ENGLISH LANGUAGE AND COMPREHENSION

|								
1. (4)	2. (3)	3. (4)	4. (3)	5. (2)	6. (4)	7. (3)	8. (3)	9. (4)
10. (4)	11. (1)	12. (2)	13. (2)	14. (1)	15. (2)	16. (1)	17. (4)	18. (1)
19. (4)	20. (3)	21. (2)	22. (3)	23. (2)	24. (3)	25. (4)		

EXPLANATION:-

1. (4) An adverb 'slowly' is required here.
4. (3) Replace 'little' with 'about/around/approximately'.
5. (2) Replace 'from' with 'since'. Since is used for a specific point of past time.
7. (3) 'Indict, is the correct word, means- officially charge somebody with a crime.
(किसी पर अपराध के लिए औपचारिक रूप से अभियोग लगाना)
9. (4) Plural of 'summons' is 'summonses'
12. (2) 'Ingenious' is the correct spelling, means- marked by originality, resourcefulness, and cleverness in conception or execution

WORD	MEANING IN ENGLISH	MEANING IN HINDI
Conscientious	(Used about people) careful to do something correctly and well.	ईमानदार, कर्तव्यनिष्ठ
Delicate	Easy to damage or break	नाजुक
Edacious	Of or relating to eating	खाने-पिने से सम्बंधित
Gluttonous	Tending to eat and drink excessively; voracious.	अत्यधिक खाने और पीने की प्रवृत्ति; पेटू
Guarded	Careful not to give too much information or show how you really feel	संकोची तथा मनोभावों को छिपाकर रखने वाला
Insolvent	Not having enough money to pay what you owe, bankrupt	दिवालिया
Partial	Not complete	आंशिक
Satiate	To completely satisfy a desire or need	तृप्त करना
Savage	Very cruel or violent.	हिंसक या बर्बर
Sedulous	(Of a person or action) showing dedication and diligence.	परिश्रमी
Solvent	Able to pay all legal debts, that dissolves	ऋण चुकाने में समर्थ, घुलनशील
Strenuous	Needing or using a lot of effort or energy	श्रमसाध्य, परिश्रम भरा
Torpid	Without any energy or enthusiasm	सुस्त, सुप्त
Truce	An agreement to stop fighting for a period of time	युद्धविराम संधि
Vigorous	Carried out forcefully and energetically	ओजस्वी, ऊर्जावान

GENERAL INTELLIGENCE & REASONING

1. (4) 42, 163, 307, 476, **672**
+121 +144 +169 +196
$(11)^2$ $(12)^2$ $(13)^2$ $(14)^2$

2. (1)
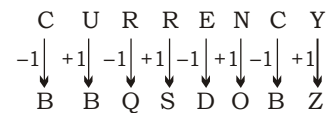
3. (2) D F H

H F D
Similarly,

Q S U

U S Q
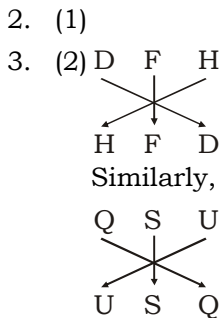
4. (3)
5. (2)
6. (1) Shillong is the capital of Meghalaya. Similarly, Jaipur is the capital of Rajasthan.

7. (1)
8. (3) Interchanging 8 and 7
I.   8 + 7 × 9 ÷ 3 – 6 = 25
     7 + 8 × 9 ÷ 3 – 6 = 25
     7 + 24 – 6 = 25
     25 = 25
II. 7 × 5 – 8 + 6 ÷ 2 = 38
     8 × 5 – 7 + 6 ÷ 2 = 38
     40 – 7 + 3 = 38
     36 ≠ 38

9. (3) B I T C O I N
       –1↓ +1↓ –1↓ +1↓ –1↓ +1↓ –1↓
        A J S D N J M
Similarly,

C U R R E N C Y
–1↓ +1↓ –1↓ +1↓ –1↓ +1↓ –1↓ +1↓
B B Q S D O B Z

10. (2)
11. (1) B ⇔ A
     8 ⇔ 9
     C ⇔ 2

12. (3) + means –
     × means +
     – means ÷
     ÷ means ×

$$326 = \frac{16 \times 15}{?}$$

? = 72 + 19 × 13 – 16 ÷ x × 15 + 7 = 266

$72 + 247 - \dfrac{16}{x} \times 15 + 7 =$
266

$325 - \dfrac{16 \times 5}{x} = 266$

$\dfrac{16 \times 15}{x} = 60$

$x = \dfrac{16 \times 15}{60}$

$x = 4$
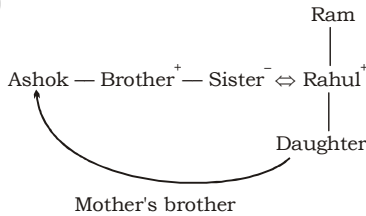
13. (3) 3 1 7 —— 7 1 3

3 4 2 —— 2 4 3

7 4 9 —— 9 7 4 **(Odd)**

6 4 3 —— 3 4 6

14. (3)

Ram

Ashok — Brother $^+$ — Sister $^-$ ⇔ Rahul $^+$
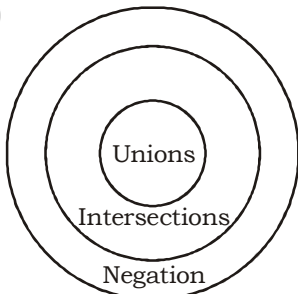
Daughter

Mother's brother

15. (1)
16. (3) The hook pass consists of offensive action in Basketball. Similarly, Butefly consists of offensive action in swimming.
17. (1)
18. (3) x y **x** z x **y** x z x y **x** z
19. (2)

20. (1)

Unions
Intersections
Negation

21. (1) $13 - 2199 \Leftrightarrow 13^3 + 2 = 2199$
(Odd)
$14 - 2745 \Leftrightarrow 14^3 + 1 = 2745$
$12 - 1729 \Leftrightarrow 12^3 + 1 = 1729$
$17 - 4914 \Leftrightarrow 17^3 + 1 = 4914$

22. (4) B $\xrightarrow{+2}$ D $\xrightarrow{+2}$ F
U $\xrightarrow{+2}$ W $\xrightarrow{+2}$ Y
I $\xrightarrow{+2}$ K $\xrightarrow{+2}$ M
P $\xrightarrow{+1}$ R $\xrightarrow{+1}$ S **(Odd)**

23. (2) 14, 28, 2 ⇒ 14 × 2 = 28
3, 42, 14 ⇒ 3 × 14 = 42
Similarly,
17, 68, 4 ⇒ 17 × 4 = 68

24. (2) 6 : 1296 ⇒ 6^4 = 1296
9 : 6561 ⇒ 9^4 = 6561
5 : 625 ⇒ 5^4 = 625

25. (3) ⑤⑥7 —— (high) |and| low

⑥2 9 —— Building are (high)

⑤3 1 —— hot |and| sour

low = 7

ANSWER KEY

1. (4) 2. (1) 3. (2) 4. (3) 5. (2)
6. (1) 7. (1) 8. (3) 9. (3) 10. (2)
11. (1) 12.(3) 13. (3) 14.(3) 15. (1)
16. (3) 17.(1) 18. (3) 19.(2) 20. (1)
21. (1) 22.(4) 23. (2) 24.(2) 25. (3)

QUANTITATIVE APTITUDE

1. (3) CP of 2 dozen (24) Bananas = Rs 30
SP of 15 Banana =

$\dfrac{12\ rs\ dozen}{12\ (\text{Banana in one dozen})} = 15rs$

SP of Remaining (24 – 15 = 9 Bananas)

$= 9 \times \dfrac{5rs/dozen}{12\ (\text{Banana is 1 dozen})}$

$= \dfrac{15}{4}$ rs

Total SP $= 15rs + \dfrac{15}{4}$ rs $= 15 \times \dfrac{15}{4}$

$= \dfrac{75}{4}$ rs/2 dozen)

CP   SP
30 rs   18.75
Loss percentage
=

$\dfrac{(30 - 18.75)}{30} \times 100 = \dfrac{11.25}{30} \times 100$

= 37.5%

2. (3) x–y = 8,   (xy = 1)
$x^3 - y^3 = (x-y)\ [(x-y)^2 + 3xy]$
$= 8\ [64 + 3(1)]$

$= 8\ [67 + 3(1)]$
$= 8\ [67] = (536)$
$x^3 - y^3 = 536$
$2x^3 - 2y^3 = 2 \times 536 = 1072$
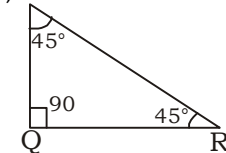
3. (2) Statement I = P in $(S_1 + S_2) =$

$\dfrac{60 + 80}{2} = \dfrac{140}{2} = 70$

Statement II= q in $S_3 : S_4$
130 : 70
(13 : 7)
Both statement is Right

4. (2) a+b+c = 12, ab+bc+ca=22
Formula of $a^3+b^3+c^3 - 3abc =$
$(a+b+c)\ [(a+b+c)^2 - 3(ab+bc+ca)]$
$= 12[(12)^2 - 3(22)]$
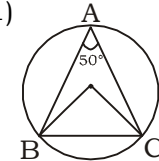$= 12[144 - 66]$
$= 12 \times 78 = (936)$

5. (4) P

45°
90
45°
Q   R

PQR is Right Angle triangle
= cos (P + R) = cos (45° + 45°)
= cos 90° = 0

6. (1)

A
50°
B   C

The angle subtended by the same chord on the centre of the circle = 2∠A
= 2 × 50° = 100°

7. (2) $J_1 = \dfrac{100 + 80 + 60}{3} = \dfrac{240}{3} = 80$

$J_2 = 100 + 90 + 75 = 265$

$= \dfrac{J_2}{J_1} = \dfrac{265}{80} = 3.31$

8. (4) $\tan\theta = \dfrac{2}{3}$

$\dfrac{\sin\theta}{\cos\theta} = \dfrac{2}{3}$

When hypotenuse is common in condition then we can directly use the value of sinθ and cosθ

$\Rightarrow \dfrac{(3\sin\theta - \cos\theta)}{(3\sin\theta + \cos\theta)} = \dfrac{(3(2) - 3)}{(3(2) + 3)}$

$$= \frac{3}{9} = \frac{1}{3}$$

9. (2) $\left(1-\frac{1}{P}\right)^2 = 1+\frac{1}{P^2} - \frac{2}{P}$

$$= 1 - \frac{2}{P} + \frac{1}{P^2}$$

10. (2) $\sqrt{3}\tan^2\theta - 4\tan\theta + \sqrt{3} = 0$

$\sqrt{3}\tan^2\theta - 3\tan\theta - \tan\theta + \sqrt{3} = 0$

$\sqrt{3}\tan\theta(\tan\theta-\sqrt{3})-1(\tan\theta-\sqrt{3}) = 0$

$(\tan\theta-\sqrt{3})(\sqrt{3}\tan\theta-1) = 0$

$(\tan\theta=\sqrt{3})$ $\left(\tan\theta=\frac{1}{\sqrt{3}}\right)$

$\theta = 60°$ $\theta = 30°$
θ can be 60° or 30°
let θ = 60°

$\tan^2 60° + \cot^2 60° = \left(\sqrt{3}\right)^2 + \left(\frac{1}{\sqrt{3}}\right)^2$

$= 3 + \frac{1}{3} = \frac{10}{3}$

Let θ = 30°

$\tan^2 30° + \cot^2 30° = \left(\frac{1}{\sqrt{3}}\right)^2 + \left(\sqrt{3}\right)^2$

$= \frac{1}{3} + 3 = \frac{10}{3}$

11. (2)
Winner	Loser
60%	40%
of valid vote	of valid vote

Total valid vote $= 12{,}000 \times \frac{90}{100}$

$= 10{,}800$

Loser votes $= 10{,}800 \times \frac{40}{100} = 4320$

12. (3)
P	:	Q	:	R	:	S
1	:	3	:	3	:	3
3	:	3	:	4	:	4
2	:	2	:	2	:	1
6	:	18	:	24	:	12

$\frac{P}{S} = \frac{6}{12} = \frac{1}{2}$

13. (1) Area of rombus $= \frac{1}{2} \times d_1 \times d_2$

$= \frac{1}{2} \times 8 \times 13 = 52 \text{cm}^2$

14. (1) SP = MP × (discount)

discount $= 25\% \rightarrow \frac{-1}{4} \rightarrow \frac{\times 3}{4}$

SP $= MP \times \frac{3}{4}$

SP $= 1200 \times \frac{3}{4} = 900$rs

CP = 800
Profit = 900–800=100rs

15. (4) $\frac{\text{Men1} \times \text{day1} \times \text{hour1}}{\text{Work1}} =$

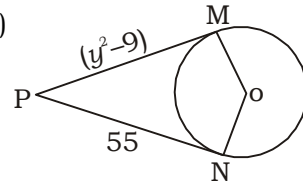$\frac{\text{Men2} \times \text{day2} \times \text{hour2}}{\text{Work 2}}$

15 B × 30 × 6 = 25 B × 24 ×(x)
x = 15 hour
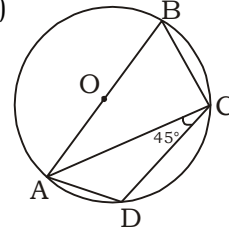
16. (3) Total Marked price = 1300 + 1100 + 800+600+700+1200 = 6,600
Total selling price = 700+ 400 +700 +600+500+400+400= 3,700
MP more than SP= (6600–3700) = 2900
MP in percentage more, than

SP $= \frac{2900}{3700} \times 100 = 78.37$ percent

17. (3)

P is a internal point from circle
length of PM= Length of PN
PM = $y^2 - 9$, PN = 55
$y^2 - 9 = 55$
$(y^2 = 64)$ $(y = 8)$

18. (2)

In cyclic quadrilateral sum of their opposite angle = 180°
∠BCD = 90° (By angle made by radius on the circumference)
∠BCD = 90° + 45° = 135°
∠BCD + ∠DAB = 180°
135° + ∠DAB = 180°
(∠DAB=45°)

19. (3) Ratio of speed = Ratio of distance
Manoj 1	:	Manoj 2
12	:	10
6	:	5
1x	—	15km

Actual distance 5x= 15×5 = 75km

20. (2) Monthly income of A + B = 14,000 -----(i)
Monthly income of B + C =

7,750×2 = 15,500 ----(ii)
Monthly income of C + A = 6,750 × 2= 13,500----(iii)
Adding all the equation

A+B+C $= \frac{43{,}000}{2} = 21{,}500$

Monthly salary of B
= (A+B+C) – (C + A)
= 21,500 – (13,500)= 8,000

21. (1) Football is the favorite sport of maximum students because there are 122 participants which is the maximum in the chart.

22. (4) Simple interest 3 years
= 1230 – 1050
SI for 3 years = 180
SI for 1 years = 60
SI for 5 years = 5 × 60 = 300
Principle = Amount – SI of x years
Principle = 1050 – 300
Principle = 750

23. (4) Statement I - $\frac{1}{2} + \frac{1}{6} + \frac{1}{12} +---$

$------- \frac{1}{110} < \frac{5}{6}$

$\frac{1}{2\times1} + \frac{1}{2\times3} + \frac{1}{3\times4} + \frac{1}{4\times5} ---$

$------ \frac{1}{10\times11} < \frac{5}{6}$

$\left(1-\frac{1}{2}\right) + \left(\frac{1}{2}-\frac{1}{3}\right) + \left(\frac{1}{3}-\frac{1}{4}\right) +$

$\left(\frac{1}{4}-\frac{1}{5}\right) ----- \left(\frac{1}{10}-\frac{1}{11}\right) < 5^6$

$\Rightarrow 1 - \frac{1}{11} = \frac{10}{11} < \frac{5}{6}$

⇒ 0.9090 is greater than 0.83
⇒ First statement is wrong

Statement II $\frac{1}{3} + \frac{1}{15} + \frac{1}{35} ------$

$\frac{1}{143} > \frac{7}{15}$

Multiply by 2 on both side

$\frac{2}{3} + \frac{2}{15} + \frac{2}{35} +------ \frac{2}{143} > \frac{14}{13}$

$\left(1-\frac{1}{3}\right) + \left(\frac{1}{3}-\frac{1}{5}\right) + \left(\frac{1}{5}-\frac{1}{7}\right) +-$

$-------- \left(\frac{1}{11}-\frac{1}{13}\right) > \frac{14}{13}$

$1-\frac{1}{3}+\frac{1}{3}-\frac{1}{5}+\frac{1}{5}-\frac{1}{7}+ ------ \frac{1}{11}$

$$-\frac{1}{13} > \frac{14}{13}$$

$$1 - \frac{1}{13} > \frac{14}{13}$$

$$\frac{12}{13} > \frac{14}{13} \quad \text{(Statement 2 is wrong)}$$

Neither I nor II correct

24. (3) AC = 40 cm
Then AO = 20 cm
BD = 60 cm
then BO = 30 cm
In Δ AOB
$AB^2 = AO^2 + OB^2$
$AB^2 = (20)^2 + (30)^2$
$AB^2 = 400 + 900$
$AB^2 = 1300$
$(AB = 10\sqrt{3} \text{ cm})$

25. (2) $15 + \frac{18}{3} \times 5 - \frac{12}{4} + a = 100$

$45 - \frac{12}{4} + a = 100$

$42 + a = 100$

$a = 58$

ANSWER KEY

1. (3) 2. (3) 3. (2) 4. (2) 5. (4)
6. (1) 7. (2) 8. (4) 9. (2) 10. (2)
11. (2) 12.(3) 13. (1) 14.(1) 15. (4)
16. (3) 17.(3) 18. (2) 19.(3) 20. (2)
21. (1) 22.(4) 23. (4) 24.(3) 25. (2)

GENERAL AWARENESS

1.(2) If soil contains greater proportion of big particles it is called sandy soil.
If the proportion of fine particles is relatively higher, then it is called clayey soil.

2.(1) Methanoic acid is present in ant sting.
Tartaric acid is the acid found in tamarind.
Acetic acid is also known as ethanoic acid, ethylic acid, vinegar acid, and methane carboxylic acid

3.(3) UCO Bank was founded on 6 January 1943
Headquarters - Kolkata
CEO - Soma Sankara Prasad
Founder - Ghanshyam Das Birla

4.(4)

5.(2) **Ahmedabad** - The Manchester of India
Amritsar - Golden City
Puducherry is referred by names such as 'Quintessence of French Culture', 'India's Little France' and 'The French Riviera of the East'.

6.(4) The **85th Amendment** gave the Parliament the power to make laws prescribing criteria for the appointment and employment of backward people.
87th Amendment Act amended Eighth Schedule of the Indian constitution. Santhali, Bodo, Dogri, and Maithili were added in the 8th Schedule of Constitution.
88th Amendment added a new subject in the Union List called 'taxes on services'

7.(4)

8.(3)

9.(2) Bajirao I was known as the Fighter Peshwa. Baji Rao was a general of the Maratha Empire in India. He served as Peshwa (Prime Minister) to the fifth Maratha Chhatrapati Shahu from 1720 until his death.
Sheikh Abdullah was the 3rd Chief Minister of Jammu and Kashmir.
Asaf Jah I, was the 1st Nizam of Hyderabad.

10.(4)

11.(4) First Generation : ENIAC, EDVAC, UNIVAC, IBM-701, and IBM-650
Second Generation : IBM 1620, IBM 7094, CDC 1604, CDC 3600, UNIVAC 1108
Third Generation : IBM-360 series, Honeywell-6000 series, PDP (Personal Data Processor), and IBM-370/168
Fourth Generation : STAR 1000, CRAY-X-MP(Super Computer), DEC 10, PDP 11, CRAY-1
Fifth Generation : Intel P 4, i 3 – i10, AMD Athlon

12.(3)

13.(3) The Lucknow Pact was an agreement reached between the Indian National Congress and the Muslim League.
Ambica Charan Mazumdar was the President of this session.

14.(1)

15.(4) **Article 59** - Conditions of Presidents office
Article 60 - Oath or affirmation by the President
Article 62 - Time of holding election to fill vacancy in the office of President.

16.(4) Nikhat Zareen is an Indian boxer.

17.(3)

18.(2) **Part X** - Administration of scheduled areas and tribal areas.
Part IX-A - deals with municipalities. It was added by the 74th amendment act of the Indian constitution.
Part XI – Relation between the Union and the States.

19.(2) Neelamshetty Appanna was the coach of Karnam Malleswari.
Saina Nehwal won Bronze in London 2012 Olympics.
Shakshi malik won Gold in 2022 Birmingham Commonwealth Games and bronze in 2016 Rio de JaneiroOlympics.

20.(1) The Young Bengal Movement from 1826–1832.
Dayanand Saraswati - Arya Samaj
Lala Hansrasj - Anglo-Vedic
Keshab Chandra Sen - Brahmo Samaj

21.(1)

22.(4) Inner Planets - Earth, Venus, Mercury, Mars

23.(4)

24.(3) Charles's law is an experimental gas law that describes how gases tend to expand when heated.
Boyle's law states that at constant temperature the volume of a given mass of a dry gas is inversely proportional to its pressure.
Graham's law states that the rate of diffusion or of effusion of a gas is inversely proportional to the square root of its molecular weight.

25.(3)

	Capital
Colombia	Bogotá
Peru	Lima
Chile	Santiago
Bolivia	La Paz

ANSWER KEY

1. (2) 2. (1) 3. (3) 4. (4) 5. (2)
6. (4) 7. (4) 8. (3) 9. (2) 10. (4)
11. (4) 12.(3) 13. (3) 14.(1) 15. (4)
16. (4) 17.(3) 18. (2) 19.(2) 20. (1)
21. (1) 22.(4) 23. (4) 24.(3) 25. (3)