

—: SSC CGL Main Exam. Practice Set :—

Answers with Explanation

1. (d) If the number be x , then
 $x - 31 = 75 - x$
 $\Rightarrow 2x = 75 + 31 = 106$
 $\Rightarrow x = 53$ শ্রুতিভঙ্গি
2. (d) Let the numbers be $6x$ and $6y$ where x and y are prime to each other.
 $\therefore 6x \times 6y = 216$
 $\Rightarrow xy = \frac{216}{6 \times 6} = 6$
 $\therefore \text{LCM} = 6xy = 6 \times 6 = 36$
3. (d) $\frac{2}{1 + \frac{1}{\frac{1}{\left(\frac{5}{6} \times \frac{3}{2}\right) \div \frac{5}{4}}}}$
 $= \frac{2}{1+2} \times \frac{3}{\frac{5}{4} \div \frac{5}{4}}$
 $= \frac{2}{3} \times \frac{3}{\frac{5}{4} \times \frac{4}{5}} = \frac{2}{3} \times 3 = 2$ শ্রুতিভঙ্গি
4. (a) $\frac{1}{\sqrt{3.25} + \sqrt{2.25}}$
 $= \frac{1}{(\sqrt{3.25} + \sqrt{2.25})} \times \frac{\sqrt{3.25} - \sqrt{2.25}}{\sqrt{3.25} - \sqrt{2.25}}$
 $= \frac{\sqrt{3.25} - \sqrt{2.25}}{3.25 - 2.25} = \sqrt{3.25} - \sqrt{2.25}$
 Similarly,
 $\frac{1}{\sqrt{4.25} + \sqrt{3.25}} = \sqrt{4.25} - \sqrt{3.25}$
 $\frac{1}{\sqrt{5.25} + \sqrt{4.25}} = \sqrt{5.25} - \sqrt{4.25}$
 $\frac{1}{\sqrt{6.25} + \sqrt{5.25}} = \sqrt{6.25} - \sqrt{5.25}$ শ্রুতিভঙ্গি
 $\therefore \text{Expression}$
 $= \sqrt{3.25} - \sqrt{2.25} + \sqrt{4.25} - \sqrt{3.25} + \sqrt{5.25} -$
 $\sqrt{4.25} + \sqrt{6.25} - \sqrt{5.25}$
5. (b) Required average weight শ্রুতিভঙ্গি
 $= \frac{42 \times 25 + 28 \times 40}{42 + 28}$
 $= \frac{1050 + 1120}{70} = \frac{2170}{70} = 31 \text{ kg}$
6. (b) Given, $\frac{x}{y} = \frac{2}{3}$ (i)
 Expression $= \frac{3x + 2y}{9x + 5y}$
 $= \frac{3 \cdot \frac{x}{y} + 2}{9 \cdot \frac{x}{y} + 5} = \frac{3 \times \frac{2}{3} + 2}{9 \times \frac{2}{3} + 5}$ [from (i)]
 $= \frac{2 + 2}{11} = \frac{4}{11}$
7. (d) $\frac{A \times 90}{100} = \frac{B \times 30}{100}$ শ্রুতিভঙ্গি
 $\Rightarrow 3A = B$
 $\Rightarrow 3A = A \times \frac{2x}{100}$
 $\Rightarrow 300 = 2x \Rightarrow x = 150$
8. (c) If the C.P. be x , then
 $\frac{x \times 130}{100} = 1690$
 $\Rightarrow x = \frac{1690 \times 100}{130} = ₹ 1,300$
9. (b) Equivalent discount for two successive discounts of 8% and 8% শ্রুতিভঙ্গি
 $= \left(8 + 8 - \frac{8 \times 8}{100}\right) \%$
 $= (16 - 0.64) \% = 15.36 \%$
 $\therefore \text{SP} = (100 - 15.36) \% \text{ of } 900$
 $= ₹ \left(\frac{84.64 \times 900}{100}\right) = ₹ 761.76$
 For a single discount of 16%,

SP = 84% of 900

$$= ₹ \left(\frac{84 \times 900}{100} \right) = ₹ 756$$

প্র্যাচিভর্স

Certainly seller will lose in this case.

$$\therefore \text{Loss} = ₹(761.76 - 756) = ₹5.76$$

10. (a) Let each instalment be x

Then,

$$\left(x + \frac{x \times 5 \times 1}{100} \right) + \left(x + \frac{x \times 5 \times 2}{100} \right) +$$

$$\left(x + \frac{x \times 5 \times 3}{100} \right) + x = 6450$$

$$\Rightarrow \left(x + \frac{x}{20} \right) + \left(x + \frac{x}{10} \right) + \left(x + \frac{3x}{20} \right) + x = 6450$$

$$\Rightarrow \frac{21x}{20} + \frac{11x}{10} + \frac{23x}{20} + x = 6450$$

$$\Rightarrow \frac{21x + 22x + 23x + 20x}{20} = 6450$$

$$\Rightarrow \frac{86x}{20} = 6450$$

প্র্যাচিভর্স

$$\Rightarrow x = \frac{6450 \times 20}{86} = ₹ 1500$$

11. (a) Rate = 10% per annum = 5% half yearly

$$A = P \left(1 + \frac{R}{100} \right)^T$$

$$\Rightarrow 926.10 = 800 \left(1 + \frac{5}{100} \right)^T$$

$$\Rightarrow \frac{9261}{8000} = \left(\frac{21}{20} \right)^T$$

$$\Rightarrow \left(\frac{21}{20} \right)^3 = \left(\frac{21}{20} \right)^T$$

$$\therefore \text{Time} = 3 \text{ half years} = 1\frac{1}{2} \text{ years.}$$

12. (c) Time taken

$$= \frac{2 \times 8 \times 6 \times 10}{8 \times 6 + 6 \times 10 + 10 \times 8}$$

$$= \frac{960}{48 + 60 + 80} = \frac{960}{188}$$

প্র্যাচিভর্স

$$= \frac{240}{47} = 5\frac{5}{47} \text{ days}$$

13. (b) Part of cistern emptied in 1 hour

$$= \frac{1}{5} - \frac{1}{8} = \frac{8-5}{40} = \frac{3}{40}$$

প্র্যাচিভর্স

$$\therefore \frac{3}{40} \text{ part is emptied in 1 hour.}$$

$$\therefore \frac{3}{4} \text{ part is emptied in } \frac{40}{3} \times \frac{3}{4} = 10 \text{ hours.}$$

14. (a) Part of the tank filled in an hour by both pumps

$$= \frac{1}{8} + \frac{1}{10} = \frac{5+4}{40} = \frac{9}{40}$$

\therefore Part of the tank filled in 4 hours

$$= \frac{4 \times 9}{40} = \frac{9}{10}$$

15. (a) Time = $10\frac{1}{2}$ hours = $\frac{21}{2}$ hours

Speed = 40 kmph

Distance = Speed \times Time

$$= 40 \times \frac{21}{2} = 420 \text{ km}$$

16. (a) Speed in still water = x km/h

Speed of current = y km/h

প্র্যাচিভর্স

$$\therefore x + y = \frac{1}{\frac{4}{60}} = 15$$

$$x - y = \frac{1}{\frac{10}{60}} = 6$$

\therefore Speed of current

$$= \frac{1}{2} [(x + y) - (x - y)]$$

$$= \frac{1}{2} (15 - 6) = \frac{9}{2} = 4.5 \text{ km/h}$$

17. (b) The given sequence is based on the following Pattern:

$$2^3 - 1 = 7$$

$$3^3 - 1 = 26 \text{ not } \boxed{28}$$

$$4^3 - 1 = 63$$

$$5^3 - 1 = 124$$

$$6^3 - 1 = 215 \text{ and so on.}$$

\therefore The wrong term = 28

18. (c) $0.13 \div p^2 = 13$

প্র্যাচিভর্স

$$\Rightarrow \frac{0.13}{p} = 13$$

$$\Rightarrow p^2 = \frac{0.13}{13} = \frac{1}{100}$$

$$\Rightarrow p = \frac{1}{10} = 0.1$$

প্র্যাচিভর্স

19. (a) $x = \frac{\sqrt{3}+1}{\sqrt{3}-1}$

$$= \frac{\sqrt{3}+1}{\sqrt{3}-1} \times \frac{(\sqrt{3}+1)}{(\sqrt{3}+1)}$$

$$= \frac{(\sqrt{3}+1)^2}{3-1} = \frac{3+1+2\sqrt{3}}{2}$$

$$= \frac{4+2\sqrt{3}}{2} = 2+\sqrt{3}$$

Similarly,

$$y = \frac{\sqrt{3}-1}{\sqrt{3}+1} = 2-\sqrt{3}$$

$$\therefore x^2 + y^2 = (2+\sqrt{3})^2 + (2-\sqrt{3})^2$$

$$= 4+3+4\sqrt{3}+4+3-4\sqrt{3} = 14$$

প্র্যাচিভর্স

20. (b) $\frac{x}{2x^2+5x+2} = \frac{1}{6}$

$$\Rightarrow 2x^2 + 5x + 2 = 6x$$

$$\Rightarrow 2x^2 + 2 = 6x - 5x = x$$

$$\Rightarrow x^2 + 1 = \frac{x}{2}$$

On dividing by x,

$$\Rightarrow x + \frac{1}{x} = \frac{1}{2}$$

21. (a) $\therefore \pi \text{ radian} = 180^\circ$

$$\therefore \frac{22}{9} \text{ radian} = \frac{180}{\pi} \times \frac{22}{9}$$

$$= \frac{180}{22} \times \frac{22 \times 7}{9} = 140^\circ \quad \dots(i)$$

According to the question,

$$A + B = 140^\circ$$

$$\text{and, } A - B = 36^\circ \quad \dots(ii)$$

On adding,

$$2A = 176^\circ \Rightarrow A = \frac{176}{2} = 88^\circ$$

প্র্যাচিভর্স

From equation (i),

$$\therefore 88^\circ + B = 140^\circ$$

$$\Rightarrow B = 140^\circ - 88^\circ = 52^\circ$$

22. (b) $\sin 17^\circ = \frac{x}{y}$

$$\cos 17^\circ = \sqrt{1 - \sin^2 17^\circ}$$

প্র্যাচিভর্স

$$= \sqrt{1 - \frac{x^2}{y^2}} = \sqrt{\frac{y^2 - x^2}{y^2}} = \frac{\sqrt{y^2 - x^2}}{y}$$

$$\therefore \sec 17^\circ = \frac{y}{\sqrt{y^2 - x^2}}$$

$$\sin 73^\circ = \sin (90^\circ - 17^\circ)$$

$$= \cos 17^\circ$$

$$\therefore \sec 17^\circ = \sin 73^\circ$$

$$= \frac{y}{\sqrt{y^2 - x^2}} = \frac{\sqrt{y^2 - x^2}}{y}$$

$$= \frac{y^2 - y^2 + x^2}{y\sqrt{y^2 - x^2}} = \frac{x^2}{y\sqrt{y^2 - x^2}}$$

23. (c) When $x = 6$,

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

$$\Rightarrow 8 + 2P = 12$$

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

$$\Rightarrow P = 2$$

প্র্যাচিভর্স

24. (c) $\frac{4x-3}{x} + \frac{4y-3}{y} + \frac{4z-3}{z} = 0$

$$\Rightarrow \frac{4x}{x} - \frac{3}{x} + \frac{4y}{y} - \frac{3}{y} + \frac{4z}{z} - \frac{3}{z} = 0$$

$$\Rightarrow \frac{3}{x} + \frac{3}{y} + \frac{3}{z} = 4+4+4 = 12$$

$$\Rightarrow \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = \frac{12}{3} = 4$$

25. (a) $x - y = \frac{x+y}{7} = \frac{xy}{4} = k$

$$\Rightarrow x - y = k$$

$$x + y = 7k$$

$$\therefore (x + y)^2 - (x - y)^2 = 49k^2 - k^2$$

$$\Rightarrow 4xy = 48k^2$$

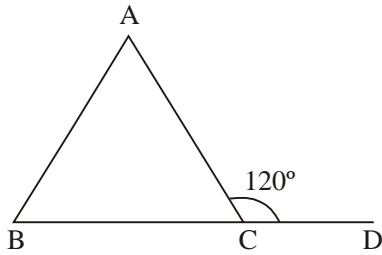
$$\Rightarrow 16k = 48k^2$$

$$\Rightarrow k = \frac{1}{3}$$

প্র্যাচিভর্স

$$\therefore xy = 4k = 4 \times \frac{1}{3} = \frac{4}{3}$$

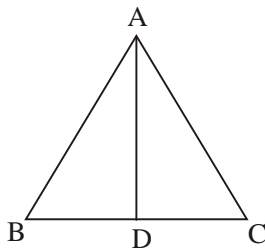
26. (b)



$$\begin{aligned} \angle CAB &= 2 \angle ABC \\ \angle ACB + \angle ACD &= 180^\circ \\ \Rightarrow \angle ACB + 120^\circ &= 180^\circ \\ \Rightarrow \angle ACB &= 180^\circ - 120^\circ = 60^\circ \\ \therefore \angle A + \angle B &= 180^\circ - 60^\circ = 120^\circ \\ \Rightarrow 2\angle B + \angle B &= 120^\circ \\ \Rightarrow 3\angle B &= 120^\circ \\ \Rightarrow \angle B &= \frac{120^\circ}{3} = 40^\circ \end{aligned}$$

প্র্যাচিভর্স

27. (b)

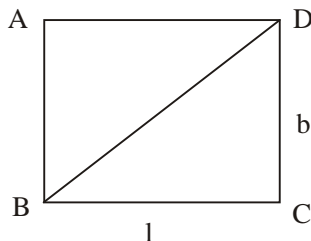


D, is the mid-point of BC.
 $AB = AC = 10$ cm.
 $AD \perp BC$
 From $\triangle ABD$,

$$\begin{aligned} BD &= \sqrt{AB^2 - AD^2} \\ &= \sqrt{10^2 - 8^2} = \sqrt{100 - 64} \\ &= \sqrt{36} = 6 \text{ cm} \\ \therefore BC &= 2 BD = 2 \times 6 = 12 \text{ cm.} \end{aligned}$$

প্র্যাচিভর্স

28. (d)



$$\begin{aligned} BD &= \text{length of diagonal} \\ &= \text{speed} \times \text{time} \\ &= \frac{52}{60} \times 15 = 13 \text{ metre} \end{aligned}$$

প্র্যাচিভর্স

$$\begin{aligned} BD &= \sqrt{l^2 + b^2} \\ \Rightarrow l^2 + b^2 &= 169 \quad \dots(i) \end{aligned}$$

Again,

$$(l + b) = \frac{68}{60} \times 15 = 17 \quad \dots(ii)$$

$$\begin{aligned} \therefore (l + b)^2 &= l^2 + b^2 + 2lb \\ \Rightarrow 17^2 &= 169 + 2lb \\ \Rightarrow 2lb &= 289 - 169 = 120 \end{aligned}$$

$$\Rightarrow lb = \frac{120}{2} = 60 \text{ m}^2$$

প্র্যাচিভর্স

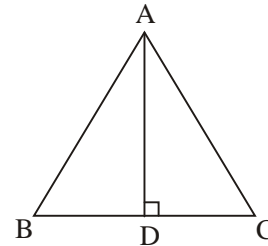
29. (c) Let the respective altitudes be p_1 and p_2 .

$$\therefore \frac{a}{b} = \frac{\frac{1}{2} \times x \times p_1}{\frac{1}{2} \times y \times p_2}$$

$$\Rightarrow \frac{p_1}{p_2} = \frac{ay}{bx}$$

$$\Rightarrow ay : bx$$

30. (c)



Let, $AB = AC = x$ units
 $BD = DC = 1$ unit [$\because BC = 2$ units]

$$\begin{aligned} \text{Now, } AD &= \sqrt{AB^2 - BD^2} \\ &= \sqrt{x^2 - 1} \end{aligned}$$

$$\therefore \frac{1}{2} \times BC \times AD = 4$$

$$\Rightarrow \frac{1}{2} \times 2 \times \sqrt{x^2 - 1} = 4$$

$$\Rightarrow \sqrt{x^2 - 1} = 4$$

$$\Rightarrow x^2 - 1 = 16$$

$$\Rightarrow x^2 = 17$$

$$\Rightarrow x = \sqrt{17} \text{ units}$$

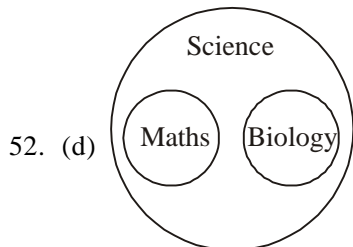
প্র্যাচিভর্স

31. (b) Quack is the voice of Duck. Similarly, Neigh is the voice of Horse.

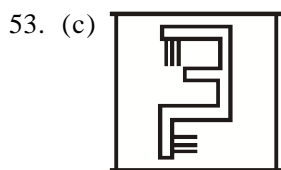
32. (c) Surgeon uses forceps. Similarly, Blacksmith uses hammer.

51. (d) Blue, Pink, Yellow and Green colours are on the faces adjacent to Red. Therefore, Black colour is opposite to Red.

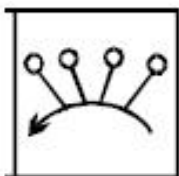
প্র্যাচিভর্স



52. (d)



54. (d)



55. (c)

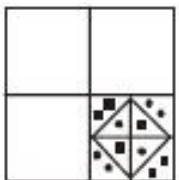


প্র্যাচিভর্স

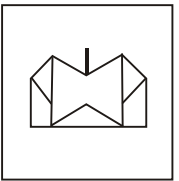
56. (d)



57. (a)

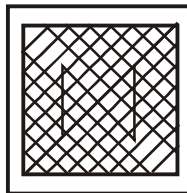


58. (b)



প্র্যাচিভর্স

59. (b)



প্র্যাচিভর্স

60. (b) Rotating the given figure by 180° we get answer figure.



61. (b) **principal** will replace **principle** because –
principle (Noun) : a general rule that someone's behaviour or idea is based on
Principal (Adj.) : a chief/important person/thing

Look at the examples given below :

His **principal** interest in life was money.

We follow the **principle** that everyone should be treated equally.

Hence, **analyse thoroughly the principal causes** is the right usage

প্র্যাচিভর্স

62. (b) **a little rain** will replace **little rain** because –
little is a **Negative Adj.** and means not much
a little is an **Affirmative Adj.** that means some

Look at the examples given below :

He had **little** money. (not much money)

He had **a little** money. (some money)

Hence, **there was a little rain** is the right usage.

63. (b) **than** will replace **when** because –

No sooner – than is the correct **Correlative**.

No sooner introduces the event that occurred first.

প্র্যাচিভর্স

Look at the examples given below :

No sooner had I closed my eyes **than** I fell asleep.



First Event



Next Event

No sooner did I arrived at the station **than** the train came.



First Event



Next Event.

Hence, **than it began** is the right usage

64. (b) **travelling** will replace **to travel** because –
avoid (Verb) always agrees with a **Gerund (-ing Verb)** and not an **Infinitive**.

Look at the examples given below :

She avoids **to do** her homework. (×)

↓
Inf.

শ্রুতিভঙ্গ

She avoids **doing** her homework. (✓)

↓
Gerund

65. (c) **is** will replace **are** because –
when a **Plural Noun** is placed with a **Singular Subject** (one, each, etc.) with **of**, the **Verb** will be **Singular**.

Look at the example given below :

Only **one** of his employees **is** sincere at work.
Only **one** of his students **is** awarded the 'Scholar award'.

Hence, **that is interesting** is the right usage.

66. (a) **International News** is compared to **National News**.

Hence, **National** is the right usage.

67. (a) to make a **tag**, the first **Auxiliary (has)** will be used.

শ্রুতিভঙ্গ

Hence, **hasn't he ?** is the right usage.

68. (b) **components (Noun)** : one of several parts of which something is made

compounds (Noun) : a thing consisting of two or more separate things combined together
Here, **components** is the right usage.

69. (d) **No improvement**

must have-expresses an opinion about an earlier (**Past**) situation, based on evidence.

- Dinosaurs were very big; they **must have eaten** a lot.

70. (c) **nor (Conj., Adv.)** : used before a **Positive Verb** to agree something **Negative** that has just been said.

- She doesn't like them and **nor** does he.
- I'm not going and **nor** is he.

Hence, **nor do I** is the right usage.

71. (c) Who is looked for by him ? (**Passive**)

The sentence is in **Simple Present Tense. (Active)**

72. (b) He was seen picking up a gun by someone. (**Passive**)

The sentence is in **Simple Past Tense. (Active)**

73. (b) The end of this exercise is being reached by us. (**Passive**)

শ্রুতিভঙ্গ

The sentence is in **Present Continuous Tense. (Active)**

74. (a) I said to my friend, "Can I borrow your

↓ ↓ ↓ ↓ ↓
Rep. V. Modal Pro. Verb Pro.
(Verb)(I) (friend's)

dictionary for one day ?" → (D.S.)

I asked my friend if I could borrow his

↓ ↓ ↓ ↓ ↓
Rep. V. Conj.Pro.ModalVerb Pro.
(I) (Verb) (your)

dictionary for one day → (I.S.)

75. (a) Mother said, "Gaurav, you will be eligible for voting

↓ ↓ ↓
Rep. V. Pro.Modal
(Gaurav)

শ্রুতিভঙ্গ

when you are 18." → (D.S.)

↓ ↓ ↓
Pro. H.V.
(Gaurav)

Mother told Gaurav that he would be eligible

↓ ↓ ↓ ↓ ↓
Rep. V. Conj.Pro. Modal
(you) (will)

for voting when he was 18". → (I.S.)

↓
H.V.

76. (d) "So help me Heaven," he cried, " I will never

↓ ↓ ↓ ↓ ↓
Pro. Rep.V. Pro. H.V
(you) (he)

steal again." → (D.S.)

↓
Verb

শ্রুতিভঙ্গ

(S.Pr.)

He called upon Heaven to witness his resolve

↓

Rep. V.

never to steal again (I.S.)

↓ ↓
Inf. Verb

(S. Pre.)

Another way of conversion –

He prayed to Heaven to help him in his resolve not to steal again.

77. (b) **watching** is the **Direct Object** of the **Verb-enjoy**

Here, **watching** is the right usage.

78. (c) Here, **is elected** is the right usage.

79. (d) Here, **living** is the right usage.

80. (b) **recover (Verb)** : to regain after illness, a setback or a shock, etc.

recover agrees with **Prep.-from**

শ্রুতিভঙ্গ

Here, **from** is the right usage.

81. (d) **watching** is the **Direct Object** of the **Verb-enjoy**.

Here, **watching** is the right usage.

82. (c) **adamant (Adjective)** : firm or determined not to change your mind
stubborn (Adjective) : determined not to change your mind; obstinate
timid (Adjective) : not brave; shy and nervous
arrogant (Adjective) : behaving in an unpleasant way
angry (Adjective) : having strong feeling about something you dislike
83. (c) **constant (Adjective)** : happening all the time
invariable (Adjective) : never changing; unchanging; happening always
usual (Adjective) : normal
universal (Adjective) : done by all the people
similar (Adjective) : being the same
84. (a) **sweet (Adjective)** : having a taste like sugar or a pleasant smell.
dulcet (Adjective) : sounding sweet and pleasant
dull (Adjective) : not interesting or exciting
hard (Adjective) : tough; solid, firm or stiff
sour (Adjective) : having a taste like a lemon
85. (a) **corroborate**
corroborate (V.) : confirm ; to provide evidence/ information that supports a statement
implicate (V.) : to show/ suggest that somebody is involved in something bad/criminal; incriminate
designate (V.) : to say officially that somebody/ something has a particular character/name ; to describe in a particular way
extricate (V.) : to escape/ enable to escape from a difficult situation
86. (b) **ridicule**
ridicule (N.) : mockery; unkind remarks that make fun of somebody/ something or make him/it look silly
discrimination (N.) : the practice of treating somebody or a particular group in society less fairly than other
satire (N.) : a way of criticizing a person, an idea or an institution in which you use humour to show his/its faults/ weaknesses
87. (a) **contagious**
contagious (Adj.) : easily spread from one person to another (disease)
infectious (Adj.) : easily spread; caused by infection
epidemic (N.) : a large number of cases of a particular disease happening at the same time in a particular community
endemic (Adj.) : regularly found in a particular place or among a particular group of people and difficult to get rid of.
88. (d) **choir**
choir (N.) : a group of people who sing together (in church services/ public performances)
coir (N.) : rough material made from the shells of coconuts, used for making ropes, for covering flowers, etc.
quorum (N.) : the smallest number of people who must be at a meeting before it can begin/ decisions can be made
quire (N.) : four sheets of paper folded to make eight leaves
89. (a) **immigrant**
immigrant (N.) : a person who has come to live permanently in a country that is not his own
emigrant (N.) : a person who leaves his country to live in another
alien (N.) : hostile, strange and frightening; different from what you are used to
visitor (N.) : a person who visits a place or a person
90. (a) **fail (Verb)** : not to succeed
accomplish (Verb) : achieve; to succeed in doing or completing something
improper (Adjective) : dishonest/ morally wrong; inappropriate
disagreeable (Adjective) : not nice or enjoyable; unpleasant; rude and unfriendly
scatter (Verb) : to dispense; to throw, drop or move in different directions
91. (d) **arranged (Adjective)** : planned and organised in advance
disorderly (Adjective) : showing lack of control; publicly violent or noisy; untidy; deranged
chaotic (Adjective) : lack of order ; in a state of complete confusion and lack of order
organized (Adjective) : carefully planned and arranged
adjusted (Adjective, Verb) : to change slightly to make it more suitable; adopted
92. (a) **soothe (Verb)** : calm; to make somebody who is anxious, upset, etc. feel calmer
provoke (Verb) : to cause a particular reaction or have a particular effect; to say/do something that you know will annoy somebody so that it may react in an angry way; goad
incite (Verb) : to encourage to do something violent
smoother (Verb) : to make smooth or smoother; become smooth

- entice (Verb) :** to persuade
93. (c) **play through his nose :** to pay too much money for something
- We **paid through the nose** for that vacation. The best option is **pay an extremely high price** শ্রেষ্ঠাচার
94. (b) **reading between the lines :** looking for or discovering a meaning; something that is not openly stated
- **Reading between the lines** of the letter, she realised that her friend was in great trouble. The best option is **understanding the sense rather than the actual words**
95. (d) **to beat a retreat :** to go away or back quickly, especially to avoid something unpleasant
- The dog **beat a retreat** to its own yard. The best option is **to run away in fear.**
96. (c) **at one's wits, end :** to be so worried by a problem that you do not know what to do next; to be puzzled
- I've tried every possible source but without success, and now I'm **at my wits, end.** The best option is **to get puzzled**
97. (d) The misspelt word is **sympathatic** শ্রেষ্ঠাচার
The correct spelling is **sympathetic**
98. (b) The misspelt word is **bureaucretic**
The correct spelling is **bureaucratic**
99. (c) SQPR
- 100.(b) SRPQ
- 101.(d) It was inaccessible by boat because seams of rock jutted out and currents swirled around them treacherously.
- 102.(b) But you could walk there if you chose one of the lowest ebb tide was on the turn, in came in rapidly.
- 103.(a) But you could not linger on the expedition for once the tide was on the turn, in came in rapidly.
- 104.(d) The cave looked mysteriously dark cool and inviting, and he penetrated to the farthest corner where he discovered a wide crack rather like a chimney. He peered up and thought he could see a patch of daylight.
- 105.(c) শ্রেষ্ঠাচার
- 106.(d) Iron was a metal unknown to the Aryans during the early Vedic age. The advent of iron is generally associated with the late or post-Vedic ages. So blacksmith did not exist during this period.
- 107.(c) A supernova is a stellar explosion that is more energetic than a nova. During this short interval a supernova can radiate as much energy as the Sun is expected to emit over its entire life span. The explosion expels much or all of a star's material at a velocity of up to 30,000 km/s (10% of the speed of light).
- 108.(c) The basic principles of federalism are the distribution of powers between the Centre and the States. শ্রেষ্ঠাচার
- 109.(a) Colour or colour is the visual perceptual property corresponding in humans to the categories called red, green, blue, and others. Colour derives from the spectrum of light (distribution of light power versus wavelength) interacting in the eye with the spectral sensitivities of the light receptors. Colour categories and physical specifications of colour are also associated with objects, materials, light sources, etc., based on their physical properties such as light absorption, reflection, or emission spectra. By defining a colour space, colours can be identified numerically by their coordinates. শ্রেষ্ঠাচার
- 110.(b) Ministry of Rural Development's Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) has launched the Prajwala Challenge. Under the challenge, ideas are invited from individuals, Enterprises, Start ups, Private Sector, Civil Society and others to transform the rural economy.
- 111.(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. শ্রেষ্ঠাচার
- 112.(a) In organic chemistry, a hydrocarbon is an organic compound consisting entirely of hydrogen and carbon. Hydrocarbons from which one hydrogen atom has been removed are functional groups, called hydrocarblyls. Aromatic hydrocarbons (arenes), alkanes, alkenes, cycloalkanes and alkyne-based compounds are different types of

hydrocarbons. The majority of hydrocarbons found naturally occur in crude oil, where decomposed organic matter provides an abundance of carbon and hydrogen which, when bonded, can catenate to form seemingly limitless chains.

113. (a) The term “mandamus” literally means “command.” Writ of mandamus is issued to a person or lower level Court or a body by a superior Court. The writ of mandamus is either issued to oblige a person or the Court or a body for the execution of public duty or imposed on them to restrain them from executing a particular act. The writ of mandamus is an effective writ that checks the functioning of the government. The writ of mandamus is also popularly known as the writ of justice as it plays a significant role in rectifying the improper and irresponsible actions of government officials and it serves the purpose of almost all other writs.
114. (a) The Satavahana kings mostly used lead as the material for their coins. Most of their coins are in that metal. Silver coins are very rare. Next to lead they used an alloy of silver and copper, called “potin”. Many copper coins are also available. Although the Satavahana coins are devoid of any beauty or artistic merit, they constitute a valuable source-material for the dynastic history of the Satavahanas.
115. (c) Prime Minister Narendra Modi virtually flagged off the Vande Bharat express connecting Howrah and New Jalpaiguri. It is a railway station in Siliguri, West Bengal and is considered as the gateway to the northeast. The Vande Bharat Express covers a distance of 564 km in 7.45 hours, will save three hours of travel time. The Vande Bharat express will be preferred by tea industry executives and tourists travelling to the Himalayas in North Bengal and Sikkim.
116. (c) Sandstone can be turned into a metamorphic rock by being either heated up to a point where it undergoes a significant change or subjected to high pressures, or subjected to chemically active fluids, or some combination thereof. A common result of the metamorphosis of sandstone is the creation of quartzite.
117. (c) The continuous adherent mucus layer is also a barrier to luminal pepsin, thereby protecting the underlying mucosa from proteolytic digestion. The primary function of the adherent

mucus gel layer is a structural one to create a stable, unstirred layer to support surface neutralization of acid and act as a protective physical barrier against luminal pepsin.

118. (a) In the year 305 BC, Seleucus-I Nicator went to India and apparently occupied territory as far as the Indus, and eventually waged war with the Mauryan Emperor Chandragupta Maurya. His Indian campaign was, however, a failure. Seleucus ceded a considerable amount of territory to Chandragupta in exchange for 500 war elephants, which were to play a key role in the forthcoming battles.
119. (b) Gandhi went to South Africa in 1893 but he was shocked to see racism, prejudice and inequality against Indian citizens in South Africa and he established the Natal Indian Congress in 1894 and formed an Indian community in South Africa. In 1906, the Transvaal government of South Africa promulgated a new Act compelling registration of the colony’s Indian population. At a mass protest meeting held in Johannesburg on 11 September that year, Gandhi adopted his still evolving methodology of Satyagraha (devotion to the truth), or non-violent protest, for the first time. In June 1907, he organized Satyagraha against compulsory registration of Asiatics (The Black Act). In 1908, Gandhiji had to stand trial for instigating the Satyagraha. He was sentenced to two months in jail (the first time), however after a compromise with General Smuts he was released.
120. (d) The government has achieved the target of starting 1.5 lakh Ayushman Bharat Health and Wellness Centres across the country, as per the Union Health Minister Mansukh Mandaviya. Under Ayushman Bharat, the government had set a target of transforming existing 1.5 lakh Sub-Health Centres (SHCs) and rural and urban Primary Health Centres (PHCs) across the country as AB-HWCs by December 2022.
121. (a) In economics, the tragedy of the commons is the depletion of a shared resource by individuals, acting independently and rationally according to each one’s self-interest, despite their understanding that depleting the common resource is contrary to the group’s long-term best interests. In 1968, ecologist Garrett Hardin explored this social dilemma in “The Tragedy of the Commons”, published in the journal Science.

- 122.(b) Three subject lists, the Union list, the State list, and the Concurrent list, define the legislative powers of each level of government. All residuary powers are vested with the Parliament of India. In the U.S.A. and Australia the residuary powers are given to the States. In Canada they vest in the Union. **প্র্যাচিউর্স**
- 123.(c) A mushroom rock, also called rock pedestal or a pedestal rock, is a naturally occurring rock whose shape, as its name implies, strikingly resembles a mushroom. Usually found in desert areas, these rocks are formed over thousands of years when wind erosion of an isolated rocky outcrop progresses at a different rate at its bottom to that at its top. Such rocks are found in Thar Desert of India.
- 124.(a) Saponification is a process that produces soap, usually from fats and lye. In technical terms, saponification involves base (usually caustic soda NaOH) hydrolysis of triglycerides, which are esters of fatty acids, to form the sodium salt of a carboxylate. In addition to soap, such traditional saponification processes produces glycerol. "Saponifiable substances" are those that can be converted into soap. Vegetable oils and animal fats are the main materials that are saponified. These greasy materials, triesters called triglycerides, are mixtures derived from diverse fatty acids. Triglycerides can be converted to soap in either a one- or a two-step process. **প্র্যাচিউর্স**
- 125.(c) Union Minister Nitin Gadkari inaugurated the first phase of a new bridge on the Zuari River which will improve connectivity between North Goa and South Goa. Zuari Bridge is the second largest cable-stayed bridge in India, behind Mumbai's Bandra-Worli sea link. The bridge is part of a Rs 2,530 crore road project covering a distance of 13.2 kilometres between Bambolim and Verna villages in Goa. Dilip Buildcon is constructing the new Zuari bridge.
- 126.(a) Bio gas is a clean unpolluted and cheap source of energy in rural areas. It consists of 55-70% methane which is inflammable. Bio gas is produced from cattle dung in a bio gas plant commonly known as gobar gas plant through a process called digestion. It helps in reducing the deforestation as it arrests for cutting of trees for firewood. It also helps in maintaining ecological balance, in rural sanitation and it needs Lower capital cost and almost cost free maintenance. **প্র্যাচিউর্স**
- 127.(d) Canal is the second largest source of irrigation providing water to 29.24 percent of the net area under irrigation. The country has one of the world's largest canal systems stretching over more than one lakh kilometres. Canal irrigation is widely practiced in the Sutlej-Ganga plain. Uttar Pradesh, Punjab, Haryana, Bihar and Rajasthan have a number of such canals. In the Peninsular region canals are mostly found in the lower valleys and deltas of large rivers. Over 63 per cent of the total canal irrigated area of the country lies in Uttar Pradesh. Madhya Pradesh, Andhra Pradesh, Punjab, Rajasthan and Haryana. Canals also feed a sizeable part of the irrigated area in Bihar, Orissa, Karnataka, Tamil Nadu and West Bengal. **প্র্যাচিউর্স**
- 128.(a) Shanghai is the largest city by population in the People's Republic of China and the largest city proper by population in the world. Located in the Yangtze River Delta in eastern China, Shanghai sits at the mouth of the Yangtze River in the middle portion of the Chinese coast. Bangkok is the capital city of Thailand and the most populous city in the country. The city occupies 1,568.7 square kilometres in the Chao Phraya River delta in Central Thailand. Dresden is the capital city of the Free State of Saxony in Germany. It is situated in a valley on the River Elbe, near the Czech border. Montreal is located in the southwest of the province of Quebec. The city proper covers most of the Island of Montreal at the confluence of the Saint Lawrence and Ottawa Rivers. **প্র্যাচিউর্স**
- 129.(a) The Doctrine of Lapse was an annexation policy purportedly devised by Lord Dalhousie, who was the Governor General for the East India Company in India between 1848 and 1856. The company took over the princely states of Satara (1848), Jaipur and Sambalpur (1849), Nagpur and Jhansi (1854), Tanjore and Arcot (1855) and Awadh(Oudh)(1856) and Udaipur using this doctrine. **প্র্যাচিউর্স**
- 130.(a) Sweden has taken over the Presidency of the Council of the European Union for the first six months of the year, on January 1, 2023, It followed Czech Republic, which headed the Council in the second half of 2022. This is the third time that Sweden has taken over the Presidency of the Council. The EU Council Presidency rotates every six months between the Member States of the EU.

- 131.(d) All of the Above
132.(a) Garbage In Garbage Out
133.(b) Versatility
134.(a) Diligence
135.(c) Transistor
136.(b) Assembly language
137.(b) Von Neumann
138.(b) Stored program
139.(a) IC
140.(a) Ultra Large Scale Integration

প্র্যাচিভর্স

- 141.(c) Transistor
142.(d) Analog & Digital computers
143.(c) graphical
144.(a) Super Computers
145.(a) dumb
146.(d) Micro Computer
147.(d) PROLOG
148.(a) Feed forward Neural Network
149.(c) Hopfield net
150.(a) Back propagation algorithm

প্র্যাচিভর্স

—★ ★ ★—