

KNOWER NIKHIL

SSC CHSL Previous Year Paper - (Solutions)

S1. Ans.(b)

Sol. $(5 \times 4) \times 2 + 1 = 41$

$(3 \times 2) \times 2 + 1 = 13$

S2. Ans.(b)

S3. Ans.(b)

S4. Ans.(c)

Sol. $24 \div 2 + 13 - 54 \times 2 = 34$

$24 \times 2 + 13 - 54 \div 2 = 34$

$48 + 13 - 27 = 34$

$61 - 27 = 34$

$34 = 34$

S5. Ans.(d)

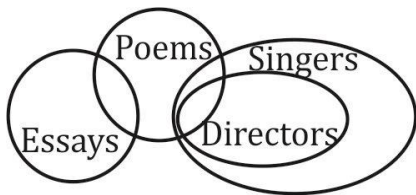
Sol. 2, 4, 5, 3, 1

S6. Ans.(b)

S7. Ans.(d)

S8. Ans.(a)

Sol.



I. ✓ II. ✗ III. ✓

S9. Ans.(b)

Sol. $(2 + 5 + 10) \times x = 340$

$x = \frac{340}{17} = 20$

\therefore Total numbers of notes = $20 \times 3 = 60$

S10. Ans.(d)

Sol.

5	9	18	43	92	213	382	671
4	9	25	49	121	169	289	
↓	↓	↓	↓	↓	↓	↓	
2^2	3^2	5^2	7^2	11^2	13^2	17^2	

S11. Ans.(a)

Sol. Pair of opposite letters except option (a)

S12. Ans.(c)

Sol.

P	E	R	M	U	T	A	T	I	O	N
7	3	7	7	3	7	3	7	3	3	7
I	B	K	F	R	M	X	M	F	L	G

P	U	B	L	I	C	S	E	C	T	O	R
7	3	7	7	3	7	3	3	7	7	3	7
I	R	U	E	F	V	L	B	V	M	L	K

S13. Ans.(b)

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

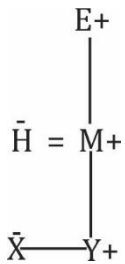
S14. Ans.(a)

Sol.



S15. Ans.(c)

Sol.



\therefore X is grand-daughter of E.

S16. Ans.(c)

Sol. 2 is opposite to 4

S17. Ans.(d)

Sol. Joints

S18. Ans.(a)

Sol.

M	A	S	T	E	R	G	O	V	I	N	D
13	1	19	20	5	18	7	15	22	9	14	4
$\times 2$	$\times 1$	$\times 2$	$\times 2$	$\times 5$	$\times 2$	$\times 2$	$\times 15$	$\times 2$	$\times 9$	$\times 2$	$\times 2$
26	1	38	40	25	36	14	225	44	81	28	8
B	A	C	K	S	P	A	C	E			
2	1	3	11	19	16	1	3	5			
$\times 2$	$\times 1$	$\times 2$	$\times 2$	$\times 2$	$\times 2$	$\times 1$	$\times 2$	$\times 5$			
4	1	6	22	38	32	1	6	25			

S19. Ans.(d)

Sol. $4 \times 2 + 2 = 10$, $10 \times 2 + 3 = 23$

$2 \times 2 + 2 = 6$, $6 \times 2 + 3 = 15$

S20. Ans.(d)

Sol. Carpet is not used to keep something inside it

S21. Ans.(c)

S22. Ans.(a)

Sol. $-4, +4, -3, +3, -2, +2$

S23. Ans.(d)

Sol.

$$\frac{4 \times 7}{2} = 14$$

$$\frac{8 \times 5}{2} = 20$$

$$\frac{9 \times 8}{2} = 36$$

$$\frac{7 \times 8}{2} = 28 \neq 29$$

S24. Ans.(d)

Sol. $5^2 + 2^2 + 1 = 30$

$7^2 + 8^2 + 1 = 114$

S25. Ans.(a)

Sol. Spoke is present in wheel

Word is present in sentence.

S26. Ans.(d)

Sol. The first Sayyid ruler of Delhi was Khizr Khan (reigned 1414–21), who had been governor of the Punjab.

S27. Ans.(d)

Sol. Payel Chowdhury was the captain of the Indian Women's Kabaddi team in the Asian Games 2018.

S28. Ans.(b)

Sol. Arunachal Pradesh is the Indian State has longest border with china. Indian States that shares international border with China are Jammu and Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.

S29. Ans.(d)

Sol. Dravida Munnetra Kazhagam (DMK) is a political party in India, particularly in the state of Tamil Nadu and Union Territory of Puducherry. DMK was NOT an ally of the BJP-led NDA in 2019 Lok Sabha elections.

S30. Ans.(a)

Sol. Indian writer Annie Zaidi was announced as the 2019 winner of the USD 100,000 Nine Dots Prize, a prestigious book prize created to award innovative thinking that addresses contemporary issues around the world.

S31. Ans.(c)

Sol. PepsiCo India has announced that it will invest USD 70 million to build a food manufacturing plant in Uttar Pradesh along with its local bottling partner Varun Beverages.

S32. Ans.(b)

Sol. India's Fouaad Mirza won a silver medal at the Equestrian Jumping Final at the Asian Games 2018 in Jakarta.

S33. Ans.(b)

Sol. PM Narendra Modi is a Hindi-language biographical drama film, directed by Omung Kumar, and written by Anirudh Chawla and Vivek Oberoi.

S34. Ans.(c)

Sol. On the occasion of World No Tobacco Day on May 31, Maharashtra and Rajasthan became the latest states to enact this ban.

S35. Ans.(c)

Sol. Distillation is a purification technique for a liquid or a mixture of liquids. We utilize the difference in boiling points of liquids as a basis of separation. The core of a distillation process, is selective evaporation and condensation of particular components

S36. Ans.(d)

Sol. Galena, also called lead glance, is the natural mineral form of lead(II) sulfide (PbS). It is the most important ore of lead and an important source of silver. Galena is one of the most abundant and widely distributed sulfide minerals.

S37. Ans.(d)

Sol. The Dhola–Sadiya Bridge, also referred to as the Bhupen Hazarika Setu is a beam bridge in India, connecting the northeast states of Assam and Arunachal Pradesh.

S38. Ans.(c)

Sol. Panchavati , or modern day Nashik, is a city which is so deeply rooted in legends. It is very crucial among the places visited by Lord Rama as it is where the crucial phase of his exile occurs. The entire Aranya Kanda of Ramayana is set in Panchavati.

S39. Ans.(b)

Sol. Nitin Jairam Gadkari is an Indian politician from Maharashtra who is the current Minister for Road Transport & Highways of India and Shipping Ministry of Micro, Small and Medium Enterprises in the Government of India.

S40. Ans.(b)

Sol. Rani ki Vav is a stepwell situated in the town of Patan in Gujarat state of India. It is located on the banks of Saraswati river.

S41. Ans.(d)

Sol. The Royal Titles Act 1876 was an Act of the Parliament of the United Kingdom which officially recognized Queen Victoria (and subsequent monarchs) as “Empress of India”. This title had been assumed by her in 1876, under the encouragement of the Prime Minister Benjamin Disraeli.

S42. Ans.(b)

Sol. Goods and Services Tax Identification Number (GSTIN) or GST Identification Number, is a unique 15 digit alphanumeric code used to identify business registered under Goods and Services Tax (GST).

S43. Ans.(d)

Sol. Paan Singh Tomar was an Indian soldier and athlete. He served in the Indian Army, where his talent for running was discovered. He was a seven-time national steeplechase champion in the 1950s and 1960s, and represented India at the 1958 Asian Games.

S44. Ans.(d)

Sol. Google was incorporated as a privately-held company on September 4, 1998, by founders Larry Page and Sergey Brin. The founders met when Brin was assigned to give Page a tour of Stanford University, where they both became computer science grad students.

S45. Ans.(c)

Sol. In May 2019, the Government of India approved a new scheme which assures minimum monthly pension to all shopkeepers, retail traders and self-employed persons after attaining the age of 60 years. The pension amount for this scheme is Rs 3000.

S46. Ans.(d)

Sol. Amortization refers to the process of paying off debt over time in regular installments of interest and principal sufficient to repay the loan in full by its maturity date.

S47. Ans.(a)

Sol. The highest measured frequencies of EM waves are Gamma-rays and are typically produced from the decay of atomic nuclei.

S48. Ans.(b)

Sol. Nepal is separated from Bhutan by the Indian state of Sikkim and Bangladesh is separated from Bhutan by the Indian states of West Bengal and Assam.

S49. Ans.(d)

Sol. A region of computer memory where frequently accessed data can be stored for rapid access is called Cache.

S50. Ans.(b)

Sol. Kamayani (1936) is a Hindi epic poem (Mahakavya) by Jaishankar Prasad. It is considered one of the greatest literary works written in modern times in Hindi literature.

S51. Ans.(a)

$$\text{Sol. } \cos^2\theta - \sin^2\theta - 3\cos\theta + 2 = 0$$

$$2\cos^2\theta - 3\cos\theta + 1 = 0$$

$$2\cos^2\theta - 2\cos\theta - \cos\theta + 1 = 0$$

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

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

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

$$\theta = 60^\circ [0^\circ < \theta < 90^\circ]$$

$$\therefore 4\operatorname{cosec}\theta + \cot\theta$$

$$4 \times \frac{2}{\sqrt{3}} + \frac{1}{\sqrt{3}} = \frac{9}{\sqrt{3}} = 3\sqrt{3}$$

S52. Ans.(b)

$$\text{Sol. } a^2 + 4b^2 + 49c^2 + 18 = 2(2b + 28c - a)$$

$$(a)^2 + (2b)^2 + (7c)^2 + 1 + 1 + (4)^2 = 4b + 56c - 2a$$

$$(a+1)^2 + (2b-1)^2 + (7c-4)^2 = 0$$

$$A = -1, b = \frac{1}{2}, c = \frac{4}{7}$$

$$\therefore (3a + 2b + 7c)$$

$$= (-3 + 1 + 4) = 2$$

S53. Ans.(c)

Sol. Relative speed = $(54 - 42) \times \frac{5}{18} = \frac{12 \times 5}{18} = \frac{10}{3}$ m/s

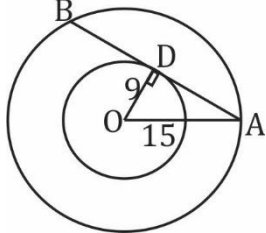
Let the length of train = l

$$\therefore \frac{2l}{10}$$

$$l = 105 \text{ m}$$

S54. Ans.(a)

Sol.



$$\therefore AD = \sqrt{15^2 - 9^2} = 12$$

$$\therefore AB = 12 \times 2 = 24 \text{ CM}$$

S55. Ans.(a)

Sol. $2940 = \frac{p \times 10 \times 7}{100 \times 2}$

$$P = 8400$$

For 2.5 years

8400	840		
	840	84	
	840	168	8.4

$$\therefore \text{CI for 2.5 years} = (840 + 840 + 84) + (840 + 168 + 8.4) / 2 = 2272$$

S56. Ans.(c)

Sol. $\frac{(\sec\theta + \tan\theta)(1 - \sin\theta)}{\operatorname{cosec}\theta(1 + \cos\theta)(\operatorname{cosec}\theta - \cot\theta)}$

$$= \frac{\left(\frac{1 + \sin\theta}{\cos\theta}\right)(1 - \sin\theta)}{\frac{1}{\sin\theta}(1 + \cos\theta)\left(\frac{1 - \cos\theta}{\sin\theta}\right)}$$

$$= \frac{(1 - \sin^2\theta)\sin^2\theta}{\cos\theta(1 - \cos^2\theta)}$$

$$= \frac{\cos^2\theta \sin^2\theta}{\cos\theta \sin^2\theta}$$

$$= \cos\theta$$

S57. Ans.(c)

Sol. After 10% discount

$$90\% = 360$$

$$100\% = 400$$

If discount % = 0 & gain% = 25%

$$\therefore 125\% = 400$$

$$\therefore 100\% = \frac{400}{125} \times 100$$

$$\text{(CP)} = 320/-$$

S58. Ans.(c)

Sol.

	A	B
I	2x	3x
E	1y	2y
S	(2x-y)	(3x-2y)

$$\text{A.T.Q.} \Rightarrow \frac{90}{100} \times 2y = 2x$$

$$\frac{-}{y} = \frac{9}{10} \Rightarrow x = \frac{9}{10}y$$

$$\therefore \frac{2x - y}{3x - 2y} = \frac{\frac{8y}{10}}{\frac{7y}{10}} = 8 : 7$$

S59. Ans.(a)

Sol. $(110.5 - 92)\% = 37$

$$18.5\% = 37$$

$$\therefore 100\% = \frac{37}{18.5} \times 100$$

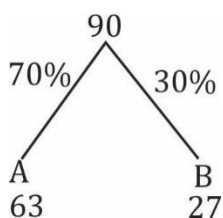
$$= 200$$

S60. Ans.(c)

Sol. $\frac{60+90}{100+80} = \frac{150}{180} = \frac{5}{6}$

S61. Ans.(b)

Sol.



Now, Total Sum = 53×90

$$= 4770$$

Let total sum of village B = x

$$\therefore \text{A.T.O} \frac{x}{27} = \frac{4770-x}{63} \times \frac{120}{100}$$

$$35x = 18(4770-x)$$

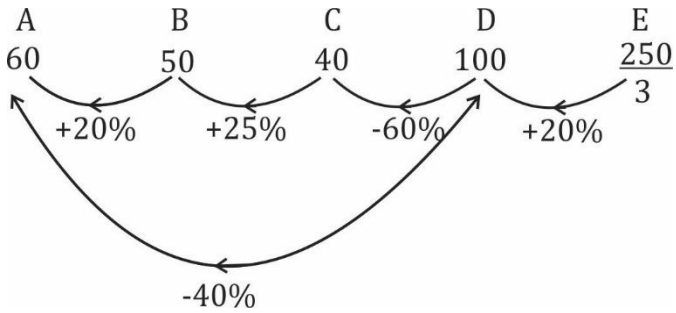
$$X = 1620$$

$$\therefore \text{Average score of students from village B} = \frac{1620}{27}$$

$$= 60$$

S62. Ans.(c)

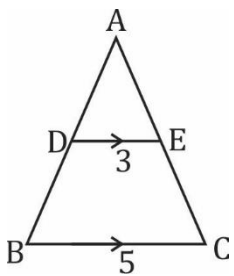
Sol.



∴ A is 40% less than D

S63. Ans.(a)

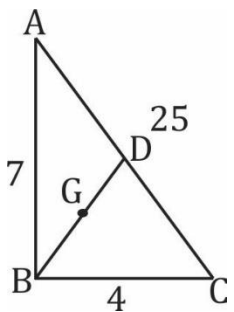
Sol.



$$\frac{\text{ar}(\triangle ADE)}{\text{ar}(\text{quad DECB})} = \frac{3^2}{5^2 - 3^2} = \frac{9}{16}$$

S64. Ans.(b)

Sol.



7, 24, 25 are triplets

$$\therefore BD = \frac{25}{2}$$

$$\therefore BG = \frac{2}{3} \times \frac{25}{2} = \frac{25}{3}$$

$$= 8\frac{1}{3}$$

S65. Ans.(b)

Sol. $30 \times 10 \times 8 = 40 \times 6 \times H$

$H = 10$ hours.

S66. Ans.(a)

$$\text{Sol. } \frac{1}{3}(\pi r^2) \times 18 = 924$$

$$\pi r^2 = \frac{924}{6} = 154$$

S67. Ans.(d)

$$\text{Sol. Actual production} = 70 + 50 + 100 + 80 + 120 = 420$$

$$\text{Target production for Feb, April and May} = 30 + 90 + 100 = 220$$

$$\therefore \% = \frac{200}{420} \times 100 = 47.6\%$$

S68. Ans.(d)

$$\text{Sol. } 342x18y6$$

For largest value of y for which $8y6$ is divisible by 8

$$y = 9$$

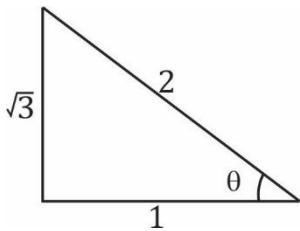
342x1896 for divisibility by 9.

$$x = 3$$

$$\therefore \text{value of } \sqrt{9x + y} = \sqrt{27 + 9} = 6$$

S69. Ans.(d)

Sol.



$$\frac{2 - \sin^2 \theta}{1 - \cos^2 \theta} + (\operatorname{cosec}^2 \theta + \sec \theta)$$

$$= \frac{2 - \sin^2 \theta}{\sin^2 \theta} + (\operatorname{cosec}^2 \theta + \sec \theta)$$

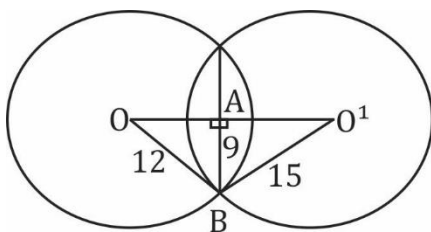
$$= 3\operatorname{cosec}^2 \theta + \sec \theta - 1$$

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

$$= 4 + 2 - 1 = 5$$

70. Ans.(d)

Sol.



$$\begin{aligned}
OO' &= OA + AO' \\
&= \sqrt{144 - 81} + \sqrt{15^2 - 81} \\
&= \sqrt{63} + 12 \\
&= 12 + 3\sqrt{7}
\end{aligned}$$

S71. Ans.(b)

Sol. Target production of AC for five months

$$= 60 + 30 + 80 + 90 + 100 = 360$$

$$\therefore \text{Average} = \frac{360}{5} = 72$$

$$\text{Required value} = \frac{8}{72} \times 100$$

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

S72. Ans.(c)

Sol. $\frac{3 \div \{5 - 5 \div (6 - 7) \times 8 + 9\}}$

$$= \frac{3 \div \{5 + 40 + 9\}}{5} = \frac{3 \div 54}{5}$$

$$= \frac{3}{5 \times 54} = \frac{1}{90}$$

S73. Ans.(a)

Sol. $a = 5, b = -1, c = 1$

$$\therefore 4abc = 4 \times 5 \times (-1) \times 1 = -20$$

S74. Ans.(c)

$$\text{Sol. } (\sqrt{3}x)^3 - (\sqrt{2}y)^3 = (\sqrt{3}x - \sqrt{2}y)(3x^2 - \sqrt{6}xy + 2y^2)$$

$$\therefore A = 3, B = \sqrt{6}, C = 2$$

$$A^2 - B^2 + C^2 = 9 - 6 + 4 = 13 - 6 = 7$$

S75. Ans.(b)

$$\text{Sol. March} = \frac{100 - 80}{80} \times 100 = \frac{20}{80} \times 100 = 25\%$$

S76. Ans.(c)

S77. Ans.(d)

S78. Ans.(b)

S79. Ans.(b)

S80. Ans.(c)

S81. Ans.(b)

Sol. Needn't have with 3rd form of verb is used to denote past event.

S82. Ans.(b)

Sol. Exotic: originating in or characteristic of a distant foreign country.

Alien: belonging to a foreign country.

So, here ordinary is the best option as antonym.

S83. Ans.(c)

Sol. “To whom” should be replaced by “with whom” to make the sentence grammatically correct.

S84. Ans.(b)

Sol. Use such as to provide specific examples of something you're talking about.

Here, we are talking about cyclone Fani.

S85. Ans.(d)

Sol. Overcome: succeed in dealing with (a problem or difficulty).

We are talking about overcoming challenges through will and determination.

Overdo: do, use, or carry to excess; exaggerate.

S86. Ans.(b)

Sol. Infallible: incapable of making mistakes or being wrong.

Inevitable: as is certain to happen; unavoidably.

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

S87. Ans.(b)

Sol. “Has proposed” will be used in place of “has propose”.

S88. Ans.(a)

Sol. Troop: soldiers or armed forces.

Band: a flat, thin strip or loop of material, used as a fastener, for reinforcement, or as decoration.

S89. Ans.(c)

Sol. Barrel is the correct spelling.

Barrel: a cylindrical container bulging out in the middle, traditionally made of wooden staves with metal hoops round them.

S90. Ans.(d)

S91. Ans.(a)

Sol. To air dirty linen in public: If you say that someone airs their dirty laundry in public, you disapprove of their discussing or arguing about unpleasant or private things in front of other people.

S92. Ans.(c)

Sol. Throw in the towel: abandon a struggle; admit defeat.

S93. Ans.(a)

S94. Ans.(d)

Sol. Impeccable: in accordance with the highest standards; faultless.

Immaculate: perfectly clean, neat, or tidy.

Impoverished: (of a person or area) made poor.

S95. Ans.(b)

Sol. Hind: (especially of a bodily part) situated at the back; posterior, rear.

S96. Ans.(a)

Sol. Innuendo: an allusive or oblique remark or hint, typically a suggestive or disparaging one, implication.

S97. Ans.(b)

S98. Ans.(a)

Sol. Assurance is the correct spelling.

S99. Ans.(c)

Sol. Succinct: (especially of something written or spoken) briefly and clearly expressed.

Pithy: terse and vigorously expressive.

So, lengthy is the correct antonym.

S100. Ans.(b)