—: SSC HS Level Main Exam 2023 Practice Set :—

Answers with Explanation

1. (b) $0.7 + \sqrt{0.16}$

$= 0.7 + 0.4 = 1.1$

$1.02 - \dfrac{0.6}{24}$

$= 1.02 - 0.025 = 0.995$

$1.2 \times 0.83 = 0.996$

$\sqrt{1.44} = 1.2$

Hence, the greatest number

$= \sqrt{1.44}$

2. (a) Second number

$= \dfrac{HCF \times LCM}{First\ number}$

$= \dfrac{18 \times 378}{54} = 126$

3. (d) Expression $= 1 + \dfrac{1}{1 + \dfrac{1}{2}}$

$= 1 + \dfrac{1}{\dfrac{2+1}{2}} = 1 + \dfrac{2}{3} = \dfrac{3+2}{3} = \dfrac{5}{3}$

4. (c) $\dfrac{1}{\sqrt{3} + \sqrt{4}}$

$= \dfrac{1}{\sqrt{3} + \sqrt{4}} \times \dfrac{\sqrt{4} - \sqrt{3}}{\sqrt{4} - \sqrt{3}}$

$= \dfrac{\sqrt{4} - \sqrt{3}}{4 - 3} = \sqrt{4} - \sqrt{3}$

Similarly,

$\dfrac{1}{\sqrt{4} + \sqrt{5}} = \sqrt{5} - \sqrt{4} ...$ so on

$\therefore$ Expression

$= \sqrt{4} - \sqrt{3} + \sqrt{5} - \sqrt{4} + \sqrt{6} - \sqrt{5} + \sqrt{7} - \sqrt{6} +$

$\sqrt{8} - \sqrt{7} + \sqrt{9} - \sqrt{8}$

$= \sqrt{9} - \sqrt{3} = 3 - \sqrt{3}$

5. (c) Male employees = x

Female employees = y

$\therefore (x + y) 12000 = x \times 15000 + y \times 8000$

$\Rightarrow (x + y) \times 12 = 15x + 8y$

$\Rightarrow 12x + 12y = 15x + 8y$

$\Rightarrow 3x = 4y$

$\Rightarrow \dfrac{x}{y} = \dfrac{4}{3} \Rightarrow x : y = 4 : 3$

6. (c) $a : b = c : d$

$\Rightarrow \dfrac{a}{b} = \dfrac{c}{d} = \dfrac{ma}{mb} = \dfrac{nc}{nd}$

$\Rightarrow \dfrac{a+c}{b+d} = \dfrac{ma+nc}{mb+nd}$

7. (c) Required percentage

$= \dfrac{24}{40} \times 100 = 60\%$

8. (d) If the marked price of watch be x, then

$x \times \dfrac{90}{100} = \dfrac{450 \times 120}{100}$

$\Rightarrow x = \dfrac{450 \times 120}{90} = ₹ 600$

9. (d) Effective discount

$= 25 + 15 - \dfrac{25 \times 15}{100}$

$= 40 - 3.75 = 36.25\%$

$\therefore$ CP for buyer

$= (100 - 36.25)\%$ of 800

$= \dfrac{63.75 \times 800}{100} = ₹ 510$

$\therefore$ To gain 20%,

$SP = ₹ \left(\dfrac{120 \times 510}{100} \right) = ₹ 612$

Let the list price be ₹x.

$\therefore$ 90% of x = ₹612

$\Rightarrow \dfrac{90x}{100} = 612 \Rightarrow x = \dfrac{61200}{90} = ₹ 680$

10. (d) P + S.I. for 5 years = 5200 ..(i)

P + SI for 7 years = 5680 ...(ii)

On subtracting equation (i) from (ii),

SI for 2 years = 480

$\therefore$ SI for 1 year = 240

$\therefore$ From equation (i),

P + 5 × 240 = 5200

$\Rightarrow$ P = 5200 − 1200 = ₹4000

$\therefore R = \dfrac{SI \times 100}{T \times P} = \dfrac{240 \times 100}{1 \times 4000} = 6\%$

11. (c) $A = P \left(1 + \dfrac{R}{100} \right)^T$

$\Rightarrow 30000 + 4347$

$= 30000\left(1 + \dfrac{7}{100}\right)^{T}$

$\Rightarrow \dfrac{34347}{30000} = \left(\dfrac{107}{100}\right)^{T}$

$\Rightarrow \dfrac{11449}{10000} = \left(\dfrac{107}{100}\right)^{2} = \left(\dfrac{107}{100}\right)^{T}$

$\Rightarrow$ Time = 2 years

12. (d) (A + B)'s 1 day's work $= \dfrac{1}{12}$

(B + C)'s 1 day's work $= \dfrac{1}{15}$

(C + A)'s 1 day's work $= \dfrac{1}{20}$

On adding,

2(A + B + C)'s 1 day's work

$= \dfrac{1}{12} + \dfrac{1}{15} + \dfrac{1}{20}$

$= \dfrac{5 + 4 + 3}{60} = \dfrac{1}{5}$

$\therefore$ (A + B + C)'s 1 day's work $= \dfrac{1}{10}$

$\therefore$ B's 1 day's work

$= \dfrac{1}{10} - \dfrac{1}{20} = \dfrac{2 - 1}{20} = \dfrac{1}{20}$

$\therefore$ B alone can do the work in 20 days.

13. (a) Time taken to fill the $\dfrac{3}{5}$ of the cistern = 60 seconds

$\therefore$ Time taken in filling $\dfrac{2}{5}$ part

$= \dfrac{60 \times 5}{3} \times \dfrac{2}{5} = 40$ seconds

14. (b) Let the first pipe be closed after x minutes

$\therefore \dfrac{x}{20} + \dfrac{18}{30} = 1$

$\Rightarrow \dfrac{x}{20} = 1 - \dfrac{18}{30} = 1 - \dfrac{3}{5} = \dfrac{2}{5}$

$\Rightarrow x = \dfrac{2}{5} \times 20 = 8$ minutes.

15. (b) Speed of train $= \dfrac{\text{Dis} \tan \text{ce}}{\text{Time}}$

$= \dfrac{10}{\dfrac{12}{60}}$ kmph

$= \dfrac{10 \times 60}{12} = 50$ kmph

New speed = 45 kmph

$\therefore$ Required time $= \dfrac{10}{45}$ hour

$= \dfrac{2}{9} \times 60$ minutes

$= \dfrac{40}{3}$ minutes

= 13 minutes 20 seconds

16. (a) Let the speed of boat in still water be x kmph and the rate of stream be y kmph.

$\therefore$ Downstream rate

= (x + y) kmph and upstream rate

= (x – y) kmph.

Now, $\dfrac{20}{x + y} = 1$

$\Rightarrow$ x + y = 20 ...(i)

and $\dfrac{20}{x - y} = 2$

$\Rightarrow$ x – y = 10 ...(ii)

From (i) and (ii) we have

x = 15 kmph.

17. (b) In the given sequence all the numbers except 100 are perfect cubes of natural numbers. As, $8 = 2^{3}$, $27 = 3^{3}$, $64 = 4^{3}$ etc.

18. (b) $x + \dfrac{1}{4}\sqrt{x} + a^{2}$

$= \left(\sqrt{x}\right)^{2} + 2.\sqrt{x}.\dfrac{1}{8} + (a)^{2}$

Clearly $a = \dfrac{1}{8}$.

Then, expression $= \left(\sqrt{x} + \dfrac{1}{8}\right)^{2}$

19. (a) x + y = 2z

$\Rightarrow$ x = 2z – y

$\Rightarrow$ x – z = 2z – y – z = z – y

$\therefore \dfrac{x}{x - z} + \dfrac{z}{y - z}$

$= \dfrac{x}{x - z} - \dfrac{z}{z - y}$

$= \dfrac{x}{x - z} - \dfrac{z}{x - z} = \dfrac{x - z}{x - z} = 1$

20. (c) When x = 6,

$\dfrac{4 \times 6}{3} + 2P = 12$

$\Rightarrow 8 + 2P = 12$

$\Rightarrow 2P = 12 - 8 = 4$

$\Rightarrow P = 2$

21. (d) $\cot 30° = \cot (90° - 60°) = \tan 60°$

$\cot 75° = \cot (90° - 15°) = \tan 15°$

$\therefore \dfrac{\cot 30° - \cot 75°}{\tan 15° - \tan 60°}$

$\therefore \dfrac{\tan 60° - \tan 15°}{\tan 15° - \tan 60°} = 1$

22. (d) $\sin^2\theta - 3\sin\theta + 2 = 0$

$\Rightarrow \sin^2\theta - 2\sin\theta - \sin\theta + 2 = 0$

$\Rightarrow \sin\theta (\sin\theta - 2) - 1 (\sin\theta - 2) = 0$

$\Rightarrow (\sin\theta - 1)(\sin\theta - 2) = 0$

$\Rightarrow \sin\theta = 1 = \sin 90°$

$\Rightarrow \theta = 90°$ and $\sin\theta \neq 2$

23. (a) $\left(2b + \dfrac{1}{b}\right)^2$

$= 4b^2 + \dfrac{1}{b^2} + 2 \times 2b \times \dfrac{1}{b} = 2 + 4 = 6$

$\Rightarrow 2b + \dfrac{1}{b} = \sqrt{6}$

$\therefore 8b^3 + \dfrac{1}{b^3}$

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

$= \left(\sqrt{6}\right)^3 - 6\left(\sqrt{6}\right)$

$= 6\sqrt{6} - 6\sqrt{6} = 0$

24. (b) $2p + \dfrac{1}{p} = 4$

$\Rightarrow p + \dfrac{1}{2p} = 2$

$\therefore \left(p + \dfrac{1}{2p}\right)^3$

$= p^3 + \dfrac{1}{8p^3} + 3.p.\dfrac{1}{2p}\left(p + \dfrac{1}{2p}\right)$

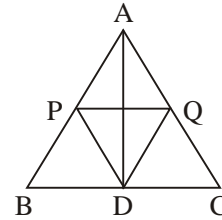$\Rightarrow 8 = p^3 + \dfrac{1}{8p^3} + \dfrac{3}{2} \times 2$

$\Rightarrow p^3 + \dfrac{1}{8p^3} = 8 - 3 = 5$

25. (c) $\dfrac{x^3 + \dfrac{1}{x}}{x^2 - x + 1} = \dfrac{x^2 + \dfrac{1}{x^2}}{x - 1 + \dfrac{1}{x}}$

$= \dfrac{\left(x + \dfrac{1}{x}\right)^2 - 2}{\left(x + \dfrac{1}{x}\right) - 1} = \dfrac{9 - 2}{3 - 1} = \dfrac{7}{2}$
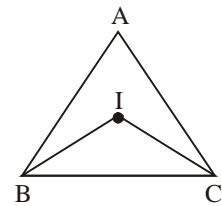
26. (b)

$AB = AC$

Point D is the mid-point of side BC.

$\therefore \angle ADB = 90° = \angle ADC$

PD is internal bisector of $\angle ADB$.

$\therefore \angle PDA = 45°$

PQ ∥ BC
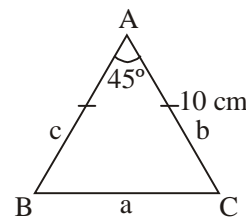
$\therefore \angle ADQ = 45°$

$\therefore PDQ = 45° + 45° = 90°$

27. (b)

$\angle ABC = 60°, ACB = 50°$

$\angle IBC = \dfrac{1}{2} \angle ABC = 30°$

$\angle ICB = \dfrac{1}{2} \angle ACB = 25°$

$\therefore \angle BIC = 180° - 30° - 25° = 125°$

28. (d) Let the breadth be x m.

$\therefore$ Length $= (23 + x)$ m

$\Rightarrow 2(x + 23 + x) = 206$

$\Rightarrow 4x = 206 - 46$

$\Rightarrow x = \dfrac{160}{4} = 40m$

$\therefore$ Length $= 40 + 23 = 63$ m

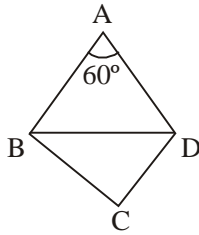$\therefore$ Required area $= 63 \times 40 = 2520$ m^2

29. (c)

$AB = AC = 10$ cm

$\therefore$ Area $= \frac{1}{2}$ bc sin A

$= \frac{1}{2} \times 10 \times 10$ sin 45°

$= \frac{50}{\sqrt{2}} = \frac{50 \times \sqrt{2}}{\sqrt{2} \times \sqrt{2}} = 25\sqrt{2}$ cm^2

30. (b)

Side $= \frac{40}{4} = 10$ cm

AB = AD = 10 cm

$\angle$ABD = $\angle$ADB = 60°

$\therefore$ Area of the rhombus

$= 2 \times \frac{\sqrt{3}}{4} \times (AB)^2$

$= 2 \times \frac{\sqrt{3}}{4} \times 10 \times 10$

$= 50\sqrt{3}$ cm^2

31. (a) Pound and Yen are currencies of different countries. Similarly, Polo and Hockey are names of different games.
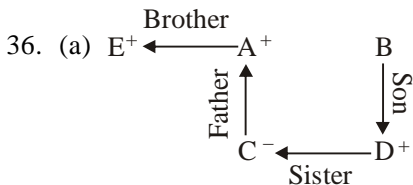
32. (b) Cloth is woven from thread and mesh is made from wire.

33. (c) Love is antonym of Hate. Similarly, Proud is antonym of Humble.

34. (b) Ass is considered as Timid. Fox is considered as Cunning.

35. (c) Spacious means having or providing a lot of space. Spacious denotes capacity.
Scanty means small in size or amount. Thus, Scanty denotes scarcity.

36. (a)

Here B's sex is not clear but C and D both are children (daughter and son respectively) of A (male) and B.
Hence, obviously B is A's wife (i.e. female). Hence B is sister in law (Bhabhi) of brother (E) of her husband (A).

37. (c)

$+ \Rightarrow -$	$\div \Rightarrow +$
$- \Rightarrow \times$	$\times \Rightarrow \div$

Option (a)
46 − 10 + 10 × 5 = 92
or, 46 × 10 − 10 ÷ 5 = 92
or, 460 − 2 ¹ 92
Option (b)
265 + 11 − 2 × 14 = 22
or, 265 − 11 × 2 ÷ 14 = 22
or, $265 - \frac{22}{14} \neq 22$
Option (c)
66 × 3 − 11 + 12 = 230
or, 66 ÷ 3 × 11 − 12 = 230
or, 22 × 11 − 12 = 230
or, 242 − 12 = 230

38. (c) Except Dissident, all other words imply positive attitude.

39. (c)
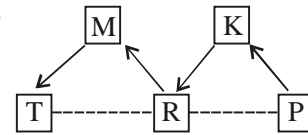
It is clear that T is located to the West of P.

40. (d) Today is Monday.
Yesterday was Sunday.
Sunday − 3 = Thursday.

41. (a)
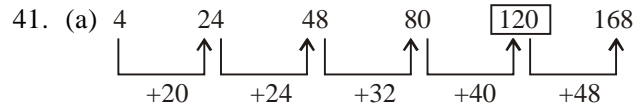
42. (a) 8 × 2 + 1 = 17
17 × 2 + 2 = 36
36 × 2 + 3 = 75
75 × 2 + 4 = 154

43. (c)

44. (b)
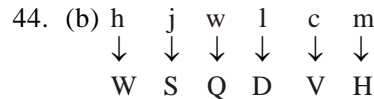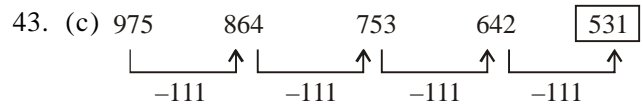
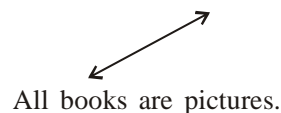5. (b) There is no 'A' letter in the given word. Therefore, the word CAUTION cannot be formed.

46. (a) Both the Premises are Universal Affirmative (A-type).
All dogs are books.

All books are pictures.

A + A ⇒ A-type of Conclusion
"All dogs are pictures."
This is Conclusion I.
Conclusion IV is Converse of the second Premise.

47. (b) The original position of Hema from the left = 9th
Therefore, her position from right = 16 – 9 + 1 = 8th

48. (c) In each arrangement the product of the upper two numbers is equal to the bottom number.
1st arrangement
$5 \times 4 = 20$
2nd arrangement
$8 \times 8 = 64$
3rd arrangement
$6 \times 6 = \boxed{36}$

49. (d) At the birth of son, the age of mother
= 35 – 7 = 28 years
Difference in age = 32 – 28 = 4 years

50. (d) Logical order of the given words :
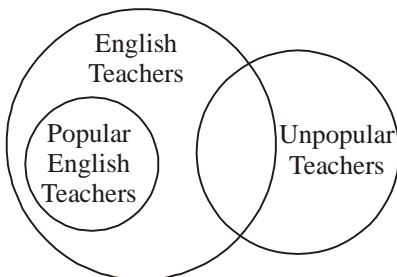(c) Egg
↓
(d) Worm
↓
(b) Cocoon
↓
(a) Butterfly

51. (b) The numbers 2, 3, 4 and 5 cannot be on the face opposite to 1. Therefore, 6 lies opposite 1.

52. (b) Popular English Teachers form sub-set of English Teachers. Also, there may be some English Teachers who are not popular.

53. (d) In water image upside becomes downside.

54. (d)

55. (a)
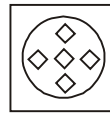
56. (b)
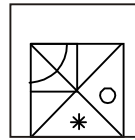
57. (c) Answer Figure (c) will complete the pattern.

58. (d)
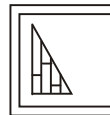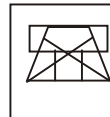
59. (d)
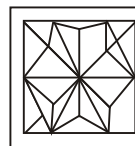
60. (d) Rotating the given figure by – 90° clockwise. We get answer figure. It is clear from the question figure that answer figure (d) can be formed.

61. (b) **First two** will replace **two first** because –
in **Numeral Adjectives** – **Ordinal** and **Cardinal**
Adjectives — a particular order is followed. The order is –
Determiner + Ordinal + Cardinal + Noun
↓ ↓ ↓ ↓
the first two chapters
Hence, the first two chapters of the book

62. (c) **for** will replace **of** because –
thirst (for something) (Noun) : a strong desire for something
Thirst agrees with **for (Prep.)** as in –
a **thirst for knowledge**
Hence, **for knowledge** is the right usage.

63. (b) **would** will replace **will** because –
in **Indirect speech will** changes into **would** as in –
She said, "I **will** teach you English." (D.S.)
She said that she **would** teach me English. (I.S.)
Hence, **that he would never** is the right usage.

64. (a) **I were** will replace **I am**

Wish is most commonly used in imaginary/unreal situations. as in –

I wish (that) you **were** here. (But, you are not, and I miss you).

The tense of the **Verb** that follows **I wish** is mostly in **Past Tense**.

In **Subjunctive** form we use **were** and not **was** after **wish**.

Look at the examples given below :

I'm very fat. **I wish I were** thin.

I wish I **were** taller.

I wish to be taller. (Present Time)

Hence, **I wish I were** is the right usage.

65. (d) **No error.**

66. (c) **The sentence structure is as follows :**
It's high time + **Subject (you)** + **Past Verb (went)** → Refers to the present moment
Hence, **went** is the right usage.

67. (a) Here, **a 99-feet long bath for males** is the right usage.

68. (d) **No improvement**
siphon something + **off (Prep.)** : to remove money from one place and move it to another, especially dishonestly or illegally; divert

69. (c) **emigrant (Noun) :** a person who leaves a country to live in another
migratory (Adj.) : wandering from one place to another at different times of the year
immigrant (Noun) : a person who comes to a country to live there
itinerant (Noun) : travelling from place to place, especially looking for a job
Here, **emigrant** is the right usage.

70. (a) Here, **the poorer of** is the right usage.
There is a comparison between two workers.

71. (d) He was accused of various offences by his subordinates. (**Passive**)
The sentence is in **Simple Past Tense**. (**Active**)

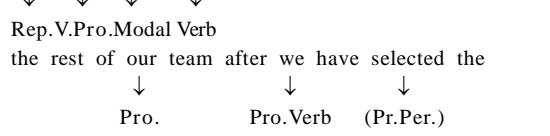72. (c) Have all the necessary arrangements been made by someone? (**Passive**)
The sentence is in **Present Perfect Tense**. (**Active**)

73. (d) Someone has cut the telegraph wires. (**Active**)
The sentence is in **Simple Present Tense**. (**Passive**)

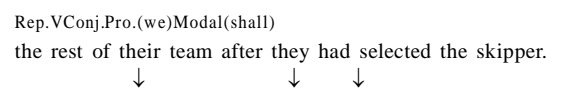74. (d) The chairman of the selection committee said,"We shall finalise
     ↓   ↓   ↓   ↓
Rep.V.Pro.Modal Verb
the rest of our team after we have selected the
     ↓   ↓   ↓
    Pro.   Pro.Verb   (Pr.Per.)

skipper." (D.S.) [Pro. 'we', 'our' stands for 'The chairman of the selection committee]
The chairman of the selection committee said that they would finalise
   ↓   ↓   ↓   ↓
Rep.VConj.Pro.(we)Modal(shall)
the rest of their team after they had selected the skipper.
         ↓   ↓   ↓
Modal   Pro.   Pro.   Verb
(shall)   (our)   (We) (P.Per)
→ (I.S.)

75. (c) He said to me, "You are getting lazy day by day",→ (D.S.)
      ↓   ↓   ↓
   Rep.V.   Pro.   Verb
         (me)(Pr.Cont.)
He told me that I was getting lazy day by day. → (I.S.)
    ↓   ↓ ↓   ↓
  Rep.V.   Conj.Pro.   Verb
       (you) (P.cont.)
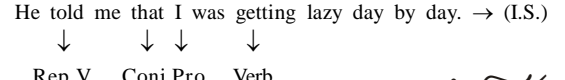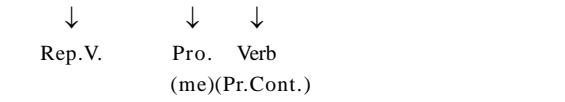
76. (c) "Doctor", the patient cried please tell me how much
            ↓   ↓   ↓
         Rep. V.   Verb   Pro
               (S. Pr.) (the patient)
time I have." → (D.S.)
    ↓   ↓
  Pro. H.V.
  (me)
The patient pleaded with the doctor to tell him/her how much
      ↓   ↓   ↓   ↓
   Rep.V. Inf.   Verb   Pro
              (S.Pr.)   (me)
time he/she had. → (I.S.)
  ↓   ↓
Pro   H.V.
(I) (have)
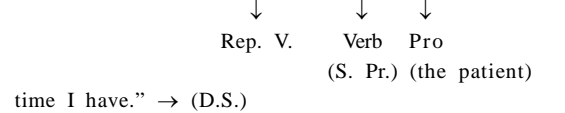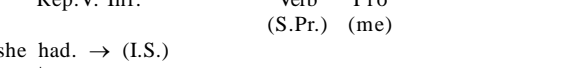
77. (c) The sentence is in **Indirect Speech Past** time.
So, **Past Perfect Tense** will be used.
Here, **had deposited** is the right usage.

78. (d) The sentence expresses a longer action in the **Past** (Hamid, living) before another action (came to visit).
So, **Past Perfect Continuous Tense had been living** is the right usage.

79. (b) $\dfrac{\textbf{shortly (Adv)}}{\textbf{briefly (Adv)}}$: in a few words

Use **briefly** to say that something lasts or is done for a short time or told in a few words.
shortly is an old-fashioned use.
Here, **briefly** is the right usage.

80. (c) **since** is followed by a **Verb** in the **Past Tense**
Here, **came** is the right usage.

81. (d) **at one time (Idiom)** : at a period or moment in the **Past**. So,
Simple Past Tense-owned is the right usage.

82. (d) **abundant (Adjective) :** plentiful; more than enough
luxuriant (Adjective) : growing thickly and strongly in a way that is attractive ; abundant
luxury-loving (Adjective) : loving to be extravagant or enjoy the luxuries অ্যাচিভার্স
lovely (Adjective) : beautiful
rich (Adjective) : having a lot of money or property

83. (c) **ridicule (Noun) :** unkind remarks that make fun of somebody or something or make him look silly; mockery
derision (Noun) : a strong feeling that somebody or something is ridiculous and not worth considering seriously
humiliation (Noun) : feeling ashamed or stupid
embarrassment (Noun) : a feeling of shyness
condemnation (Noun) : an expression of very strong disapproval

84. (a) **commonplace (Noun) :** done very often; not unusual; existing in many places
trite (Adjective) : dull and boring because it has been expressed so many times before; banal; not original;
clever (Adjective) : intelligent অ্যাচিভার্স
brief (Adjective) : short

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

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

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

88. (a) **proposition (Noun) :** proposal অ্যাচিভার্স

89. (c) **relationship (Noun)**

90. (a) **successful (Adjective) :** achieving your aims or what was intended ; having become popular and/or make a lot of money
fruitless (Adjective) : producing no useful results ; unproductive
wasted (Adjective) : unsuccessful
useless (Adjective) : of no use
insufficient (Adjective) : not enough; inadequate

91. (c) **disagreement (Noun) :** the state of not agreeing to something
consensus (Noun) : an opinion that all members of a group agree to
accept (Verb) : to take willingly something that is offered অ্যাচিভার্স
opinion (Noun) : your feeling or thoughts about somebody/ something, rather than a fact; view
permission (Noun) : the act of allowing somebody to do something

92. (c) **dependence (Noun) :** the state of being dependent
autonomy (Noun) : independence; the freedom for a country, a region or an organization to govern itself independently অ্যাচিভার্স
slavery (Noun) : the state of being a slave
subordination (Noun) : the state of being subordinate to something
submissiveness (Noun) : the state of being willing to yield to the will of another person or a superior force.

93. (b) **by fits and starts :** impulsively and irregularly
● A sincere student works regularly, not by **fits and starts**
The best option is **irregularly.**

94. (d) **put up with :** to accept somebody/something that is annoying, unpleasant, etc. without complaining
● cannot **put up with** your constant complaining any longer.
The best option is **tolerate** অ্যাচিভার্স

95. (a) **turn a deaf ear :** to ignore or refuse to listen to somebody/something
● Sheela **turned a deaf ear** to our pleadings.
The best option is **disregard.**

96. (b) **opinionated**
opinionated (Adj.) : having very strong opinions that you are not willing to change
plaintive (Adj.) : sounding sad; mournful
undoubtable (Adj.) : incapable of being doubted; unquestionable
secular (Adj.) : not connected with spiritual/ religious matters.

97. (c) The misspelt word is **maginificent**
The correct spelling is **magnificent**

98. (c) The misspelt word is **superseed**
The correct spelling is **supersede**

99. (c) SRPQ অ্যাচিভার্স

100. (a) **flora**
flora (N.) : the plants of a particular area, type of environment or period of time
fauna (N.) : the animals living in an area or in a particular period of history
landscape (N.) : everything you can see when you look across a large area of land
environment (N.) : the conditions that affect the behaviour and development of somebody/ something. অ্যাচিভার্স

101. (a) The ruins of Harrappa were first described in 1842 by Charles Masson in his Narrative of Various Journeys in Balochistan, Afghanistan, and the Punjab, where locals talked of an ancient city extending "thirteen cosses" (about

25 miles), but no archaeological interest would attach to this for nearly a century. In 1856, General Alexander Cunningham, later director general of the archeological survey of northern India, visited Harappa where the British engineers John and William Brunton were laying the East Indian Railway Company line connecting the cities of Karachi and Lahore. In 1872–75 Alexander Cunningham published the first Harappan seal (with an erroneous identification as Brahmi letters). It was half a century later, in 1912, that more Harappan seals were discovered by J. Fleet, prompting an excavation campaign under Sir John Hubert Marshall in 1921–22 and resulting in the discovery of the civilization at Harappa by Sir John Marshall, Rai Bahadur Daya Ram Sahni and Madho Sarup Vats, and at Mohenjo-daro by Rakhal Das Banerjee, E. J. H. MacKay, and Sir John Marshall.   অ্যাচিভার্স

102. (d) Venus has a maximum surface temperature of 462°C (862°F) making it the hottest planet in the solar system. The high temperature is because of its dense cloud layer.

103. (c) At the Faizpur Session of the Congress in December 1936, Pandit Jawaharlal Nehru, in his Presidential Address, referred to the Government of India Act 1935 as "The new Charter of Bondage" which was being imposed upon them despite complete rejection. He said that the Congress was going to the Legislatures to combat the Act and seek to end it.

104. (b) In summer, when the barometer falls suddenly, a thunderstorm can be expected, and if it does not rise again upon its cessation, the weather will probably continue unsettled for several days. In summer, when a thunderstorm happens, there is little or no depression of the barometer.   অ্যাচিভার্স

105. (b) A-HELP (Accredited Agent for Health and Extension of Livestock Production) programme was launched by the Uttarakhand Chief Minister.
A-HELP are community-based women activists involved in helping livestock farmers avail loans, assisting veterinarians in local departmental work and more.   অ্যাচিভার্স

106. (b) Varada Grameena Bank is a Regional Rural Bank (RRB) named after the Wardha River which is one of the biggest rivers in Vidarbha region in India. It is one of those banks which were amalgamated and newly opened. It has been serving Kumta in Karnataka, providing excellent banks service to those in need.

107. (d) Quartz is an abundant mineral in the Earth's continental crust. It is made up of a continuous framework of SiO_4 silicon–oxygen tetrahedra, with each oxygen being shared between two tetrahedra, giving an overall formula SiO_2. There are many different varieties of quartz, several of which are semiprecious gemstones. Most quartz used in microelectronics is produced synthetically. Large, flawless and un-twinned crystals are produced in an autoclave via the hydrothermal process. The process involves treating crushed natural quartz with hot aqueous solution of a base such as sodium hydroxide.   অ্যাচিভার্স

108. (b) It is a constitutional right. Article 326 (in Part XV) of the Constitution gives this right. It is not a Fundamental right.

109. (d) The Ghadar Party, initially the Pacific Coast Hindustan Association, was formed in 1913 in the United States under the leadership of Har Dayal, with Sohan Singh Bhakna as its president. The members of the party were Indian immigrants, largely from Punjab. Many of its members were students at University of California at Berkeley including Dayal, Tarak Nath Das, Maulavi Barkatullah, Kartar Singh Sarabha and V.G. Pingle. The party quickly gained support from Indian expatriates, especially in the United States, Canada and Asia. The party was built around the weekly paper The Ghadar, which carried the caption on the masthead: Angrezi Raj Ka Dushman (an enemy of the British rule). The first issue of The Ghadar was published from San Francisco on November 1, 1913.   অ্যাচিভার্স

110. (b) Tamil Nadu's Cumbum grapes, also known as Cumbum Panneer Thratchai, recently received GI tag. It constitutes 85 percent of the grapes grown in Tamil Nadu. The Cumbum valley also called Kambam Valley, located at the Western Ghats in Tamil Nadu, is known as the 'Grapes city of South India'.

111. (d) The Himalaya are among the youngest mountain ranges on the planet and consist mostly of uplifted sedimentary and metamorphic rock. They are Fold Mountains which were formed due to a continental collision or orogeny along the convergent boundary between the Indo-Australian Plate and the Eurasian Plate.

112. (c) The iris is a thin, circular structure in the eye, responsible for controlling the diameter and size of the pupils and thus the amount of light

reaching the retina. "Eye color" is the color of the iris, which in humans can be green, blue, or brown. In some cases it can be hazel (a combination of light brown, green and gold), grey, violet, or even pink. In response to the amount of light entering the eye, muscles attached to the iris expand or contract the aperture at the center of the iris, known as the pupil. The larger the pupil, the more light can enter. অ্যাচিভার্স

113. (b) Trishala was the Mother of Mahavira, the 24th Tirthankara of Jainism, and wife of the Jain monarch, Siddartha of Kundgraam, of present day Bihar. She finds mention in the classical Jain Agamas, the Kalpa sutra, written by Acharya Bhadrabahu (433 - 357 BC), which is primarily a biography of the Tirthankaras.

114. (b) The Indian Councils Act 1909, commonly known as the Morley-Minto Reforms, introduced the system of communal electorate in India. It provided that Indian Muslims be allotted reserved seats in the Municipal and District Boards, in the Provincial Councils and in the Imperial Legislature; that the number of reserved seats be in excess of their relative population (25 percent of the Indian population); and, that only Muslims should vote for candidates for the Muslim seats ('separate electorates'). These concessions were a constant source of strife during 1909-47. অ্যাচিভার্স

115. (c) The Regional Pollution Response Exercise, RPREX-2023, was launched recently by the Indian Coast Guard. It will assess the preparedness of the oil exploration companies to handle oil spills and marine pollutions.

116. (d) The sixth five year plan had long-term objectives of removal of poverty and the achievement of selfreliance. It also aimed at the achievement of economic and technological self reliance with the help of modernisation.

117. (c) The Secretary General is the administrative head of the Secretariat of the Lok Sabha. The post of Secretary General is of the rank of the Cabinet Secretary in the Government of India, who is the senior most civil servant to the Indian Government. The incumbent to the post is appointed by the Speaker of Lok Sabha in consultation with the Prime Minister of India and the Leader of the Opposition in the Lok Sabha.

118. (b) Majuli is a large river island in the Brahmaputra river, in Assam. It is the largest river island in the world. The island is formed by the Brahmaputra River in the south and the Kherkutia Xuti, an anabranch of the Brahmaputra, joined by the Subansiri River in the north. Majuli island is accessible by ferries from the City of Jorhat. The island is about 200 kilometres east from the state's largest city —Guwahati. The island was formed due to course changes by the river Brahmaputra and its tributaries, mainly the Lohit. Majuli is also the abode of the Assamese neo- Vaishnavite culture. অ্যাচিভার্স

119. (a) Photosynthesis, process by which green plants and certain other organisms use the energy of light to convert carbon dioxide and water into the simple sugar glucose. The wavelength most effective in conducting photosynthesis is 420nm. Actually, 420nm is on the blue side of the spectrum, which makes up between 1 and 10% of the light needed for photosynthesis. There is a plateau on the blue side when comparing blue wavelength effects on photosynthesis, and 420nm is right on the edge of it. 430nm would be more in the middle of the plateau, making it the safer bet. Plants need red light, and lots of it. Red light contributes to over 90% of photosynthesis. অ্যাচিভার্স

120. (c) The World Homeopathy Day is celebrated each year on April 10 to pay tribute to homoeopathy and its contribution to the world of medicine. The day is observed on the birth anniversary of German physician Dr Christian Friedrich Samuel Hahnemann, the founder of homoeopathy. Homeopathy is one of the popular alternative medical systems in India.

121. (d) Complex Instruction Set Computer
122. (c) MIPS
123. (b) Timing signals
124. (b) Micro-operation
125. (c) Shift registers.
126. (a) Instruction code
127. (d) Bridge
128. (c) bar codes অ্যাচিভার্স
129. (c) PPM
130. (c) port type
131. (c) computer gaming
132. (d) All of the above
133. (b) Refresh rate
134. (d) Tail towards the user
135. (a) UPCs

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