

KNOWER NIKHIL

SSC CHSL Previous Year Paper (Solutions)

S1. Ans.(b)

Sol. Lepidopterist is the person who studies or collects butterflies
Deltiologist in the person who collects postcards.

S2. Ans.(b)

Sol. 4, 3, 1, 5, 2 (according to size)

S3. Ans.(d)

Sol. +1, -3, +5, -7

S4. Ans.(d)

Sol. All related to sound, except option (d) .

S5. Ans.(a)

Sol. +3,+2 series

S6. Ans.(a)

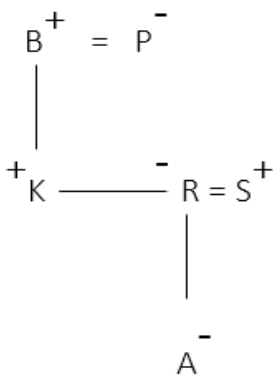
Sol. $V = 22 \times 2 = 44$

$FAT = 6+1+20=27 \times 2 = 54$

$LATE = 12+1+20+5 = 38 \times 2 = 76$

S7. Ans.(b)

Sol.



S is the brother - in -law of K.

S8. Ans.(b)

Sol. $7 \times 4 + 5 \times 2 = 28 + 10 = 38$

\therefore Number of plastic toys = 4.

S9. Ans.(a)

Sol. Gap of colored section is 1 and 2 in alternate pattern

S10. Ans.(a)

Sol. Gap of first and last letter is +6, except option (a) and rest letters are opposite pairs.

S11. Ans.(a)

Sol. $4 \times 3 + 2 = 14$; $14 \times 3 + 2 = 44$

$11 \times 3 + 2 = 35$; $35 \times 3 + 2 = 107$

S12. Ans.(b)

Sol. $132 \times 11 + 8 - 3 \div 12 = -16$

$132 \div 11 + 8 - 3 \times 12 = -16$

$12 + 8 - 36 = -16$

$20 - 36 = -16$

$-16 = -16$

S13. Ans.(c)

Sol. From fig, (ii) and (iii)

3 in opposite to 2

S14. Ans.(b)

Sol. Sum of 1st and 4th digits = middle digits except (b).

S15. Ans.(c)

S16. Ans.(a)

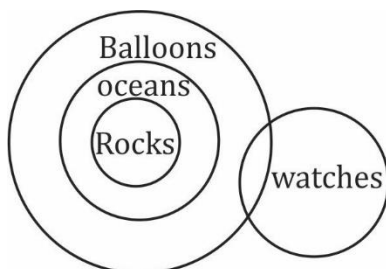
S17. Ans.(d)

Sol. $6^3 - 4^3 = 152$

$6^3 - 2^3 = 208$

S18. Ans.(d)

Sol.

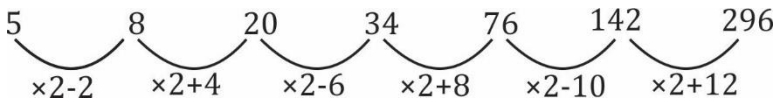


I. ✓ II. × III. ×

Only conclusion I follow.

S19. Ans.(c)

Sol.



S20. Ans.(d)

Sol. $7^2 + 6^2 = 85$

$8^2 + 7^2 = 113$

S21. Ans.(b)

Sol. 15 triangles

S22. Ans.(d)

Sol. Chickenpox is caused by Virus.

Ringworm is caused by fungus.

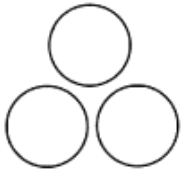
S23. Ans.(c)

S24. Ans.(d)

Sol. a b c c d a b c c d a b c c d a b c c d

S25. Ans.(c)

Sol.



S26. Ans.(d)

Sol. The Global Venture Capital Summit 2018 kicked off in Goa on December 7.

S27. Ans.(c)

Sol. Sikkim Krantikari Morcha (SKM) president Prem Singh Tamang, popularly known as P S Golay. On 27 May 2019, Golay, who did not contest the legislative assembly polls, was sworn-in the 6th Chief Minister of the state of Sikkim.

S28. Ans.(c)

Sol. AIX (Advanced Interactive eXecutive) is “an open operating system from IBM that is based on a version of UNIX. AIX/ESA was designed for IBM's System/390 or large server hardware platform.

S29. Ans.(c)

Sol. The Telangana State Information Technology, Electronics and Communication department (ITE&C) has signed an MoU (Memorandum of Understanding) with digital transformation services provider Tech Mahindra to launch India's first Blockchain District Telangana.

S30. Ans.(b)

Sol. The border crossing of India/Nepal is traditionally known as Sunauli. Sunauli is 70 kilometres of Gorakhpur and 3 kilometres south of Bhairahawa in Nepal. Sunauli is a place on the Indian side and the place on Nepal's side is known as Belahiya.

S31. Ans.(b)

Sol. Kutiyattam art forms of Kerala is in UNESCO's list of the intangible Cultural Heritage of Humanity. Kutiyattam is a form of Sanskrit theatre that originated in Kerala. It is recognised as a oral heritage.

S32. Ans.(b)

Sol. Anatomy is the branch of biology concerned with the study of the structure of organisms and their parts.

S33. Ans.(b)

Sol. Walayar Dam is a dam in Palakkad district of Kerala, south India. This dam is constructed across the Walayar River which is a tributary of Kalpathipuzha River. It was completed and opened in 1964. It is one of the major sources of irrigation in the region

S34. Ans.(c)

Sol. Karan Thapar is the author of devil's advocate the untold story.

S35. Ans.(b)

Sol. In May 2019, Suresh Kumar was appointed as the Chief Technology Officer of Walmart.

S36. Ans.(d)

Sol. Karun Chandhok was born on 19 January 1984 in Channai Tamilnadu India. In 2000 Karun Chandhok Winning the Indian national racing championship on 7th position out of ten races in the formula Maruti series.

S37. Ans.(c)

Sol. Ottamthullal form was originated in the 18th century and has become a popular dance form of Kerala.

S38. Ans.(d)

Sol. Scissor Cup is associated with Football.

S39. Ans.(d)

Sol. Immediate Payment Service is an instant payment inter-bank electronic funds transfer system in India. IMPS offers an inter-bank electronic fund transfer service through mobile phones.

S40. Ans.(d)

Sol. The height of the Statue of Unity is 182 meters (597 feet). This is the highest statue in the world.

S41. Ans.(b)

Sol. Dras valley of Kashmir is the coldest inhabited place in India, often called The Gateway to Ladakh.

S42. Ans.(d)

Sol. Admiral Karambir Singh assumed command of the Indian Navy on 31 May 2019 as the 24th Chief of the Naval Staff.

S43. Ans.(a)

Sol. Benjamin Franklin coined the term "battery" to describe the way a row of capacitors resembled a battery of canons.

S44. Ans.(b)

Sol. Principles of Political Economy (1848) by John Stuart Mill was one of the most important economics or political economy textbooks of the mid-nineteenth century.

S45. Ans.(d)

Sol. The pancreas, a pistol shaped organ, produces the enzymes amylase, lipase and protease and releases them into the small intestine when needed. The enzymes are used to fully digest the food molecules, so that they are small enough to diffuse into the bloodstream.

S46. Ans.(a)

Sol. Jyotirao Govindrao Phule (Mahatma) was born in Pune, was a great social reformer. He dedicated his book Gulamgiri to the American movement to free slaves, he linked the conditions of the black slaves in America with those of the lower castes in India.

S47. Ans.(b)

Sol. The first search engine created was Archie, created in 1990 by Alan Emtage, a student at McGill University in Montreal. The original intent of the name was "archives," but it was shortened to Archie.

S48. Ans.(d)

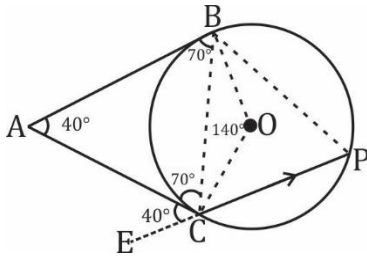
Sol. Jagjivan Ram, who was India's defence minister during the 1971 war, was instrumental in the creation of the 'Joint Command' of Bangladesh and Indian Forces for the final assault which led to victory.

S49. Ans.(a)

Sol. Chhattisgarh shares its borders with the states of Uttar Pradesh in north, Madhya Pradesh and Maharashtra in west, Telangana in southwest, Odisha in east and Jharkhand in northeast

S55. Ans.(d)

Sol.



$$\angle BAC = 40^\circ$$

$$\therefore \angle BOC = 180^\circ - 40 = 140^\circ$$

$$\angle ABC = \angle ACB = 70^\circ [\because AB = AC]$$

$$\angle ACE = \angle BAC = 40^\circ [\text{Alternate angle}]$$

$$\therefore \angle BCP = 180 - 40 - 70 = 70^\circ$$

$$\therefore \angle BPC = \frac{1}{2} \angle BOC = 70^\circ$$

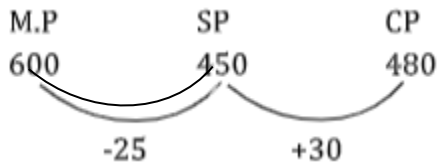
$$\therefore \angle CBP = 180 - \angle BCP - \angle BPC$$

$$= 180 - 70 - 70$$

$$= 40^\circ$$

S56. Ans.(c)

Sol.



$$\therefore \text{Loss \%} = \frac{30}{480} \times 100 = 6.25 \%$$

S57. Ans.(b)

Sol. $R = 12\%$, $T = \frac{5}{4} \text{ yrs}$, $P = 12000$

$$\therefore S.I = \frac{12000 \times 12 \times 5}{100 \times 4} = 1800$$

Now CI for 5 monthly

$$\therefore T = \frac{5}{4} \times 12 = 15 = 5 + 5 + 5 = 3 \text{ yrs}$$

$$R = \frac{12}{12} \times 5 = 5 \%$$

$$\therefore \text{amount} = 12000 \left(1 + \frac{5}{100}\right)^3$$

$$= 12000 \times \frac{21}{20} \times \frac{21}{20} \times \frac{21}{20}$$

$$\text{Amount} = 13891.5$$

$$\therefore \text{CI} = 13891.5 - 12000 = 1891.5$$

$$\therefore \text{Difference} = 1891.5 - 1800$$

$$= 91.50$$

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

$$\frac{x}{12} + \frac{x}{9} = \frac{7}{3}$$

$$x = \frac{7}{3} \times \frac{12 \times 9}{21}$$

$$x = 12$$

$$\begin{aligned} \therefore \text{Total distance covered} &= 2 \times 12 \\ &= 24 \text{ km} \end{aligned}$$

S59. Ans.(a)**Sol.**

$$\begin{aligned} \frac{\cot \theta}{(1-\sin \theta)(\sec \theta + \tan \theta)} &= \frac{\cos \theta / \sin \theta}{(1-\sin \theta)\left(1 + \frac{\sin \theta}{\cos \theta}\right)} \\ &= \frac{\cos^2 \theta}{\sin \theta(1-\sin^2 \theta)} = \frac{1}{\sin \theta} = \operatorname{cosec} \theta \end{aligned}$$

S60. Ans.(a)**Sol. A.T.Q**

$$x+y+2z = 177 \times 2 = 354 \rightarrow (1)$$

$$y+z+2x = 163 \times 2 = 326 \rightarrow (2)$$

$$x+z+2y = 138 \times 2 = 276 \rightarrow (3)$$

Adding (1), (2) & (3)

$$x+y+z = 239 \rightarrow (4)$$

Solving eqn (1) and(4), we get $z = 115$ Solving eqn (2) and(4), we get $x = 87$ Solving eqn (3) and(4), we get $y = 37$

$$\therefore \text{Average of largest and smallest} = \frac{115+37}{2} = 76$$

S61. Ans.(b)**Sol.**

$$\frac{27+43}{33+57} = \frac{70}{90} = \frac{7}{9}$$

S62. Ans.(c)**Sol. $x = 5$ & $y = 2$**

$$\begin{aligned} \therefore \frac{1}{x^3} + \frac{1}{y^3} &= \frac{1}{125} + \frac{1}{8} = 0.008 + 0.125 \\ &= 0.133 \end{aligned}$$

S63. Ans.(c)**Sol.**

Income	Exp	Saving
100%	72%	28%
+28%	+25%) = 35.71%
128%	90%	

S64. Ans.(d)**Sol.**

$$\begin{aligned} & \frac{3}{4} \div \frac{3}{4} \text{ of } \frac{3}{4} \times \frac{4}{3} + \frac{5}{2} \div \frac{2}{5} \text{ of } \frac{5}{4} - \left(\frac{2}{3} + \frac{2}{3} \text{ of } \frac{5}{6} \right) \\ &= \frac{3}{4} \div \frac{9}{16} \times \frac{4}{3} + \frac{5}{2} \div \frac{10}{20} - \frac{11}{9} \\ &= \frac{4}{3} \times \frac{4}{3} + 5 - \frac{11}{9} \\ &= \frac{16}{9} + 5 - \frac{11}{9} = \frac{16+45-11}{9} = \frac{61-11}{9} = \frac{50}{9} \end{aligned}$$

S65. Ans.(a)**Sol.** $43x1145y2$ $5y2$ must be divisible by 8 $\therefore y = 1 \therefore 512$ is divisible by 8 and for divisibility by 11 of $43x114512$ $(4+x+1+5+2) - (1+4+1+3)$ should be multiple of 11 $\therefore x = 8$ Now $3x-2y = 3 \times 8 - 2 \times 1 = 24 - 2 = 22$ **S66. Ans.(c)****Sol.** $A : B : C : D$ $3 : 4 : 5 : 8$

$$\therefore D \text{ gets } \frac{8}{(3+4+5+8)} \times 4360 = \frac{8}{20} \times 4360 = 1744$$

 $A : B : C : D$

$$\frac{1}{3} : \frac{1}{4} : \frac{1}{5} : \frac{1}{8} = 40 : 30 : 24 : 15$$

$$D \text{ gets } = \frac{15}{(40+30+24+15)} \times 4360$$

$$= \frac{15}{109} \times 4360$$

$$= 600$$

$$\therefore D \text{ gets } (1744-600) = 1144 \text{ less}$$

S67. Ans.(b)**Sol.** Let S.P of 1 article = Rs.1 \therefore SP of 72 article = 72

Loss = 8

 \therefore C.P = $72+8 = 80$

$$\therefore \text{Loss \%} = \frac{8}{80} \times 100 = 10\%$$

S68. Ans.(b)**Sol.** $2\cos^2\theta - 5\cos\theta + 2 = 0, 0^\circ < \theta < 90^\circ$

$$2\cos^2\theta - 4\cos\theta - \cos\theta + 2 = 0$$

$$(2\cos\theta - 1)(\cos\theta - 2) = 0$$

$$\therefore \cos\theta = \frac{1}{2}$$

$$\theta = 60^\circ$$

$$\therefore \operatorname{cosec}\theta + \cot\theta = \operatorname{cosec}60^\circ + \cot60^\circ$$

$$= \frac{2}{\sqrt{3}} + \frac{1}{\sqrt{3}} = \sqrt{3}$$

S69. Ans.(b)

$$\text{Sol. } 8x^2 + y^2 - 12x - 4xy + 9 = 0$$

$$4x^2 + 4x^2 + y^2 - 12x - 4xy + 9 = 0$$

$$(2x-y)^2 + (2x-3)^2 = 0$$

$$\therefore 2x-3 = 0 \Rightarrow x = \frac{3}{2}$$

$$2x-y = 0$$

$$3-y = 0 \Rightarrow y=3$$

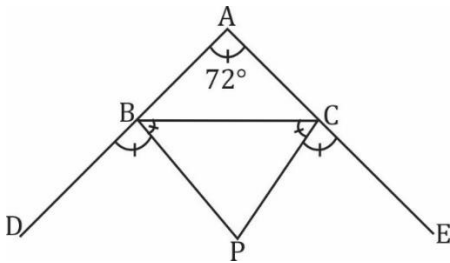
$$\therefore (14x-5y) = 14 \times \frac{3}{2} - 5 \times 3$$

$$= 21 - 15 = 6$$

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

$$B = \left(\frac{33-25}{25} \right) \times 100$$

$$= \frac{8}{25} \times 100 = 32\%$$

S71. Ans.(d)**Sol.**

$$\therefore \angle P = 90 - \frac{\angle A}{2} = 90 - 36 = 54^\circ$$

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

$$\sqrt{x^3 + y^3 + z^3 + xyz}$$

$$\text{Now, } x^3 + y^3 + z^3 - 3xyz = (x+y+z)\{(x+y+z)^2 - 3(xy+yz+xz)\}$$

$$= 19\{361 - 3 \times 114\}$$

$$= 19\{19\}$$

$$x^3 + y^3 + z^3 = 361 + 3 \times 216$$

$$= 1009$$

$$\therefore \sqrt{x^3 + y^3 + z^3 + xyz} = \sqrt{1009 + 216} = \sqrt{1225} = 35$$

S73. Ans.(d)**Sol.**

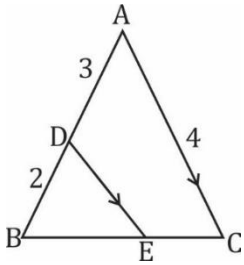
$$\frac{\tan 13^\circ \tan 37^\circ \tan 45^\circ \tan 53^\circ \tan 77^\circ}{2 \operatorname{coec}^2 60^\circ (\cos^2 60^\circ - 3 \cos 60^\circ + 2)}$$

$$= \frac{\tan 45^\circ \tan 13^\circ \cot 13^\circ \tan 37^\circ \cot 37^\circ}{2 \operatorname{coec}^2 60^\circ (\cos^2 60^\circ - 3 \cos 60^\circ + 2)}$$

$$= \frac{1}{2 \times \frac{4}{3} \left(\frac{1}{4} - \frac{3}{2} + 2 \right)} = \frac{1}{2 \times \frac{4}{3} \times \frac{3}{4}} = \frac{1}{2}$$

S74. Ans.(a)

Sol.



$$\begin{aligned}\therefore \frac{\text{ar}(\triangle BDE)}{\text{ar}(\triangle ABC)} &= \frac{BD^2}{BA^2} = \frac{4}{25} \\ \frac{\text{ar}(BDE)}{\text{ar}(ABC) - \text{ar}(\triangle BDE)} &= \frac{4}{25-4} \\ \frac{\text{ar}(\triangle BDE)}{\text{ar of trap.}(ACED)} &= \frac{4}{21}\end{aligned}$$

S75. Ans.(A)

Sol.

$$\frac{35+33+55}{3} = \frac{123}{3} = 41$$

$$x\% = \frac{50-41}{50} \times 100 = 18\%$$

S76. Ans.(c)

Sol. Native: a person born in a specified place or associated with a place by birth, whether subsequently resident there or not.

Inhabitant: a person or animal that lives in or occupies a place.

S77. Ans.(c)

Sol. Expose: make (something) visible by uncovering it.

Reveal: cause or allow (something) to be seen.

S78. Ans.(c)

Sol. Miniscule: extremely small; tiny.

Meagre: (of something provided or available) lacking in quantity or quality.

Gigantic: of very great size or extent; huge or enormous.

Hence 'gigantic' is the correct antonym.

S79. Ans.(c)

Sol. 'Celebration' is the correct spelling here.

S80. Ans.(d)

S81. Ans.(c)

Sol. "A lot of people" is the correct phrase to be used here.

S82. Ans.(c)

Sol. Adversary: one's opponent in a contest, conflict, or dispute, rival.

S83. Ans.(a)

S84. Ans.(d)

Sol. Use “have been proposed” instead of “have been propose”.

S85. Ans.(c)

Sol. Dance to someone’s tune: to do what someone (else) wants or forces.

S86. Ans.(d)

S87. Ans.(d)

Sol. Eagle is the correct spelling here.

Eerie: strange and frightening.

S88. Ans.(d)

Sol. ‘Rowed across the river will be used’.

Across means on the other side of something, or from one side to the other of something which has sides or limits such as a city, road or river

S89. Ans.(d)

S90. Ans.(a)

S91. Ans.(d)

S92. Ans.(c)

S93. Ans.(d)

S94. Ans.(d)

S95. Ans.(c)

S96. Ans.(a)

Sol. Indent: an official order or requisition for goods.

Incentive: a thing that motivates or encourages someone to do something.

S97. Ans.(c)

Sol. Indelible: (of ink or a pen) making marks that cannot be removed.

Infallible: incapable of making mistakes or being wrong.

Invincible: too powerful to be defeated or overcome.

S98. Ans.(c)

Sol. Abound: exist in large numbers or amounts.

Adrift: failing to reach a target or winning position.

Afloat: floating in water; not sinking.

S99. Ans.(a)

S100. Ans.(b)

Sol. Perpetrate: carry out or commit (a harmful, illegal, or immoral action).
