ENGLISH LANGUAGE AND COMPREHENSION

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

EXPLANATION:-

3. (3)   'Beneficial' is incorrectly spelt here.
5. (2)   'Clamor' is incorrectly spelt here, means- a loud continuous noise.
8. (2)   Change 'couldn't' with 'Can't'. The sentence is universal fact.
15. (2)   Replace 'be groomed' with either 'groomed' or 'being groomed'.
19. (1)   Article 'a/an' is not placed before a Plural Noun.
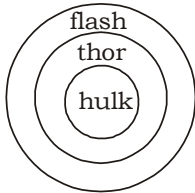
WORD	MEANING IN ENGLISH	MEANING IN HINDI
Benign	(Used about people) kind or gentle	दयालु
Besiege	To surround a place with an army	घेराबंदी करना
Buddy	Companion, partner	दोस्त
Buttery	Containing or tasting like butter.	मक्खन जैसा
Circumspect	Careful to consider everything that might happen	चौकस
Coarse	Of ordinary or poor quality	खुरदुरा
Coffer	Large strong box used to store money or valuable things	तिजोरी, संदूक
Cosmopolitan	One who feels at home every where	पूरी दुनिया में आरामदेह महसूस करने वाला
Craven	Lacking in courage; cowardly.	डरपोक
Devoted	Having strong loyalty, affection, or dedication	समर्पित
Drab	Not interesting or attractive	अनाकर्षक, नीरस
Foe	One who has personal enmity for another	शत्रु
Gallant	Brave; heroic	वीर
Gruntle	In good humour, happy, contented	खुश, संतुष्ट
Jejune	Devoid of significance or interest, dull	अरुचिकर, नीरस
Poignant	Painfully affecting the feelings, sharp, piercing	मार्मिक
Unabashed	Not embarrassed, disconcerted, or ashamed.	निराश या शर्मिंदा नहीं

GENERAL INTELLIGENCE & REASONING
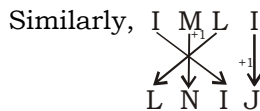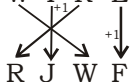
1. (2)

2. (2)
3. (1) Except for option 1, all numbers are in square format.
4. (3) We use binoculars to view distant objects.
    Similarly, we use a gun to shoot distant objects.
5. (4) W I R E
       R J W F
       (with +1 arrows)

Similarly, I M L I
          L N I J
          (with +1 arrows)

6. (3)
7. (2)
8. (2) $V > W > U > T > Y > X > Z$
    V is the eldest of all sisters

9. (3) $3 \xrightarrow{+1} 4$
    $8 \xrightarrow{-1} 7$
    $4 \xrightarrow{+1} 5$
    $7 \xrightarrow{-1} 6$
    $4 \xrightarrow{+1} 5$

    Similarly,

$2 \xrightarrow{+1} 3$
$8 \xrightarrow{-1} 7$
$4 \xrightarrow{+1} 5$
$6 \xrightarrow{-1} 5$
$4 \xrightarrow{+1} 5$

10. (4) $(7, 21, 343) = (7, 7 \times 3, 7^3)$
    $(8, 24, 512) = (8, 8 \times 3, 8^3)$
    Similarly,
    $(9, 27, 729) = (9, 9 \times 3, 9^3)$

11. (4) Rajesh $\overset{+}{=\!=\!=}\ominus$
        $\oplus =\!=\!=$ Suman$^-$

    Suman is daughter in law of Rajesh.

12. (1) $12 : 36 \rightarrow \dfrac{12}{2} = (6)^2 = 36$

$18 : 81 \rightarrow \dfrac{18}{2} = (9)^2 = 81$

Similarly,

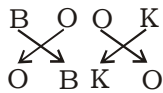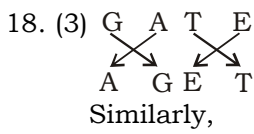$56 : 784 \rightarrow \dfrac{56}{2} = (28)^2 = 784$

13. (3) There are 11 houses that are only for bikes.

14. (2)

15. (1) Except for option 1, all are profession

16. (3) 1st → Perilad
2nd → Perimeter
3rd → Periodic
4th → Perish
5th → Periwing

17. (4)

18. (3) G A T E
⤫ ⤫
A G E T
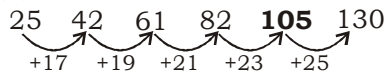Similarly,
B O O K
⤫ ⤫
O B K O

19. (3)

20. (4) Hygrometer is used to measure the humidity in Air. In the same way, Ammeter is used for measuring electric current

21. (2)
25 42 61 82 **105** 130
+17 +19 +21 +23 +25

22. (3) 48 ÷ 6 + 9 − 11 × 11 + 13
Interchanging 11 and 13.
8 + 9 − 13 × 13 + 11
= 17 − 169 + 11
= −141

23. (2) a b **c** e e/a **a** b c **e** e/a a a **b** c e e

24. (1) Except option 1, the sum of the alphabetical values of odd numbers.
(WC) = (23 + 3) = 26 (even)
(FM) = (6 + 13) = 19 (odd)
(PW) = (16 + 23) = 39 (odd)
(Q,X) = (17+24) = 41 (odd)

25. (1) Except option 1, Other has series of first number × 3 = Second number.

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

QUANTITATIVE APTITUDE

1. (2) $\dfrac{1+x}{1-x^2} \div \dfrac{1+x}{1-x^4} - \dfrac{1-x^4}{1-x} \times \dfrac{1+x}{1-x^2}$

$\Rightarrow \dfrac{(1+x)}{(1+x)(1-x)} \times$

$\dfrac{(1+x^2)(1+x)(1-x)}{(1+x)} -$

$\dfrac{(1+x^2)(1+x)(1-x)}{(1-x)} \times$

$\dfrac{(1+x)}{(1+x)(1-x)}$

$\Rightarrow (1+x^2) - \dfrac{(1+x^2)(1+x)}{(1-x)}$

$\Rightarrow (1+x^2)\left\{1 - \dfrac{1+x}{1-x}\right\}$

$\Rightarrow (1+x^2) \times \dfrac{1-x-1-x}{1-x}$

$\Rightarrow \dfrac{2x(1+x^2)}{x-1}$

2. (1) Run scored in inning A
$= 600 \times \dfrac{30}{100} = 180$
Run scored in inning D
$= 600 \times \dfrac{25}{100} = 150$
% of run scored in inning A to run scored in inning D
$= \dfrac{180}{150} \times 100 = 120\%$

3. (4) The intersection point of the medians of a triangle is the centroid.

4. (2) $\sin(\theta + 30°) = \cos 5\theta$
We know,
$\sin A = \cos B$, then A + B = 90°
Now,
$\sin(\theta + 30°) = \cos 5\theta$
$\theta + 30° + 5\theta = 90°$
$6\theta = 60°$
$\theta = 10°$

5. (2) According to the question
$SP_1 = 12000 \times \dfrac{110}{100} = 13200$
and,
$SP_2 = 20000 \times \dfrac{80}{100} = 16000$
Total CP = 12000 + 20000 = 32000

Total SP = 132000 + 16000
= 29200
Loss = CP − SP
Loss = 32000 − 29200
= 2800

6. (2) The average speed (including stoppages) = 54 km/h
Distance = speed × time taken
So in 1 hr, distance traveled = 54 km
The average speed (excluding stoppages) = 60 km/h
At this speed, time is taken by bus to travel 54 km = 54/60 = 9/10 hrs = 54 minutes.
So at a speed of 60 km/h, the bus can travel a distance of 54 km every 54 minutes.
For every hr, the bus stops for = 60 - 54 = 6 minutes

7. (1) His salary after 3 years
$= 14000 \times \dfrac{120}{100} \times \dfrac{120}{100} \times \dfrac{120}{100}$
$= 24192$
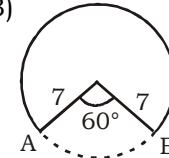
8. (4) According to the question
$a^2 + b^2 = 12, \ ab = 4$
$(a − b)^2 = a^2 + b^2 − 2ab$
$= 12 − 8$
$(a − b)^2 = 4$
$a − b = 2$

9. (3)

The length of arc $= 2\pi r \times \dfrac{\theta}{360}$
$= 2 \times \dfrac{22}{7} \times 7 \times \dfrac{60}{360}$
$= \dfrac{22}{3}$

10. (4) IInd discount —— x
$80000 \times \dfrac{85}{100} \times \dfrac{100 - x}{100}$
$= 65280$
$680(100 − x) = 65280$
$x = 4\%$

11. (1) Area of circle = πr^2
According to the question
$\pi r_1^2 : \pi r_2^2 = 81 : 121$
$r_1 : r_2 = 9 : 11$
Now,
Circumference = $2\pi r_1 : 2\pi r_2$
$= r_1 : r_2$
$= 9 : 11$

12. (2) $M - \dfrac{1}{M} = 7$

$$\boxed{x - \dfrac{1}{x} = V, \text{then } x^2 + \dfrac{1}{x^2} = V^2 + 2}$$

Squaring of both sides

$M^2 + \dfrac{1}{M^2} = 7^2 + 2 = 51$

13. (2) The perimeter of square = 4 × side

ATQ,

4 × side = 196

Side = 49

The side of the square is equal to the radius of the circle

∴ a = r

∴ Area of circle = πr^2

$= \dfrac{22}{7} \times 49 \times 49$

= 7546 m²

14. (2) M – a

⇒ 37% – 14% = 23%

Central Angle ⇒ $\dfrac{23}{100} \times 360°$
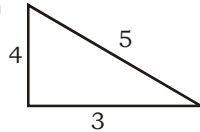
= 82.8°

15. (2) Average number of girls in school K and M

⇒ $\dfrac{13\% + 7\%}{2} \Rightarrow \dfrac{20\%}{2} \Rightarrow 10\%$

10% of 6000 ⇒ 600 girls

16. (3)

3tanθ = 4
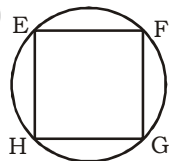
tanθ = $\dfrac{4}{3}$

sinθ = $\dfrac{4}{5}$, cosθ = $\dfrac{3}{5}$

Now,

7 sinθ – 2 cosθ

$\Rightarrow 7 \times \dfrac{4}{5} - 2 \times \dfrac{3}{5} \Rightarrow \left(\dfrac{28}{5} - \dfrac{6}{5}\right)$

$\Rightarrow \dfrac{22}{5}$

17. (3)

EFGH   is   a   cyclic

quadrilateral the sum of their opposite Angle = 180°

∠E + ∠G = 180°

95° + ∠G = 180°

∠G ⇒ 85°

18. (2)

A	:	B	:	C	:	D
2	:	3	:	3	:	3
6	:	6	:	7	:	7
14:		14 :		14 :		3
168 :		252 :		294 :		63
8	:	12 :		13 :		3

19. (4) Compound interest 10% yearly

Then 5% CI for half year

Rate of interest for 2 half yearly ⇒ 5% + 5% + $\dfrac{5 \times 5}{100}$

= 10.25%

Difference between CI and SI rate of interest

⇒ 10.25% –10%

⇒ 0.25%

0.25% ———— ₹25

1 ———— 100

Principal 100 ——— 10000

20. (4) Difference between run scored by S and U

31% – 12% = 19% of 800

⇒ 152

21. (4)

Efficiency of A = 6 – 4 = 2 units

Efficiency of C = 6 – 3 = 3 units

A and C together can complete the same work in

$\dfrac{60}{5}$ = 12 days

22. (1) Total income = Total expense + total saving

⇒ 2300 × 4 + 1800 × 8 + 12400

⇒ 9200 + 14400 + 12400

⇒ 36000

Monthly Income ⇒ $\dfrac{36000}{12}$

⇒ ₹3000

23. (4) $\left[\dfrac{(24-12)}{4}\right] + \left[81 - \dfrac{48}{12 \times 2}\right]$

$\Rightarrow \dfrac{12}{4} + 81 - 2$

⇒ 3 + 81 – 2
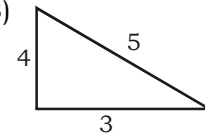
⇒ 82

24. (1) $512 \times 3 - \dfrac{25}{15} \times 9$

1536 – 15 ⇒15231

25. (3)

6secθ = 10

secθ = $\dfrac{5}{3} \Rightarrow \dfrac{H}{B}$

$\dfrac{5 \times \cosec\theta - 3\cot\theta}{4\cos\theta + 3\sin\theta}$

$\Rightarrow \dfrac{\left(5 \times \dfrac{5}{4} - \dfrac{9}{4}\right)}{\left(\dfrac{12}{5} + \dfrac{12}{5}\right)} \Rightarrow \dfrac{\left(\dfrac{25}{4} - \dfrac{9}{4}\right)}{\left(\dfrac{24}{5}\right)}$

$\Rightarrow \dfrac{\dfrac{4}{24}}{5} \Rightarrow \dfrac{4 \times 5}{24} \Rightarrow \dfrac{5}{6}$

ANSWER KEY

1. (2) 2. (1) 3. (4) 4. (2) 5. (2)
6. (2) 7. (1) 8. (4) 9. (3) 10. (4)
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GENERAL AWARENESS

1.(1) Rajasthan - Gangaur, Teej, Bundi

West Bengal -Durga Puja

Uttar Pradesh -Ram Navmi, Ganga Mahotsav, Navaratri, Khichdi

2.(3)

3.(4) Kharif crops- rice, maize, millet, ragi, pulses, soybean, groundnut.

Rabi crops- wheat, barley, oats, gram, mustard, linseed.

Zaid crops - Cucumber, pumpkin, tomato, bitter gourd

4.(2) Son is a tributary coming from peninsular uplands.

The total length of Ganga is approximately 2525 km.

Betwa is the tributry of Yamuna river.

Right bank tributaries of Ganga are Yamuna and Son.

Left bank tributaries of Ganga are Gomti, Ghaghara, Gandak, Kosi.

5.(2) Article 14: The right to equality before the law

Article 377: Criminalized consensual sexual acts between same-sex adults.

6.(1) The measurement of a line printer is typically in lines per The measurement of an ink-jet printer is typically in pages per minute (PPM).

The measurement of a laser printer is typically in pages per minute (PPM)

7.(4) Short-range surface-to-surface ballistic missile – Prithvi

Intermediate-range surface-to-surface ballistic missile – Agni

Short-range low-level surface-to-air missile – Trishul

Medium-range surface-to-air missile – Akash

Third generation anti-tank missile – Nag

Agni I: Range of 700-800 km.

Agni II: Range more than 2000 km.

Agni III: Range of more than 2,500 Km

Agni IV: Range is more than 3,500 km and can fire from a road mobile launcher.

Agni-V: The longest of the Agni series, an Inter-Continental Ballistic Missile (ICBM) with a range of over 5,000 km. It is called Fire and Forget missile.

8.(4) Article 243E - Duration of Panchayats, etc.

Article 243F - grounds of disqualification for membership of Panchayats.

Article 243D - reservation of seats in Panchayats for the Scheduled Castes (SCs), the Scheduled Tribes (STs), and women

9.(3) India and France - SHAKTI(Army),VARUNA(Navy), GARUDA(Air Force)

India and USA- YUDHABHAYAS & VAJRA PRAHAR(Army), MALABAR (Multilateral)(Navy), RED FLAG 16-1(Air Force)

India and UAE - Desert Flag

10.(4)

11.(3) Vikram Ambalal Sarabhai - Father of the Indian space program.

Homi Jehangir Bhabha - Father of the Indian Nuclear Programme

12. (1) 1 byte -8 Bits

1 kilobyte (kB)   - 1000 bytes (B)

1 megabyte (MB) -   1000 kilobyte(kB)

1 gigabyte(GB) -1000 megabytes (MB)

1 terabyte(TB) - 1000 gigabytes (GB)

1 petabyte   (PB) - 1000 terabytes (TB)

13. (3)   400 Days is written by Chetan Bhagat

Battlefield authored by Vishram Bedekar.

14.(2) The Shunga Empire was an ancient Indian dynasty from around 185 to 73 BCE. The dynasty was established by Pushyamitra, after taking the throne of the Maurya Empire.

Poros was an ancient Indian king whose territory spanned the region between the Jhelum River (Hydaspes) and Chenab River (Acesines), in the Punjab

15.(1) FIFA 2022 was held at Qatar.

Champions - Argentina

Runners-up- France

Top scorer - Kylian Mbappé

Best player - Lionel Messi

Best young player - Enzo Fernández

Best goalkeeper - Emiliano Martínez

Fair play award - England

2026 FIFA World Cup which will be held in the United States, Mexico, and Canada.

16.(4) An initial public offering (IPO) refers to the process of offering shares of a private corporation to the public in a new stock issuance for the first time. An IPO allows a company to raise equity capital from public investors.

17.(3) Partition of Bengal (1905) As per Curzon, after the partition, the two provinces would be Bengal (including modern West Bengal, Odisha, and Bihar) and the other one is Eastern Bengal and Assam.

The partition of Bengal was annulled in 1911 by Lard Hardinge.

18.(1)

19.(1) Extinct - Refers to a species of organisms that no longer exists or has died out completely.

Endangered - Refers to a species of organisms that is at risk of becoming extinct in the near future.

Normal - There is no specific definition of "normal" when it comes to species. However, it could be understood as a state where a species is thriving without being threatened or endangered.

Vulnerable - Refers to a species of organisms that is likely to become endangered in the near future if the factors causing its decline continue.

20.(2) A State of Freedom - Neel Mukherjee

Autumn - Ali Smith

Songs of a Coward - Kausalya Baisantry

21.(1) National Emblem of India has the Dharma Chakra, also known as the Wheel of Law, with carvings of an elephant, a horse, a bull, and a lion spaced apart by intervening wheels over a bell-shaped lotus. The Indian Government designated this symbol as its National Emblem on January 26, 1950.

22.(2) Medulla manages heart, circulation and breathing.

Cerebrum is the largest part of the brain, initiates and coordinates movement and regulates temperature.

Pons relays and regulates the signals that give you the sensation of pain from anywhere in your body below your neck.

23.(1) BCCI was founded in December 1928.

CEO   - Hemang Amin

Vice president - Rajeev Shukla

Secretary - Jay Shah

Men's coach - Rahul Dravid

Women's coach- Ramesh Powar

24.(3) Highest Dam in India - Tehri Dam(Uttarakhand)

Longest Dam in India - Hirakud Dam (Odisha)

25.(1) Javelin is Surface-to-air missile.

AIM-120 Advanced Medium-Range is Air-to-Air Missile.

ANSWER KEY				
1. (1)	2. (3)	3. (4)	4. (2)	5. (2)
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11. (3)	12. (1)	13. (3)	14. (2)	15. (1)
16. (4)	17. (3)	18. (1)	19. (1)	20. (2)
21. (1)	22. (2)	23. (1)	24. (3)	25. (1)