## SSC GD Constable Practice Set

## Answers with Explanation

1. (c) Teacher teaches students. Similarly, lawyer serves his client.
2. (b) Dress is prepared by tailor. Similarly, furniture is manufactured by carpenter.
3. (a) Bow and Arrow are complementary to each other. Similarly, Pistol and Bullet are complementary to each other.
4. (c) The second develops into the first. Seed germinates to give rise plant. Similarly, Bud develops into flower.
5. (c) The first is contained or served in the second. Tea is served in the cup. Similarly, soup is served in the bowl.
6. (b) B is sister of F .

Therefore, B is sister-in-law of M .
7. (a) E is mother of C and D .

C is father of A and B .
Therefore, B is the granddaughter of E .
8. (c) A's son is the brother of C and D .

Therefore, C is the daughter of A .
Now, B is the uncle of C.
9. (c)

| $+\Rightarrow \div$ | $\div \Rightarrow x$ |
| :---: | :---: |
| $\times \Rightarrow+$ |  |

$64+8 \times 32 \div 4=$ ?
$\Rightarrow$ ? $=64 \div 8+32 \times 4$
$\Rightarrow$ ? $=8+128=136$
10. (a)

| $-\Rightarrow+$ | $+\Rightarrow \times$ |
| :---: | :---: |
| $\div \Rightarrow-$ | $\times \Rightarrow \div$ |

$27 \times 3 \div 6+9-8=$ ?
$\Rightarrow$ ? $=27 \div 3-6 \times 9+8$
$\Rightarrow$ ? $=9-54+8$
$\Rightarrow$ ? $=17-54=-37$
11. (a) baf $\div$ bf $\times \mathrm{d}$
$\Rightarrow 105 \div 15 \times 3$
$\Rightarrow 7 \times 3=21 \Rightarrow \mathrm{cb}$
12. (b) $18 \times 2=36$ and
$36-6=30$
Therefore,
$36 \times 2=72$ and $72-6=66$
শ্যাচ্ভির্ন
13. (b) $68=(4)^{3}+4$
and $130=(5)^{3}+5$
$350=(7)^{3}=7$
Therefore, ? $=(6)^{3}+6$
$=216+6=222$
14. (b) $\sqrt{169}=13$

Therefore,

$$
\sqrt{289}=17
$$

## سुप्डिर्स

15. (c) There is only one ' $G$ ' in the given word.

Therefore, the word ENGAGE cannot be formed.


M A G N E T
MAN AGEMENTM
G A M ET
MANAGE MENT $\Rightarrow$
MANAGE
आাড্ভির্स
16. (d) There is no ' $E$ ' letter in the given word. Therefore, the word SCATTER cannot be formed.
S A T I S F A C T OR Y $\Rightarrow$ FACTORS
S A T IS F A C T O R Y $\Rightarrow$ FASCIST
S A T I S F A C T O R Y
$\Rightarrow$ SCARIFY
17. (a)


कुणापिিर्य
Now, the man is to the South-West from his original position.
18. (d)

19. (d) Today is Wednesday $+2=$ Friday

Therefore, Day after tomorrow will be Sunday.
20. (a) The given number series is based on the following pattern :
$6 \times 1+1=7$
$7 \times 2+1=15$
$15 \times 3+1=46$
$46 \times 4+1=185$
$185 \times 5+1=926$
ख्याज्डिय
21. (d) The alternate numbers are squares of even numbers and each square number is followed by the number one less than itself.
$16 \Rightarrow(4)^{2}-1=15$
Therefore,
$64-163$
22. (c) C A L C U T T A

D E L H I
$\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \quad \downarrow \downarrow \downarrow \downarrow \downarrow$ 8258966273541
Therefore,
C A L I C U T
$\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$
8251896
23. (b) $\mathrm{T} \Rightarrow \underset{\downarrow}{20}$

खुणिির্स
Position Number in English alphabet.
T E N
$\downarrow \quad \downarrow \quad \downarrow$
$20+5+14=39$
Similarly,
T I P
$\downarrow \quad \downarrow \quad \downarrow$
$20+9+16=45$
24. (b) First Premise is Particular Affirmative (I-type). Second Premise is Universal Affirmative (Atype).
Some phones are watches.


All watches are guns.
फ़ापिएय
$\mathrm{I}+\mathrm{A} \Rightarrow$ I-type of Conclusion
"Some phones are guns".
Conclusion II is Converse of this
Conclusion.
25. (c)


The rectangles are :
ABIH; ABFG; ACDH; HIFG;
HDEG; IDFE; BCDI; BCEF; ACEG
26. (d) The Brihadeshwar Temple at Thanjavur (Tanjore) in the Indian state of Tamil Nadu, is a Hindu temple dedicated to Shiva and a brilliant example of the major heights achieved by Cholas in Tamil architecture. It is a tribute and a reflection of the power of its patron Raja Raja Chola I. It remains India's largest temple and is one of the greatest glories of Indian architecture. The temple is part of the UNESCO World Heritage Site "Great Living Chola Temples". खुডिিर्स
27. (b) The concept of zero as a number and not merely a symbol for separation is attributed to India, where, by the 9 th century AD, practical calculations were carried out using zero, which was treated like any other number, even in case of division. The credit for inventing 'zero (0)' goes to Indian mathematicians and the number zero first appears in a book about 'arithmetic' written by an Indian mathematician 'Brahamagupta'. Zero signifies 'nothing' and the current definition calls it an 'additive identity'. The Indian mathematicians Bhaskara, Mahavira and Brahamagupta worked on this new number and they tried to explain its properties. It wasn't that somebody suddenly came up with the idea of the zero and the mathematicians throughout the world accepted it. Around 500 AD, Aryabhatta, an Indian mathematician, devised a numbers system and the symbol he used for the number zero was also the number used to represent an unknown element (x).
28. (a) The English word "caste" derives from the Spanish and Portuguese casta, which the Oxford English Dictionary quotes John Minsheu's Spanish dictionary (1599) to mean, "race, lineage, or breed." When the Spanish colonized the New World, they used the word to mean a "clan or lineage." However, it was the Portuguese who employed casta in the primary modern sense when they applied it to the many inmarrying hereditary Hindu social groups they encountered upon their arrival in India in 1498. The use of the spelling "caste," with this latter meaning, is first attested to in English in 1613.

खुप्रिजिय
29. (c) Pulsars are spinning neutron stars that have jets of particles moving almost at the speed of light streaming out above their magnetic poles. These jets produce very powerful beams of light.
30. (b) Raksha Mantri, Shri Rajnath Singh visited the Army Sports Institute (ASI), Pune and he named the Army Sports Institute stadium as "Neeraj Chopra Stadium". खिए্ভির্জ
31. (c) An open market operation (also known as OMO) is an activity by a central bank to buy or sell government bonds on the open market. A central bank uses them as the primary means of implementing monetary policy. The usual aim of open market operations is to control the short term interest rate and the supply of base money in an economy, and thus indirectly control the total money supply. This involves meeting the demand of base money at the target interest rate by buying and selling government securities, or other financial instruments. Monetary targets, such as inflation, interest rates, or exchange rates, are used to guide this implementation. खुपিिর্स
32. (d) Charaka was one of the principal contributors to the ancient art and science of Ayurveda, a system of medicine and lifestyle developed in Ancient India. He is referred to as the Father of Medicine. The life and times of Charaka are not known with certainty. Some Indian scholars have stated that Charaka of Charaka Samhita existed before Panini, the grammarian, who is said to have lived before the sixth century B.C. Another school argues that Patanjali wrote a commentary on the medical work of Charaka. They say that if Patanjali lived around 175 B.C., Charaka must have lived some time before him. Another source about the identity of Charaka and his times is provided by the French orientalist Sylvan Levi. He discovered in the Chinese translation of the Buddhist Tripitaka, a person named Charaka who was a court physician to the Indo-Scythian king Kanishka, who in all probability reigned in the second century A.D. From the above discussion, it would seem that Charaka may have lived between the second century B.C. to the second century A.D.

खुप्रिएय
33. (d) The state has four essential elements: population, territory, government and sovereignty. Absence of any of these elements denies to it the status of statehood.
34. (c) A geyser is a spring characterized by intermittent discharge of water ejected turbulently and accompanied by a vapour
phase (steam). The word geyser comes from Geysir, the name of an erupting spring at Haukadalur, Iceland; that name, in turn, comes from the Icelandic verb geysa, "to gush", the verb itself from Old Norse.

फ़ाডिएर्स
35. (d) Pawapuri is a holy site for Jains located in the Nalanda district in Bihar. Around 500 BC, Lord Mahavira, the last of the 24 Tirthankaras achieved Moksha or Nirvana. He was cremated at Pawapuri, also known as Apapuri (the sinless town).
36. (c) Prime Minister Narendra Modi dedicated to the nation the renovated complex of Jallianwala Bagh Smarak in Punjab's Amritsar via video conference on August 28, 2021, to mark 102 years of Jallianwala Bagh massacre.
37. (d) 77-78 calories are released in a large size boiled egg. Boiled eggs are eggs (typically chicken eggs) cooked by immersion in boiling water with their shells unbroken. खुष्धिर्ज
38. (c) The Supreme Court, the highest in the country, may issue writs under Article 32 of the Constitution for enforcement of Fundamental Rights and under Articles 139 for enforcement of rights other than Fundamental Rights, while High Courts, the superior courts of the States, may issue writs under Articles 226. The Constitution broadly provides for five kinds of "prerogative" writs: habeas corpus, certiorari, mandamus, quo warranto and prohibition.
39. (c) Kanishka worked for preaching of Buddhism. He spread Buddhism to China, Japan, Central Asia and Tibet; and convened the 4th Buddhist Council at Kundalvana in Kashmir. Due to his works he is often called 'Second Asoka'.
40. (b) Diego Garcia is a tropical, footprint-shaped coral atoll located south of the equator in the central Indian Ocean. It is part of the British Indian Ocean Territory. It lies in the Chagos Archipelago at the southernmost tip of the Chagos-Laccadive Ridge - a vast submarine range in the Indian Ocean.
41. (a) Galvanization is the process of applying a protective zinc coating to steel or iron, in order to prevent rusting. Although galvanization can be done with electrochemical and electrodeposition processes, the most common method in current use is hot-dip galvanization, in which steel parts are submerged in a bath of molten zinc.

क्याप्षिर्स
42. (c) RBINet is a communication software, developed in ' $C$ ' and available for both DOS and UNIX machines. It allows free format messaging and file transfer on the existing BANKNET infrastructure with the help of UNIX servers installed at the 4 NCCs. Each RBINet user interacts with the local UNIX server through PADs connected to the X. 25 switch. The UNIX servers in turn communicate with each other using TCP/IP over the X. 25 protocol. The software allows free format messaging without any restrictions on the length of the message, enables file transfer of both ASCII-text and Binary (spreadsheets, data bases, programs etc.) files, facilitates dial-up access, and has security features such as end-to-end encryption, audit trail, etc.

काप्रिए
43. (d) NITI Aayog and Ministry of Development of North Eastern Region (M/DoNER) have launched the North Eastern Region (NER) District SDG Index Report and Dashboard 2021-22, with technical support from UNDP. The index is based on NITI Aayog's SDG India Index.
44. (d) Water is transported through the plant in Xylem vessels, these begin in the roots and end in the leaves of the plant, water is translocated through a combination of "Transpirational pull" and capillary action. Xylem is one of two "conductive" tissues responsible for moving water and the products of photosynthesis (glucose) through the plant, the tissue responsible for moving the "food" around is Phloem.

फ़ाप्षिर्य
45. (b) Sunderlal Bahuguna is a noted Garhwali environmentalist, Chipko movement leader and a follower of Mahatma Gandhi's philosophy of Non-violence and Satyagraha. The Bhoodan Movement was a voluntary land reform movement in India started by Acharya Vinoba Bhave in 1951 started at Pochampally village. Narmada is social movement consisting of tribal people, adivasis, farmers, environmentalists and human rights activists against the Sardar Sarovar Dam being built across the Narmada River, Gujarat, India. Narmada Bachao Andolan, together with its leading spokespersons Medha Patkar and Baba Amte, were the 1991 recipient of the Right Livelihood Award. Jayaprakash Narayan is
remembered especially for leading the opposition to Indira Gandhi in the 1970s and for giving a call for peaceful Total Revolution.
46. (c) The Portuguese State of India was established in 1505 as a viceroyalty of the Kingdom of Portugal, six years after the discovery of a sea route between Portugal and India, to serve as the plenipotentiary governing body of a string of Portuguese fortresses and colonies overseas. The first viceroy was Francisco de Almeida, who established his headquarters in Cochin. Subsequent Portuguese governors were not always of viceroy rank. After 1510, the capital of the Portuguese viceroyalty was transferred to Goa.

फुपापियन
47. (b) The femur (pl. femurs or femora), or thigh bone, is the most proximal (closest to the center of the body) bone of the leg in tetrapod vertebrates capable of walking or jumping, such as most land mammals, birds, many reptiles such as lizards, and amphibianssuch as frogs. In vertebrates with four legs such as dogs and horses, the femur is found only in the rear legs. The femur is the largest bone in the human body. The head of the femur articulates with the acetabulum. By most measures the femur is one of the strongest bones in the body.

कुप्रिणन्य
48. (b) Union Minister for Health and Family Welfare, Shri Mansukh Mandaviya has taken over charge as the Chairperson of Stop TB Partnership Board.
49. (a) Pulicat Lake: the second largest brackish water lake or lagoon in India which straddles the border of Andhra Pradesh and Tamil Nadu states on the Coromandal Coast in South India; Chilka Lake: a brackish water lagoon, spread over the Puri, Khurda and Ganjam districts of Odisha; Wular Lake: India's largest fresh water lake and one of the largest in Asia, located in Bandipora district in Jammu and Kashmir; and Sambhar Lake: India's largest inland salt lake, south west of Jaipur and north east of Ajmer along National Highway 8 in Rajasthan.
50. (d) Right to vote forms one of the constituents of political participation, the bedrock of democracy. It is a political right and encapsulates several other rights.
51. (d) If the number be $x$, then
$x-31=75-x$
$\Rightarrow 2 \mathrm{x}=75+31=106$
$\Rightarrow \mathrm{x}=53$
52. (a) $\frac{2}{3}=0.66$
$\frac{3}{5}=0.6$

$\frac{8}{11}=0.73$
$\frac{11}{17}=0.65$
$\therefore$ Largest fraction $=\frac{8}{11}$
53. (b) $2^{31}=\left(2^{8}\right)^{4} \div 2=(256)^{4} \div 2$
$=\frac{\ldots \ldots .6}{2}=\ldots \ldots .3$
Clearly, the remainder will be 3 when divided by 5 .
Illustration :
खुपाष्डिर्य
$23 \div 5$ gives remainder $=3$
$83 \div 5$ gives remainder $=3$
54. (d) First number $\times$ Second number
$=\mathrm{HCF} \times \mathrm{LCM}$
$\Rightarrow 75 \times$ Second number $=15 \times 225$
$\therefore$ Second number
$=\frac{15 \times 225}{75}=45$
55. (d) We find LCM of $=10,16,24$

| 2 | 10, | 16, | 24 |
| :---: | :---: | :---: | :---: |
| 2 | 5, | 8, | 12 |
| 2 | 5, | 4, | 6 |
| 2 | 5, | 2, | 3 |
| 3 | 5, | 1, | 3 |
| 5 | 5, | 1, | 1 |
|  | 1, | 1, | 1 |

$\therefore \mathrm{LCM}=2^{2} \times 2^{2} \times 3 \times 5$
$\therefore$ Required number
$=2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 5$
$=3600$
56. (c) $1+\frac{1}{1+\frac{2}{\frac{15+4}{5}}}$
$=1+\frac{1}{1+\frac{2 \times 5}{19}}=1+\frac{1}{\frac{19+10}{19}}$
क्याप्仑िर्स
$=1+\frac{19}{29}=\frac{29+19}{29}=\frac{48}{29}$
57. (a) $?=\left(\frac{1}{2}-\frac{1}{4}+\frac{1}{5}-\frac{1}{6}\right) \div\left(\frac{2}{5}-\frac{5}{9}+\frac{3}{5}-\frac{7}{18}\right)$
$=\left(\frac{30-15+12-10}{60}\right) \div\left(\frac{36-50+54-35}{90}\right)$
$=\left(\frac{17}{60}\right) \div\left(\frac{5}{90}\right)=\frac{17}{60} \times 18$
क्यापिस्य
$=\frac{51}{10}=5 \frac{1}{10}$
58. (a) Expression
$=\frac{16}{3} \div \frac{11}{9} \times \frac{1}{4}\left(10+\frac{3}{\frac{5-1}{5}}\right)$
$=\frac{16}{3} \times \frac{9}{11} \times \frac{1}{4}\left(10+\frac{15}{4}\right)$
$=\frac{16}{3} \times \frac{9}{11} \times \frac{1}{4}\left(\frac{40+15}{4}\right)$
$=\frac{16}{3} \times \frac{9}{11} \times \frac{1}{4} \times \frac{55}{4}=15$
आাভিভর্স
59. (b) Revenue of fourth year
$=₹(4 \times 82+4 \times 70-7 \times 75)$ lakhs
$=₹(328+280-525)$ lakhs
$=₹ 83$ lakhs
60. (b) $x+x+1+x+2+x+3+x+4+x+$
$5+x+6+x+7$
$=6.5 \times 8=52$
$\Rightarrow 8 \mathrm{x}+28=52$
$\Rightarrow 8 \mathrm{x}=52-28=24$
$\Rightarrow \mathrm{x}=3$
$\therefore$ Required average $=\frac{3+10}{2}=6.5$
61. (c) $\mathrm{A}: \mathrm{B}: \mathrm{C}=2: 3: 4$
$\therefore \frac{\mathrm{A}}{\mathrm{B}}=\frac{2}{3}, \frac{\mathrm{~B}}{\mathrm{C}}=\frac{3}{4}, \frac{\mathrm{C}}{\mathrm{A}}=\frac{4}{2}=2$
$\therefore \frac{\mathrm{A}}{\mathrm{B}}: \frac{\mathrm{B}}{\mathrm{C}}: \frac{\mathrm{C}}{\mathrm{A}}=\frac{2}{3}: \frac{3}{4}: \frac{2}{1}$
$=8: 9: 24$
62. (a) $\frac{\mathrm{a}}{3}=\frac{\mathrm{b}}{4}=\frac{\mathrm{c}}{7}=\mathrm{k}$

खुप्षिएन्य
$\Rightarrow \mathrm{a}=3 \mathrm{k}, \mathrm{b}=4 \mathrm{k}$ and $\mathrm{c}=7 \mathrm{k}$
$\Rightarrow \frac{\mathrm{a}+\mathrm{b}+\mathrm{c}}{\mathrm{c}}=\frac{3 \mathrm{k}+4 \mathrm{k}+7 \mathrm{k}}{7 \mathrm{k}}$
$=\frac{14 \mathrm{k}}{7 \mathrm{k}}=\frac{2}{1}=2: 1$
63. (a) C.P. of article
$=\frac{100}{100-\text { loss percent }} \times \mathrm{S} . \mathrm{P}$.

$=\frac{100}{96} \times 960=₹ 1000$
64. (b) C.P. of article $=₹ x$ (let)
S.P. of article $=₹ \frac{4 x}{3}$

Gain $=\frac{4 x}{3}-x=\frac{4 x-3 x}{3}=₹ \frac{x}{3}$
$\therefore$ Gain percent $=\frac{\frac{\mathrm{x}}{3}}{\mathrm{x}} \times 100$
$=\frac{100}{3}=33 \frac{1}{3} \%$
65. (d) $x=7-4 \sqrt{3}$

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$\therefore \frac{1}{x}=\frac{1}{7-4 \sqrt{3}}$
$=\frac{1(7+4 \sqrt{3})}{(7+4 \sqrt{3})(7-4 \sqrt{3})}$
$=\frac{7+4 \sqrt{3}}{49-48}=7+4 \sqrt{3}$
$\therefore \mathrm{x}+\frac{1}{\mathrm{x}}$
$=7-4 \sqrt{3}+7+4 \sqrt{3}=14$
66. (b) $7^{x}=\frac{1}{343}$
$\Rightarrow 7^{x}=\frac{1}{7^{3}}=7^{-3}$
$\Rightarrow \mathrm{x}=-3$
67. (d) $\frac{\mathrm{a}}{\mathrm{b}}=\frac{\mathrm{c}}{\mathrm{d}}=\frac{\mathrm{e}}{\mathrm{f}}=3$
$\Rightarrow \mathrm{a}=3 \mathrm{~b} ; \mathrm{c}=3 \mathrm{~d} ; \mathrm{e}=3 \mathrm{f}$
$\therefore \frac{2 \mathrm{a}^{2}+3 \mathrm{c}^{2}+4 \mathrm{e}^{2}}{2 \mathrm{~b}^{2}+3 \mathrm{~d}^{2}+4 \mathrm{f}^{2}}$
$=\frac{2 \times 9 b^{2}+3 \times 9 d^{2}+4 \times 9 f^{2}}{2 b^{2}+3 d^{2}+4 f^{2}}$
$=\frac{9\left(2 b^{2}+3 d^{2}+4 f^{2}\right)}{2 b^{2}+3 d^{2}+4 f^{2}}=9$
68. (d) $\sin \theta=\cos \left(90^{\circ}-\theta\right)$;

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$\sin \left(90^{\circ}-\theta\right)=\cos \theta$
$\therefore \sin 85^{\circ}=\sin \left(90^{\circ}-5^{\circ}\right)=\cos 5^{\circ}$
$\therefore\left(\sin ^{2} 5^{\circ}+\sin ^{2} 85^{\circ}\right)+\left(\sin ^{2} 10^{\circ}+\sin ^{2} 80^{\circ}\right)$
$+\ldots .$. to 8 terms $+\sin ^{2}$
$45^{\circ}+\sin ^{2} 90^{\circ}$
$=8 \times 1+\frac{1}{2}+1=9 \frac{1}{2}$
69. (d) $\cot 30^{\circ}=\cot \left(90^{\circ}-60^{\circ}\right)=\tan 60^{\circ}$
$\cot 75^{\circ}=\cot \left(90^{\circ}-15^{\circ}\right)=\tan 15^{\circ}$
$\therefore \frac{\cot 30^{\circ}-\cot 75^{\circ}}{\tan 15^{\circ}-\tan 60^{\circ}}$
$=\frac{\tan 60^{\circ}-\tan 15^{\circ}}{\tan 15^{\circ}-\tan 60^{\circ}}=-1$
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70. (d)

$\mathrm{AB}=\mathrm{AC}$
$\Rightarrow \angle \mathrm{ABC}=\angle \mathrm{ACB}=35^{\circ}$
Now, $\angle \mathrm{ADB}=90^{\circ}$
$\therefore \angle \mathrm{BAD}=55^{\circ}$
71. (b)



D , is the mid-point of BC .
$\mathrm{AB}=\mathrm{AC}=10 \mathrm{~cm}$.
$\mathrm{AD} \perp \mathrm{BC}$
From $\triangle \mathrm{ABD}$,
$\mathrm{BD}=\sqrt{\mathrm{AB}^{2}-\mathrm{AD}^{2}}$
$=\sqrt{10^{2}-8^{2}}=\sqrt{100-64}$
ख्याप्িिय
$=\sqrt{36}=6 \mathrm{~cm}$.
$\therefore \mathrm{BC}=2 \mathrm{BD}=2 \times 6=12 \mathrm{~cm}$.
72. (a)


Let the side of the square be 2 x .
Then radius of incircle $=\mathrm{a}$
Radius of circum-circle
$\sqrt{\mathrm{a}^{2}+\mathrm{a}^{2}}=\sqrt{2} \mathrm{a}$
$\therefore$ Ratio of area
$=\pi \mathrm{a}^{2}: \pi(\sqrt{2} \mathrm{a})^{2}=\mathrm{a}^{2}: 2 \mathrm{a}^{2}=1: 2$
73. (d)


In the rhombus ABCD ,
फ्याप्रिय
$\mathrm{AB}=\mathrm{AD}=12 \mathrm{~cm}$.
$\angle \mathrm{BAD}=60^{\circ}$
$\therefore \angle \mathrm{ABD}=\angle \mathrm{ADB}=60^{\circ}$
$\therefore \mathrm{BD}=12 \mathrm{~cm}$. because $\triangle \mathrm{ABD}$ is an equilateral triangle.
74.
(b) $a+\frac{1}{a}=\sqrt{3}$

On cubing both sides.
$\mathrm{a}^{3}+\frac{1}{\mathrm{a}^{3}}+3 \mathrm{a} \cdot \frac{1}{\mathrm{a}}\left(\mathrm{a}+\frac{1}{\mathrm{a}}\right)=3 \sqrt{3}$
$\Rightarrow \mathrm{a}^{3}+\frac{1}{\mathrm{a}^{3}}+3 \sqrt{3}=3 \sqrt{3}$
$\Rightarrow \mathrm{a}^{3}+\frac{1}{\mathrm{a}^{3}}=0$
$\Rightarrow \mathrm{a}^{6}-\frac{1}{\mathrm{a}^{6}}+2$
$=\left(a^{3}\right)^{2}-\left(\frac{1}{a^{3}}\right)^{2}+2$
$=\left(a^{3}+\frac{1}{a^{3}}\right)\left(a^{3}-\frac{1}{a^{3}}\right)+2=2$
75. (a) $\frac{1}{\mathrm{a}}-\frac{1}{\mathrm{~b}}=\frac{1}{\mathrm{a}-\mathrm{b}}$
$\Rightarrow \frac{\mathrm{b}-\mathrm{a}}{\mathrm{ab}}=\frac{1}{\mathrm{a}-\mathrm{b}}$
$\Rightarrow(\mathrm{a}-\mathrm{b})(\mathrm{a}-\mathrm{b})=-\mathrm{ab}$
फ्राঙ্ভির্জ
$\Rightarrow \mathrm{a}^{2}-2 \mathrm{ab}+\mathrm{b}^{2}=-\mathrm{ab}$
$\Rightarrow \mathrm{a}^{2}-\mathrm{ab}+\mathrm{b}^{2}=0$
$\therefore \mathrm{a}^{3}+\mathrm{b}^{3}=(\mathrm{a}+\mathrm{b})\left(\mathrm{a}^{2}-\mathrm{ab}+\mathrm{b}\right)$
$=0$
76. (a) Here, Subject is Singular.

There is also a split infinitive related error.

- paint ${ }^{\circledR}$ Inf.


## Verb

- badly painting ${ }^{\circledR}$ Split Inf.

Adv.
Hence, badly needs painting is the right usage.
77. (d) As the structure and sense suggest, in the conditional clause,
Present Simple i.e., If I play my best is the right usage.
The structure is as follows :
If + Pr.T. $\rightarrow$ will/can + Inf. (Pr.T.)
78. (b) It is Preposition related error.
find fault with somebody/something : to look for and discover mistakes.
Hence, with everything/in everything is the right usage.
79. (b) accused (Verb) : said that somebody has done something wrong
condemned (Verb) : expressed/very strong disapproval of
charged (Verb) : accused of doing something wrong (publicly)
Here, accused is the right usage.
80. (c) ulterior (Adj.) : that somebody keeps hidden and does not admit
posterior (Adj.) : at the back of something interior (Noun) : the inside part of something exterior (Noun) : the outside of something Here, ulterior is the right usage.
81. (b) conscientious (Adj.) : taking care to do things carefully and correctly Here, conscientious is the right usage.
82. (c) atone (Verb) : to act in a way that shows you are sorry for doing something wrong in the past.
atone takes the Preposition-for Here, for is the right usage.

6ुणाप्जिय
83. (d) The structure of the sentence is as follows: Past Perfect (Had — told), ....... would have + Past Participle (attended) $\qquad$ Here, would have attended is the right usage.
84. (d) inexpressible
ineffable (Adj.) : too good or beautiful to describe in words; unutterable; indescribable. unintelligible (Adj.) : not clearly understood/ expressed
illegible (Adj.) : not able to read (handwriting) inexplicable (Adj.) : incapable of being explained/accounted for
inexpressible (Adj.) : to strong to be put into words
85. (b) spying

धुपाजिएन
espionage (N.) : the activity of secretly getting important political or military information; spying.
hypnotism (N.) : the practice of putting a person into an unconscious state
perception (N.) : becoming aware of something via the senses
detente ( N .) : the easing of tensions/strained relations (between nations)
86. (b) indifference
apathy (N.) : lack of interest, enthusiasm or concern; indifference; impassivity.
87. (c) Read between the lines : to look for or discover a meaning in something that is not openly stated.

- Reading between the lines, I think she needs money.

धुपाज्जिय
The best option is know what the writer thinks
88. (d) A cut above somebody : better than somebody/something.

- His latest novel is a cut above the rest. The best option is rather superior to

89. (b) show white flag : a sign that you accept defeat and wish to stop fighting

- The soldiers laid down their guns and walked towards the enemy camp, carrying a white flag. The best option is surrendered

90. (d) to cut one short : to interrupt one

- It is bad to cut one short at a meeting. The best option is to interrupt one.

91. (b) dissent (N.) : the fact of expressing opinions that are different from those that are accepted. assent (N.) : the official agreement to or approval of something.
92. (d) categorical (Adj.) : expressed clearly; definite. evasive (Adj.) : not willing to give clear answers to a question; cagey.
93. (a) friendship
hostility (N.) : unfriendly or aggressive feelings or behaviour.
94. (c) cavalry

धुपाष्जिए
cavalry (N.) : the part of the army that fought on horses (in the past); the part of the modern army that uses armoured vehicles
infantry (N.) : soldiers who fight on foot
artillery (N.) : large, heavy guns which are often moved on wheels
armoured (N.) : protected by metal covers (military vehicles)
95. (b) illiterate
illiterate (Adj.) : not knowing how to read/ write
uneducated (Adj.) : showing a lack of education, having had little or no formal education at school
ignorant (Adj.) : lacking knowledge/ information
oblivious (Adj.) : not aware of something.
96. (a) look (Verb)
97. (a) key (Noun)

धुाव্जिएन
98. (d) bleak (Adj.) : gloomy; hopeless
99. (d) has (Aux. V.)
100. (a) issue (Noun)

