SSC CHSL SOLUTION PAPER - 07

Ques 1. ANS (A) Solution: Smoke is emitted through chimney. Similarly, bullet is fired from gun.

Ques 2. ANS (B) Solution: All others are divisible by 3 .

Ques 3. ANS (D) Solution:

$48 - 36 \div 3 + 266 \times 19 = -46$
$48 - 36 \times 3 + 266 \div 19 = -46$
$48 - 108 + 14 = -46$
$62 - 108 = -46$
$-46 = -46$

Ques 4. ANS (C) Solution: Not in sequence 1st is the type and 2nd part is the name of the animal

Ques 5. ANS (A) Solution:

3	9	18	3	12	5
C	I	R	C	L	E
12	27	21	15	17	5

8	5	9	7	8	20
H	E	I	G	H	T
13	14	16	15	28	2

The code is the sum of two consecutive numbers and the last is the sum of the respective digit

9	13	16	15	18	20
I	M	P	O	R	T
22	29	31	33	38	2

Ques 6. ANS (A) Solution:

$\frac{13+15}{2} = 14 \Rightarrow 14 \times 14 \times 2 = 392$
$\frac{9+15}{2} = 12 \Rightarrow 12 \times 12 \times 2 = 288$

Ques 7. ANS (C) Solution: Cigar

Ques 8. ANS (C) Solution:
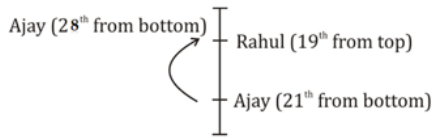
$34 \times 2 + 1 = 69$
$69 \times 2 + 2 = 140$
$140 \times 2 + 3 = 283$
$283 \times 2 + 4 = 570$
$570 \times 2 + 5 = 1145$

Ques 9. ANS (C) Solution: First and the last letter are opposite letters except (c) option

Ques 10. ANS (B) Solution:

Ajay (28th from bottom) — Rahul (19th from top)

Ajay (21th from bottom)

∴ Total boys = 28 + 19 − 1
= 46

Ques 11. ANS (C) Solution:

LIKE

Ques 12. ANS (C) Solution:

W   O   U   N   D
↓   ↓   ↓   ↓   ↓
23   15   21   14   4

Position value of letters in English alphabets.

Ques 13. ANS (B) Solution:

$8 \div 14 - 20 + 5 \times 2$
$\Rightarrow 8 + 14 \times 20 \div 5 - 2$
$\Rightarrow 8 + 14 \times 4 - 2$
$\Rightarrow 8 + 56 - 2$
$\Rightarrow 64 - 2$
$\Rightarrow 62$

Ques 14. ANS (B) Solution:
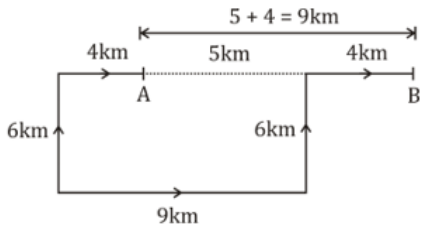
$12 - 6 \times 5 + 20 \div 4 = 31$
$\Rightarrow 12 - 6 + 5 \times 20 \div 4 = 31$
$\Rightarrow 12 - 6 + 5 \times 5 = 31$
$\Rightarrow 12 - 6 + 25 = 31$
$\Rightarrow 37 - 6 = 31$
$\Rightarrow 31 = 31$

Ques 15. ANS (D) Solution:

$\frac{70}{10} = 7 \times (-1) = -7$
$50 \div 5 = 10 \times (-1) = -10$
$10 \div 5 = 2 \times (-1) = -2$
$80 \div 1 = 80 \times (-1) = -80$
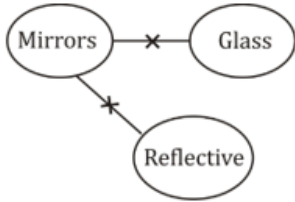
Ques 16. ANS (D) Solution: XyxYXYXY

Ques 17. ANS (D) Solution:

∴ Truck B is at 9km east with respect to A.

Ques 18. ANS (D) Solution:

I. ✗   II. ✗

Neither conclusion I nor conclusion II follows

Ques 19. ANS (D) Solution: IH

Ques 20. ANS (C) Solution:

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 4   1  21   7   8  20  5  18
 D   A   U   G   H   T  E   R
|-4 |-4  |   |-4 |-4  |  |-4  |
26  23   3   3   4   2  1   9
 Z   W   C   C   D   B  A   I
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If place value of the given letter is two digit then add the digits and we get the coded letter if the place value of the given letter is single digit then subtract 4 from it.
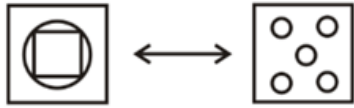
Ques 21. ANS (C) Solution: −8, +8, −6, +6

Ques 22. ANS (C) Solution: −2, −6 series except option (c)

Ques 23. ANS (B) Solution:

Ques 24. ANS (D) Solution:

Opposite faces are : -

Option (d) cannot be formed.

Ques 25. ANS (A) Solution:

$$7^2 + 4^2 = 65$$
$$5^2 + 8^2 = 89$$

Ques 26. ANS (D) Solution: Kalibangan in Rajasthan has given the evidence of the earliest (c. 2800 BC) ploughed agricultural field. At Kalibangan, fire altars have been discovered. Black Copper bangles are also found at Kalibangan. Couple burials are absent in Kalibangan.

Ques 27. ANS (C) Solution: At Sarnath near Varanasi Lord Buddha deliver his first sermon. In the Buddha's first sermon at Deer Park, he taught the Four Noble Truths by addressing the existence of suffering, its cause, and its end.

Ques 28. ANS (C) Solution: Shivaji, the founder of the Maratha Empire was formally crowned as Chhatrapati of Raigad on June 6, in the year 1674.

Ques 29. ANS (B) Solution: The East India Association was founded by Dadabhai Naoroji in 1866, in collaboration with Indians and retired British officials in London. It superseded the London Indian Society and was a platform for discussing matters and ideas about India, and to provide representation for Indians to the Government.

Ques 30. ANS (D) Solution: Shri Lal Bahadur Shastri was born on October 2, 1904 at Mughalsarai, Uttar Pradesh.

Ques 31. ANS (D) Solution: Indravati National Park is a national park located in Bijapur district of Chhattisgarh state of India. It derives its name from the nearby Indravati River.

Ques 32. ANS (C) Solution: The Jovian planets are Jupiter, Saturn, Uranus, and Neptune. They orbit far from the sun. These planets have no solid surfaces and are essentially large balls of gas composed primarily of hydrogen and helium. They are much larger than the terrestrial planets (Earth, Mercury, Venus, and Mars).

Ques 33. ANS (D) Solution: Stromboli is called the lighthouse of the Mediterranean. Stromboli is a small island in the Tyrrhenian Sea, off the north coast of Sicily, containing one of the three active volcanoes in Italy.

Ques 34. ANS (D) Solution: The Directive Principles of State Policy, embodied in Part IV of the Constitution, are directions given to the state to guide the establishment of an economic and social democracy, as proposed by the Preamble.

Ques 35. ANS (C) Solution: The Speaker of Lok Sabha addresses his letter of resignation to the deputy speaker of Lok Sabha.

Ques 36. ANS (B) Solution: The Bureaucratic Theory is related to the structure and administrative process of the organization and is given by Max Weber, who is regarded as the father of bureaucracy.

Ques 37. ANS (D) Solution: The 11th Schedule of Indian Constitution was added in 1992 by the 73rd Constitution Amendment Act. This schedule contains 29 subjects. This schedule covers important topics such as Panchayat's powers, rural development, poverty alleviation, market, roads and drinking water etc.

Ques 38. ANS (B) Solution: Though other liquids can be used in a barometer, mercury is the most common. Its density allows the vertical column of the barometer to be of manageable size.

Ques 39. ANS (D) Solution: In telecommunications, a psophometer is an instrument that measures the perceptible noise of a telephone circuit.

Ques 40. ANS (D) Solution: Mass number is always equal to Sum of number of protons and number of neutrons.

Ques 41. ANS (A) Solution: Crook Glass is a type of glass that contains cerium and other rare earths and has a high absorption of ultraviolet radiation; used in sunglasses.

Ques 42. ANS (B) Solution: Gorewada International Zoo to be set up at Nagpur. In its bid to protect forests, the Government has taken a conscious decision to establish an International Standard Zoo and Biopark on the forest land at Gorewada, Nagpur.

Ques 43. ANS (C) Solution: Abhinandan Varthaman becomes the most Googled person of the year in 2019, followed by Lata Mangeshkar.

Ques 44. ANS (C) Solution: Senior diplomat Pavan Kapoor has been appointed as India's Ambassador to the United Arab Emirates.

Ques 45. ANS (C) Solution: Vinesh Phogat becomes first Indian wrestler to qualify for 2020 Tokyo Olympics.

Ques 46. ANS (C) Solution: A kambala is an annual buffalo race held in the southwestern Indian state of Karnataka.

Ques 47. ANS (D) Solution: The 23rd edition of the Trilateral Maritime exercise Malabar began on 24 September 2019 at the coast of Sasebo, Japan. The exercise involves warships and aircraft from the United States, Japan, and India.

Ques 48. ANS (A) Solution: The International Tennis Federation (ITF) has announced that Australia's Ashleigh Barty and Rafael Nadal of Spain have been named 2019 ITF World Champions.

Ques 49. ANS (D) Solution: United States women's national soccer team has won the FIFA Women World Cup 2019.

Ques 50. ANS (B) Solution: Kargil Vijay Diwas is celebrated on 26 July every year in honour of the Kargil War's Heroes.

Ques 51. ANS (C) Solution:

$24 \rightarrow 8 \times 3$

$53y224x36$

To be divisible by 8, smallest value of $x = 1$

And for divisibility by 3

Sum of digits $= 26 + y \Rightarrow y = 1$

$\therefore 5y + 3x = 5 \times 1 + 3 \times 1 = 8$

Ques 52. ANS (C) Solution:

$$\frac{5}{3} + \frac{5}{2} - \left(\frac{20}{9}\right)$$

$$= \frac{25}{6} - \frac{20}{9} = \frac{35}{18}$$

Ques 53. ANS (B) Solution:

$$\frac{(935 \times 935 \times 935 - 715 \times 715 \times 715) \times 10^{-6}}{(935 \times 935 + 715 \times 715 + 935 \times 715) \times 10^{-2}}$$

$$= \frac{\{(935)^3 - (715)^3\} \times 10^{-6}}{\{(935)^3 + (715)^2 + 935 \times 715\} \times 10^{-2}}$$

$$= (935 - 715) \times 10^{-4} = 0.022$$

Ques 54. ANS (B) Solution:

$$\left(2\sqrt{5}x\right)^{3} + \left(\sqrt{3}y\right)^{3} = \left(2\sqrt{5}x + \sqrt{3}y\right)\left(20x^2 - 2\sqrt{15}xy + 3y^2\right)$$

On comparing, we get,

A= 20, B = $-2\sqrt{15}$, C= 3

$\therefore 4A + 2\sqrt{15}B - 2C$

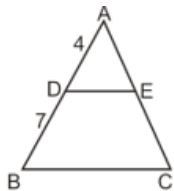$= 4 \times 20 + 2\sqrt{15} \times \left(-2\sqrt{15}\right) - 2 \times 3$

= 80-60-6= 14

Ques 55. ANS (A) Solution:

$(a+b)^2$-3ab

$= a^2+b^2$-ab

$= \dfrac{a^3+b^3}{a+b} = \dfrac{210}{7} = 30$
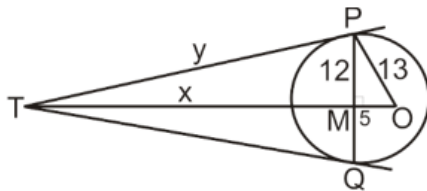
Ques 56. ANS (D) Solution:

AD : DB = 4 : 7

AD : AB = 4 : 11

Hence DE ∥ BC

$\dfrac{AE}{AC} = \dfrac{AD}{AB}$

$\Rightarrow$ AE= $\dfrac{4}{11} \times 22 = 8\ cm$

Ques 57. ANS (B) Solution:

PQ= 24 cm $\Rightarrow$ PM = QM = 12 cm

& OP = 13 cm

In Δ PMT

$x^2+12^2= y^2$ -----(1)

In Δ POT

$13^2+y^2= (x+5)^2$

From eq (1)

$13^2+x^2+12^2= x^2+25+10x$

$\Rightarrow$ x= 28.8 cm

Now, $y^2= x^2+12^2$

$\Rightarrow$ y= 31.2 cm $\cong$ 31 cm

Ques 58. ANS (D) Solution:

For a right angle Δ

r= $\dfrac{PB}{P+B+H} = \dfrac{12\times16}{12+16+20} = 4\ cm$

Ques 59. ANS (D) Solution:

Area of rhombus $= \frac{d_1 \times d_2}{2} = 220$

$\Rightarrow \frac{11 \times d_2}{2} = 220$

$\Rightarrow d_2 = 40$ cm

Ques 60. ANS (B) Solution:

r:h = 7:24

R= 7x & h= 24x

$l = \sqrt{r^2 + h^2} = 25x$

$\frac{curved\ surface\ area}{total\ surface\ area} = \frac{\pi r l}{\pi r(r+l)}$

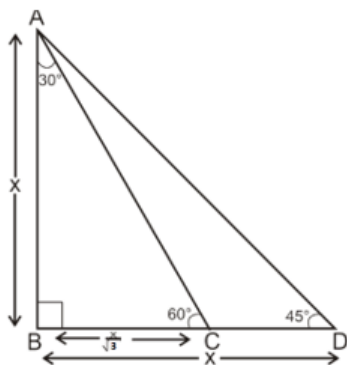$= \frac{7x \times 25x}{7x \times (7x + 25x)}$

$= \frac{25}{32}$

Ques 61. ANS (B) Solution:

$\frac{1}{\sin^4 \theta} + \frac{1}{\cos^2 \theta - 1}$

$= \frac{1}{\sin^4 \theta} + \frac{1}{-\sin^2 \theta} = cosec^4\theta - cosec^2\theta$

$= cosec^2\theta(cosec^2\theta - 1)$

$= cosec^2\theta . \cot^2\theta$

Ques 62. ANS (B) Solution:

$2\sqrt{2 + \sqrt{2 + 2\cos 4\theta}}$

$= 2\sqrt{2 + \sqrt{2(1 + \cos 2(2\theta))}}$

$= 2\sqrt{2 + \sqrt{2 \times 2\cos^2 2\theta}}$

$= 2\sqrt{2 + 2\cos 2\theta}$

$= 2\sqrt{2(1 + \cos 2\theta)}$

$= 2\sqrt{2 \times 2\cos^2\theta} = 4\cos\theta$

Ques 63. ANS (A) Solution:

Let height of tower = x m

AB= BD= x

And BC = $\frac{x}{\sqrt{3}}$

CD= BD-BC

$\Rightarrow 80 = x - \frac{x}{\sqrt{3}} = x\left(1 - \frac{1}{\sqrt{3}}\right)$

$\Rightarrow x = \frac{80\sqrt{3}}{\sqrt{3}-1} = 40(3 + \sqrt{3})$

Ques 64. ANS (D) Solution:

$\frac{y \times x\%}{z \times y\%} = \frac{175}{525}$

$\Rightarrow 3x = z$

Ques 65. ANS (D) Solution:

C.P = $40,000 \times \frac{17}{20} \times \frac{9}{10} = 30,600$

Final CP= Rs 30,600+1400

= Rs 32,000

Profit%= $\frac{6,000}{32,000} \times 100 = 18.75\%$

Ques 66. ANS (B) Solution:

Hence CP is same

Total percentage profit earned

$= \frac{25+8-9}{3} = 8\%$

Ques 67. ANS (C) Solution:

for 2 years → $\left(\frac{11774}{8750}\right)^{1/2} = \frac{29}{25}$

Rate % → $\frac{4}{25} \times 100 = 16\%$

SI= $\frac{8750 \times 32}{100} \times \frac{24}{5}$

= Rs 13,440

Ques 68. ANS (A) Solution:

Let the length of each train = L meter

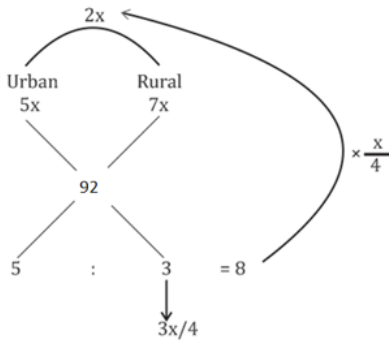$2L = (72 + 144) \times \frac{5}{18} \times 10$

$2L = 600$

$L = 300m$

Req. time $= \frac{300+350}{72 \times \frac{5}{18}} = 32.5$ seconds

Ques 69. ANS (D) Solution:

$5x + \frac{3x}{4} = 92$

$\frac{23x}{4} = 92$

$x = 16$

Avg. of Rural students $= 7 \times 16 = 112$

Ques 70. ANS (A) Solution:

$\frac{M_1 D_1}{W_1} = \frac{M_2 D_2}{W_2}$

$27 \times 4 = 36 \times ?$

$? = \frac{27 \times 4}{36} = 3$ days.

Ques 71. ANS (B) Solution:

$x + 50° + 6x = 90°$

$7x = 40°$

$x = \frac{40°}{7}$

Ques 72. ANS (A) Solution: Soft drink B was Consumed by second highest number of consumers.

Ques 73. ANS (D) Solution:

Req. ratio = 340: 280

= 17: 14

Ques 74. ANS (A) Solution:

Required Value $= \frac{200}{160} = 1.375$

Ques 75. ANS (B) Solution:

20% of drink A = 28

Required value = $\frac{28}{280}$

= 0.1

Ques 76. ANS (C) Solution: Replace "is" with "are" because subject of sentence is "close links" which is plural in nature.

Ques 77. ANS (B) Solution: Replace "will decide" with "decided" because it seems an event of past and will take second form of verb to give a proper meaning.

Ques 78. ANS (D) Solution: Here sentence is in passive form. So its correct usage is "is being".

Ques 79. ANS (A) Solution: "Depend" is a verb but here we need noun so, dependence is the correct usage here.

Ques 80. ANS (D) Solution:

Ques 81. ANS (B) Solution:

Ques 82. ANS (C) Solution: Precept: a general rule intended to regulate behaviour or thought.

Ques 83. ANS (B) Solution: Practiced: carry out or perform (a particular activity, method, or custom) habitually or regularly.

Ques 84. ANS (C) Solution:

Tantamount: equivalent in seriousness to; virtually the same as.

Paramount: more important than anything else; supreme.

Inferior: lower in rank, status, or quality.

Jubilant: feeling or expressing great happiness and triumph.

Ques 85. ANS (A) Solution: Tarred with the same brush is an idiomatic expression which means to unfairly categorize someone or something as being the same as another person or thing, usually in a negative manner

Ques 86. ANS (D) Solution:

Ques 87. ANS (A) Solution: To spill the beans: to reveal secret information unintentionally or indiscreetly.

Ques 88. ANS (D) Solution: To spin one's wheels: waste one's time or efforts.

Ques 89. ANS (C) Solution:

Betray means expose (one's country, a group, or a person) to danger by treacherously giving information to an enemy.

Forsake means renounce or give up (something valued or pleasant).

Delude means make (someone) believe something that is not true.

Ques 90. ANS (B) Solution:

Abhor: regard with disgust and hatred.

Ridicule means the subjection of someone or something to contemptuous and dismissive language or behavior.

Sneer means a contemptuous or mocking smile, remark, or tone

Ques 91. ANS (A) Solution:

Perseverance means persistence in doing something despite difficulty or delay in achieving success.

Endurance means the ability to endure an unpleasant or difficult process or situation without giving way.

Ques 92. ANS (C) Solution:

Frivolous: not having any serious purpose or value.

Puerile: childishly silly and immature.

Captious: tending to find fault or raise petty objections.

Ques 93. ANS (B) Solution:

Adulterate means render (something) poorer in quality by adding another substance. Hence purity is the correct choice.

Attenuated: having been reduced in force, effect, or value.

Vitiate: means spoil or impair the quality or efficiency of.

Ques 94. ANS (A) Solution:

Conjoined means join, combine and sever means divide by cutting or slicing, especially suddenly and forcibly.

Sever means divide by cutting or slicing, especially suddenly and forcibly.

Meld means to (cause something to) combine with something else.

Affix means to fasten or stick one thing to another.

Ques 95. ANS (B) Solution: Unruffled means not disordered or disarranged.

Ques 96. ANS (A) Solution: Bereaving means be deprived of a close relation or friend through their death.

Ques 97. ANS (C) Solution:

Ques 98. ANS (C) Solution:

Ques 99. ANS (B) Solution:

Ques 100. ANS (A) Solution: