are not unlimited and citizens are subject to reasonable restrictions. The Directive Principles are subject to any constitutional limitations is correct regarding the Directive Principles of the State Policy.

S37. Ans.(d)

Sol. Article 214 of the Constitution says—There shall be a High Court for each State. Therefore, Reason (R) is correct. But for twenty-eight states and eight union territories, we have only 25 High Courts.

S38. Ans.(d)

Sol. Statement 1 is incorrect because after retirement a permanent judge of High Court shall not plead or act in a Court or before any authority in India, except the SC and a HC other than the HC in which he had held his office (Art 220).

Statement 2 is incorrect as according to Article 217, a person is not qualified for appointment as a judge of a High Court in India unless he has for at least ten years held a judicial office in the territory of India.

S39. Ans.(c)

Sol. Stromboli is one of the most active volcanoes on Earth and has been erupting almost continuously since 1932. Its base begins over 1000 meters below the surface of the Tyrrhenian Sea and it rises to an elevation of 924 meters above sea level.

S40. Ans.(a)

Sol. The latitudinal belt known as the 'Roaring Forties' is (a) 40° to 50° South. The term "Roaring Forties" refers to a region in the Southern Hemisphere where strong westerly winds blow persistently from west to east. These winds are particularly prominent between the latitudes of 40° and 50° South. The name "Roaring Forties" originated from the powerful and consistent winds experienced by sailors in this area during the Age of Sail.

S41. Ans.(c)

Sol.

- Cyclones are rapid inward air circulation around a low-pressure area. Hence option 1 is Not Correct.
- The air circulates in an anticlockwise direction in the Northern hemisphere and clockwise in the Southern hemisphere. Hence option 3 is Correct.
- Cyclones are usually accompanied by violent storms and bad weather.

S42. Ans.(a)

Sol. Padma Vibhushan awarded Umayalpuram K. Sivaraman is a Mridangam player. He was conferred the award 'Padmashri' by the Government of India in 1988. He received the Sangeet Natak Akademi award for Mrudangam for the year 1992

S43. Ans.(c)

Sol. Thetakudi Harihara Vinayakram also known as Vikku Vinayakram, is an Indian percussionist. He is also known as the God of ghatam. He plays Carnatic music with the ghatam, an earthen pot, and is credited with popularising the ghatam.

- He was awarded the Padma Shri, given by Government of India in 2002,^[1] and later the 2012 Sangeet Natak Akademi Fellowship.
- In 2014 he was awarded the Padma Bhushan.

S44. Ans.(c)

Sol. Rich Like Us is a historical and political fiction novel by Nayantara Sahgal, published in 1985.

The author won the 1986 Sahitya Akademi Award for this Novel.

The novel deals with the living and working of life in New Delhi after the declaration of Emergency in the 1970s.

S45. Ans.(d)

Sol. The correct answer is (d) Sa-Dhan. Sa-Dhan is the self-regulatory organization (SRO) for microfinance institutions in India. It is an association of community development finance institutions (CDFIs) and other organizations involved in microfinance. Sa-Dhan plays a crucial role in promoting and strengthening the microfinance sector in India by establishing standards, best practices, and guidelines for its members. It also works towards building a conducive policy and regulatory environment for microfinance operations in the country.

S46. Ans.(a)

Sol.

- As per the Census of India 2011, Madhya Pradesh has the highest percentage of Scheduled Tribe population to total Scheduled Tribe population in India.
- The scheduled castes and the scheduled tribes constitute a significant portion of the population of the State 15.6% and 21.1% respectively.
- The main tribal groups in Madhya Pradesh are Gond, Bhil, Baiga, Korku, Bhadia (or Bhariya), Halba, Kaul, Mariya, Malto, and Sahariya.

S47. Ans.(b)

Sol. Pancreatic juice required alkaline medium for their actions, the food coming from the stomach are acidic in nature bile juice help to make the acidic foods coming from the stomach alkaline so that pancreatic juice can digest food easily

S48. Ans.(b)

Sol. Gypsum plays a very important role in controlling the rate of hardening of the cement. During the cement manufacturing process, upon the cooling of clinker, a small amount of gypsum is introduced during the final grinding process. Gypsum is added to control the "setting of cement"

S49. Ans.(c)

Sol. Newton's law of universal gravitation states that every point mass in the universe attracts every other point mass with a force that is directly proportional to the product of their masses, and inversely proportional to the square of the distance between them.

S50. Ans.(d)

Sol. We know that

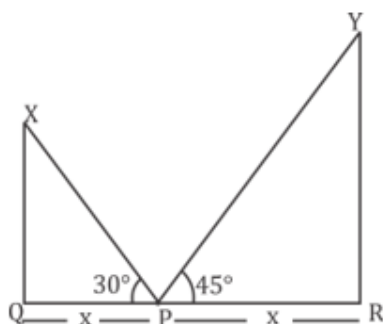
$$\text{Power (P)} = \text{Work (W)} / \text{Time (T)}$$

$$P = 120/3$$

$$P = 40 \text{ Joule/Second.}$$

S51. Ans.(c)

Sol.



P is the midpoint of QR.

So, let QR = 2x

QP = PR = x

In ΔXQP

$$\tan 30^\circ = \frac{XQ}{PQ}$$

$$\frac{1}{\sqrt{3}} = \frac{XQ}{x}$$

$$XQ = \frac{x}{\sqrt{3}}$$

In ΔYPR

$$\tan 45^\circ = \frac{YR}{PR}$$

$$1 = \frac{YR}{x}$$

YR = x

$$\Rightarrow \frac{XQ}{YR} = \frac{\text{Building X}}{\text{Building Y}} = \frac{\frac{x}{\sqrt{3}}}{x} = \frac{1}{\sqrt{3}}$$

S52. Ans.(b)

Sol.

We know $P = C \times t$

So, Let A : B : C = 400 : 900 : 600

ATQ,

$$\text{(Total Profit Ratio)} \quad A : B : C = 400 \times 4 + 600 \times 8 : 900 \times 6 + 1200 \times 6 : 600 \times 8 + 300 \times 4$$

$$\Rightarrow A : B : C$$

$$\Rightarrow 64 : 126 : 60$$

$$\Rightarrow 32 : 63 : 30 \Rightarrow \text{Final Ratio of their Profit}$$

$$32 + 63 + 30 \text{ unit} \rightarrow \text{Rs. } 86800$$

$$125 \text{ unit} \rightarrow \text{Rs. } 86800$$

$$1 \text{ unit} \rightarrow \text{Rs. } 694.4$$

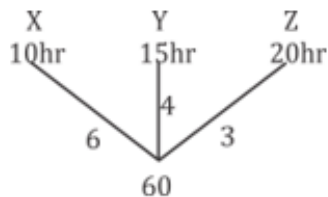
$$\text{Difference of profit b/w A and B} \Rightarrow 694.4 \times (63 - 32)$$

$$\Rightarrow 694.4 \times 31$$

$$\Rightarrow \text{Rs. } 21526.4$$

S53. Ans.(a)

Sol.



Total Work = 60 unit

Work done by pipe X from 7 am to 8am = 6 unit

Work done by pipe X and Y from 8 am to 10 am = $(6 + 4) \times 2 = 20$ units

Remaining work = $60 - 26 = 34$ units

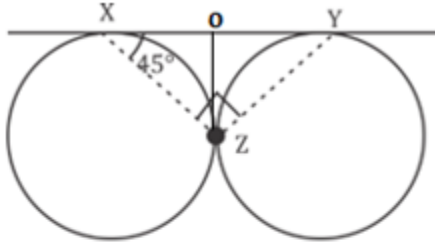
$$\text{Remaining work done by X, Y and Z} = \frac{34}{6+4+3}$$

$$= \frac{34}{13} = 2 \frac{8}{13} \text{ hours}$$

$$\text{Total Time} = 3 \text{ hours} + 2 \frac{8}{13} \text{ hours} = 5 \frac{8}{13} \text{ hours}$$

S54. Ans.(b)

Sol.



$$OZ=OX$$

$$\angle OZX = \angle OXZ = 45^\circ$$

$$OZ=OY$$

$$\angle OZY = \angle OYZ = x$$

In ΔXYZ

$$\angle XZY + \angle ZXY + \angle XYZ = 180^\circ \quad [\text{We know that } \angle XZY = 90^\circ]$$

$$45^\circ + 45^\circ + x + x = 180$$

$$\angle XYZ = x = 45^\circ$$

S55. Ans.(b)

Sol.

Let the numerator And denominator be $x + 3$ & x respectively.

$$\text{Original Fraction} = \frac{x+3}{x}$$

A.T.Q

$$\frac{x+3+2}{x-5} = \frac{7}{6}$$

$$\frac{x+5}{x-5} = \frac{7}{6}$$

$$6x + 30 = 7x - 35$$

$$65 = x$$

$$\text{Original fraction} = \frac{65+3}{65} = \frac{68}{65}$$

S56. Ans.(a)

Sol.

$$\begin{aligned} & \{2 + 12 (\sin^6 \theta + \cos^6 \theta) - 18 (\sin^4 \theta + \cos^4 \theta)\} \\ \Rightarrow & \{2 + 12 (1 - 3 \sin^2 \theta \cos^2 \theta) - 18(1 - 2 \sin^2 \theta \cos^2 \theta)\} \\ \Rightarrow & \{2 + 12 - 36 \sin^2 \theta \cos^2 \theta - 18 + 36 \sin^2 \theta \cos^2 \theta\} \\ \Rightarrow & [2 + 12 - 18] = -4 \text{ Ans.} \end{aligned}$$

S57. Ans.(d)

Sol.

Let the speed of boat in still water = B km/hr

Let the speed of Current = W km/hr

Speed of upstream = $(B - W)$ km/hr

Speed of downstream = $(B + W)$ km/hr

A.T.Q.

$$\frac{10}{B-W} + \frac{15}{B+W} = \frac{90}{60} \quad (1)$$

$$\frac{10}{B+W} + \frac{5}{B-W} = \frac{50}{60} \quad (2)$$

On solving these Questions

$$\frac{-5}{B+W} = \frac{-10}{60}$$

$$B + W = 30 \quad (3)$$

Similarly,

$$B - W = 10 \quad (4)$$

On Solving (3) and (4)

We get

$$B = 20 \text{ km/hr, } W = 10 \text{ km/hr.}$$

Time taken to go 30 km downstream

$$= \frac{30}{(20+10)} = \frac{30}{30} = 1 \text{ hour.}$$

S58. Ans.(a)

Sol.

$$\text{Let III}^{\text{rd}} \text{ no.} = x$$

$$\text{II}^{\text{nd}} \text{ no.} = 3 \times x = 3x$$

$$\text{I}^{\text{st}} \text{ no.} = 4 \times 3x = 12x$$

$$\text{Average} = \frac{x+3x+12x}{3} = \frac{16x}{3}$$

A.T.Q.

$$\text{Average} = \frac{16x}{3}$$

$$448 = \frac{16 \times x}{3}$$

$$x = \frac{448 \times 3}{16} = 84$$

$$\text{I}^{\text{st}} \text{ no.} = 12 \times 84 = 1008$$

$$\text{II}^{\text{nd}} \text{ no.} = 3 \times 84 = 252$$

$$\text{Sum of I}^{\text{st}} \text{ no. \& II}^{\text{nd}} \text{ no.} = 1260$$

S59. Ans.(b)

Sol.

$$\text{Let initial population of U.P.} = 100$$

$$\text{But due to migration it becomes} = 135.62$$

$$\text{Now, decrease in \% of U.P. population} = \frac{35.62}{135.62} \times 100$$

$$= 26.26\%$$

S60. Ans.(a)

Sol.

Given sides of triangle are 119m, 120m, 169m

These are pythagorean triplets, Hence the Δ is right angled Δ .

$$\text{Area of } \Delta = \frac{1}{2} \times 120 \times 119 = 60 \times 119 = 7140 \text{ m}^2$$

$$\text{Perimeter of rectangular plot} = \frac{1}{3} (\text{Area of } \Delta) = \frac{1}{3} \times 7140 = 2380 \text{ m}$$

S61. Ans.(c)

Sol.

$$\text{Let Person borrowed (P)} = \text{Rs. } 500$$

$$\text{After 2 years he paid} = \frac{7}{5} \times 500 = \text{Rs. } 700$$

$$2 \text{ years interest} = \text{Rs. } 200$$

$$1 \text{ year interest} = \text{Rs. } 100$$

$$\text{Rate of Interest} = \frac{100 \times S.I.}{P \times t}$$

$$= \frac{100 \times 100}{500 \times 1} = 20\%$$

S62. Ans.(d)

Sol.

Volume of sphere = 4851 m^3

$$\frac{4}{3} \pi R^3 = 4851$$

$$R^3 = \frac{4851 \times 3 \times 7}{22 \times 4}$$

$$R^3 = 1157.625$$

$$R = 10.5 \text{ m}$$

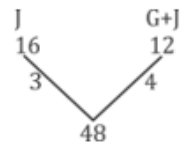
diameter of sphere = side of cube

$$\text{Side of cube} = 2R = 2 \times 10.5 = 21 \text{ m}$$

$$\text{Total Surface Area of Cube} = 6 \times (\text{side})^2 = 6 (21)^2 = 2646 \text{ m}^2$$

S63. Ans.(b)

Sol.



So, Gauri's Efficiency = (G + J)'s Efficiency – J's Efficiency

$$= 4 - 3 = 1$$

$$\text{Amount of time} = \frac{\text{Work done}}{\text{Efficiency}} = \frac{48}{1} = 48 \text{ hours.}$$

S64. Ans.(d)

Sol.

Total amount = Rs. 15000

Distribution ratio = 3 : 4 : 5

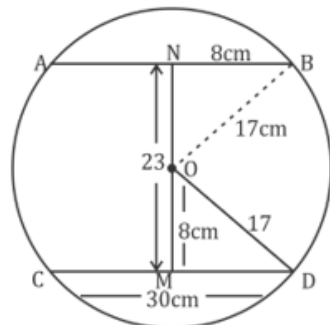
$$3 + 4 + 5 = 12 \text{ unit} \rightarrow 15000$$

$$1 \text{ unit} = 1250$$

	3	:	4	:	5
Amount	3750	:	5000	:	6250
Notes	50	:	20	:	10
No. of Notes	75	:	250	:	625
	3	:	10	:	25

S65. Ans.(d)

Sol.



So, $OD = r = 17 \text{ cm}$

$$DM = \frac{CD}{2} = 15 \text{ cm}$$

$$\text{In } \triangle OMD, OM = \sqrt{(OD)^2 - (MD)^2} = \sqrt{289 - 225} = \sqrt{64} = 8 \text{ cm}$$

$$\text{Similarly, In } \triangle BON, NO = NM - OM = 23 - 8 = 15 \text{ cm}$$

$$(BN)^2 = \sqrt{(OB)^2 - (ON)^2} = \sqrt{289 - 225} = \sqrt{64} = 8 \text{ cm}$$

So, Length of chord $AB = 2 \times NB = 2 \times 8 = 16 \text{ cm}$.

A

SSC MAHAPACK

SSC CGL, CHSL, CPO,
MTS, GD, JHT

S66. Ans.(b)

Sol.

Rate interest for 1st year = 25%

Rate interest for 2nd year = 35%

$$\text{Amount after two years} = 6500 \times \frac{125}{100} \times \frac{135}{100}$$

$$= \text{Rs. } 10968.75$$

Interest for two years = Amount – Principal

$$= 10968.75 - 6500$$

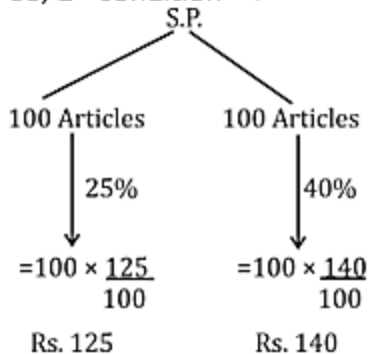
$$= \text{Rs. } 4468.75$$

S67. Ans.(d)

Sol.

Let 200 articles were purchased at a cost of Rs. 200.

So, 1st Condition \Rightarrow



Total C.P. = Rs. 200

Total S.P. = Rs. 125 + 140 = Rs. 265

Profit = Rs. 65

2nd Condition \Rightarrow

$$\text{S.P.} = 200 \times \frac{125}{100} = \text{Rs. } 250$$

$$\text{Profit} = 250 - 200 = \text{Rs. } 50$$

Difference in Profit = Rs. 15

A.T.Q

$$\text{Rs. } 15 \text{ _____ } 90$$

$$1 \text{ _____ } \text{Rs. } 6$$

Cost of 1 article = Rs. 6

Cost Price of 200 articles = $200 \times 6 = \text{Rs. } 1200$

S68. Ans.(b)

Sol.

$$\text{Time :- } 14\frac{2}{7}\% \text{ more} = \frac{1}{7}$$

$$\begin{array}{cc} T_i & T_f \\ 7 & 8 \end{array}$$

$$\begin{array}{cc} S_i & S_f \\ 8 & 7 \end{array}$$

$$\text{Decrease in Speed} \Rightarrow \frac{1}{8} \times 100 = 12.5\%$$

S69. Ans.(a)

Sol.

$$\text{Upstream speed} = B - W = \frac{375}{25} = 15 \text{ m/s}$$

$$\text{Downstream Speed} = B + W = \frac{375}{15} = 25 \text{ m/s}$$

So,

$$B + W = 25$$

$$B - W = 15$$

$$\hline 2B = 40$$

$$B = 20 \text{ m/s}$$

$$W = 5 \text{ m/s}$$

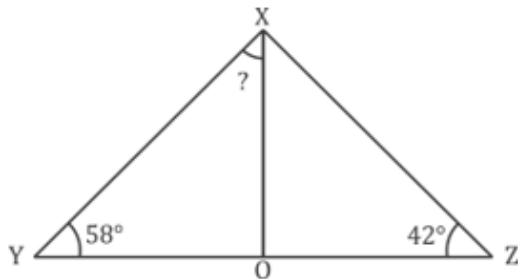
So, $B = 20 \text{ m/s}$ is the speed of boat in still water.

$W = 5 \text{ m/s}$ is the speed of stream.

$$B : W = 20 : 5 = 4 : 1$$

S70. Ans.(d)

Sol.



$$\frac{XY}{XZ} = \frac{YO}{OZ}$$

$$\frac{XY}{YO} = \frac{XZ}{OZ}$$

$$\frac{XY}{OY} = \frac{XZ}{OZ}$$

Triangle XYO is similar to triangle XZO.

Hence,

XO is the angle bisector of $\angle X$.

$$\angle X = 180^\circ - [\angle Y + \angle Z] = 180^\circ - [100^\circ] = 80^\circ$$

So,

$$\angle YXO = \frac{\angle X}{2} = 40^\circ$$

S71. Ans.(b)

Sol.

$$\text{Average Speed} = \frac{\text{Total Distance}}{\text{Total Time}}$$

$$\text{Average Speed} = \frac{60 \times \frac{40}{60} + 70 \times \frac{50}{60} + 90 \times \frac{90}{60}}{\frac{(40+50+90)}{60}}$$

$$= \frac{40 + \frac{850}{6} + 135}{3}$$

$$\Rightarrow \frac{240 + 350 + 810}{18} = 77.77 \text{ km/hour}$$

S72. Ans.(a)

Sol.

100% _____ 6600 students

1% _____ 66 students

Students like article 44% _____ $66 \times 44 = 2904$ students

S73. Ans.(b)

Sol.

$$100\% \text{ _____ } 360^\circ$$

$$1\% \text{ _____ } 3.6^\circ$$

Students who liked hockey = 8%

$$8\% \text{ _____ } 3.6^\circ \times 8 = \boxed{28.8^\circ}$$

S74. Ans.(c)

Sol.

$$100\% \text{ _____ } 2500$$

$$1\% \text{ _____ } 25$$

Difference in football & basketball students = $(30 - 18) = 12\%$

$$12\% \text{ _____ } 12 \times 25 = 300$$

S75. Ans.(d)

Sol.

$$\text{Required Percentage} = \frac{30}{44} \times 100 = 68.18\%$$

S76. Ans.(c)

Sol. Resolution refers to a firm decision or determination to do or achieve something. It signifies a strong commitment and resolve to pursue a particular course of action.

- Determination has a similar meaning to "resolution." It denotes a firmness of purpose and the act of making a decision or taking a resolute stand.
- Thus, the most appropriate synonym of the given word "Resolution" is (c) Determination.
- Antonyms: Indecision, Hesitation.
- Synonyms: **Determination**, Resolve, Perseverance.

Meaning of the words given in the options:

- Confrontation refers to a direct clash or conflict between individuals or groups.
- Indecision means a lack of decision or inability to make up one's mind.
- Negotiation refers to discussions or dialogue aimed at reaching an agreement or resolving differences.

S77. Ans.(c)

Sol. Abstract refers to something that is conceptual, theoretical, or existing in thought but not in a physical or concrete form. It represents ideas or concepts that are not tangible or specific.

- Concrete refers to something that is specific, tangible, or existing in a physical form. It represents things that can be perceived by the senses or have a material presence.
- Thus, the most appropriate antonym of the given word "Abstract" is (c) Concrete.
- Antonyms: **Concrete**, Specific, Tangible.
- Synonyms: Conceptual, Theoretical, Nonrepresentational.

Meaning of the words given in the options:

- Theoretical means relating to or based on theory or speculation.
- Conceptual means relating to ideas or concepts.
- Philosophical means relating to philosophy or the study of fundamental questions.

S78. Ans.(b)

Sol. The incorrectly spelt word in the given options is (b) Accomodation.

- The correct spelling of the word is "Accommodation". It refers to providing or receiving lodging, or making adjustments or adaptations to fit a particular need or situation.

Meanings of the other given words:

- Monotonous means lacking in variety or repetitive in nature.
- Thorough means complete or exhaustive.
- Delicious describes something that tastes very good or is enjoyable to eat.

S79. Ans.(b)

Sol. The option that can be used as a one-word substitute for the given group of words "A person who studies the stars and planets" is (b) Astronomer.

- An astronomer is a person who studies celestial objects, such as stars, planets, galaxies, and other astronomical phenomena.

Meanings of the other given words:

- Botanist refers to a person who studies plants and their characteristics.
- Archaeologist refers to a person who studies human history through the excavation and analysis of artifacts and structures.
- Entomologist refers to a person who studies insects and their behavior.

S80. Ans.(a)

Sol. The correct arrangement of the parts of the sentence is (a) QSRP.

- Q. "A new leap of courses" - This part introduces the idea that education has taken a new leap, particularly through courses.
- S. "And learning materials" - This part adds to the idea that education has advanced through the availability of online learning materials.
- R. "From top universities across the globe" - This part specifies that the courses and learning materials are from prestigious universities worldwide.
- P. "Are now available online" - This part provides additional information about the availability of courses and learning materials online.

S81. Ans.(d)

Sol. The word "prowess" is the most suitable option to replace the highlighted segment in the given sentence.

- It implies exceptional skill, expertise, or ability in a particular field. It conveys the idea that the company's innovative product design was a result of their exceptional skill or expertise.
- Magnitude refers to the great size, extent, or importance of something and does not capture the concept of expertise or skill.
- Intricacy refers to complexity or being intricate, which is not directly related to the concept of exceptional skill or expertise.
- Longevity refers to the long duration or existence of something and does not convey the meaning of expertise.
- Therefore, the most appropriate option is (d) prowess, as it accurately represents the exceptional skill or expertise of the company, which is evident in their innovative product design.

S82. Ans.(b)

Sol. The sentence is suggesting that the athlete's performance in the tournament showed or revealed something about their commitment and preparation.

- Therefore, the most appropriate verb would be "demonstrated," which means to show or make evident.
- The other given options don't fit well in the context:
- Diluted generally means to make something less strong or less valuable. It doesn't make sense to say that the performance made the commitment and preparation less strong or less valuable.
- Obscured means to make something less clear or block out. This doesn't fit because the sentence is trying to say that the performance showed something about the commitment and preparation, not that it made it less clear.
- Diminished means to make something smaller, less important, or less valuable. Similar to "diluted," it doesn't make sense in this context because the performance is not making the commitment and preparation less important or less valuable.
- So, option (b) "demonstrated" is the most appropriate choice.

S83. Ans.(b)

Sol. The idiom "a piece of cake" is used in English to denote that something is easy or simple to accomplish.

- In the sentence you provided, the instructor is assuring the speaker that once they get a hang of the task or activity, they will find it to be easy. Therefore, the correct answer is option (b) "It will be easy."
- Example: Don't worry about setting up the computer. For you, it will be a piece of cake.

S84. Ans.(c)

Sol. The idiom "throw in the towel" means to give up, admit defeat, or surrender in a situation.

- Therefore, the correct answer is (c) Begin to surrender.
- Example: After struggling for years to revitalize the failing company, the CEO finally decided to throw in the towel and sell it off.

S85. Ans.(a)

Sol. The incorrectly spelled word is option (a) Enviroment. The correct spelling is "Environment."

Meanings of the words given:

- Environment: Refers to the surroundings or conditions in which a person, animal, or plant lives or operates.
- Empowerment: The process of giving someone the authority, confidence, and power to do something or make decisions independently.
- Improvement: Refers to the act or process of making something better or enhancing its quality, condition, or performance.
- Treatment: refers to the medical care or management given to a patient to address a health condition or illness.

S86. 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 passive voice having form:
- Object+ had + been +V3+ by + subject.
- When it is converted into active voice, following rule must be followed:
- Subject + had + v3+ object.

S87. Ans.(a)

Sol. Soared means to rise rapidly or increase significantly in value or level.

- Plummeted means to fall or drop suddenly in value or level.
- In the context of the sentence, which is discussing a rise in profit, the correct antonym would be a word that signifies a decrease or drop. Hence, "plummeted" is the correct answer.
- Antonyms - **plummeted**, dropped, descended.
- Synonyms - rose, ascended, increased, skyrocketed.

Meaning of the other words given:

- Ascended - To go up or climb; however, this is not an antonym as it has a similar meaning to the given word.
- Elevated - To raise or lift up; again, not an antonym as it has a similar meaning to the given word.
- Mounted - To climb or go up; this is also not an antonym, as it carries a similar meaning to the given word.

S88. Ans.(a)

Sol. Obfuscate means to make something unclear, confusing, or difficult to understand. It involves deliberately obscuring or muddling information.

- Clarify means to make something clear, understandable, or free from confusion. It involves providing clear and straightforward explanations or information.
- The most appropriate antonym of the word "obfuscate" is (a) Clarify.
- Antonyms: **Clarify**.
- Synonyms: Confuse, Muddle, Blur.

Meanings of the other words given:

- Confuse: To make someone or something unable to understand or think clearly.
- Muddle: To cause confusion or disorder in something, making it difficult to understand or deal with.
- Blur: To make something unclear or indistinct, often by causing it to become less focused or sharp.

S89. Ans.(b)

Sol. The grammatical error is in segment option (b): "have brought excitement and fascination."

- The segment that contains a grammatical error in the sentence is (b) "have brought excitement and fascination." The subject "discovery" is singular, so the verb should be "has" instead of "have" to agree with the subject.
- The corrected sentence would be: "The discovery of the new planet has brought excitement and fascination to the scientific community, leading to many new research projects being launched."

S90. Ans.(b)

Sol. The most appropriate option that can substitute the highlighted segment in the given sentence is option (b) achieved remarkable success.

- The original sentence "Having studied diligently, he achieves remarkable success in the examination" is in the present perfect participle form, indicating an action that occurred before the main action.
- However, the sentence itself implies that the achievement of remarkable success in the examination is a past event.
- Therefore, the correct substitution should be in the past tense, which is achieved in option (b).

S91. Ans.(a)

Sol. Steady means consistent, constant, or gradual. When used with the word "progress," it suggests that the person is making progress in a consistent and reliable manner, with a steady advancement in their piano lessons.

- Thus option (a) aligns well with the context of the sentence, indicating a positive and gradual improvement.
- Abrupt means sudden, unexpected, or without warning. When used with "progress," it implies a sudden or immediate change, which doesn't fit the context of piano lessons.
- Rugged means rough, uneven, or challenging. When paired with "progress," it doesn't convey a suitable meaning in the context of piano lessons.
- Severe means intense, harsh, or extreme. When used with "progress," it implies a negative connotation, indicating a significant decline or setback rather than improvement.

S92. Ans.(d)

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 + has/have+ V3+ object.
- When it is converted into passive voice, following rule must be followed:
- Object+ has/have+ been+ V3+ by + subject.

S93. Ans.(a)

Sol. In the given sentence, the subject is "she," which is a third person singular pronoun. The verb form "understands" used in option (a) is incorrect because it is in the third person singular form, while it should be in the base form "understand."

- The correct verb form to use in this sentence is "understand," which is the base form of the verb. Therefore, the correct sentence is "She needs to understand that she cannot always get her way."
- The grammatical rule involved is subject-verb agreement, which ensures that the verb form matches the number and person of the subject. In this case, since the subject is "she," a third person singular pronoun, the verb should be in the base form "understand."

S94. Ans.(c)

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

- The paragraph starts by introducing solar power and highlighting that it is not just a great source of clean energy (Q).
- Then it goes on to explain the additional benefits of solar power, such as job creation and contribution to local economies (R).
- Sentence S further emphasizes that solar power has far-reaching impacts and is a multi-faceted solution.
- Finally, sentence P concludes the paragraph by mentioning that both the environment and the local community benefit from solar power.

S95. Ans.(d)

Sol. The correct answer is option d.

Direct Speech - Reporting the message of the speaker in the exact words as spoken by him/ her.

- The given sentence is an 'Exclamatory sentence.'
- Exclamatory sentence - Sentences that express strong emotion or feelings (such as joy, sorrow, surprise, Anger, applause, regret, disgust, contempt, etc.) are called exclamatory sentences. The exclamation sentence ends with an exclamation mark (!).
- While changing it into an indirect form, we consider following rules.
- Reporting Verb – 'Said to' changes to 'Exclaimed.'
- Conjunction – In the Exclamatory sentence conjunction 'That' is used.
- Tense – Present tense changes to Past tense.
- The sentence thus formed is - Sapna exclaimed that it was a hectic day.

S96. Ans.(a)

Sol. The appropriate word to fill in the blank is 'essential'.

- The context of the passage talks about the importance of understanding climate change in the present environmental situation.
- 'Essential' means absolutely necessary or extremely important. It conveys the idea that understanding climate change is crucial for every individual.

Meaning of other words:

- Optional - not required or necessary; left to one's choice.
- Unlikely - not likely to happen or be true; improbable.
- Improbable - not likely to be true or to happen; unlikely.

S97. Ans.(b)

Sol. The blank is preceded by "primarily a result of _____ activities" which refers to the activities leading to the accumulation of greenhouse gases.

- Here, 'human' is the correct option as it is human activities that are primarily responsible for the increase in greenhouse gases.

Meaning of other words:

- Natural - existing in or caused by nature; not made or caused by humankind.
- Animal - relating to or characteristic of animals.
- Geological - relating to the study of the Earth's physical structure and substance, its history, and the processes that act on it.

S98. Ans.(b)

Sol. The blank here needs a word that fits in the context of melting ice caps and rising sea levels.

- 'Oceans' is the correct option as increased temperatures affect the world's oceans, leading to consequences like melting ice caps and rising sea levels.

Meaning of other words:

- Economy - the state of a country or region in terms of the production and consumption of goods and services and the supply of money.
- Deserts - a barren area of land, especially one with little precipitation and vegetation.
- Forests - a large area covered chiefly with trees and undergrowth.

S99. Ans.(d)

Sol. The most suitable option for this blank is 'extreme weather events'.

- The passage discusses the increased severity and frequency of a particular phenomenon due to climate change.
- 'Extreme weather events' refer to intense and severe weather conditions such as storms, hurricanes, floods, heatwaves, and droughts.

Meaning of other words:

- Earthquakes - a sudden and violent shaking of the ground, often causing great destruction.
- Windstorms - a storm with strong winds but without the presence of rain or snow.
- Droughts - a prolonged period of abnormally low rainfall, resulting in a shortage of water supply.

S100. Ans.(a)

Sol. The appropriate word for this blank is 'pledging'.

- The sentence discusses positive efforts to combat climate change, with countries around the world taking a specific action to reduce carbon emissions.
- 'Pledging' means making a formal commitment to undertake a particular action, which in this case refers to reducing carbon emissions.
- This option is the most contextually fitting and conveys a sense of determination and commitment by countries to address climate change.

Meaning of other words:

- Refusing - indicating or showing a firm negative response; declining to do or accept something.
- Avoiding - keeping away from or not doing something deliberately.
- Considered - past participle of 'consider,' meaning to think carefully about something.

