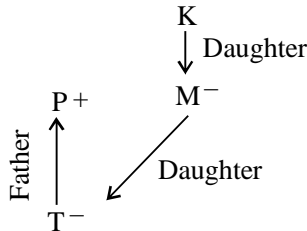


SSC CGL (Tier-I) Exam. Practice Set

Answers with Explanation

PART-I : REASONING

1. (c) Teacher teaches students. Similarly, lawyer serves his client.
2. (b) Dress is prepared by tailor. Similarly, furniture is manufactured by carpenter.
3. (a) Bow and Arrow are complementary to each other. Similarly, Pistol and Bullet are complementary to each other. শ্রীচিভর্ষ
4. (a) Editor edits and supervises the articles of a magazine. Similarly, Director directs the scenes of a drama.
5. (a) A Cobbler makes shoes with leather. Similarly, tailor stitches cloth.
6. (d)



Obviously P and M are parents (father and mother respectively) of T. Hence P and M are husband-wife. Hence P is son-in-law of M's mother/father 'K'.

7. (d) A is sister of B. C is mother of A and B. D is father of C. So, A is granddaughter of D.
8. (b) Sonia is mother of Atul and Rajiv. শ্রীচিভর্ষ
Rajiv is son of Sonia.

9. (d) Option (a)
 $36 \times 6 + 7 \div 2 - 6 = 20$
 $\Rightarrow 36 + 6 \div 7 - 2 \times 6 = 20$
 $\Rightarrow 36 + \frac{6}{7} - 12 \neq 20$

- Option (b)
 $36 \div 6 + 3 \times 5 - 3 = 45$
 $\Rightarrow 36 - 6 \div 3 + 5 \times 3 = 45$
 $\Rightarrow 36 - 2 + 15 \neq 45$ শ্রীচিভর্ষ

- Option (c)
 $36 + 6 - 3 \times 5 \div 3 = 24$
 $\Rightarrow 36 \div 6 \times 3 + 5 - 3 = 25$
 $\Rightarrow 6 \times 3 + 5 - 3 = 24$
 $\Rightarrow 18 + 5 - 3 \neq 24$

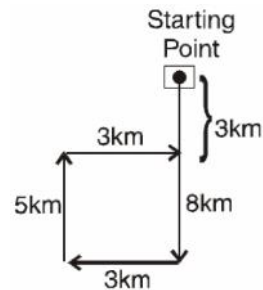
- Option (d)
 $36 - 6 + 3 \times 5 \div 3 = 74$
 $\Rightarrow 36 \times 6 \div 3 + 5 - 3 = 74$
 $\Rightarrow 72 + 5 - 3 = 74$ শ্রীচিভর্ষ

10. (d)

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

- $20 \times 60 \div 40 - 20 + 10 = ?$
 $\Rightarrow ? = 20 + 60 - 40 \times 20 \div 10$
 $\Rightarrow ? = 20 + 60 - 40 \times 2$
 $\Rightarrow ? = 80 - 80 = 0$

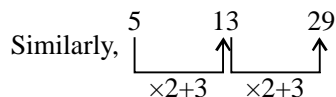
11. (d)



It is clear from the diagram that Ashok was in South direction from the starting point. শ্রীচিভর্ষ

12. (d) $6 + 12 = 18$
Therefore, $? = 4 + 12 = 16$

13. (d) $7 \quad 15 \quad 31$
 $\quad \quad \uparrow \quad \uparrow$
 $\quad \quad \times 2+1 \quad \times 2+1$



14. (a) we have $210 = (14)^2 + 14$ and $380 = (19)^2 + 19$
 Similarly, $182 = (13)^2 + 13$ and
 $(18)^2 + 18 = \boxed{342}$

15. (d) There is no 'P' letter in the given word. Therefore, the word CAPTION cannot be formed.

LOCALIZATION \Rightarrow LOCAL শ্রীচিভর্ষ

LOCALIZATION \Rightarrow ACTION শ্রীচিভর্ষ

16. (b) There is only one 'T' in the given word. Therefore, the word STENT cannot be formed.

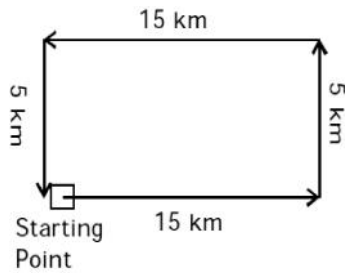
SHIPMENT \Rightarrow SENT

SHIPMENT ⇒ SPENT

SHIPMENT ⇒ HIPS

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17. (d)



Amit is 5 km away from the starting point.

18. (d)

The year 1989 was a normal year.

Days upto 15 August 1989 from

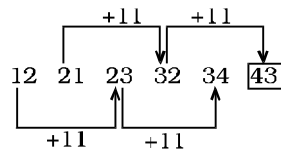
August 15, 1988 = 16 + 30 + 31 + 30 + 31 + 31 + 28 + 31 + 30 + 31 + 30 + 31 + 15 = 365 = 52 weeks 1 day

Therefore, Wednesday + 1 = Thursday

19. (b)

When it appears 6 : 30 in mirror, the real time would be 5 : 30.

20. (a)



21. (c)

There are two alternating series. The first series consists of squares of consecutive numbers while the second series consists of consecutive numbers.

$(1)^2 = 1, (2)^2 = 4, (3)^2 = 9,$

$(4)^2 = 16, (5)^2 = \boxed{25}$

$2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow \boxed{6}$

22. (c)

9 5 7 8 9
↓ ↓ ↓ ↓ ↓
E G K P T

A L U R
↓ ↓ ↓ ↓
2 4 3 6

Therefore, 2 4 5 3 9
↓ ↓ ↓ ↓ ↓
A L G U T

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23. (c)

Both the Premises are Universal Affirmative (A-type).

All men are women.



All women are crazy.

$A + A \Rightarrow A$ - type of Conclusion

"All men are crazy".

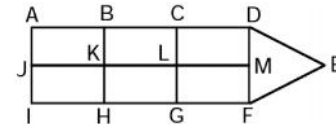
This is Conclusion I.

Conclusion III is the Converse of it.

Conclusion IV is the Converse of Statement Q.

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24. (d)



The rectangles are :

ABKJ; JKHI; BCLH;

KLGH; CDML; LMFG;

ACGI; ACLJ; JLGI;

BDFH; BDMK; KMFH;

ADFI; ADMJ; JMFI

ABHI, BCGH and CDFG are squares.

We know that every square is a rectangle. But its reverse is not always true.

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25. (a)



PART-II : GENERAL AWARENESS

26. (a)

The Arab conquest of Sindh by Muhammad Bin Qasim in 712 AD gave the Muslims a firm foothold on the sub-continent. Qasim's conquest of Sindh and Punjab laid the foundations of Islamic rule in the Indian subcontinent. The description of Hiuen Tsang, a Chinese historian, leaves no doubt that the social and economic restrictions inherent in the caste differentiations of Hindu society had however, gradually sapped the inner vitality of the social system and Sindh fell without much resistance before the Muslim armies.

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27. (d)

The festivals of Tamil Nadu are : Pongal, Jallikattu, Chithirai and Adipperukku.

28. (c)

Benegal Narsing Rau was an Indian bureaucrat, jurist, diplomat and statesman known for his key role in drafting the Constitution of India. He was also India's representative to the United Nations Security Council from 1950 to 1952. B.N. Rau was appointed as the Constitutional Adviser to the Constituent Assembly in formulating the Indian Constitution. He was responsible for the general structure of the its democratic framework of the Consti-tution and

prepared its original draft. The President of the Constituent Assembly Dr. Rajendra Prasad, before signing the Constitution on 26 November, 1949, thanked Rau for having 'worked honorarily all the time that he was here, assisting the assembly not only with his knowledge and erudition but also enabled the other members to perform their duties with thoroughness and intelligence by supplying them with the material on which they could work.'

29. (b) Mercury is the innermost planet (nearest to the Sun) in the Solar System. It is also the smallest, and its orbit is the most eccentric (that is, the least perfectly circular) of the eight planets. It orbits the Sun once in about 88 Earth days, completing three rotations about its axis for every two orbits.
30. (d) India has been ranked 86th among 180 countries in Corruption Perception Index (CPI) 2020, re-leased by Transparency International (Headquarter – Berlin, Germany) on 28 January 2021.
31. (c) An open market operation (also known as OMO) is an activity by a central bank to buy or sell government bonds on the open market. A central bank uses them as the primary means of implementing monetary policy. The usual aim of open market operations is to control the short term interest rate and the supply of base money in an economy, and thus indirectly control the total money supply. This involves meeting the demand of base money at the target interest rate by buying and selling government securities, or other financial instruments. Monetary targets, such as inflation, interest rates, or exchange rates, are used to guide this implementation.
32. (a) Pallavas ruled regions of northern Tamil Nadu and southern Andhra Pradesh between the second to the ninth century CE. Kanchipuram served as the capital city of the Pallava Kingdom from the 4th to the 9th century. It is also known by its former names Kanchiampathi, Conjeevaram, and the nickname "The City of Thousand Temples". Kanchipuram was mentioned in the Mahabhasya, written by Patanjali in the 2nd century BC.
33. (d) On the 14 August, 1947 meeting of the Assembly, a proposal for forming various committees was presented. Such committees included

a Committee on Fundamental Rights, the Union Powers Committee and Union Constitution Committee. On 29 August, 1947, the Drafting Committee was appointed, with Dr B. R. Ambedkar as the Chairman along with six other members assisted by a constitutional advisor.

34. (a) A hanging valley is a tributary valley with the floor at a higher relief than the main channel into which it flows. They are most commonly associated with U-shaped valleys when a tributary glacier flows into a glacier of larger volume. The main glacier erodes a deep U-shaped valley with nearly vertical sides while the tributary glacier, with a smaller volume of ice, makes a shallower U-shaped valley. Since the surfaces of the glaciers were originally at the same elevation, the shallower valley appears to be 'hanging' above the main valley.
35. (c) Kanishka worked for preaching of Buddhism. He spread Buddhism to China, Japan, Central Asia and Tibet; and convened the 4th Buddhist Council at Kundalvana in Kashmir. Due to his works he is often called 'Second Asoka'.
36. (c) The appointments committee (ACC) of the Cabinet has approved the appointment of Swaminathan Jana-kiraman and Ashwini Kumar Tewari as new Managing Directors (MDs) of State Bank of India (SBI) for a period of three years. Dinesh Kumar Khara is the current Chairman of the bank. The other two MDs of the bank are C.S. Setty and Ashwani Bhatia.
37. (a) Curie, in physics, unit of activity of a quantity of a radioactive substance, named in honour of the French physicist Marie Curie. One curie (1 Ci) is equal to 3.7×10^{10} becquerel (Bq). Radioactivity refers to the particles which are emitted from nuclei as a result of nuclear instability. Because the nucleus experiences the intense conflict between the two strongest forces in nature, it should not be surprising that there are many nuclear isotopes which are unstable and emit some kind of radiation. The most common types of radiation are called alpha, beta, and gamma radiation, but there are several other varieties of radioactive decay.
38. (b) Literally, Certiorari means to be certified. The writ of certiorari can be issued by the Supreme Court or any High Court for quashing the order already passed by an inferior court, tribunal or quasi judicial authority. A writ of certiorari is a

form of judicial review whereby a court is asked to consider a legal decision of an administrative tribunal, judicial office or organization (eg. government) and to decide if the decision has been regular and complete, if there has been an error of law, if the tribunal had the power to make the decision complained of or whether the tribunal exceeded its powers in issuing the decision complained of.

39. (b) Ardaseer Cursetjee Wadia was the first Indian to be elected as a Fellow of the Royal Society on May 27, 1841 which credited him with both the introduction of gas lighting to Bombay, as well as having “built a [seagoing] vessel of 60 tons to which he adapted a Steam Engine. He was an Indian shipbuilder and engineer.
40. (b) The Mariana Trench is the deepest part of the world’s oceans. It is located in the western Pacific Ocean, to the east of the Mariana Islands.
41. (a) Galvanization is the process of applying a protective zinc coating to steel or iron, in order to prevent rusting. The term is derived from the name of Italian scientist Luigi Galvani. 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.
42. (c) The Securities and Exchange Board of India (frequently abbreviated SEBI) is the regulator for the securities market in India. SEBI has to be responsive to the needs of three groups, which constitute the market: the issuers of securities; the investors; and the market intermediaries. It is entrusted with regulating the business in stock exchanges and any other securities markets; registering and regulating the working of stock brokers, sub-brokers, share transfer agents, bankers to an issue, trustees of trust deeds, registrars to an issue, merchant bankers, underwriters, portfolio managers, investment advisers and such other intermediaries who may be associated with securities markets in any manner; registering and regulating the working of [venture capital funds and collective investment schemes], including mutual funds; etc.
43. (c) Board of Directors of Kerala-based Dhanlaxmi Bank have given approval to appoint Shivan J K as managing director and CEO of the Bank.
44. (d) Water is transported through the plant in Xylem vessels, these begin in the roots and end in the

leaves of the plant, water is translocated through a combination of “Transpirational pull” and capillary action. Xylem is one of two “conductive” tissues responsible for moving water and the products of photosynthesis (glucose) through the plant, the tissue responsible for moving the “food” around is Phloem.

45. (c) The All-India Muslim League was a political party during the period of the British Rule which advocated the creation of a separate Muslim-majority nation. It was founded by the All India Muhammadan Educational Conference at Dhaka (now Bangladesh), in 1906, in the context of the circumstances that were generated over the partition of Bengal in 1905.
46. (a) Kalamkari is a type of hand-painted or block-printed cotton textile, produced in parts of South India and Iran. It is an ancient style of hand painting done on cotton or silk fabric with a tamarind pen, using natural vegetable dyes. This style of painting originated at Kalahasti near Chennai and at Masulipatnam near Hyderabad.
47. (a) Diabetes mellitus, or simply diabetes, is a group of metabolic diseases in which a person has high blood sugar, either because the pancreas does not produce enough insulin, or because cells do not respond to the insulin that is produced. This high blood sugar produces the classical symptoms of polyuria (frequent urination), polydipsia (increased thirst) and polyphagia (increased hunger).
48. (b) Former India goalkeeper Prasanta Dora, who also played for the big three clubs of Kolkata football, passed away.
49. (a) The Malwa Plateau roughly forms a triangle based on the Vindhyan Hills, bounded by the Aravalli Range in the west and Madhya Bharat Pathar to the north and Bundelkhand to the east. It has two systems of drainage; one towards the Arabian sea (The Narmada, the Tapi and the Mahi), and the other towards the Bay of Bengal (Chambal and Betwa, joining the Yamuna).
50. (c) The concept of Directive Principles of State Policy was borrowed from the Irish Constitution. Article 45 of the Irish Constitution outlines a number of broad principles of social and economic policy. Its provisions are, however, intended solely “for the general guidance of the Oireachtas”, and “shall not be cognizable by any Court under any of the provisions of this Constitution.”

PART-III : QUANTITATIVE APTITUDE

51. (a) $1000 = (45 \times 22) + 10$

$$\therefore 45 - 10 = 35 \text{ to be added.}$$

So, the smallest number to be added to 1000 to make the sum exactly divisible by 45 is 35.

52. (c) Here, 387 is a multiple of 43.

\therefore Remainder obtained on dividing 48 by 43 i.e. 5 is the required remainder.

53. (d) Series of all natural numbers from 75 to 97 is in A.P. whose first term, $a = 75$, last term, $l = 97$

If number of terms be n , then

$$a_n = a + (n-1)d$$

$$\Rightarrow 97 = 75 + (n-1)$$

$$\Rightarrow n = 97 - 74 = 23$$

$$S_n = \frac{n}{2}(a+l)$$

$$S_{23} = \frac{23}{2}(75+97)$$

$$= \frac{23}{2} \times 172 = 1978$$

54. (a) The number will be HCF of $307 - 3 = 304$ and $330 - 7 = 323$.

$$\begin{array}{r}
 304) 323 \text{ (1)} \\
 \underline{304} \\
 19) 304 \text{ (16)} \\
 \underline{19} \\
 114 \\
 \underline{114} \\
 \times
 \end{array}$$

$$\therefore \text{ Required number} = 19$$

55. (b) HCF = 12

$$\therefore \text{ Numbers} = 12x \text{ and } 12y$$

where x and y are prime to each other.

$$\therefore 12x + 12y = 84$$

$$\Rightarrow 12(x+y) = 84$$

$$\Rightarrow x+y = \frac{84}{12} = 7$$

\therefore Possible pairs of numbers satisfying this condition = (1,6), (2,5) and (3,4). Hence three pairs are of required numbers.

56. (d) Let the value of * be x .

$$\therefore \frac{50}{x} = \frac{x}{12\frac{1}{2}}$$

$$\Rightarrow \frac{50}{x} = \frac{2x}{25}$$

$$\Rightarrow 2x^2 = 50 \times 25$$

$$\Rightarrow x^2 = 25 \times 25$$

$$\therefore x = 25$$

57. (b) Expression

$$= 3 \div \left[(8-5) \div \left\{ (4-2) + \left(2 + \frac{8}{13} \right) \right\} \right]$$

$$= 3 \div \left[3 \div \left\{ 2 + \frac{26+8}{13} \right\} \right]$$

$$= 3 \div \left[3 \div \left\{ 2 + \frac{26+8}{13} \right\} \right]$$

$$= 3 \div \left[3 \div \left\{ 2 + \frac{34}{13} \right\} \right]$$

$$= 3 \div \left[3 \div \left\{ \frac{26+34}{13} \right\} \right]$$

$$= 3 \div \left[3 \div \frac{60}{13} \right]$$

$$= 3 \div \left[\frac{3 \times 13}{60} \right]$$

$$= 3 \div \frac{13}{20} = 3 \times \frac{20}{13} = \frac{60}{13}$$

$$\begin{aligned}
 58. (b) & \sqrt{\frac{(0.1)^2 + (0.01)^2 + (0.009)^2}{(0.01)^2 + (0.001)^2 + (0.0009)^2}} \\
 &= \sqrt{\frac{0.01 + 0.0001 + 0.000081}{0.0001 + 0.000001 + 0.00000081}} \\
 &= \sqrt{\frac{0.010181}{0.00010181}} = \sqrt{100} = 10
 \end{aligned}$$

59. (b) Total correct marks of 35 children

$$= 35 \times 35 + 35 - 65$$

$$= 1225 - 30 = 1195$$

$$\text{Required average} = \frac{1195}{35} = 34.14$$

60. (c) $a + b + c = 45$ and

$$b + c + d = 48$$

$$\Rightarrow b + c = 48 - 19 = 29$$

$$\therefore a + b + c = 45$$

$$\Rightarrow a = 45 - 29 = 16$$

$$61. (b) \frac{a}{b} = \frac{5}{7}, \frac{c}{d} = \frac{2a}{3b}$$

$$\Rightarrow \frac{a}{b} \times \frac{c}{d} = \frac{5}{7} \times \frac{2a}{3b}$$

$$\Rightarrow \frac{ac}{bd} = \frac{10}{21} \times \frac{5}{7} = \frac{50}{147}$$

$$= 50:147$$

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$$62. (b) A : B : C = \frac{1}{2} : \frac{2}{3} : \frac{3}{4}$$

$$= \left(\frac{1}{2} \times 12\right) : \left(\frac{2}{3} \times 12\right) : \left(\frac{3}{4} \times 12\right)$$

$$= 6 : 8 : 9$$

Sum of the terms of ratio = 6 + 8 + 9 = 23

∴ First Part

$$= ₹ \left(\frac{6}{23} \times 782\right)$$

$$= ₹ 204$$

অ্যাকাডেমিক

$$63. (c) \text{ Loss per cent}$$

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

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

$$64. (a) \text{ Required profit per cent}$$

$$= \frac{10 - 9}{9} \times 100$$

$$= \frac{1}{9} \times 100 = 11\frac{1}{9}\%$$

$$65. (b) \frac{\sqrt{7}-2}{\sqrt{7}+2} = \frac{\sqrt{7}-2}{\sqrt{7}+2} \times \frac{\sqrt{7}-2}{\sqrt{7}+2}$$

(Rationalising the denominator)

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$$= \frac{(\sqrt{7}-2)^2}{7-4} = \frac{7+4-4\sqrt{7}}{3}$$

$$= \frac{11}{3} - \frac{4\sqrt{7}}{3}$$

$$\therefore \frac{\sqrt{7}-2}{\sqrt{7}+2} = a\sqrt{7} + b$$

$$\Rightarrow \frac{11}{3} - \frac{4}{3}\sqrt{7} = a\sqrt{7} + b$$

Clearly,

$$a = -\frac{4}{3} \text{ and } b = \frac{11}{3}$$

$$66. (c) x + \frac{1}{x} = 99$$

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$$\therefore \frac{100x}{2x^2 + 102x + 2}$$

$$= \frac{100x}{2x^2 + 2 + 102x}$$

on dividing by x,

$$= \frac{100}{2x + \frac{2}{x} + 102}$$

$$= \frac{100}{2\left(x + \frac{1}{x}\right) + 102}$$

$$= \frac{100}{2 \times 99 + 102} = \frac{100}{300} = \frac{1}{3}$$

অ্যাকাডেমিক

$$67. (a) \frac{2\sin\theta - \cos\theta}{\cos\theta + \sin\theta} = 1$$

Dividing numerator and denominator by $\sin\theta$,

$$\frac{2 - \cot\theta}{\cot\theta + 1} = 1$$

$$\Rightarrow 2 - \cot\theta = \cot\theta + 1$$

$$\Rightarrow 2\cot\theta = 1$$

$$\Rightarrow \cot\theta = \frac{1}{2}$$

$$68. (c) \frac{\sin\theta}{x} = \frac{\cos\theta}{y} = \frac{1}{k}$$

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$$\Rightarrow x = k\sin\theta; y = k\cos\theta$$

$$\therefore x^2 + y^2$$

$$k^2(\sin^2\theta + \cos^2\theta) = k^2$$

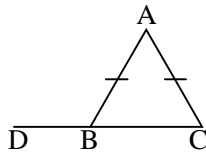
$$\Rightarrow k = \sqrt{x^2 + y^2}$$

$$\therefore \sin\theta - \cos\theta$$

$$= \frac{x}{k} - \frac{y}{k} = \frac{x-y}{k}$$

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

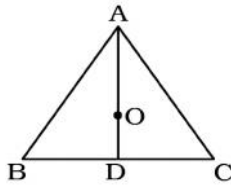
69. (c)



$\angle ABC = \angle ACB$ [$\because AB = AC$]
 $\angle BAC = 40^\circ$
 $\Rightarrow \angle ABC + \angle ACB = 140^\circ$
 $\Rightarrow \angle ABC = 70^\circ$
 $\therefore \angle ABD = 180^\circ - 70^\circ = 110^\circ$

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70. (a)



Point O, is the centroid of $\triangle ABC$.
 $AO : OD = 2 : 1$

$\Rightarrow \frac{10}{OD} = \frac{2}{1} \Rightarrow 2 \times OD = 10$
 $\Rightarrow OD = \frac{10}{2} = 5 \text{ cm.}$

প্র্যাচিভর্স

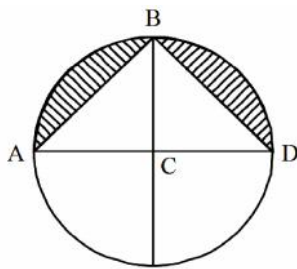
71. (d)

$3^2 + 4^2 = 5^2$
 \therefore Base = 3 cm and perpendicular = 4 cm
 \therefore Area of the right angled triangle

$= \frac{1}{2} \times \text{base} \times \text{height}$
 $= \frac{1}{2} \times 3 \times 4 = 6 \text{ sq.cm.}$

প্র্যাচিভর্স

72. (c)



Let Radius of circle = a units
 \therefore Area of semi circle

$= \frac{\pi a^2}{2} \text{ sq. units}$

Both triangles $\triangle ABC$ and $\triangle BCD$ are isosceles and equal.

\therefore Area of each triangle = $\frac{1}{2} a^2$

প্র্যাচিভর্স

\Rightarrow Area of both triangles

$= 2 \times \frac{1}{2} a^2 = a^2 \text{ sq. units}$

\therefore Area of shaded region

$= \frac{\pi a^2}{2} - a^2 = a^2 \left(\frac{\pi}{2} - 1 \right) \text{ sq. units}$

প্র্যাচিভর্স

73. (c)

$$\frac{3-5x}{2x} + \frac{3-5y}{2y} + \frac{3-5z}{2z} = 0$$

$$\Rightarrow \frac{3}{2x} - \frac{5x}{2x} + \frac{3}{2y} - \frac{5y}{2y} +$$

$$\frac{3}{2z} - \frac{5z}{2z} = 0$$

$$\Rightarrow \frac{3}{2x} + \frac{3}{2y} + \frac{3}{2z} - \frac{5}{2} - \frac{5}{2} - \frac{5}{2} = 0$$

$$\Rightarrow \frac{3}{2x} + \frac{3}{2y} + \frac{3}{2z} = \frac{3 \times 5}{2}$$

$$\Rightarrow \frac{1}{2x} + \frac{1}{2y} + \frac{1}{2z} = \frac{5}{2}$$

$$\Rightarrow \frac{4}{2x} + \frac{4}{2y} + \frac{4}{2z} = \frac{4 \times 5}{2}$$

$$\Rightarrow \frac{2}{x} + \frac{2}{y} + \frac{2}{z} = 10$$

প্র্যাচিভর্স

74. (a)

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

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

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

$$= \frac{2}{0+1} = 2$$

প্র্যাচিভর্স

75. (c)

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

$$\Rightarrow 2x + \frac{2}{2x} = 4$$

$$\Rightarrow 2x + \frac{1}{x} = 4$$

On cubing both sides,

$$8x^3 + \frac{1}{x^3} + 3.2x \cdot \frac{1}{x} \left(2x + \frac{1}{x} \right) = 64$$

প্র্যাচিভর্স

$$\Rightarrow 8x^3 + \frac{1}{x^3} + 6 \times 4 = 64$$

$$\Rightarrow 8x^3 + \frac{1}{x^3} = 64 - 24 = 40$$

$$8x^3 + \frac{1}{x^3} + 3.2x \cdot \frac{1}{x} \left(2x + \frac{1}{x} \right) = 64$$

$$\Rightarrow 8x^3 + \frac{1}{x^3} + 6 \times 4 = 64$$

$$\Rightarrow 8x^3 + \frac{1}{x^3} = 64 - 24 = 40$$

প্র্যাচিভর্ন

PART-IV : ENGLISH LANGUAGE

76. (d) No error প্র্যাচিভর্ন
77. (c) Use of of with despite is superfluous.
So, despite himself will replace despite of himself
78. (c) most will replace more because – the (Def. Art.) is used with Superlative Degrees, which compare more than two things/persons/situations. Hence, the most good-looking one is the right usage
79. (b) accused (Verb) : said that somebody has done something wrong, condemned (Verb) : expressed/very strong disapproval of, charged (Verb) : accused of doing something wrong (publicly)
Here, accused is the right usage.
80. (c) which (Pro.) : used in questions for asking somebody to be exact about one or more people or things from a limited number
Here, which is the right usage.
81. (b) conscientious (Adj.) : taking care to do things carefully and correctly প্র্যাচিভর্ন
Here, conscientious is the right usage.
82. (c) atone (Verb) : to act in a way that shows you are sorry for doing something wrong in the past. at one takes the Preposition-for
Here, for is the right usage.
83. (d) The structure of the sentence is as follows:
Past Perfect (Had — told),
would have + Past Participle
(attended)
Here, would have attended is the right usage.
84. (d) **strengthen (Verb)** : to become stronger; to make somebody or something stronger

fortify (Verb) : to make a place more able to resist attack; to make yourself feel stronger, braver; strengthen প্র্যাচিভর্ন

create (Verb) : to make something happen or exist; to produce a particular feeling

generate (Verb) : to produce or create something

prohibit (Verb) : to stop something from being done; forbid

85. (b) **shortage (Noun)** : a situation when there is not enough of the people or things that are needed

paucity (Noun) : a small amount of something; less than enough of something; shortage

surplus (Noun) : an amount that is extra or more than you need প্র্যাচিভর্ন

excess (Noun) : more than is necessary, reasonable or acceptable

meanness (Noun) : the quality of being mean; unwilling to part with anything; likely to become angry

86. (b) **violence (Noun)** : violent behaviour that is intended to hurt or kill somebody

atrocious (Noun) : a cruel and violent act

envy (Noun) : jealousy

jealousy (Noun) : envy; a feeling of being jealous

absurdity (Noun) : the state of being completely ridiculous; illogical or insensible

87. (d) run down : to criticize somebody/something in an unkind way

● Please stop running me down all the time. The best option is criticise.

88. (b) to make both ends meet : to earn just enough money to be able to buy the things you need
● I have to work at two jobs to make both ends meet. প্র্যাচিভর্ন

The best option is to live within one's income.

89. (c) **a close shave** : a narrow escape ● The car passed so close to us; it was really a close shave. The best option is a narrow escape.

90. (c) **bad blood** : feelings of hatred/strong dislike

● There is no bad blood between us.

The best option is active enmity.

91. (d) **bliss (Noun)** : extreme happiness

misery (Noun) : distress ; poverty; great suffering of the mind or body ; very poor living conditions প্র্যাচিভর্ন

- glad (Adjective)** : pleased ; happy ; grateful ; very willing to do ; full of joy ; bringing joy
- pleasant (Adjective)** : enjoyable, pleasing or attractive ; friendly and polite
- enjoy (Verb)** : to get pleasure ; to be happy and get pleasure from what you are doing
92. (c) **civilized (Adjective)** : having or showing polite and reasonable behaviour শ্রীচিভর্ষ
- barbarous (Adjective)** : extremely cruel and shocking ; showing a lack of education and good manners
- improved (Verb)** : to become/ make better than before
- cordial (Adjective)** : pleasant and friendly
- modified (Adjective)** : changed in form or character
93. (b) **lazy (Adjective)** : lethargic
- diligent (Adjective)** : showing care and effort in your work or duties
- intelligent (Adjective)** : very clever শ্রীচিভর্ষ
- boastful (Adjective)** : talking about yourself in a very proud way
- notorious (Adjective)** : well-known for being
- bad শ্রীচিভর্ষ
94. (d) **barometer** (N.) : an instrument for measuring air pressure to show when the weather will change
- metronome (N.)** : a device that makes a regular sound like a clock and is used by musicians for helping them keep the correct rhythm while playing a piece of music.
- compass (N.)** : an instrument for finding directions
- pedometer (N.)** : an instrument for measuring how far you have walked
95. (d) **synonyms** শ্রীচিভর্ষ
- synonyms (N.)** : words of the same meanings
- homonyms (N.)** : words pronounced/ spelled the same way but having different meanings
- pseudonym (N.)** : a fictitious name used instead of his real names
- antonyms (N.)** : words of opposite meanings
96. (d) to (Prep.)
97. (a) **nestles (Verb)** : located in a position that is protected, sheltered or hidden
98. (a) so (Conj.) শ্রীচিভর্ষ
99. (b) take (Verb)
100. (d) bordering (Verb)

