

## SSC CGL Main Exam Practice Set — 2023

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

$$= 0.7 + 0.4 = 1.1$$

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

$$= 1.02 - 0.025$$

$$= 0.995$$

$$1.2 \times 0.83 = 0.996$$

$$\sqrt{1.44} = 1.2$$

Hence, the greatest number =  $\sqrt{144}$

$$2. (c) \text{ Let the number be } 15x \text{ and } 15y, \text{ where } x \text{ and } y \text{ are co-prime.}$$

$$\therefore 15x \times 15y = 6300$$

$$\Rightarrow xy = \frac{6300}{15 \times 15} = 28$$

So, two pairs are  
(7, 4) and (14, 2)

$$3. (d) \frac{2}{2 + \frac{2}{3 + \frac{6}{11}} \times 0.39}$$

$$= \frac{2}{2 + \frac{2}{\frac{33+6}{11}} \times 0.39}$$

$$= \frac{2}{2 + \frac{11 \times 2}{39} \times 0.39}$$

$$= \frac{2}{2 + \frac{11 \times 2}{39} \times \frac{39}{100}}$$

$$= \frac{2}{2 + \frac{11}{50}} = \frac{2}{\frac{100+11}{50}}$$

$$= \frac{100}{111}$$

$$4. (b) (16)^{0.16} \times (16)^{0.04} \times (2)^{0.2}$$

$$= (2^4)^{0.16} \times (2^4)^{0.04} \times (2)^{0.2}$$

$$= 2^{0.64} \times 2^{0.16} \times 2^{0.2}$$

$$= (2)^{0.64+0.16+0.2} = 2$$

$$5. (c) \text{ Mean of Ten observations -}$$

$$\text{Mean of nine observations}$$

$$\text{Tenth observation}$$

$$= 10 \times 17 - 16 \times 9$$

$$= 170 - 144 = 26$$

$$6. (c) a : b : c = 2 : 3 : 4$$

$$\therefore \frac{a}{2} = \frac{b}{3} = \frac{c}{4} = k \text{ (let)}$$

$$\Rightarrow a = 2k, b = 3k, \text{ and } c = 4k$$

$$\text{Given } 2a - 3b + 4c = 33$$

$$\Rightarrow 2 \times 2k - 3 \times 3k + 4 \times 4k = 33$$

$$\Rightarrow 4k - 9k + 16k = 33$$

$$\Rightarrow 11k = 33 \Rightarrow k = \frac{33}{11} = 3$$

$$\therefore c = 4k = 4 \times 3 = 12$$

$$7. (a) (A+B) \times \frac{40}{100} = (A-B) \times \frac{60}{100}$$

$$\Rightarrow 2(A+B) = 3(A-B)$$

$$\Rightarrow 2A + 2B = 3A - 3B$$

$$\Rightarrow A = 5B$$

$$\therefore \frac{2A-3B}{A+B} = \frac{10B-3B}{5B+B}$$

$$= \frac{7B}{6B} = \frac{7}{6}$$

$$8. (c) \text{ S.P. of the fan } = \frac{150 \times 80}{100} = ₹ 120$$

$$9. (d) \text{ Single equivalent discount of two successive discounts of } 36\% \text{ and}$$

$$4\% = 36 + 4 - \frac{36 \times 4}{100}$$

$$= 40 - 1.44 = 38.56$$

Percentage difference

$$= 40 - 38.56 = 1.44$$

$\therefore$  Required difference

$$= 500 \times \frac{1.44}{100} = ₹ 7.20$$

$$10. (a) \text{ Time from 11 May to 10 September, 1987}$$

$$= 21 + 30 + 31 + 31 + 10 = 123 \text{ days}$$

$$\therefore \text{ Time } = 123 \text{ days } = \frac{123}{365} \text{ year}$$

$$\therefore \text{ S.I. } = \frac{7300 \times 123 \times 5}{365 \times 100} = ₹ 123$$

শ্রেণিভিত্তিক

শ্রেণিভিত্তিক

শ্রেণিভিত্তিক

শ্রেণিভিত্তিক

শ্রেণিভিত্তিক

শ্রেণিভিত্তিক

11. (a) Let the required time be  $t$  years.  
Interest is compounded half yearly.  
 $\therefore$  Time =  $2t$  half years

and rate =  $\frac{20}{2} = 10\%$

প্র্যাচিভর্স

$\therefore 1000 \left(1 + \frac{10}{100}\right)^{2t} = 1331$

$\Rightarrow \left(\frac{11}{10}\right)^{2t} = \frac{1331}{1000}$

$\Rightarrow \left(\frac{11}{10}\right)^{2t} = \left(\frac{11}{10}\right)^3 \Rightarrow 2t = 3$

$\therefore t = \frac{3}{2}$  years or  $1\frac{1}{2}$  years

12. (b) (A + B)'s 1 day's work =  $\frac{1}{18}$

প্র্যাচিভর্স

(B + C)'s 1 day's work =  $\frac{1}{9}$

(A + C)'s 1 day's work =  $\frac{1}{12}$

Adding all the above three,  
2(A + B + C)'s 1 day's work

=  $\frac{1}{18} + \frac{1}{9} + \frac{1}{12}$

=  $\frac{2+4+3}{36} = \frac{9}{36} = \frac{1}{4}$

প্র্যাচিভর্স

$\therefore$  (A + B + C)'s 1 day's work =  $\frac{1}{8}$

$\therefore$  B's 1 day's work = (A + B + C)'s 1 day's work - (A + C)'s 1 day's work

=  $\frac{1}{8} - \frac{1}{12} = \frac{3-2}{24} = \frac{1}{24}$

Hence, B alone can do the work in 24 days.

13. (b) Part of tank filled in 1 hour when all three pipes are opened

=  $\frac{1}{10} + \frac{1}{12} - \frac{1}{6}$

প্র্যাচিভর্স

=  $\frac{6+5-10}{60} = \frac{1}{60}$

$\therefore$  The tank will be filled in 60 hours.

$\therefore$  One fourth of the tank will be filled in 15

hours  $\left[\frac{1}{4} \times 60\right]$  i.e. the tank will be filled at 10

p.m.

14. (c) Part of the tank filled by B and C in half an hour

=  $\frac{1}{2} \left(\frac{1}{9} + \frac{1}{12}\right)$

=  $\frac{1}{2} \left(\frac{4+3}{36}\right) = \frac{7}{72}$

প্র্যাচিভর্স

Remaining part

=  $1 - \frac{7}{72} = \frac{72-7}{72} = \frac{65}{72}$

Part of tank filled by three pipes in an hour

=  $\frac{1}{6} + \frac{1}{9} + \frac{1}{12}$

=  $\frac{6+4+3}{36} = \frac{13}{36}$

$\therefore$  Time to fill remaining part

=  $\frac{65}{72} \times \frac{36}{13} = \frac{5}{2} = 2\frac{1}{2}$  hours

প্র্যাচিভর্স

15. (b) Speed of train =  $\frac{\text{Distance}}{\text{Time}}$

=  $\frac{10}{12}$  kmph

$\frac{60}{60}$

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

New speed = 45 kmph

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

প্র্যাচিভর্স

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

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

= 13 minutes 20 seconds

16. (b) Speed upstream =  $\frac{40}{8} = 5$  kmph

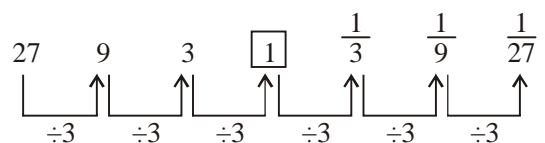
Speed downstream =  $\frac{36}{6} = 6$  kmph

$\therefore$  Speed of boat in still water

=  $\frac{1}{2}(5+6) = 5.5$  kmph

প্র্যাচিভর্স

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



$\therefore$  The value of is 1.

18. (c) Arithmetic mean (AM) =  $\frac{a+b}{2}$

Geometric mean (GM) =  $\sqrt{ab}$

As AM > GM

$\frac{a+b}{2} > \sqrt{ab}$

প্র্যাচিভার্স

19. (b)  $9\sqrt{x} = \sqrt{3 \times 2 \times 2} + \sqrt{3 \times 7 \times 7}$

$\Rightarrow 9\sqrt{x} = 2\sqrt{3} + 7\sqrt{3} = 9\sqrt{3}$

$\therefore x = 3$

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

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

$\Rightarrow 8 + 2P = 12$

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

$\Rightarrow P = 2$

21. (b) Let the number of terms be  $n$ , then

By  $t_n = a + (n-1)d$

$85 = 5 + (n-1)$

$\Rightarrow n-1 = 85 - 5 = 80$

$\Rightarrow n = 81$

প্র্যাচিভার্স

$\therefore \sin^2 5^\circ + \sin^2 6^\circ + \dots + \sin^2 45^\circ + \dots + \sin^2 84^\circ + \sin^2 85^\circ$

$= (\sin^2 5^\circ + \sin^2 85^\circ) + (\sin^2 6^\circ + \dots + \sin^2 84^\circ) + \dots + \text{to } (40 \text{ terms}) + \sin^2 45^\circ$

$= (\sin^2 5^\circ + \cos^2 5^\circ) + (\sin^2 6^\circ + \dots + \cos^2 6^\circ) + \dots + \text{to } 40 \text{ terms} + \sin^2 45^\circ$

$\left[ \begin{array}{l} \sin(90^\circ - \theta) = \cos \theta \\ \sin^2 \theta + \cos^2 \theta = 1 \end{array} \right]$

$= 40 + \left( \frac{1}{\sqrt{2}} \right)^2 = 40 + \frac{1}{2} = 40 \frac{1}{2}$

প্র্যাচিভার্স

22. (d)  $\cos \theta \cdot \operatorname{cosec} 23^\circ = 1$

$\Rightarrow \operatorname{cosec} 23^\circ = \frac{1}{\cos \theta} = \sec \theta$

$\Rightarrow \operatorname{cosec} 23^\circ = \operatorname{cosec}(90^\circ - \theta)$

$\Rightarrow 23^\circ = 90^\circ - \theta$

$\Rightarrow \theta = 90^\circ - 23^\circ = 67^\circ$

23. (d)  $\frac{x^2}{yz} + \frac{y^2}{zx} + \frac{z^2}{xy}$

$= \frac{x^3 + y^3 + z^3}{xyz} = \frac{3xyz}{xyz} = 3$

24. (b)  $n = 7 + 4\sqrt{3} = 7 + 2 \times 2 \times \sqrt{3}$

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

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

প্র্যাচিভার্স

$\therefore \sqrt{n} = 2 + \sqrt{3}$

$\therefore \frac{1}{\sqrt{n}} = \frac{1}{2 + \sqrt{3}}$

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

$\therefore \sqrt{n} + \frac{1}{\sqrt{n}} = 2 + \sqrt{3} + 2 - \sqrt{3} = 4$

প্র্যাচিভার্স

25. (a)  $121a^2 + 64b^2$

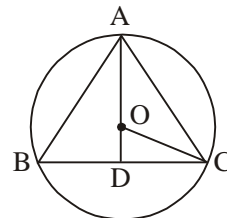
$= (11a)^2 + (8b)^2$

$\therefore (x+y)^2 = x^2 + y^2 + 2xy$

$\therefore$  Required expression

$= 2 \times 11a \times 8b = 176ab$

26. (b)



প্র্যাচিভার্স

$AD \perp BC$

$BD = DC = 12 \text{ cm.}$

$OC = OA = \text{Circum-radius} = r \text{ cm.}$

$AD = \sqrt{AB^2 - BD^2}$

$= \sqrt{(12\sqrt{5})^2 - (12)^2}$

$= \sqrt{144 \times 5 - 144}$

$= \sqrt{144(5-1)} = \sqrt{144 \times 4}$

$= 24 \text{ cm.}$

In  $\triangle OCD$ ,

$OD = (24 - r) \text{ cm.}$

$\therefore OC^2 = OD^2 + CD^2$

$\Rightarrow r^2 = (24 - r)^2 + 12^2$

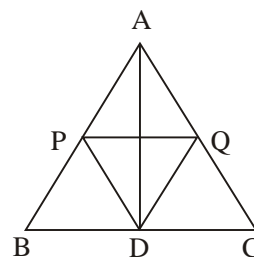
$\Rightarrow r^2 = 576 - 48r + r^2 + 144$

$\Rightarrow 48r = 720$

$\Rightarrow r = \frac{720}{48} = 15 \text{ cm.}$

প্র্যাচিভার্স

27. (b)



প্র্যাচিভার্স

AB = AC  
 Point D is the mid-point of side BC.  
 $\therefore \angle ADB = 90^\circ = \angle ADC$   
 PD is internal bisector of  $\angle ADB$ .  
 $\therefore \angle PDA = 45^\circ$   
 PQ  $\parallel$  BC  
 $\therefore \angle ADQ = 45^\circ$   
 $\therefore \angle PDQ = 45^\circ + 45^\circ = 90^\circ$

প্র্যাচিভর্ষ

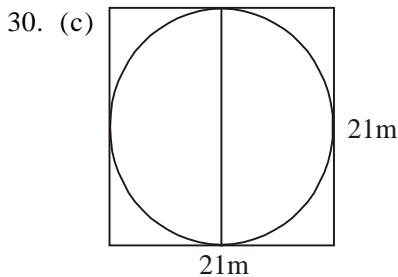
28. (d) Let the breadth of rectangular hall = x m.  
 $\therefore$  length = (x + 5) m.

Area of hall  
 = Length  $\times$  Breadth  
 $\Rightarrow 750 = (x + 5) x$   
 $\Rightarrow x^2 + 5x - 750 = 0$   
 $\Rightarrow x^2 + 30x - 25x - 750 = 0$   
 $\Rightarrow x(x + 30) - 25(x + 30) = 0$   
 $\Rightarrow (x - 25)(x + 30) = 0$   
 $\Rightarrow x = 25$ , as x cannot be negative.

$\therefore$  Length of hall = x + 5  
 = 25 + 5 = 30 m.

প্র্যাচিভর্ষ

29. (a)  $\pi r^2 = \pi \times 5^2 + \pi \times 12^2$   
 $\Rightarrow r^2 = 25 + 144 = 169$   
 $\Rightarrow r = \sqrt{169} = 13$  cm



প্র্যাচিভর্ষ

The diameter of the greatest circle inscribed inside a square will be equal to the side of square i.e., 21 cm.

$$\therefore \text{Radius of the circle} = \frac{21}{2}$$

$$\begin{aligned} \therefore \text{Area of the circle} &= \pi \times (\text{radius})^2 \\ &= \frac{22}{7} \times \frac{21}{2} \times \frac{21}{2} = \frac{693}{2} \text{ cm}^2. \end{aligned}$$

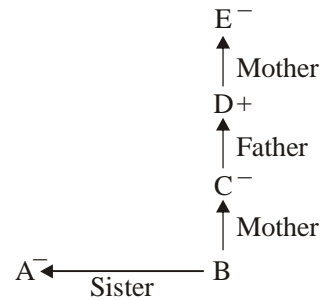
$$= 346.5 \text{ cm}^2.$$

প্র্যাচিভর্ষ

31. (b) Cloth is woven from thread and mesh is made from wire.  
 32. (c) Love is antonym of Hate. Similarly, Proud is antonym of Humble.  
 33. (a) By breathing we intake air and in the same way blood is circulated.  
 34. (a) Mathematics is based logic. Similarly, experiment establishes or verifies the theory in science.

35. (c) Blinds possess visual defects. Similarly, a person having auditory defect is called Deaf.

36. (d)



প্র্যাচিভর্ষ

From above figure it is clear that D is grand father (maternal, i.e., mother's father) of A and B.

37. (c)

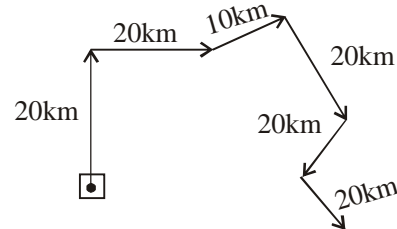
P $\Rightarrow \div$	Q $\Rightarrow \times$
R $\Rightarrow +$	S $\Rightarrow -$

$$\begin{aligned} 16 \text{ Q } 12 \text{ P } 6 \text{ R } 5 \text{ S } 4 = ? \\ \Rightarrow ? = 16 \times 12 \div 6 + 5 - 4 \\ \Rightarrow ? = 16 \times 2 + 5 - 4 \\ \Rightarrow ? = 32 + 5 - 4 \\ \Rightarrow ? = 37 - 4 = 33 \end{aligned}$$

প্র্যাচিভর্ষ

38. (a) Microbe is different from the other three.

39. (a)



প্র্যাচিভর্ষ

It is clear from the diagram that Raju is facing towards South-East.

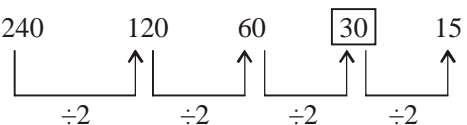
40. (d) Today is Monday.

Yesterday was Sunday.  
 Sunday - 3 = Thursday.

41. (c) The given number series is based on the following pattern :

$$\begin{aligned} 110 - 11 &= 99 \\ 99 - 13 &= 86 \\ 86 - 15 &= \boxed{71} \\ 71 - 17 &= 54 \\ 54 - 19 &= 35 \end{aligned}$$

প্র্যাচিভর্ষ

42. (c) 

43. (b) The given series is based on the following pattern :

125 + 110 = 235  
 235 + 110 = 345  
 345 + 110 = 455

455 + 110 = 565

44. (d) 

S	Q	R	G	T
↓	↓	↓	↓	↓
y	r	w	c	g

প্র্যাচিভর্স

45. (c) There is no 'C' letter in the given word.  
 46. (d) Both the Premises are Universal Affirmative (A-type). These two Premises are not aligned. Now take the Converse of one of the Premises to align them.

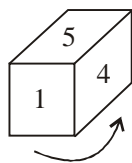
47. (a)  $B = 2A$   
 $F = 2B$   
 $A = 2C$   
 $C = 2D$   
 $\Rightarrow F = 2B = 4A = 8C = 16D$   
 $F > B > A > C > D$  প্র্যাচিভর্স  
 Hence second oldest is B.

48. (b) The central number is equal to the sum of the products of diagonally opposite numbers.  
**1st Arrangement**  
 $3 \times 2 = 6$  and  $5 \times 4 = 20$   
 And  $6 + 20 = 26$   
**2nd Arrangement**  
 $4 \times 3 = 12$  and  $6 \times 5 = 30$   
 And,  $12 + 30 = 42$   
**3rd Arrangement**  
 $4 \times 5 = 20$  and  $7 \times 6 = 42$  প্র্যাচিভর্স  
 And,  $20 + 42 = 62$

49. (b) Weight of new person (using formula) = wt. of replaced person +  $n \times$  increase in Average  
 $= 60 + 8 \times 1 = 68$  kg

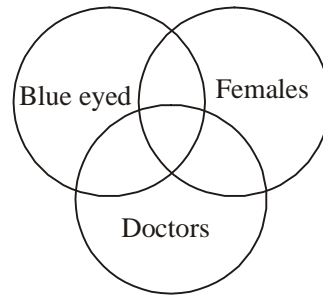
50. (c) Meaningful order in ascending order (of increasing cost) :  
 (c) Sand  
     ↓  
 (b) Iron  
     ↓  
 (a) Gold  
     ↓  
 (d) Diamond প্র্যাচিভর্স

51. (b) Clearly, the number 4 lies to the opposite of 2.

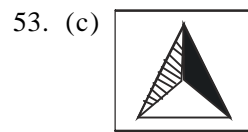


52. (d) Some blue eyed may be females and vice-versa.  
 Some females may be doctors and vice-versa.

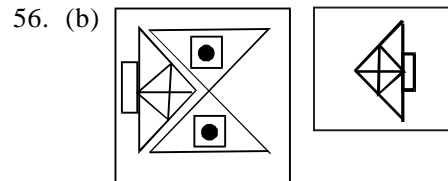
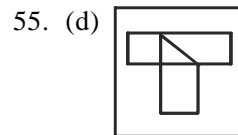
Some blue eyed may be doctors and vice-versa.  
 Some blue eyed females may be doctors.



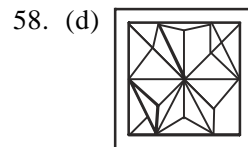
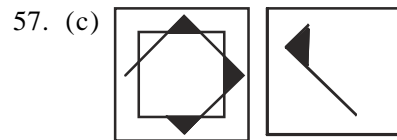
প্র্যাচিভর্স



54. (d) N O I S S I M প্র্যাচিভর্স



প্র্যাচিভর্স



59. (c) প্র্যাচিভর্স

60. (a) It is difficult to balance the ball and the jar in the position as shown in Answer Figure (a).

61. (b) **principal** will replace **principle** because –  
**principle (Noun)** : a general rule that someone's behaviour or idea is based on





- visitor (N.)** : a person who visits a place or a person
90. (a) **fail (Verb)** : not to succeed প্র্যাচিভর্ষ  
**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 disperse; 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 প্র্যাচিভর্ষ  
**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 প্র্যাচিভর্ষ  
**entice (Verb)** : to persuade প্র্যাচিভর্ষ
93. (c) **pay 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**
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.** প্র্যাচিভর্ষ
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.** প্র্যাচিভর্ষ  
The best option is **to get puzzled**
97. (d) The misspelt word is **sympathatic**  
The correct spelling is **sympathetic**
98. (b) The misspelt word is **bureaucretic**  
The correct spelling is **bureaucratic**
99. (c) **SQPR** প্র্যাচিভর্ষ
100. (b) **SRPQ**
101. (a) According to the author, religion is essentially a personal matter.
102. (d) Keep up our nation's prestige
103. (b) The author thinks that in the modern times people's needs have increased.
104. (c) The worst thing about modern science is that it has contributed to the decline of our values.
105. (b) The author holds that the perfect remedy for man's evil propensities is a religious sense.
106. (a) "Satyameva Jayate" (Truth Alone Triumphs) is a mantra from the ancient Indian scripture Mundaka Upanishad. Upon independence of India, it was adopted as the national motto of India. It is inscribed in Devanagari script at the base of the national emblem. The emblem and words 'Satyameva Jayate' are inscribed on one side of all Indian currency. The emblem is an adaptation of the Lion Capital of Asoka which was erected around 250 BC at Sarnath, near Varanasi in the north Indian state of Uttar Pradesh. প্র্যাচিভর্ষ
107. (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.
108. (c) At its core, sovereignty is typically taken to mean the possession of absolute authority within a bounded territorial space. There is essentially an internal and external dimension of sovereignty. Internally, a sovereign government is a fixed authority with a settled population that possesses a monopoly on the use of force. It is the supreme authority within its territory. Externally, sovereignty is the entry ticket into the society of states. প্র্যাচিভর্ষ
109. (b) Electron microscopes are used to observe a wide range of biological and inorganic specimens including microorganisms, cells, large molecules, biopsy samples, metals, and crystals. An electron microscope uses a beam of electrons to illuminate a specimen and produce a magnified image. An electron microscope (EM) has greater resolving power than a light-powered optical microscope because electrons have wavelengths about 100,000 times shorter than visible light photons. The electron microscope uses electrostatic and electromagnetic "lenses" to control the electron beam and focus it to form an image. Industrially, the electron microscope



- is often used for quality control and failure analysis. শ্রীচিভর্ষ
110. (a) In an effort to boost bilateral trade and reduce reliance on the US dollar, India has settled its first-ever crude oil payment to the United Arab Emirates (UAE) in local currency.  
The deal was facilitated under the 'local currency settlement' (LCS) system between state-owned Abu Dhabi National Oil Company and the Indian Oil Corporation. The deal is the second transaction under the LCS. The first deal took place in July, and involved the sale of 25kg of gold from a leading UAE gold exporter to a buyer in India. শ্রীচিভর্ষ
111. (b) The best way for a bank to avoid loss is to accept only sound collateral. In lending agreements, collateral is a borrower's pledge of specific property to a lender, to secure repayment of a loan. The collateral serves as protection for a lender against a borrower's default - that is, any borrower failing to pay the principal and interest under the terms of a loan obligation. If a borrower does default on a loan (due to insolvency or other event), that borrower forfeits (gives up) the property pledged as collateral - and the lender then becomes the owner of the collateral. In a typical mortgage loan transaction, for instance, the real estate being acquired with the help of the loan serves as collateral. Should the buyer fail to pay the loan under the mortgage loan agreement, the ownership of the real estate is transferred to the bank. The bank uses a legal process called foreclosure to obtain real estate from a borrower who defaults on a mortgage loan. Collateral, especially within banking, traditionally refers to secured lending (also known as asset-based lending). শ্রীচিভর্ষ
112. (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 electro-deposition processes, the most common method in current use is hot-dip galvanization, in which steel parts are submerged in a bath of molten zinc. শ্রীচিভর্ষ
113. (c) Governments and laws derive their legitimacy from the consent of the people. It means majority of the people.
114. (c) The scenes depicted in the Ajanta paintings are mostly didactic, devotional, and ornamental, with scenes from the Jataka stories of the Buddha's former existences as a bodhisattva, the life of the Gautama Buddha, and those of his veneration. The two most famous individual painted images at Ajanta are the two over-life size figures of the protective bodhisattvas Padmapani and Vajrapani on either side of the entrance to the Buddha shrine on the wall of the rear aisle. শ্রীচিভর্ষ
115. (a) Lake Ohrid is a lake which spans the border between the southwestern part of North Macedonia and eastern Albania. It is one of Europe's deepest and oldest lakes.  
Scientists have uncovered what may be one of Europe's earliest sedentary communities. Dating back 8,000 years, the homes built on stilts could be the oldest lakeside settlement ever found in Europe. Radiocarbon dating from the site puts it at between 6000 and 5800 BC.
116. (b) Weathering is the breaking down of rocks, soils and minerals as well as artificial materials through contact with the Earth's atmosphere, biota and waters. Weathering occurs in situ, or "with no movement." শ্রীচিভর্ষ
117. (b) Chromosomes are long, stringy aggregates of genes that carry heredity information. They are composed of DNA and proteins and are located within the nucleus of our cells. Chromosomes determine everything from hair color and eye color to sex. Whether you are a male or female depends on the presence or absence of certain chromosomes. Human cells contain 23 pairs of chromosomes for a total of 46. There are 22 pairs of autosomes and one pair of sex chromosomes. শ্রীচিভর্ষ
118. (b) Kumara Gupta শ্রীচিভর্ষ
119. (b) The first train in India had become operational on 22 December 1851 for localized hauling of canal construction material in Roorkee. A year and a half later, on 16 April 1853, the first passenger train service was inaugurated between Bori Bunder in Bombay and Thane. Covering a distance of 34 kilometres, it was hauled by three locomotives, Sahib, Sindh, and Sultan. This was soon followed by opening of the first passenger railway line in North India between Allahabad and Kanpur on March 3, 1859.
120. (b) Sulabh International founder, Padma Bhushan recipient, and social worker Bindeshwar Pathak passed away at the age of 80. শ্রীচিভর্ষ  
Pathak was the founder of Sulabh International, an India-based social service organisation which works to promote human rights, environmental sanitation, waste management and reforms through education.
121. (a) Madan Mohan Malaviya raised Rs. 50,000 rupees to acquire the Hindustan Times along with the help of nationalist leaders Lajpat Rai and M. R. Jayakar and industrialist G. D. Birla, who paid most of the cash. Due to involvement of Lala

- Lajpat Rai with Punjab National Bank. Malaviya received much needed funds from the bank to revive the paper.
- 122.(d) Official Opposition is a term used in India to designate the political party which has secured the largest number of seats in the Lower House of parliament (Lok Sabha) but is not a part of the ruling party or coalition. A political party is officially accorded the status of an opposition party in Lok Sabha, only if it secures at least 10 percent of the seats.
- 123.(c) Separated from the Bay of Bengal by a narrow spit, Chilika is one of India's largest brackish water coastal lakes. Located south of the mouth of the Mahanadi River in unspoilt Odisha, this lake was once a bay of the ocean until it was silted up by monsoon tides. The lake is an important habitat and breeding ground for both resident and migratory and aquatic birds, most notably flamingoes.
- 124.(a) In particle physics, fundamental interactions (sometimes called interactive forces or fundamental forces) are the ways that elementary particles interact with one another. An interaction is fundamental when it cannot be described in terms of other interactions. The four known fundamental interactions are electromagnetism, strong interaction ("strong nuclear force"), weak interaction ("weak nuclear force"), and gravitation. All are non-contact forces. Gravitation is by far the weakest of the four interactions. The weakness of gravity can easily be demonstrated by suspending a pin using a simple magnet (such as a refrigerator magnet). The magnet is able to hold the pin against the gravitational pull of the entire Earth.
- 125.(c) The multilateral naval exercise Malabar 2023 commenced at Sydney in Australia. Indian Navy's indigenous frontline warships INS Sahyadri and INS Kolkata is participating in the 11-day event.
- 126.(d) Iron is a chemical element with the symbol Fe and atomic number 26. It is a metal in the first transition series. It is the most common element (by mass) forming the planet Earth as a whole, forming much of Earth's outer and inner core. It is the fourth most common element in the Earth's crust. Wrought iron is the purest form of iron. It contains less than 0.25% carbon.
- 127.(b) Apart from four main fishing harbours—Mangalore (Karnataka), Kochi (Kerala), Chennai (Tamil Nadu), Vishakhapatnam (Andhra Pradesh), and Roychowk in Kolkata (West Bengal)—twenty-three minor fishing harbours and ninety-five fish-landing centers are designated to provide landing and berthing facilities to fishing craft.
- 128.(a) Jabalpur: Narmada; Paris: Seine; London: Thames; and Lahore: Ravi River flows on the north-western side.
- 129.(b) The first two metals to be used widely were gold and copper. The use of copper in antiquity is of more significance than gold as the first tools, implements and weapons were made from copper. From 4,000 to 6,000 BC was the Chalcolithic period which was when copper came into common use. By 3600 BC the first copper smelted artifacts were found in the Nile valley and copper rings, bracelets, chisels were found. By 3000 BC weapons, tools etc. were widely found. Tools and weapons of utilitarian value were now within society, however, only kings and royalty had such tools; it would take another 500 years before they reached the peasants.
- 130.(a) One District One Product (ODOP) program, an initiative under the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, launched its collaboration with the Ministry of Rural Development in New Delhi. DPIIT, Rural Development Ministry jointly launched 'One District One Product' Wall at SARAS Ajeevika Store.
- 131.(a) prior to
- 132.(b) transmission control protocol
- 133.(a) Wireless Transport Layer Security
- 134.(c) A field that aims to develop intelligent machines
- 135.(d) All of the above
- 136.(d) DML (Data Manipulation Language)
- 137.(d) C#
- 138.(a) Ultra Large Scale Integration
- 139.(a) Super Computers
- 140.(b) Complex Instruction Set Computer
- 141.(a) Topology
- 142.(c) template
- 143.(c) Asymmetric Digital Subscriber Line
- 144.(c) Virtual memory
- 145.(d) All of the Above
- 146.(c) Ctrl + Shift + C
- 147.(c) Ctrl + Home and Ctrl + End
- 148.(b) Switch Mode Power Supply
- 149.(a) Multi-tasking
- 150.(b) Centralized data processing