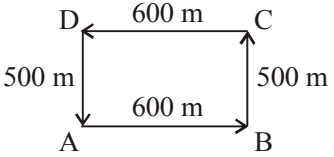


SSC HS Level Exam. — Practice Set

Answers with Explanation

1. (c) The symbol of swastik is related to fortune. Similarly, symbol of the victoria cross is related to **Bravery**.
2. (c) Command is related to Order. Similarly, Confusion is related to **Chaos**.
3. (d) $4 = \frac{(4)^4}{2} = \frac{256}{2} = 128$
Similarly,
 $6 = \frac{(6)^4}{2} = \frac{1296}{2} = 648$
4. (c) $\frac{42}{4^2 + 2^2} : \frac{20}{3^2 + 4^2} :: \frac{34}{3^2 + 4^2} : \frac{25}{3^2 + 4^2}$
5. (d) $T S N : O R Q :: Q P K : L O N$

T	S	N	:	O	R	Q	::	Q	P	K	:	L	O	N
					-3	↑							-3	↑
					-1	↑							-1	↑
					+1	↑							+1	↑
6. (a) $4 \times 3 \times 2 = 24$
 $-2 \times 2 \times -1 = 4$
 $0 \times 6 \times 5 = 0$
7. (d) $14 + 12 + 7 + 3 = 36$
Similarly,
 $9 + 11 + 16 + x = 54 \Rightarrow x = 18$
8. (d) $(2 \times 8) + 1 = 17$, $(17 \times 8) + 1 = 137$
 $(137 \times 8) + 1 = 1097$
9. (c) Only squirrel can climb up on tree.
10. (a) Except option (a), all have vowels.
11. (d) $4 + 5 + 3 = 12$
(b) $6 + 3 + 3 = 12$
(c) $6 + 5 + 1 = 12$
(d) $4 + 5 + 7 = 16$ (Square)
12. (c)
13. (c) $7 \times 391 \div 17 + 6 - 5$
 $= 7 \times 23 + 6 - 5$
 $= 161 + 6 - 5$
 $= 167 - 5$
 $= 162$
14. (a) $1 \times 3 = 3$, (Diagonally)
 $4 \times 3 = 12$, (Diagonally)
 $3 \times 5 = 15$, (Diagonally)
 $6 \times 3 = 18$, (Diagonally)
15. (b) $(6 \times 0) + (1 \times 6) + (8 \times 4) = 38$
 $(1 \times 2) + (2 \times 1) + (6 \times 5) = 34$
Similarly,

- (d) $(4 \times 1) + (2 \times 4) + (6 \times 7) = 54$
16. (a)
17. (d)
18. (a) MERCY
19. (a) 
20. (d)
21. (d)
22. (a) c b b c a / c b a/c b b c a c b a/c b b
23. (d) $\frac{1}{1+2^2} \uparrow \frac{5}{5+4^2} \uparrow \frac{21}{21+6^2} \uparrow \frac{57}{57+8^2} \uparrow \frac{121}{121+(10)^2} \uparrow \frac{221}{221+(12)^2} \uparrow \frac{365}{221+(12)^2} \uparrow$
24. (b) $\frac{7}{\times 2-2} \uparrow \frac{12}{\times 2-2} \uparrow \frac{22}{\times 2-2} \uparrow \frac{42}{\times 2-2} \uparrow \frac{82}{\times 2-2} \uparrow \frac{162}{\times 2-2} \uparrow$
25. (a)
26. (b) World Environment Day, also called the Eco Day was established by the United Nations General Assembly in 1972. Currently in its 42nd edition, the first Environment Day was celebrated in 1973.
27. (b) The battle of Plassey was fought on 23rd June, 1757, on the banks of Bhagirathi River. This decisive battle was fought between the British East India company represented by Robert Clive and the Nawab of Bengal, Siraj-ud-daula. This battle consolidated the company's presence in Bengal, which later expanded to cover much of India over the next hundred years.
28. (d) Safety razor was invented by King Camp Gillette in 1901.
29. (d) Dynamic RAM memories must be refreshed many times per second.
30. (a) Respect for individual rights is necessary for the development of democratic institutions.
31. (d) Dry ice, also known as "Cardice", is the solid form of carbon dioxide. It is used primarily as a cooling agent.
32. (a) In 1564, Akbar abolished Jizya which was levied from the Hindus. This was hated by the Hindus because it was a symbol of their inferiority and involved a lot of humiliation. When Jizya was levied, the Muslims alone were the true citizens of the state, but after its

- abolition, both Hindus and Muslims become equal citizen of the state.
33. (b) IDBI Bank is an Indian government owned financial service company, formerly known as Industrial Development Bank of India, headquartered in Mumbai. It was established in **July, 1964** by an Act of Parliament to provide credit and other financial facilities for the development of the fledging Indian Industry.
34. (d) A cloudburst is an extreme amount of precipitation, sometimes accompanied by hail and thunder, that normally lasts no longer than a few minutes but is capable of creating flood conditions.
35. (a) Red Data Book of the Russian Federation (RDBRF) also known as Red Book is a state document established for documenting rare and endangered species of animals, plants and fungi that exists within the territory of the Russian Federation and its continental shelf and marine economic zone. প্র্যাগ্টিস
36. (d) The non-cooperation movement was called off due to **Chauri-Chaura Incident**.
37. (d) Dadabhai Naoroji elected for the Liberal party in Finsbury Central at the 1892 general election was the Indian to become member of British Parliament.
38. (c) “Talcher” which is also known as coal city of Odisha is a hub for coal industry, Talcher is famous for its coal reserves. Talcher has number of underground and opencast mines. Dera colliery is the oldest mine in Talcher. The coalfields which are managed by Mahanadi Coalfields Limited (MCL) is a subsidiary of Coal India Limited (CIL). The establishment of Talcher thermal Power Station (TTPS) and Talcher Super Thermal Power Station (TSTPS) both owned by National Thermal Power Corporation, Fertilizer Corporation of India (FCI), Heavy water Plant and the collieries of Mahanadi Coalfields Limited (MCL) have enhanced the importance of the place.
39. (b)
40. (a) Chief Justice of India (CJI) administers the oath of office to the President of India. In the absence of CJI, the senior most judge of Supreme Court shall do the same.
41. (c) Cabinet Mission → 1946 প্র্যাগ্টিস
Cripps Mission → 1942
Monatgue – Chelmsford Reforms → 1917
Minto – Marley Reforms → 1909
42. (d) The Indira Gandhi Canal is one of the largest canal projects in India. It starts from the Harike Barrage at firozpur, a few Kilometers below the confluence of the **Sutlej** and **Beas** rivers in the facilities in the **Thar Desert** in the north west of Rajasthan state, previously known as the Rajasthan Canal. প্র্যাগ্টিস
43. (b)
44. (c) Stomach basically has two types of cells – Chief Cells which release pepsinogen and parietal cells (also known as Oxyntic cells) which releases Hydrochloric Acid and Intrinsic factor.
45. (d) X-rays are electromagnetic waves and all E-M waves are neutral. But, X-rays are not particles.
46. (b) ROM stands for Read Only Memory.
47. (c) The Palk strait is a strait between the Tamilnadu state of India and the Mannar district of the Northern province of the island nation of Sri Lanka.
48. (c) The 18th edition of the India-US joint military exercise ‘Yudh Abhyas’ is being held in Uttarakhand. The military exercise is conducted annually between India and the US. As the exercise is held about 100 km from the Line of Actual Control (LAC), China said it was opposed to the military exercise.
49. (d) ‘National Milk Day’ is observed to commemorate 101st birth anniversary of the ‘Father of the White Revolution in India’, Dr. Verghese Kurien also known as the Milkman of India. The prestigious National Gopal Ratna Awards 2022 will also be conferred on the day. In the national event in the state of Karnataka, a book on the life of Varghese Kurian and a booklet on Milk Adulteration is to be released.
50. (a) Hornbill Festival of Nagaland, also known as the ‘Festival of Festivals’, showcases Nagaland’s rich culture. India assumed the G20 presidency on 1st December 2022 and the 23rd Hornbill Festival 2022 also began on the same day in Nagaland. It is organized by the Government of Nagaland, to encourage inter-tribal interaction and to promote the cultural heritage of Nagaland. Hornbill, Nagaland’s cultural icon, is found in the Indian subcontinent and Southeast Asia.
51. (a) $4x = \sec\theta$
 $\frac{4}{x} = \tan\theta$ প্র্যাগ্টিস

$$4x + \frac{4}{x} = \sec \theta + \tan \theta \quad \dots (i)$$

$$4x - \frac{4}{x} = \sec \theta - \tan \theta \quad \dots (ii)$$

Multiplying equation (i) and (ii) শ্রুটিভঙ্গ

$$\left(4x + \frac{4}{x}\right)\left(4x - \frac{4}{x}\right) = (\sec \theta + \tan \theta)(\sec \theta - \tan \theta)$$

$$16\left(x^2 - \frac{1}{x^2}\right) = \sec^2 \theta - \tan^2 \theta$$

$$8\left(x^2 - \frac{1}{x^2}\right) = \frac{1}{2} \times 1$$

$$[\because \sec^2 \theta - \tan^2 \theta = 1]$$

$$8\left(x^2 - \frac{1}{x^2}\right) = \frac{1}{2}$$

52. (b) $\sin \theta + \cos \theta = \sqrt{2} \cos(90^\circ - \theta)$

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

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

$$\cot \theta = \sqrt{2} - 1 \quad \text{শ্রুটিভঙ্গ}$$

53. (d) $a + b + 1 = 0$

$$a^3 + b^3 + 1 = a^3 + b^3 + (1)^3 - 3(a)(b)(1) = 0$$

$$[\because \text{If } a + b + c = 0 \text{ then } a^3 + b^3 + c^3 - 3abc = 0]$$

54. (c) $a^3 + b^3 + c^3 - 3abc$

$$= (a + b + c)[a^2 + b^2 + c^2 - ab - bc - ca]$$

$$= \frac{1}{2} (a + b + c)[(a - b)^2 + (b - c)^2 + (c - a)^2]$$

ATQ,

$$\frac{a^3 + b^3 + c^3 - 3abc}{a + b + c} = \frac{1}{2} [(3)^2 + (5)^2 + (1)^2]$$

$$= \frac{1}{2} [9 + 25 + 1]$$

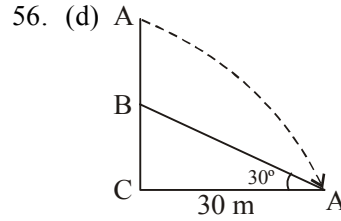
$$= \frac{1}{2} \times 35 = 17.5$$

55. (a) $675 = 3 \times 3 \times 3 \times 5 \times 5$

Required number to make it a perfect cube = 5

$$675 \times 5 = 3375 = (15)^3$$

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In $\triangle ABC$

$$\frac{BC}{AC} = \tan \theta \Rightarrow \frac{BC}{30} = \tan 30^\circ$$

$$BC = \frac{1}{\sqrt{3}} \times 30 = 10\sqrt{3}$$

$$\frac{AB}{AC} = \sec \theta \Rightarrow \frac{AB}{30} = \sec 30^\circ$$

$$AB = \frac{2}{\sqrt{3}} \times 30 = 20\sqrt{3}$$

So, the height of tree = $AB + BC$

$$= 20\sqrt{3} + 10\sqrt{3}$$

$$= 30\sqrt{3} \text{ m}$$

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57. (c) ATQ,

Originally volume = New volume

$$1 \text{ m}^3 = \text{Thickness} \times 5 \text{ hectare}$$

$$\text{Thickness} = \frac{1 \text{ m}^3}{50000 \text{ m}^2}$$

$$= 0.00002 \text{ m}$$

58. (d) ATQ,

$$\text{Number will be} = 969x + 143$$

$$= 57 \times 17x + 57 \times 2 + 29$$

$$= 57(17x + 2) + 29$$

So, if same number is divided by 57, then remainder will be 29.

59. (c) 6% of Sandeep's salary = ₹4800

$$\text{Sandeep's salary} = \left(\frac{4800}{6} \times 100\right) = ₹80000$$

$$\text{So, Keshavi's salary} = \left(80000 \times \frac{100}{160}\right)$$

$$= ₹50000$$

60. (b) ATQ,

$$A : B : C : D : E = \frac{1}{2} : \frac{1}{3} : \frac{1}{4} : \frac{1}{5} : \frac{1}{6}$$

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$$= 30 : 20 : 15 : 12 : 10$$

So, minimum number of pens required

$$= 30 + 20 + 15 + 12 + 10 = 87$$

61. (c) Let marked price of shirt be = ₹200

$$\text{So, marked price of trouser be} = ₹300$$

$$\text{Selling price of shirt} = ₹ \left(200 \times \frac{7}{100} \right) = ₹ 140$$

$$\text{Total selling price} = ₹ (200 + 300) \times \frac{80}{100} = ₹ 400$$

$$\begin{aligned} \text{Required discount} &= \frac{100 - (200 - 140)}{300} \times 100 \\ &= \frac{40}{3} = 13\frac{1}{3}\% \end{aligned}$$

$$\begin{aligned} 62. (d) \quad & \frac{1}{\sqrt{5} - \sqrt{2} + \sqrt{3}} + \frac{1}{\sqrt{5} - \sqrt{2} - \sqrt{3}} \\ &= \frac{\sqrt{5} - \sqrt{2} - \sqrt{3} - \sqrt{2} + \sqrt{3}}{(\sqrt{5} - \sqrt{2})^2 - (\sqrt{3})^2} \\ &= \frac{2(\sqrt{5} - \sqrt{2})}{5 + 2 - 2\sqrt{10} - 3} \\ &= \frac{2(\sqrt{5} - \sqrt{2})}{4 - 2\sqrt{10}} \\ &= \frac{2\sqrt{5} - \sqrt{2}}{-\sqrt{2}(2\sqrt{5} - 2\sqrt{2})} = -\frac{1}{\sqrt{2}} \end{aligned}$$

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$$\begin{aligned} 63. (c) \quad & \text{LCM of two number} = 196 \\ & \text{HCF of two number} = 2 \\ & \text{Sum of both number} = 102 \\ & \text{sum of reciprocals of number} \\ &= \frac{\text{sum of both number}}{\text{LCM} \times \text{HCF}} \\ &= \frac{102}{2 \times 196} = \frac{51}{196} \end{aligned}$$

$$\begin{aligned} 64. (d) \quad & \text{ATQ,} \\ & \text{Required difference} \\ &= \frac{2200 \times 36 \times 2}{100} - \left[2200 \left(1 + \frac{30}{100} \right)^2 - 2200 \right] \\ &= 1584 - [3718 - 2200] = ₹ 66 \end{aligned}$$

$$\begin{aligned} 65. (b) \quad & \text{Let whole capital} = ₹ 300 \\ & \text{ATQ,} \\ & \text{Total interest} \\ &= \frac{300}{3} \times \frac{3}{100} + \frac{300}{2} \times \frac{7}{100} + 50 \times \frac{9}{100} \\ &= 3 + 10.5 + 4.5 = 18 \end{aligned}$$

$$\text{So, rate of interest} = \frac{18}{300} \times 100 = 6\%$$

66. (b)

$$67. (b) \quad 14 - \left[11 - \left\{ x - \left(3 - \frac{5}{8} \right) \right\} \right] = 25$$

$$14 - \left[11 - \left\{ x - \frac{19}{8} \right\} \right] = 25$$

$$14 - 11 + x - \frac{19}{8} = 25$$

$$x = 25 - 3 + \frac{19}{8} = \frac{195}{8}$$

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$$68. (b) \quad \text{Decrease in area} = 50 + 50 - \frac{50 \times 50}{100} = 75\%$$

$$\begin{aligned} 69. (d) \quad & \text{Let number} \\ &= 221a + 64 \\ &= (13 \times 17)a + (13 \times 4 + 12) \\ &= 13(17a + 4) + 12 \\ & \text{So, when number will be divided by 13 then} \\ & \text{12 be obtain as remainder.} \end{aligned}$$

$$70. (c) \quad \text{S.P. of 4 articles} = \text{C.P. of 5 articles}$$

$$\frac{\text{S.P.}}{\text{C.P.}} = \frac{5}{4}$$

$$\frac{\text{S.P.}}{\text{C.P.}} - 1 = \frac{5}{4} - 1$$

$$\frac{\text{S.P.} - \text{C.P.}}{\text{C.P.}} = \frac{5 - 4}{4}$$

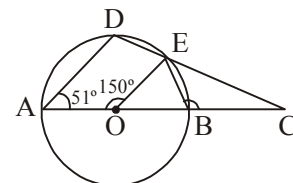
$$\frac{\text{Profit}}{\text{C.P.}} = \frac{1}{4} \quad [\because \text{S.P.} - \text{C.P.} = \text{profit}]$$

$$\frac{\text{Profit}}{\text{C.P.}} \times 100 = \frac{1}{4} \times 100 = 25$$

$$\text{Profit percent} = 25\%$$

$$\begin{aligned} 71. (a) \quad & 2^2, \quad 3^2, \quad 5^2, \quad 7^2, \quad 11^2, \quad 12^2 \\ & \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \quad \downarrow \\ & \text{Sequence of prime number} \quad \downarrow \\ & \quad \quad \quad \quad \quad \quad \quad \quad \text{Not a prime number} \end{aligned}$$

72. (c)



$$\begin{aligned} \text{In } \triangle OBE \\ \angle BOE &= 180^\circ - \angle AOE \\ &= 180^\circ - 150^\circ = 30^\circ \\ \angle OEB &= \angle EBO \end{aligned}$$

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[∴ OB = OE i.e. radius of circle]

$$\angle EBO = \frac{1}{2}(180^\circ - \angle BOE)$$

$$= \frac{1}{2}(180^\circ - 30^\circ)$$

$$= \frac{1}{2} \times 150^\circ = 75^\circ$$

So, $\angle CBE = 180^\circ - \angle EBO$

$$= 180^\circ - 75^\circ$$

$$= 105^\circ$$

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73. (d) Required number of cycles produced
= 1000 + 900 = 1900
74. (a) Total number of cycle produced in 5 years
= 800 + 1300 + 1000 + 900 + 1400 = 5400
75. (a) Required ratio = 900 : 1000 = 9 : 10
76. (a) **The Judge** will replace **Judge** because – here the quality of **the Judge** is being emphasized, so, though a **Common Noun**, in this case, it becomes an **Abstract Noun** and **the (Def. Art.)** is used with an **Abstract Noun**. Hence, **The judge in him** is the right usage.
77. (c) **most of the people** will replace **most people** because – **most** is used to mean **the majority** and is used in front of a **Plural Noun** which does not have a **Det. (the/a)** or a **Possessive (my/our)** in front of it. **most of** is used in front of a **Pronoun** or in front of a **Noun** which has a **Det./Possessive** in front of it. **Look at the examples given below :**
Most people agree that stealing is wrong.
Most of the people enjoy music while reading.
Hence, **that most of the people like to stay at home** is the right usage.
78. (b) **aimed at bringing about** will replace **aimed to bring about** because the basic pattern here is as follows :
Verb + Prep. + Gerund
↓ ↓ ↓
aimed at bringing
79. (c) **none (Pro.)** : not any
Here, **had none** (Simple Past Tense) is the right usage.
80. (d) The structure of the sentence is as follows :
I **want you** **to tell** me the truth.
↓ ↓ ↓
Verb Object Inf. Structure
Here, **you to tell** is the right usage.

81. (a) Here, **the enemy** is the right usage.
82. (a) Here, **earns (Verb)** is the right usage.
83. (b) Here, **from (Prep.)** is the right usage.
84. (a) **magnify (V.)**
exaggerate : to make something seem larger, better, worse etc. than it really is; magnify.
85. (b) **adjust**
adapt (V.) : to change your behaviour in order to deal more successfully with a new situation; adjust; modify.
86. (b) **pale**
pallid (Adj.) : pale, especially because of illness; not strong or bright and therefore not attractive; lacking vigour and intensity.
87. (d) **face the music** : bear the consequences
• He is prepared to **face the music** for his conduct at the meeting.
The best option is **accept the punishment.**
88. (a) **call a spade a spade** : to call exactly what you think without trying to hide your opinion
• Vinay is a person who **calls a spade a spade** and is fearless.
The best option is **to speak in a straight forward manner.**
89. (b) **jumping down my throat** : to react very angrily to somebody
• Just because I admitted being there, you needn't **jump down my throat.**
The best option is **scolding me**
90. (c) **a fish out of water** : to feel uncomfortable
• All the other children in the school were from rich families,
So, she was **feeling like a fish out of water.**
The best option is **uncomfortable.**
91. (d) **humble (Adjective)** : modest; showing no self-importance.
arrogant (Adjective) : behaving in a proud, unpleasant way.
92. (b) **discordant (Adjective)** : not in agreement
harmonious (Adjective) : friendly; peaceful and without any disagreement.
93. (c) **strong**
fragile (Adjective) : easily broken or damaged; weak and uncertain; easily destroyed or spoilt.
94. (a) **anonymous**
anonymous (Adj.) : with a name that is not known/or that is not made public
acrimonious (Adj.) : angry and full of strong bitter feelings and words
audacious (Adj.) : willing to take risks/to do

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something shocking

assiduous (Adj.) : working very hard and taking great care that everything is done as well as it can be

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95. (b) **fantasy**

fantasy (N.) : a pleasant situation that you imagine but that is unlikely to happen

whim (N.) : a sudden wish to do/have something, especially when it is something unusual/unnecessary

fancy (N.) : fantasy; whim

memory (N.) : your ability to remember things

96. (d) **intimacy (Noun)** : the state of having a close personal relationship with somebody

97. (c) **distracted (Verb)** : mentally confused

98. (a) **sever (Verb)** : to end completely; to become separated

99. (a) **proposition (Noun)** : proposal

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100. (c) **relationship (Noun)**

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