

All India Mock: SSC CHSL Tier I 4th-5th Jan 2020 (SOLUTIONS)**S1. Ans.(b)****Sol.**

$$(13)^2 = 169$$

$$1 + 6 + 9 = 16$$

$$(14)^2 = 196$$

$$1 + 9 + 6 = 16.$$

S2. Ans.(b)**Sol.**

$$3 \times 2 = 6$$

$$\downarrow +2$$

$$8$$

$$3 \times 4 \rightarrow 12$$

$$\downarrow +4$$

$$16$$

$$4 \times 2 = 8$$

$$\downarrow +2$$

$$10$$

$$4 \times 4 = 16$$

$$\downarrow +4$$

$$20.$$

S3. Ans.(c)**Sol.** Mahatma title given by. Ravinder nath tagore. Netaji title given by adolf Hitler.**S4. Ans.(b)****Sol.**Follow +2, +1, +2 Sequence. \rightarrow ACDFFollow -2, -1, -2 Sequence. \rightarrow ZXWU**S5. Ans.(c)****Sol.**

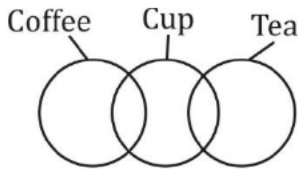
$$30 - \frac{28}{7} - 14 \times 2$$

$$30 - 4 - 28$$

$$= -2.$$

S6. Ans.(d)**Sol.**

None of these

S7. Ans.(a)**Sol.****S8. Ans.(d)****Sol.**Follow $-1, -1, -1$, Sequence.

Q	B	O	L	B	K
\downarrow^{-1}	\downarrow	\downarrow	\downarrow	\downarrow	\downarrow^{-1}
P	A	N	K	A	J

S9. Ans.(d)**Sol.**

Total numbers of letter's divided by two.

$$\frac{7}{2} = 3.5$$

S10. Ans.(c)**Sol.**

A	D	D	A	R	A	M	B	O
\downarrow	\downarrow	\downarrow	\downarrow	\downarrow	\downarrow	\downarrow	\downarrow	\downarrow
1	2+3	2+3	1	9	1	1+4	2+5	3

Put the no. of vowel positions and. Sum of digit others letter's opposite position of letter.

I	N	D	I	A
\downarrow	\downarrow	\downarrow	\downarrow	\downarrow
3	1+3	2+3	3	1

= 3 4 5 3 1

S11. Ans.(d)**Sol.****S12. Ans.(c)****Sol.** (first no.) $\times 3 + 3$ = second numberAll follows above logic except **(c)**

S13. Ans.(d)

Sol.

All state touches the boundary of Pakistan except **(d)**

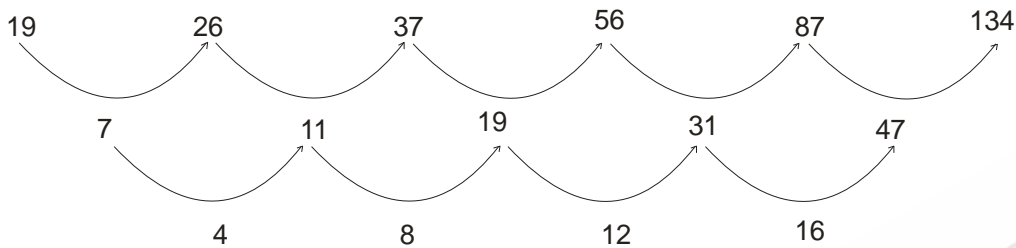
S14. Ans.(d)

Sol.

Except **(d)**, all diseases caused by bacterium

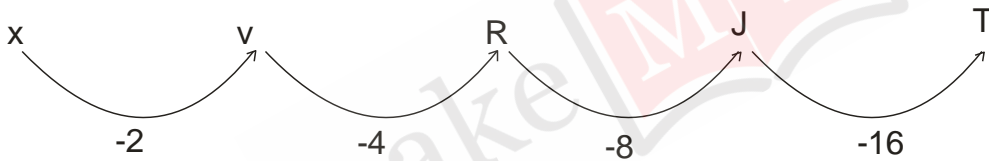
S15. Ans.(a)

Sol.



S16. Ans.(c)

Sol.



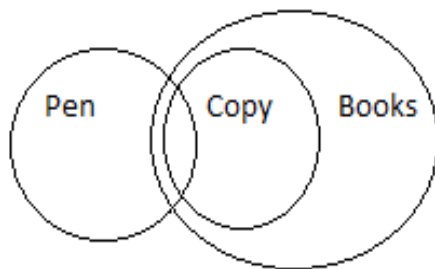
S17. Ans.(a)

Sol.

a/ab/abc/abcd/abcde

S18. Ans.(a)

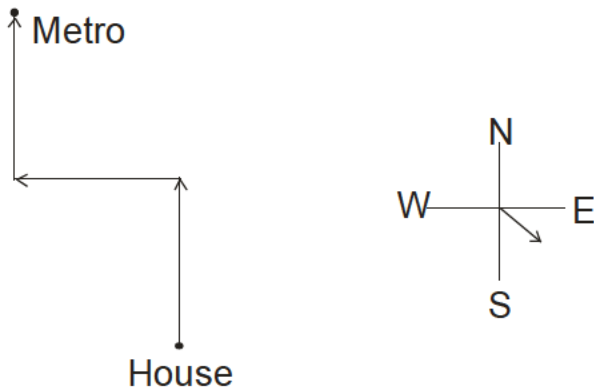
Sol.



Only conclusion I follows

S19. Ans.(d)

Sol.



S20. Ans.(b)

Sol. Notification → Application → Exam → Result → Appointment

S21. Ans.(b)

Sol.



S22. Ans. (b)

S23. Ans. (b)

S24. Ans. (a)

S25. Ans. (a)

S26. Ans.(c)

Sol. In 1615 AD, the famous treaty of Chittor signed during the reign of Jahangir. In pursuance of his father's policy of imperialism, Jahangir aimed at the conquest of the entire country. In 1605, he sent his second son to reduce Rana Amar Singh, a Hindu ruler, to submission. It was not easy to conquer the great fort of Chittor. In 1608, the emperor sent another force. Eventually, a treaty of peace was signed in 1615

S27. Ans.(b)

Sol. Gulbadan Begam was the author of Humayunnama. The Imperial Princess Gulbadan Begum (1523 – 1603) was a Perso-Turkic Princess, the daughter of emperor Babur of India, she is most known as the author of Humayunnama, the account of the life of her half-brother, Humayun.

S28. Ans.(a)

Sol. The Domain Name System is a hierarchical decentralized naming system for computers, services, or other resources connected to the Internet or a private network.

S29. Ans.(a)

Sol. Telephone exchange was invented by Tivadar Puskas

S30. Ans.(c)

Sol. Scurvy is caused due to deficiency of Vitamin C.

S31. Ans.(d)

Sol. Money Bill can only originate in Lok Sabha and in Money Bill Rajya Sabha has no control over it

S32. Ans.(a)

Sol. Lok Sabha can initiate the process of removal of president before the expiry of his term.

S33. Ans.(b)

Sol. Kobe Bryant is associated with Basketball.

S34. Ans.(d)

Sol. The rank of India in Global Hunger Index is 102.

S35. Ans.(b)

Sol. Global warming, also referred to as climate change, is the observed century-scale rise in the average temperature of the Earth's climate system and its related effects. Carbon dioxide is one of the Green House gases which cause global warming. Carbon dioxide is not produced by global warming.

S36. Ans.(c)

Sol. Carnotite is an important uranium ore.

S37. Ans.(d)

Sol. Iran is the first country which banned the Pokemon Go.

S38. Ans.(d)

Sol. Melghat was declared a tiger reserve and was among the first nine tiger reserves notified in 1973-74 under the Project Tiger. It is located in the northern part of Amravati District of Maharashtra State in India.

S39. Ans.(d)

Sol. Madhya Pradesh has signed an MoU with NASSCOM to create more jobs for the youth by promoting investment in the information technology sector.

S40. Ans.(a)

Sol. Exposure of common salt to air is a physical change.

S41. Ans.(b)

Sol. Ascorbic acid is the source of Vitamin-C.

S42. Ans.(a)

Sol. A gas that, when kept at a constant temperature, would obey the gas laws exactly.

S43. Ans.(a)

Sol. At a very high temperature they become denatured i.e. they can no longer perform the action that they were created to do.

S44. Ans.(c)

Sol. Rajasthan's Jaipur station of Indian Railways has topped the list of cleanest railway stations in India, in the non-suburban group of stations.

S45. Ans.(c)

Sol. Peddapalli in Telangana has jumped two places in the annual sanitation survey to become the cleanest district replacing Satara in Maharashtra.

S46. Ans.(b)

Sol. 5 % is the Gross domestic product (GDP) growth of India for the year 2019-20 as per Reserve Bank of India(RBI).

S47. Ans.(b)

Sol. The Happiness Department of Madhya Pradesh government has decided to set up a Time Bank that would lend currency to an hour, which could be exchanged to learn a new skill without the need for any paper money. It's a reciprocal service exchange which uses units of time as currency.

S48. Ans.(a)

Sol. The Centre has constituted a three-member committee to look into distribution of assets and liabilities of Jammu and Kashmir between two successor Union territories. Former defence secretary Sanjay Mitra is the chairman of the committee, retired IAS officer Arun Goyal and retired Indian Civil Accounts Service (ICAS) officer Giriraj Prasad Gupta are its members.

S49. Ans.(a)**Sol.** Indian cricket team has won the T20 Physical Disability World Cricket Series in England.**S50. Ans.(b)****Sol.**

A group of mountaineers discovered the Kajin Sara lake in early 2019. The lake is situated in Chame rural municipality of Manang district, Nepal.

S51. Ans.(d)**Sol.**

These sides are the Pythagorean triplets

$$\text{So } R = \frac{169}{2} = 84.5 \text{ cm}$$

S52. Ans.(c)**Sol.**

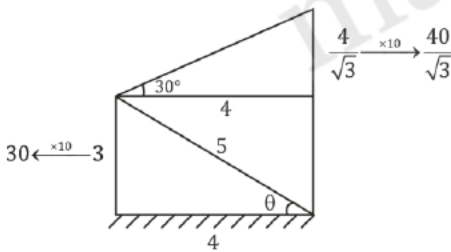
$$12\% = \frac{3}{25}$$

$$\text{radius } 625 \rightarrow 784$$

$$\text{height } 784 \rightarrow 625$$

$$\text{volume } \perp : 1$$

$$\text{Req. \%} = \frac{159}{784} \times 100 = 20.28\%$$

S53. Ans.(b)**Sol.**

$$\text{Total height} = 30 + \frac{40}{\sqrt{3}} = 10 \left(\frac{3\sqrt{3}+4}{\sqrt{3}} \right)$$

$$= \frac{17.3}{3} (3 \times 1.73 + 4)$$

$$= \frac{17.3}{3} (5.19 + 4)$$

$$= 5.76 \times 9.19 = 52.99$$

S54. Ans.(c)

$$\text{Sol. Req. Avg.} = \frac{31+37+41+43+47+53+59}{7}$$

$$= \frac{311}{7} = 44.43$$

S55. Ans.(b)**Sol.**

CP	SP	MRP
100	$132 \times \frac{87}{100}$	132
$\downarrow \times 32678$	\downarrow	
3267800	$32678 \times 132 \times \frac{87}{100}$	

\Rightarrow Selling price = Rs. 3752741.52
or check by unit digit.

S56. Ans.(b)**S57. Ans.(b)**

Sol. $\Rightarrow \frac{(2 \sin 45^\circ \cos 30^\circ)(-2 \cos 45^\circ \sin 30^\circ)}{(2 \cos 45^\circ \cos 30^\circ)(-2 \sin 45^\circ \sin 30^\circ)}$
 $\Rightarrow 1$

S58. Ans.(a)**Sol.** Let total capacity of pond = 16 unit

On 42th day, water in pond = 16 unit

On 41th day, water in pond = 8 unit

On 40th day, water in pond = 4 unit

On 39th day, water in pond = 2 unit

On 38th day, water in pond = 1 unit

On 38th day pond is filled with $\frac{1}{16}$ of total capacity.**S59. Ans.(b)****Sol.**

Ram	Pankaj	Atul
7	42	4
12	12	7
<hr/>		
3	: 18	: 1
		\downarrow
		5060
		\downarrow
		22×5060
		$= 111,320$

S60. Ans.(a)**Sol.**

$$1 \xrightarrow{9} 3 \xrightarrow{9} 9 \xrightarrow{9} 27 \xrightarrow{9} 81 \xrightarrow{9} 243$$

$$9 \times 5 = 45 \text{ years}$$

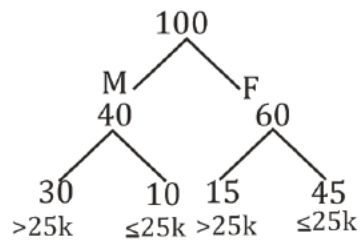
S61. Ans.(c)**Sol.**

Ram	Rohit	Sam	Rohan	Ravi
$x-25$	x	$x-45$	75	
85	110	65		119

+34

$$M.M = 169$$

$$\frac{119}{169} \times 100 = 70\%$$

S62. Ans.(b)**Sol.**

$$\frac{45}{60} = \frac{3}{4}$$

S63. Ans.(b)**Sol.**

$$\begin{array}{cc} A & B \\ 2(20-x) & 2x \\ 2(a(20-x)) = 2(B+x) \end{array}$$

$$\frac{A}{B} = \frac{x}{20-x}$$

$$\frac{2(x) \times (20-x)}{20} = \frac{15}{2}$$

$$x = 5$$

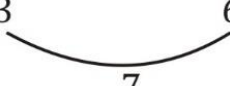
$$\frac{2(5)(15)}{5} = 30$$

S64. Ans.(c)**Sol.**

$$42.84\% = \frac{3}{7}$$

$$6.25\% = \frac{1}{16}$$

CP	SP
$7x3$	$10x3$
$16x2$	$15x2$

CP	SP
21	30
<u>32</u>	<u>30</u>
53	60
	

$$\text{Loss}\% = \frac{7}{53} \times 100 = 13.20\%$$

S65. Ans.(d)

Sol.

	Downstream :	upstream
	62	48
S	31 :	24
T	24 :	31
	$\left \begin{array}{l} \times 16 \\ \hline \end{array} \right.$	$\left \begin{array}{l} \times 16 \\ \hline \end{array} \right.$
	384	496
	49660=8.2hrs	

S66. Ans.(b)

Sol.

$$\frac{4500}{t} - \frac{4500}{t + 1.5} = 150$$

Now checked by options

Usual time = 6hrs

S67. Ans.(a)

Sol.

a	:	b	c	d
$\frac{3}{2}$:	$\frac{1}{3}$		
		$\frac{4}{9}$:	$\frac{5}{3}$
		$\frac{1}{2}$:	$\frac{1}{8}$

72:16:60:15

S68. Ans.(b)**Sol.**

Side of square = 9cm

Perimeter = 36cm

 Δ should be equilateral Δ

$$r = \frac{a}{2\sqrt{3}} = \frac{12}{2\sqrt{3}} = 2\sqrt{3}$$

$$\text{Area} = \pi(2\sqrt{3})^2 \\ = 12\pi$$

S69. Ans.(a)**Sol.**

$$\cos(90 - 2x) = \cos(3x - 45)$$

$$135 = 5x$$

$$x = 27$$

S70. Ans.(b)**Sol.**

$$a = 4 + 3 + 4\sqrt{3} = 7 + 4\sqrt{3}$$

$$b = 7 - 4\sqrt{3}$$

$$a^2 + b^2 + ab = 2(49 + 48) + 1 \\ = 195$$

S71. Ans.(b)**Sol.**

$$675 = 25 \times 27$$

$$\text{L.C.M} = 675$$

S72. Ans.(a)**Sol.**

$$a = 1$$

$$b = -1$$

$$c = 0$$

$$\frac{1 + 1 + 0}{1 - 0} = 2$$

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

$$\text{Average no. of girls} = \frac{500 + 550 + 650 + 600 + 650}{5}$$

$$= \frac{2950}{5} = 590$$

S74. Ans.(b)**Sol.** 100% \rightarrow 450

$$1\% \rightarrow \frac{450}{100}$$

$$A = 20\% \rightarrow \frac{450}{100} \times 20$$

$$= 90$$

S75. Ans.(a)

Sol. $100\% \rightarrow 360^\circ$

$8\% \rightarrow \frac{360}{100} \times 8 = 28.8^\circ$

S76. Ans(d)

S77. Ans(a)

Sol. Whenever a sentence starts with “Seldom if ever”, we use inversion in such a case i.e. we use a helping verb or an auxiliary verb right after the phrase or before the subject of the sentence. Hence, to make the sentence grammatically correct we need to replace “Seldom if ever political parties” with “**Seldom if ever do political parties**”.

S78. Ans(a)

Sol. Correct spelling is “**Shriek**” which means a high-pitched piercing cry or sound; a scream.

S79. Ans(c)

Sol. Spick and span: Totally clean and/or organized.

S80. Ans(b)

Sol. Soliloquy: an act of speaking one's thoughts aloud when by oneself or regardless of any hearers.

Sermon: a talk on a religious or moral subject, especially one given during a church service and based on a passage from the Bible.

Spiel: an elaborate or glib speech or story, typically one used by a salesperson.

Soporific: a drug or other substance that induces drowsiness or sleep.

S81. Ans(a)

Sol. “Every day” when written separately acts as an adverb, while “everyday” is an adjective. Since “dress” is a noun hence we need an adjective before it to satisfy the noun. So, replace “every day” with “everyday”.

S82. Ans(b)

Sol. Change ‘than’ into ‘when’. “Scarcely....when” is the correct pair of correlatives conjunction.

S83. Ans(d)

Sol. Reduce one to something is an idiomatic expression which means to make something change into a different form by damaging it or crushing it.

S84. Ans(c)

Sol. Relegate: assign an inferior rank or position to.

Upgrade: raise (an employee) to a higher grade or rank.

S85. Ans(b)

Sol. Requisite: a thing that is necessary for the achievement of a specified end.

Imperative: an essential or urgent thing.

S86. Ans(c)

S87. Ans(a)

S88. Ans(d)

S89. Ans(b)

S90. Ans(c)

Sol. Dystopia: an imagined state or society in which there is great suffering or injustice, typically one that is totalitarian or post-apocalyptic.

Utopia: an imagined place or state of things in which everything is perfect.

S91. Ans(a)

Sol. Jeune: (of ideas or writings) dry and uninteresting.

Monotonous: dull, tedious, and repetitious; lacking in variety and interest.

Piquant: having a pleasantly sharp taste or appetizing flavour.

Exultant: very happy, especially at someone else's defeat or failure

S92. Ans(d)

S93. Ans(b)

S94. Ans(a)

S95. Ans(c)

Sol. Correctly spelt word is "**Connoisseur**" which means an expert judge in matters of taste.

S96. Ans(c)

Sol. Put to the sword: To be slain or executed, especially in or as a consequence of war.

S97. Ans(b)

Sol. After – Some / **Some of** / All / All of / Enough / Most / Most of / A great deal of / Lots of / A lot of / Plenty of, etc., if there is a countable noun, it is always a plural one and also the verb is plural.

S98. Ans(d)

Sol. 'Abide' takes preposition "by" after it.

S99. Ans(a)

Sol. Protract: lasting for a long time or longer than expected or usual.

Curtail: reduce in extent or quantity; impose a restriction on.

S100. Ans(b)

Sol. Kakistocracy: government by the least suitable or competent citizens of a state.

Gerontocracy: a state, society, or group governed by old people.

Neocracy: government by new or inexperienced hands.

Thearchy: rule by a god or gods.