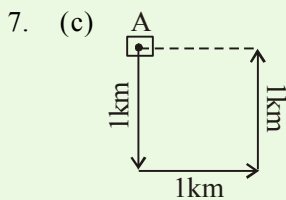


SSC CGL Mains Exam. 2024 – Practice Set

Answer with Explanation

1. (c) The second term is the property of the first term.
2. (d) Editor supervises magazine in the same way as director does in the case of drama and film also.
3. (a) The opposite of Immigration is Arrival. Similarly, the opposite of Emigration is Leaving.
4. (c) Intimate is opposite in meaning to Unfamiliar. Similarly, Interested is opposite in meaning to Indifference.
5. (c) Picture is set in a frame. Similarly, book is protected with cover.
6. (c) All the letters of word NATURAL are present in the word RETURNABLE.
In the case of third option, the letter 'O' of the second word is not present in the first word.



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It is clear from the diagram that Mohan is facing towards North.

8. (c) T is a teacher. He is father of R and U.
T is husband of S, who is doctor.
Q is husband of P. P is housewife.
Q is father of T.
Grandson of the family is an engineer.
Grand daughter of the family is a student.
9. (b) Moon and planets are two types of heavenly bodies. Stars twinkle in the sky. Players play in stadium. Students study in university.
10. (c)

U	N	I	V	E	R	S	I	T	Y
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
1	2	7	3	9	4	8	7	5	6

Therefore,

T	R	U	S	T	Y
↓	↓	↓	↓	↓	↓
5	4	1	8	5	6
11. (d)

L	⇒	12 + 8 = 20
E	⇒	5 + 8 = 13
A	⇒	1 + 8 = 9
D	⇒	4 + 8 = 12
E	⇒	5 + 8 = 13
R	⇒	18 + 8 = 26

Therefore,
L ⇒ 12 + 8 = 20

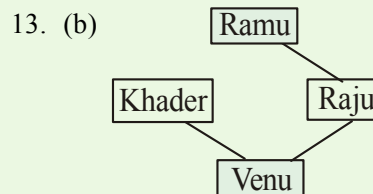
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$$\begin{aligned}
 I &\Rightarrow 9 + 8 = 17 \\
 G &\Rightarrow 7 + 8 = 15 \\
 H &\Rightarrow 8 + 8 = 16 \\
 T &\Rightarrow 20 + 8 = 28
 \end{aligned}$$

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12. (a)

$$\begin{aligned}
 (N \times \square + M) \div K &= 31 \\
 \Rightarrow (11 \times \square + 7) \div 2 &= 31 \\
 \Rightarrow (11 \times \square) + 7 &= 62 \\
 \Rightarrow (11 \times \square) &= 55 \\
 \Rightarrow \square &= 5 \\
 \therefore \square &\Rightarrow L
 \end{aligned}$$



Khader's home is in North-West direction in relation to Ramu's house.

14. (b) Today is Saturday.
Tomorrow will be Sunday.
Sunday + 4 = Thursday.
15. (a) Hands of clock will be together at $32\frac{8}{11}$ minutes past 6.
There are 30 minute spaces between hour and minute hand at 6 O' clock.
The minute hand gains 55 minutes in 60 minutes
∴ It will gain 30 minutes in

$$\frac{60}{55} \times 33 = 32\frac{8}{11}$$
 minutes
16. (d) A leap year is completely divisible by 4. In case of century years, only those divisible by 400 are leap years.

$$\frac{2000}{400} = 5; \frac{2004}{4} = 401;$$

$$\frac{1996}{4} = 499;$$

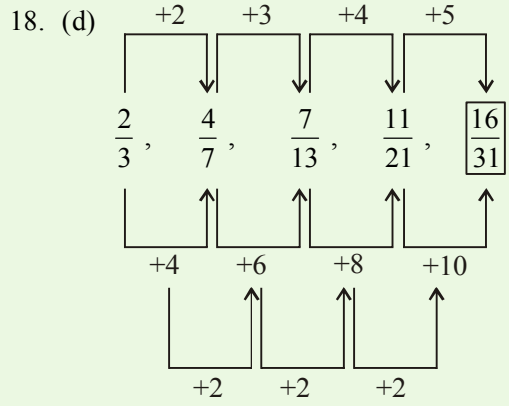
But, $\frac{1966}{4} = 491.5$
17. (c)

100	÷	2	=	5
50	+	2	=	52
52	÷	2	=	26
26	+	2	=	28
28	÷	2	=	14

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14 + 2 = 16
16 ÷ 2 = 8

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

$$0 + \frac{3}{2} = \frac{3}{2} \qquad \frac{3}{2} + \frac{3}{2} = 3$$

$$3 + \frac{3}{2} = \frac{9}{2} \qquad \frac{9}{2} + \frac{3}{2} = 6$$

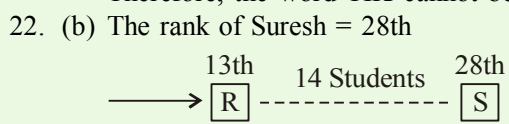
$$6 + \frac{3}{2} = \frac{15}{2}$$

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20. (d) There is no 'O' letter in the keyword, therefore, the words TELEVISION and RENOVATE cannot be formed.

There is no 'P' letter in the keyword, therefore, the word RESPITE cannot be formed.

21. (c) There is no letter 'K' in the given word. Therefore, the word TIK cannot be formed.



23. (d) First figure
(4)² + (3)² = 16 + 9 = 25
Second figure
(9)² + (11)² = 81 + 121 = 202
Third figure
(1)² + (7)² = 1 + 49 = 50

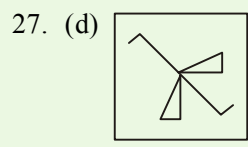
24. (c) Let us assume at present Ram's age is 26 years
Last year his age = 26 - 1 = 25 = (5)²
Next year his age = 26 + 1 = 27 = (3)³

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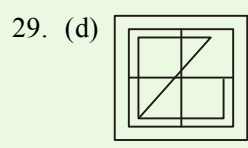
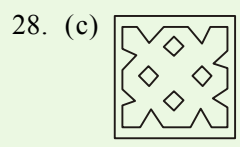
After 27, the next cube number is 64 = (4)³
∴ Required answer = 64 - 26 = 38 years

25. (d) The water of river is contained by constructing dam. Then power house is established to produce electricity. Electricity switches on lights.

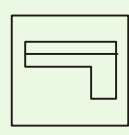
26. (c) From the given positions of a dice, it is clear that circle would be at the bottom, when the heart shape is at the top.



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30. (c) Answer Figure (c) cannot occur when the question figure is rotated.



31. (b) [n] < n (integer); (n) > n (integer)
∴ Expression = 2 × 1 - 2 ÷ 1 + 2 = 2

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32. (b) 5 E9 + 2 F8 + 3 G7 = 1114
Value of 'F' will be maximum if the values of E and G are minimum.

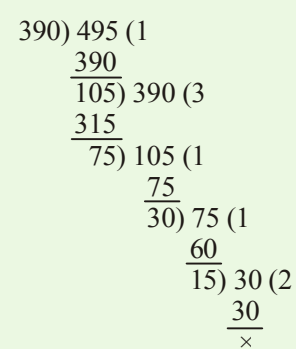
$$\therefore 509 + 2 F8 + 307 = 1114$$

$$\Rightarrow 2 F8 = 1114 - 509 - 307 = 298$$

$$\Rightarrow F = 9$$

33. (b) Required number = HCF of 390, 495 and 300 = 15

Illustration :



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HCF of 15 and 300 = 15

34. (d) Product of two numbers = HCF × LCM
⇒ Numbers = zx and zy
∴ zx × zy = z × LCM
⇒ LCM = xyz

35. (d) If the S.P. of article be x , then its

$$CP = x - \frac{x}{4} = ₹ \frac{3x}{4}$$

$$\therefore \text{Gain}\% = \frac{\frac{x}{4}}{\frac{3x}{4}} \times 100$$

$$= \frac{100}{3} = 33\frac{1}{3}\%$$

36. (b) C.P of article

$$= \frac{100}{100 - 20} \times 450$$

$$= \frac{100 \times 450}{80} = \text{Rs. } 562.5$$

\therefore To gain 20%

$$\text{S.P.} = \frac{562.5 \times 120}{100} \text{ Rs. } 675$$

37. (c) Loss per cent

$$= \frac{400 - 320}{400} \times 100$$

$$= \frac{80}{400} \times 100 = 20\%$$

38. (c) Single equivalent discount

$$= \left(10 + 5 - \frac{10 \times 5}{100} \right) \%$$

$$= (15 - 0.5)\% = 14.5\%$$

39. (c) C.P. for A

$$= 3000 \times \frac{90}{100} \times \frac{85}{100} = ₹ 2295$$

$$\text{Actual C.P.} = 2295 + 105 = ₹ 2400$$

$$\therefore \text{Gain per cent} = \frac{800}{2400} \times 100$$

$$= \frac{100}{3} = 33\frac{1}{3}\%$$

40. (a) X is 20% less than Y.

If $Y = 100$, $X = 80$

$$\therefore \frac{Y - X}{Y} = \frac{100 - 80}{100} = \frac{20}{100} = \frac{1}{5}$$

$$\frac{X}{X - Y} = \frac{80}{80 - 100} = \frac{80}{-20} = -4$$

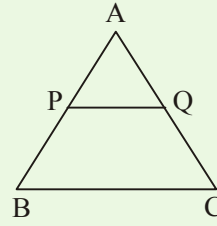
41. (b) Expression

$$= \frac{25}{4}\% \text{ of } 1600 + \frac{25}{2}\% \text{ of } 800$$

$$= \frac{1600 \times 25}{400} + \frac{800 \times 25}{200}$$

$$= 100 + 100 = 200$$

42. (a)



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$PQ \parallel BC$

$$\therefore \angle APQ = \angle ABC$$

$$\angle AQP = \angle ACB$$

\therefore By AA - similarity theorem,

$$\Delta APQ \sim \Delta ABC$$

$$\therefore \frac{AB}{AP} = \frac{AC}{AQ} = \frac{5}{3}$$

$$\Rightarrow \frac{AC}{AQ} - 1 = \frac{5}{3} - 1$$

$$\Rightarrow \frac{AC - AQ}{AQ} = \frac{5 - 3}{3}$$

$$\Rightarrow \frac{QC}{AQ} = \frac{2}{3}$$

$$\therefore \frac{AQ}{QC} = \frac{3}{2}$$

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43. (c) $4\angle A = 3\angle B = 12\angle C$

$$\Rightarrow \frac{4\angle A}{12} = \frac{3\angle B}{12} = \frac{12\angle C}{12}$$

$$\Rightarrow \frac{\angle A}{3} = \frac{\angle B}{4} = \frac{\angle C}{1}$$

$$\therefore \angle A : \angle B : \angle C = 3 : 4 : 1;$$

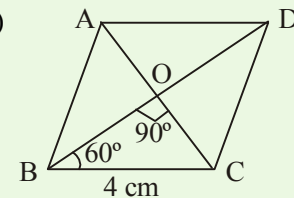
$$\angle A + \angle B + \angle C = 180^\circ$$

\therefore Sum of the terms of ratio

$$= 3 + 4 + 1 = 8$$

$$\therefore \angle A = \frac{3}{8} \times 180^\circ = 67.5^\circ$$

44. (d)



From ΔBOC ,

$$\cos 60^\circ = \frac{BO}{4}$$

$$\Rightarrow BO = \frac{1}{2} \times 4 = 2 \text{ cm}$$

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

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

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

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

46. (d) Part of tank filled in first two hours

$$= \frac{1}{4} + \frac{1}{6} = \frac{3+2}{12} = \frac{5}{12}$$

Part of tank filled in first 4 hours = $\frac{10}{12} = \frac{5}{6}$

Remaining part = $1 - \frac{5}{6} = \frac{1}{6}$

This remaining part will be filled by pipe A.

Time taken by pipe A = $\frac{1}{6} \times 4 = \frac{2}{3}$ hours

∴ Total time = $4 + \frac{2}{3} = 4\frac{2}{3}$ hours

47. (c) S.I. for 1 year

$$= 14250 - 12900 = \text{Rs. } 1350$$

S.I. for 4 years = $1350 \times 4 = \text{₹ } 5400$

∴ Principal = $12900 - 5400 = \text{₹ } 7500$

$$\therefore \text{Rate} = \frac{\text{S.I.} \times 100}{\text{Principal} \times \text{Time}}$$

$$= \frac{5400 \times 100}{7500 \times 4} = 18\% \text{ per annum}$$

48. (a) S.I. = Amount - Principal

$$= \text{Rs. } (6900 - 6000) = \text{Rs. } 900$$

$$\therefore \text{Rate} = \frac{\text{Interest} \times 100}{\text{Principal} \times \text{Time}}$$

$$= \frac{900 \times 100}{6000 \times 3} = 5\% \text{ per annum}$$

49. (d) $\left(x + \frac{1}{x}\right)\left(x - \frac{1}{x}\right)\left(x^2 + \frac{1}{x^2} - 1\right)\left(x^2 + \frac{1}{x^2} + 1\right)$

$$= \left(x^2 - \frac{1}{x^2}\right)\left[\left(x^2 + \frac{1}{x^2}\right)^2 - 1\right]$$

$$= \left(x^2 - \frac{1}{x^2}\right)\left(x^4 + \frac{1}{x^4} + 1\right)$$

$$= x^6 - \frac{1}{x^6}$$

50. (c) $\frac{1}{x^{99}} = \frac{1}{(-1)^{99}} = -1$

$$\frac{1}{x^{98}} = \frac{1}{(-1)^{98}} = 1 \text{ and so on.}$$

∴ Expression

$$= -1 + 1 - 1 + 1 - 1 + 1 - 1 - 1 = -2$$

51. (c) $x + \frac{1}{x} = 3$ (Given)

$$\therefore \text{Expression} = \frac{3x^2 - 4x + 3}{x^2 - x + 1}$$

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

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

$$= 3 - \frac{1}{x - 1 + \frac{1}{x}}$$

$$= 3 - \frac{1}{x + \frac{1}{x} - 1}$$

$$= 3 - \frac{1}{3 - 1} = 3 - \frac{1}{2}$$

$$= \frac{6 - 1}{2} = \frac{5}{2}$$

52. (d) $x + \frac{1}{x} = 2$

$$\Rightarrow x^2 + 1 = 2x$$

$$\Rightarrow x^2 - 2x + 1 = 0$$

$$\Rightarrow (x - 1)^2 = 0 \Rightarrow x = 1$$

$$\therefore x^{2013} + \frac{1}{x^{2014}} = 1 + 1 = 2$$

53. (c) $4a - \frac{4}{a} = -3$

On dividing by 4,

$$\Rightarrow a - \frac{1}{a} = \frac{-3}{4}$$

$$\therefore a^3 - \frac{1}{a^3} = \left(a - \frac{1}{a}\right)^3 + 3a \times \frac{1}{a} \left(a - \frac{1}{a}\right)$$

$$= \left(\frac{-3}{4}\right)^3 + 3 \times \frac{-3}{4}$$

$$= -\frac{27}{64} - \frac{9}{4} = \frac{-27 - 144}{64} = \frac{-171}{64}$$

$$\therefore a^3 - \frac{1}{a^3} + 3 = \frac{-171}{64} + 3$$

$$= \frac{-171 + 192}{64} = \frac{21}{64}$$

54. (a) $a + \frac{1}{a} = -2$

$$\Rightarrow a^2 + 1 = -2a$$

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$\Rightarrow a^2 + 2a + 1 = 0$

$\Rightarrow (a + 1)^2 = 0$

$\Rightarrow a + 1 = 0$

$\Rightarrow a = -1$

$\therefore (a)^{1000} + (a)^{-1000}$

$= (-1)^{1000} + (-1)^{-1000}$

$= 1 + 1 = 2$

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55. (c) $\therefore 60^\circ \equiv 8000$

\therefore Expenditure on Education

$= 30 \times \frac{8000}{60} = ₹4,000$

56. (b) Ratio of degree of expenditure on food to savings
 $= 120^\circ : 60^\circ = 2 : 1$

57. (a) Total expenditure

$= \frac{8000}{60} \times (105 + 120 + 45 + 30)$

$= \frac{8000}{60} \times 300 = ₹40000$

58. (c) Difference in degree of amount spent on food & housing = (120 - 105)

$= 15^\circ = \frac{8000}{60} \times 15^\circ = ₹2000$

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59. (b) Let the side of equilateral triangle be x units.

\therefore Perimeter = 3x units.

After increase,

Perimeter = 1.2x + 1.3x + 1.5x = 4x units

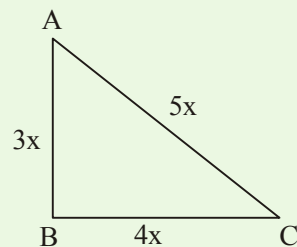
Increase = 4x - 3x = x units

\therefore % Increase = $\frac{x}{3x} \times 100 = \frac{100}{3} = 33\frac{1}{3}\%$

60. (a) Let the sides of triangle be 3x, 4x and 5x units.

Here, $(3x)^2 + (4x)^2 = (5x)^2$

Hence, it is a right angled triangle.



Area of ΔABC

$= \frac{1}{2} \times AB \times BC$

$\Rightarrow \frac{1}{2} \times 3x \times 4x = 7776$

$\Rightarrow 6x^2 = 7776$

$\Rightarrow x^2 = \frac{7776}{6} = 1296$

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$\Rightarrow x = \sqrt{1296} = 36 \text{ cm.}$

\therefore Perimeter of triangle = 3x + 4x + 5x

$= 12x = 12 \times 36 = 432 \text{ cm.}$

61. (c) he fell asleep will replace he had fallen asleep because -

the structure with since will be as follows :

It has been + period of time + since

↓ ↓
 two hours since

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Here, Simple Past Tense-fell will be used.

Look at the examples given below :

Two months have passed since I last saw her.

↓
 Verb

(Simple
 Past)

Three years have passed since the last earthquake took place.

↓
 Verb

(Simple Past)

62. (b) have will replace has because -

When one of is followed by a Noun/Pronoun, the Noun/Pronoun is considered as Antecedent and the Verb is used accordingly.

Here, writers (Noun) has been used after one of, writers is in Plural, hence, the Verb will also be in Plural.

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Look at the example given below :

She is one of those residents who have fought for their membership.

Here, residents (Noun) has been used after one of, So, it is the Antecedent of Relative Pronoun-who. It is in plural, hence, the Verb will also be in Plural. Hence, who have won acclaim is the right usage

63. (c) I like will replace I'm liking because -

like (Verb) is a word used for expressing emotion.

It is not used in Progressive/Continuous form.

Look at the examples given below :

I am liking peanuts. (×)

I like peanuts. (✓)

Hence, but I'm liking her a lot is the right usage

64. (a) All will replace Everyone of because -

Everyone (Pro.) is used for every person or all people but All (Det.) is used with Plural Nouns and refers to the whole number of

The Verb (are) is also in Plural and a Subject agrees with the Verb used.

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Look at the examples given below :

All the people you invited are coming.

↓ ↓ ↓
Subject Plural Noun Plural Verb

The police questioned everyone in the room.
Hence, All the films is the right usage

65. (b) having will replace to have because –
We use the Gerund (– ing Verb) for an action that happens before or at the same time as the action of the Main Verb.

We use the Infinitive for actions that follow the action of the Main Verb.

Look at the examples given below :
I enjoy myself (at the time of) playing.
I deny having stolen anything (before)

66. (d) He said, “Reena do you want to buy a house in Noida ?” → (D.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. (H.V.) Pro. Verb Inf. Verb
(Reena)(S.Pr.)

He asked Reena if she wanted to buy a house in Noida. → (I.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. Conj.Pro. Verb Inf. Verb
(You)(S.Past)

67. (b) He said, “Ravi, why are you sounding so depressed today?” → (D.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. H.V Pro. Verb Ext.wd.
(Ravi)(Pr. Cont)

He asked Ravi why he was sounding so depressed that day. (I.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. Pro. verb Ext. wd.
(You) (P.Cont)

The word order will be Subject/ Pronoun + Verb (he + was sounding)

68. (b) The staff members were kept waiting by the principal. (Passive)
The sentence is in Simple Past Tense. (Active).

69. (b) Let me not be laughed at, (Passive)
The sentence is in Simple Present Tense. (Active)
In Active Voice, if the sentence expresses command or order or request (Imperative mood), then, in Passive Voice the word let is placed at the beginning of the sentence.
e.g. Do it. (Active). Let it be done. (Passive)

70. (c) Circumstances obliged him to resign. (Active)
The sentence is in Simple Past Tense. (Passive)

71. (b) accused (Verb) : said that somebody has done something wrong
condemned (Verb) : expressed/very strong disapproval of
charged (Verb) : accused of doing something wrong (publicly)
Here, accused is the right usage.

72. (c) ulterior (Adj.) : that somebody keeps hidden and does not admit
posterior (Adj.) : at the back of something
interior (Noun) : the inside part of something
exterior (Noun) : the outside of something
Here, ulterior is the right usage.

73. (b) conscientious (Adj.) : taking care to do things carefully and correctly

Here, conscientious is the right usage.
74. (c) We use get used to doing to talk about the process of something becoming normal for us. Such expressions are followed by Gerunds
Here, to driving is the right usage.

75. (d) kennel (Noun) : shelter for a dog
burrow (Noun) : house of a rabbit or mole
coop (Noun) : house for poultry
stable (Noun) : house of horses
Here, Kennel is the right usage.

76. (a) stubborn (Adjective) : obstinate; determined not to change your opinion
obstinate (Adjective) : stubborn; refusing to change your opinions
pretty (Adjective) : attractive
silly (Adjective) : foolish
clever (Adjective) : intelligent

77. (d) feebleness (Noun) : very weak in health or body
decrepitude (Noun) : being old and in poor condition or heath
disease (Noun) : an illness
coolness (Noun) : coldness
crowd (Noun) : a large number of people gathered together at a public place

78. (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

79. (d) I said, “Father, when will you buy me a motor cycle ?” → (D.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. ModalPro. VerbPro.
(father) (I)

I asked my father when he would buy me a motor cycle. → (I.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. Pro. Pro. ModalVerbPro.
(I) (you) (will)(me)

80. (d) He said to her, “Did it shake you up as much it shook me?” → (D.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. Pro. Verb Pro. Pro. Verb Pro.
(her) (He)

He asked her if it had shaken her up as much as it had shaken him. → (I.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. Conj.Pro. (P.Per.)Pro. Pro. Verb Pro.
(you) (P.Per.) (me)

81. (c) I said, “When it gets dark, light the lantern and hang it out.” → (D.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V. Verb Verb VerbPro.
(S.Pre.) (S.pre) (lantern)

I said that when it got dark, he should light the lantern and hang it out. → (I.S.)
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
Rep.V.Conj. Verb Pro. Modal Verb
(S.Past) (him) (S.Pre)

82. (c) Will the truth be told to us by her ? (Passive)

The sentence is in Simple Present Tense. (Active)

83. (3) **plain (Adjective)** : easy to see or understand; clear
enigmatic (Adjective) : mysterious and difficult to understand
simple (Adjective) : not complicated; easy
reticent (Adjective) : unwilling to tell people about things ; reserved; uncommunicative
nervous (Adjective) : anxious about something or being afraid of something
84. (b) **enlarge (Verb)** : to make something bigger ; to become bigger
curtail (Verb) : to limit something or make it last for a shorter time
detail (Verb) : to give a list of facts or the available information about something
promote (Verb) : encourage ; to make to a higher rank/position
exaggerate (Verb) : to make something seem larger, better, worse or more important than it really is
85. (b) **permanent (Adjective)** : lasting for a long time or for all time in the future
evanescent (Adjective) : disappearing quickly from sight or memory
imminent (Adjective) : likely to happen very soon
pervasive (Adjective) : existing in all parts of a place or thing
immanent (Adjective) : present everywhere
86. (c) **safe (Adjective)** : free from danger
perilous (Adjective) : very dangerous; hazardous
carefree (Adjective) : having no worries or responsibilities
impetuous (Adjective) : rash; impulsive; acting or done quickly and without thinking carefully about the results
impure (Adjective) : not pure
87. (a) **voracious**
voracious (Adj.) : greedy; eating or wanting large amounts of food
avaricious (Adj.) : extreme desire for wealth
carnivorous (Adj.) : animals that eat meat
omnivorous (Adj.) : eating all types of food (plants and meat)
88. (c) **wag**
wag (N.) : a person who enjoys making jokes; joker
wile (N.) : the use of tricks to deceive/cheat someone (usually to extract money from him)

- yokel (N.)** : not very intelligent or interested in culture
aeon (N.) : a major division of time, divided into Eras
89. (a) **knell**
knell (N.) : the sound of a bell sung slowly to announce a death/ a funeral/the end of something
spell (N.) : a short period of time during which something lasts
dong (N.) : sound made by a bell
ding-dong (N.) : sound made by a bell
90. (b) **entomology**
entomology (N.) : the scientific study of insects
etymology (N.) : the study of the origin and history of words and their meanings
ecology (N.) : the study of the relation of plants and living creatures to each other and to their environment
embryology (N.) : the scientific study of the development of embryos - young animals and plants before birth
91. (b) **amnesia**
amnesia (N.) : loss of memory
ambrosia (N.) : something that is very pleasant to eat
insomnia (N.) : lack of sleep or getting (V.) : not remembering
92. (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.
93. (a) leaps and bounds : very quickly; in large amounts
 - India is progressing by leaps and bounds. The best option is rapidly.
94. (b) to fight tooth and nail : to fight in a determined way for what you want
 - They vowed to fight the new legislation tooth and nail. The best option is to oppose resolutely.
95. (c) by leaps and bounds : rapidly; very quickly
 - India is progressing by leaps and bounds. The best option is at a rapid pace.
96. (c) fought to the bitter end : continue fighting till the end and try winning regardless of consequences
 - The climbers fought to the bitter end till they reached the summit. The best option is carried on a contest regardless of the consequences.
97. (a) dark
98. (a) Hardly any friends
99. (b) Short stories

- 100.(d) Beauty of nature
- 101.(c) Dyes
- 102.(c) Remote প্র্যাচিডর্ক্স
- 103.(c) Proprietor
- 104.(c) The correctly spelt word is discern
The correct spellings of the other words are entity, gracious, contestant
- 105.(c) The correctly spelt word is visionary
The correct spellings of the other other words are scenery, granary, luminary
- 106.(d) The Brihadeshwar Temple at Thanjavur (Tanjore) in the Indian state of Tamil Nadu, is a Hindu temple dedicated to Shiva and a brilliant example of the major heights achieved by Cholas in Tamil architecture. It is a tribute and a reflection of the power of its patron Raja Raja Chola I. It remains India's largest temple and is one of the greatest glories of Indian architecture. The temple is part of the UNESCO World Heritage Site "Great Living Chola Temples".
- 107.(a) Dr. Sachidanand Sinha was the first president of the Constituent Assembly. Later, Dr. Rajendra Prasad was elected president of the Constituent Assembly while B.R. Ambedkar was appointed the Chairman of the Drafting Committee.
- 108.(a) Indian Standard Time (IST) is the time observed throughout India and Sri Lanka, with a time offset of UTC+05:30. India does not observe Daylight Saving Time (DST) or other seasonal adjustments. In military and aviation time IST is designated E* ("Echo-Star"). Indian Standard Time is calculated on the basis of 82.5° E longitude, from a clock tower in Mirzapur (25.15°N 82.58°E) (near Allahabad in the state of Uttar Pradesh) which is nearly on the corresponding longitude reference line.
- 109.(b) Surface tension is a contractive tendency of the surface of a liquid that allows it to resist an external force. This property is caused by cohesion of similar molecules, and is responsible for many of the behaviors of liquids. It is revealed, for example, in the floating of some objects on the surface of water, even though they are denser than water, and in the ability of some insects (e.g. water striders) to run on the water surface.
- 110.(b) Renowned Baiga tribal artist and Padma Shri awardee Jodhaiya Bai passed away on December 15, 2024, at 86 in Lodha village, Umaria district, Madhya Pradesh. The Baiga Tribe is a Particularly Vulnerable Tribal Group (PVTG) primarily residing in central and eastern Indian states. Jodhaiya Bai gained international recognition for her artwork, showcasing Baiga tribal culture on canvas. She was honored with the Padma Shri in 2023 for her significant contributions to the arts. Her art has been exhibited globally, highlighting the rich traditions and heritage of the Baiga community.
- 111.(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. প্র্যাচিডর্ক্স
- 112.(d) Grassroots democracy is a tendency towards designing political processes involving the common people as constituting a fundamental political and economic group. It focuses on people or society at a local level rather than at the center of major political activity. Devolution and decentralization of power and Panchayati raj system are essential elements of such a system.
- 113.(a) Pulicat Lake: the second largest brackish – water lake or lagoon in India which straddles the border of Andhra Pradesh and Tamil Nadu states on the Coromandal Coast in South India; Chilka Lake: a brackish water lagoon, spread over the Puri, Khurda and Ganjam districts of Odisha; Wular Lake: India's largest fresh water lake and one of the largest in Asia, located in Bandipora district in Jammu and Kashmir; and Sambhar Lake: India's largest inland salt lake, south west of Jaipur and north east of Ajmer along National Highway 8 in Rajasthan.
- 114.(d) Ultrasound is a cyclic sound pressure wave with a frequency greater than the upper limit of the human hearing range. Ultrasound is thus not separated from "normal" (audible) sound based on differences in physical properties, only the fact that humans cannot hear it. Although this limit varies from person to person, it is approximately 20 kilohertz (20,000 hertz) in

- healthy, young adults. Bats use a variety of ultrasonic ranging (echolocation) techniques to detect their prey. They can detect frequencies beyond 100 kHz, possibly up to 200 kHz.
115. (c) The Indian women's junior hockey team won the 10th Women's Hockey Junior Asia Cup by defeating China 3-2 in the penalty shootout in Muscat, Oman, on December 15, 2024.
116. (d) Price theory is also known as micro economics and is concerned with the economic behaviour of individual consumers, producers and resource owners. Prof. Leftwich defines Price Theory as "it is concerned with the flow of goods and services from business firms to consumers, the composition of flow and the evaluation of pricing of the component parts of the flow. It is concerned too with the flow of productive resources (or their services) from resource owners to business firms with their evaluation and with their allocation among alternative uses."
117. (b) Euclid, also known as Euclid of Alexandria, was a Greek mathematician, often referred to as the "Father of Geometry". He was active in Alexandria during the reign of Ptolemy I (323–283 BC). Euclid deduced the principles of what is now called Euclidean geometry from a small set of axioms. Euclid also wrote works on perspective, conic sections, spherical geometry, number theory and rigor. Although many of the results in Elements originated with earlier mathematicians, one of Euclid's accomplishments was to present them in a single, logically coherent framework, making it easy to use and easy to reference, including a system of rigorous mathematical proofs that remains the basis of mathematics 23 centuries later. শ্রীচিড়াক্স
118. (c) Islam was the official religion, while Persian was the court language during the Delhi Sultanate. It was the official language which resulted in the spread of the Persian language in India. However, other languages such as Arabic, Hindi, etc., continued to be spoken.
119. (c) The Supreme Court, the highest in the country, may issue writs under Article 32 of the Constitution for enforcement of Fundamental Rights and under Articles 139 for enforcement of rights other than Fundamental Rights, while High Courts, the superior courts of the States, may issue writs under Articles 226. The Constitution broadly provides for five kinds of "pre-rogative" writs: habeas corpus, certiorari, man-
- damus, quo warranto and prohibition.
120. (c) Mikheil Kavelashvili, a former Georgian national footballer, was elected unopposed as the President of Georgia on December 14, 2024, amid an opposition boycott. He is pro-Russian and anti-Western, replacing the pro-Western President Salome Zourabichvili, who condemned his election. শ্রীচিড়াক্স
121. (c) Most of the west flowing rivers of Indian peninsula do not form delta. They form estuary. Narmada is one of them. It is so because rocky terrain of the Western Ghats does not allow the rivers to spread out much, and there is not sufficient plain stretch of land between the Arabian sea and Western Ghats for Narmada to slowdown and bifurcate into distributaries. Narmada forms an estuary of 21 km at the Gulf of Khambat. The river is presently partially navigable in the estuary reach around Bharuch but the river has never been a transport artery.
122. (c) Milk contains a sugar called lactose, a disaccharide (compound sugar) made by the glycosidic bonding between glucose and galactose (monosaccharides). When milk is heated to a temperature of 30-40 degrees centigrade and a small amount of old curd added to it, the lactobacillus in that curd sample gets activated and multiplies. These convert the lactose into lactic acid, which imparts the sour taste to curd.
123. (c) A Monopoly exists when a specific person or enterprise is the only supplier of a particular commodity, This contrasts with a monopsony which relates to a single entity's control of a market to purchase a good or service, and with oligopoly which consists of a few entities dominating an industry. Monopolies are thus characterized by a lack of economic competition to produce the good or service and a lack of viable substitute goods শ্রীচিড়াক্স
124. (a) Sir James Young Simpson was a Scottish and an important figure in the history of medicine. Simpson discovered the anaesthetic properties of chloroform and successfully introduced it for general medical use. Chloroform is an organic compound with formula CHCl_3 . It is one of the four chloromethanes. The colorless, sweet-smelling, dense liquid is a trihalomethane, and is considered somewhat hazardous. Several million tons are produced annually as a precursor to Teflon and refrigerants, but its use for refrigerants is being phased out.
125. (a) The Archeological Survey of India (ASI) will

- submit a survey report to the Supreme Court on religious structures in Delhi's Mehrauli Archaeological Park. Mehrauli Archaeological Park spans over 200 acres near the Qutb Complex and reflects India's heritage from Pre-Islamic to Colonial periods. It contains 440+ monuments, including remains of Delhi's first city, the Tomar rulers' capital from the 11th century. অ্যাচিভর্স
- 126.(d) It is generally accepted that Sultan Sikandar Lodi, the Ruler of the Delhi Sultanate founded Agra in the year 1504. He moved his capital from Delhi to Agra in 1506. After the Sultan's death the city passed on to his son Sultan Ibrahim Lodi who remained in power here for nine more years, finally being defeated at the Battle of Panipat in 1526.
- 127.(b) The makers of the Constitution of India were influenced by the Irish nationalist movement. Hence, the Directive Principles of the Indian constitution have been greatly influenced by the Directive Principles of State Policy as enshrined in the Irish Constitution. অ্যাচিভর্স
- 128.(a) The correct answer is: a-4; b-1; c-2; and d-3. Hirakud Dam: built across the Mahanadi River, about 15 km from Sambalpur in Odisha; Pong Dam: also known as the Beas Dam, is an earth-fill embankment dam on the Beas River just upstream of Talwara in the state of Himachal Pradesh; Tehri Dam: a multi-purpose rock and earth-fill embankment dam on the Bhagirathi River near Tehri in Uttarakhand; and Thein Dam: part of a hydroelectric project constructed by the Government of Punjab on the Ravi River.
- 129.(a) Bacillus is a genus of Gram-positive, rod-shaped bacteria and a member of the phylum Firmicutes. Bacillus species can be obligate aerobes or facultative anaerobes, and test positive for the enzyme catalase. Bacillus includes both free-living and pathogenic species. Under stressful environmental conditions, the cells produce oval endospores that can stay dormant for extended periods. অ্যাচিভর্স
- 130.(a) Haryana Governor Bandaru Dattatreya inaugurated the International Gita Mahotsav on 5 December 2024 in Kurukshetra, Haryana. The festival celebrates the birth of the 'Srimad Bhagwat Gita,' where Lord Krishna advised Arjuna during the Mahabharata war. This year, Tanzania is the foreign partner country, and Odisha is the State partner.
- 131.(b) A flip-flop is a circuit that has two stable states and can be used to store state information. The circuit can be made to change state by signals applied to one or more control inputs and will have one or two outputs. It is the basic storage element in sequential logic. Flip-flops and latches are a fundamental building block of digital electronics systems used in computers, communications, and many other types of systems.
- 132.(c) Ray Tomlinson is credited with developing the first viable e-mail program in 1971 for use on the ARPANET. Although text messages were occasionally sent over the network, Tomlinson created the first program. it is a method of exchanging digital messages from an author to one or more recipients. Modern email operates across the Internet or other computer networks. Some early email systems required that the author and the recipient both be online at the same time, in common with instant messaging. Today's email systems are based on a store-and-forward model. অ্যাচিভর্স
- 133.(c) The first programming languages predate the modern computer. At first, the languages were codes. The first modern programming language was FORTRAN (1955), the "FORMULA TRANSLATOR", invented by John Backus, then COBOL,(1959) the Common Business Oriented Language, was used. Then PASCAL and BASIC came into existence.
- 134.(b) The Compact Disc, or CD for short, is an optical disc used to store digital data. It was originally developed to store and play back sound recordings only, but the format was later adapted for storage of data (CD-ROM).Standard CDs have a diameter of 120 millimetres (4.7 in) and can hold up to 80 minutes of uncompressed audio or 700 MB (700 × 106 bytes) of data.
- 135.(d) A computer virus is a computer programme that can replicate itself and spread from one computer to another. The term "virus" is also commonly, but erroneously, used to refer to other types of malware, including but not limited to adware and spyware programs that do not have a reproductive ability. Malware includes computer viruses, computer worms, Trojan horses, most rootkits, spyware, dishonest adware and other malicious or unwanted software, including true viruses. অ্যাচিভর্স
- 136.(d) First Computer came in India in 1956, in Calcutta now Kolkata In Indian statistical institute Kolkata under doctors Dutta, Majumdar and Roy .It was not only the first computer of India but also Asia's first computer outside Japan.

- 137.(d) Microsoft Power Point is a robust tool for creating powerful multimedia presentations. It provides such features as clip art, fancy fonts, animations, charts, graphics, sound, and an array of dazzling color schemes to make the presentations more interactive and effective.
- 138.(d) A modem (modulator-demodulator) is a device that modulates an analog carrier signal to encode digital information, and also demodulates such a carrier signal to decode the transmitted information. The goal is to produce a signal that can be transmitted easily and decoded to reproduce the original digital data. **প্র্যাচিভার্স**
- 139.(b) ENIAC was the first electronic general-purpose computer. It was Turing-complete, digital, and capable of being reprogrammed to solve a full range of computing problems. It was designed to calculate artillery firing tables for the United States Army's Ballistic Research Laboratory.
- 140.(a) A personal digital assistant (PDA), also known as a palmtop computer, or personal data assistant, is a mobile device that functions as a personal information manager. PDAs are largely considered obsolete with the widespread adoption of smartphones. Nearly all current PDAs have the ability to connect to the Internet.
- 141.(a) UNIX is a popular multi-user, multitasking operating system developed at Bell Labs in the early 1970s. Created by just a handful of programmers, UNIX was designed to be a small, flexible system used exclusively by programmers. It was designed to be portable, multi-tasking and multi-user in a timesharing configuration.
- 142.(d) The kilobyte is a multiple of the unit byte for digital information. It refers to either 1024 (2^{10}) bytes or 1000 (10^3) bytes, dependent upon context, in the fields of computer science and information technology. **প্র্যাচিভার্স**
- 143.(d) EEPROM (Electrically Erasable Programmable Read-Only Memory) is a special type of non-volatile memory used in computers to store small amounts of data that must be saved when power is removed, e.g., calibration tables or device configuration.
- 144.(b) Desktop publishing (abbreviated DTP) is the creation of documents using page layout skills on a personal computer. This technology allows individuals, businesses, and other organizations to self-publish a wide range of printed matter.
- 145.(b) Dynamic Random Access Memory (DRAM), the most common kind of Random Access Memory (RAM) for Personal computers and workstations, has to be refreshed many times per second in order to hold its data contents. DRAM is dynamic in that, unlike static RAM (SRAM), it needs to have its storage cells refreshed or given a new electronic charge every few milliseconds. DRAM stores each bit in a storage cell consisting of a capacitor and a transistor. Capacitors tend to lose their charge rather quickly thus, the need for recharging.
- 146.(d) Data integrity is the maintenance of, and the assurance of the accuracy and consistency of, data over its entire life-cycle. It is a critical aspect to the design, implementation and usage of any system which stores, processes, or retrieves data. Data integrity is the opposite of data corruption, which is a form of data loss.
- 147.(c) Wetware is a term drawn from the computer-related idea of hardware or software, but applied to biological life forms. Here the prefix "wet" is a reference to the water found in living creatures. Wetware is used to describe the elements equivalent to hardware and software found in a person, namely the central nervous system (CNS) and the human brain. **প্র্যাচিভার্স**
- 148.(b) A cache memory works on the principle of locality of reference, a term for the phenomenon in which the same values, or related storage locations, are frequently accessed, depending on the memory access pattern. Caching improves access time and reduces data traffic to data sources that have limited throughput.
- 149.(b) User Datagram Protocol (UDP) uses a simple connectionless transmission model with a minimum of protocol mechanism. It provides checksums for data integrity, and port numbers for addressing different functions at the source and destination of the datagram. It is an alternative communications protocol to Transmission Control Protocol (TCP) used primarily for establishing low-latency and loss tolerating connections between applications on the Internet. **প্র্যাচিভার্স**
- 150.(c) WIMAX stands for Worldwide Interoperability for Microwave Access. It is a family of wireless communication standards based on the IEEE 802.16 set of standards, which provide multiple physical layer (PHY) and Media Access Control (MAC) options. WiMAX is sometimes referred to as "Wi-Fi on steroids" and can be used for broadband connections, hotspots, etc.