ENGLISH LANGUAGE AND COMPREHENSION

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

EXPLANATION:-

6. (1) Dodge
Correct spellings of other word –
Brilliant, Seize and Reciprocate

10. (3) Replace 'for myself' with 'me'. Objective case of pronoun is required here. 'Him' can be balanced by 'me'

16. (3) Independent - is incorrectly spelt here.

18. (1) Replace 'run' with 'ran'.Past indefinite Tense is required to get a meaningful sentence.

20. (1) Plural Subject (Guests) takes a Plural verb (have)

WORD	MEANING IN ENGLISH	MEANING IN HINDI
Autopsy	A specialized surgical procedure used to determine the cause and manner of death	शव परीक्षण
Bid	To offer to pay a particular price for something, To order, to greet	बोली लगाना, आदेश देना, अभिवादन करना
Biopsy	A procedure to remove a piece of tissue or a sample of cells from your body so that it can be tested in a laboratory	कोशिकाओं का परिक्षण
Brittle	Hard but easily broken	जो आसानी से टूट जाए
Debilitate	To make somebody's body or mind weaker	दुर्बल करना, भंगुर
Decrepit	(Used about a thing or person) old and in very bad condition or poor health	(व्यक्ति या वस्तु) जीर्ण-शीण दुर्बल
Diagnosis	The art of identifying a disease from its signs and symptoms	रोग की पहचान
Ecstatic	Very happy	अत्यंत खुश
Embellish	To make something more beautiful by adding decoration to it	संवारना, सजाना
Escalate	To increase in extent, volume, number, amount, intensity, or scope	बढ़ जाना
Intricate	Having many small parts or details put together in a complicated way	जटिल, पेचीदा
Languish	To be or become feeble, weak, or enervated	दुर्बल करना
Mend	To repair something that is damaged or broken	क्षतिग्रस्त वस्तु की मरम्मत करना
Obfuscate	To make something unclear and more difficult to understand	जानबूझ कर किसी चीज को जटिल या अस्पष्ट बनाना
Opaque	Difficult to understand; not clear.	अस्पष्ट, अपारदर्शी
Paragon	A perfect person; an ideal example of a particular good quality	आदर्श व्यक्ति
Pellucid	Easy to understand	स्पष्ट
Prognosis	An opinion, based on medical experience, of the likely development of a disease or an illness.	पूर्वानुमान

GENERAL INTELLIGENCE & REASONING

1. (4) (27, 12, 4) $\xrightarrow[\text{Second no.}]{\text{First no.}} \times 2$

$\Rightarrow \frac{24}{12} \times 2 \Rightarrow 4$

$(35, 5, 14) \rightarrow \frac{35}{5} \times 2 \Rightarrow 14$

$(36, 4, 18) \rightarrow \frac{36}{4} \times 2 \Rightarrow 18$

2. (2) Electric current is measure in Ampere. In same way Thermodynamic temperature is measure in Kelvin

3. (1) **u** v u **w** / u v u w/ **u** v u **w**

4. (3) Except option 3 all are vowels

5. (1) $G \xrightarrow{\text{Opp.}} R$
$M \xrightarrow{\text{Opp.}} C$
$F \xrightarrow{\text{Opp.}} B$

6. (4)

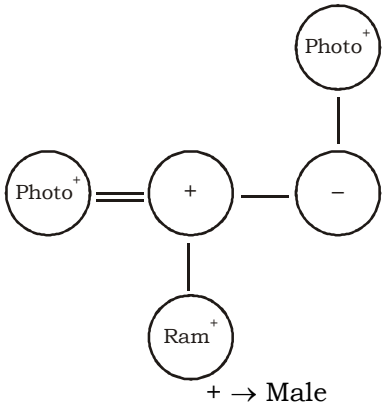
7. (3) Logic ⇒ Sum of all alphabetical value – (no. of alphabets)
DRAMA ⇒ (4 + 18 + 1 + 13 +1) – (5)
⇒ 37 – 5 = 32
and
PLAY⇒(16+12+11+25) – (4)
54 – 4 = 50
Similarly,
THEATRE ⇒ (20 + 8 + 5 + 1 + 20 + 18 + 5) – (7)
⇒ 77 – 7 ⇒ 70

8. (1) Interchanging – and ÷
$12 \div 16 - 8 + 14 \times 2 = 38$
$12 - 16 \div 8 + 14 \times 2 = 38$
$12 - \frac{16}{8} + 28 = 38$
$12 - 2 + 28 = 38$
$38 = 38$

9. (2) 46, 51, 76, 201, 826, 3951
+5 +25 +125 +625 +3125
$(5)^1$ $(5)^2$ $(5)^3$ $(5)^4$ $(5)^5$

10. (2)
S T A D I U M
T S A D I M U
C R I C K E T
R C I C K T E

11. (2)



+ → Male
– → Female
Women in picture is Ram's mother.

12. (2)
13. (2) All options are electric device except 2
14. (2) (57, 100, 314) → (57 + 100) ×2 ⇒ 314
and
(69, 80, 298) → (69 + 80)×2
149 ×2 ⇒ 298
Similarly,
(83, 120, 406) → (83 + 120)×2
203 × 2 ⇒ 406
15. (1) Ibrahim > Rakesh > Shyam
David > Shyam
Only conclusion 1 is correct.
16. (2) Stable is a place where horse are kept.
Similarly, Hangar is a place where Aeroplane are kept.
17. (3)
18. (3)
B C O M P K
O B C K M P
19. (1) 56 → 5 × 6 → 30
88 → 8 × 8 → 64
39 → 3 × 9 → 27
20. (2) Here, (A = ÷) (B = +)
(14 ÷ 7 + 3 ⇒ 5)
(16 ÷ 4 + 3 ⇒ 7)
(39 ÷ 3 + 17) ⇒ 13 + 17 ⇒ **30**
21. (2)
22. (2)
23. (4)
24. (4) The sequence of the increasing size of an ocean is Arctic Ocean < Southern Ocean < Indian < Atlantic < Pacific Ocean
25. (4) (510, 729, 1329) ⇒ (8^3 –2), (9^3 –2), (11^3 –2)
and
(1726, 2195, 3373) ⇒ (12^3 – 2), (13^3 –2), (15^3 –3)
Similarly,
(1726, 998, 341) ⇒ (12^3 –2), (10^3 –2), (7^3 –3)

ANSWER KEY

1. (4)	2. (2)	3. (1)	4. (3)	5. (1)
6. (4)	7. (3)	8. (1)	9. (2)	10. (2)
11. (2)	12. (2)	13. (2)	14. (2)	15. (1)
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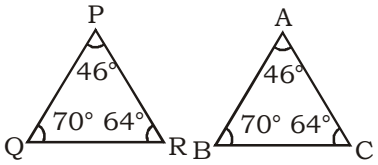
QUANTITATIVE APTITUDE

1. (4) Total sales of J in years D and E = 400 + 600 = 1000
$\therefore$ Average sales of J = $\frac{1000}{2}$
= 500
Total sales of k in years G and H = 400 + 300 = 700
$\therefore$ Average sales of K = $\frac{700}{2}$
= 350
$\therefore$ Difference between average sales of J and K (P_1) = 500 – 350 = 150
Total sales of K in all years = 1200 + 900 + 1000 + 400 + 300 = 3800
$\therefore$ Average sales of K (P_2) = $\frac{3800}{5}$ = 760
$\therefore$ Value of $P_2 - P_1$ = 760 – 150
= 610

2. (3) Total surface area = 2[Length × breadth + length × height + breadth × height]
2 [(18×12) + (18 ×10) + 12 × 10] cm^2
= 2 [216 + 180 + 120] cm^2
= 2 × 516 cm^2
= 1032 cm^2

3. (1) Ratio of speed of train with stoppage and without stoppage
= 75 : 90
5 : 6
$\therefore$ Ratio of time of train with stoppage and without stoppage
= 6 : 5
5 1
$\therefore$ Train stops = $\frac{1}{6}$ hrs
$\therefore$ Time for stoppage = $\left(\frac{1}{6} \times 60\right)$
= 10 minutes.

4. (1) As ΔPQR and ΔABC are similar.



$\angle Q = \angle B$
$\therefore \angle B = 70°$

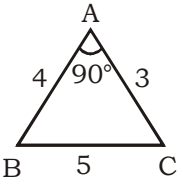
5. (2) Area of triangle = $\frac{1}{2}$ ×base × height
= $\frac{1}{2}$ × 10 × 8 cm^2
= 40 cm^2

6. (3) Sales of tracktors in August = 3475
Sales of tractors in september = 1875
$\therefore$ Reduce value = 3476 – 1875
= 1600
$\therefore$ Required decline % = $\frac{1600}{3475} \times 100$
= 46%

7. (3) $(a - 4)^3$
= $a^3 - 3 \times a^2 \times 4 + 3 \times a \times (4)^2 - (4)^3$.
= $a^3 - 12a^2 + 48a - 64$

8. (1) At Present
Total age of husband, wife, child = 28 × 3 + 6 = 90 years
At Present
Total age of husband and child = 21 × 2 + 10
= 52 years
$\therefore$ Age of wife = (90 – 52)y
= 38 years

9. (4) AC = 3 [From triplet (3, 4, 5)]



Now,
CosB + cot C
= $\frac{4}{5} + \frac{3}{4} = \frac{16+15}{20} \Rightarrow \frac{31}{20}$

10. (2) ATQ,
20% of marked price = 50% of cost price

Or, $\frac{20}{100}\times$Marked price $=\frac{50}{100}$ × cost price

Or, cost price : Marked price = 20 : 50

Cost price : marked price

$= \overset{2}{\underset{3}{\curvearrowright}} : 5$ As for no discount marked price is equal to selling price.

$\therefore$ % Profit $=\frac{3}{2}\times 100$

= 150%

11. (4) $\cos^2\theta - 2 + \cos\theta = 0$
For $\theta = 0$ both sides of above equation equal.
$\therefore \theta = 0°$

12. (4) $y + \frac{1}{y}$
Cubing both side

$$y^3+\frac{1}{y^3} + 3 \times y \times \frac{1}{y}\left(y+\frac{1}{y}\right) = 27$$

$$y^3 + \frac{1}{y^3} = 27 - 9$$

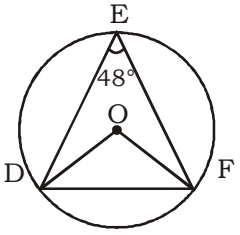
$$y^3 + \frac{1}{y^3} = 18$$

13. (1) Income of company P = Expenditure + saving
= 50 + 150
= 200
Income of company Q
= Expenditure + saving
= 400 + 200 = 600
Income of company F
= Expenditure + saving
= 300 + 150 = 450
Income of company S
= Expenditure + saving
= 150 + 100 = 250
Income of company T
= Expenditure + saving = 200 + 500 = 700
$\therefore$ Average of income $=\frac{200+600+450+250+700}{5}$
= 440

14. (3) (1665 ÷ 37) + (42 × 5)
= 45 + 210 = 255

15. (3) Ratio of cost price and selling price = 100 : 120
↓–50 ↓
50 120
$\therefore$ Profit = (120 – 50) = 70
$\therefore$ % Profit $=\left(\frac{70}{50}\times 100\right) = 140\%$

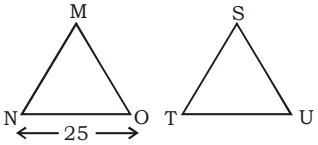
16. (2) As we know angle subtended at the circumference is half of the angle subtended at centre.



$\therefore \angle DEF = \frac{1}{2}\angle DOF$
Or, $\angle DOF = 48° \times 2 = 96°$

17. (3) We know if two triangles are similar.

$$\frac{\text{Perimeter}_1}{\text{Perimeter}_2} = \frac{\text{side}_1}{\text{side}_2}$$



Or, $\frac{80}{200} = \frac{25}{TU}$

Or, TU $=\frac{25\times 200}{80}$
Or, TU = 62.5 cm

18. (2) Total number of girls in all school = 450 + 1050 + 550 + 850 + 650 + 250 + 150 = 3950

19. (1) Increase of population in 5 years = 250000 – 100000
= 150000
$\therefore$ Increase of population in 5 years = 250000 – 10000 = 15000

$\therefore \frac{150000}{5} = 30000$

$\therefore$ Increase % $=\frac{30000}{100000}\times 100$
= 30%

20. (2) x = 0.05 × 0.36 ÷ 0.4 + 0.055 + 1.50 ÷ 03
x = 0.05 × 0.9 = 0.055 + 50
x = 0.045 × 0.9 + 0.055 + 50
x = 0.045 + 0.055 + 50
x = 0.1 + 50
x = 50.1

21. (2) $\tan A = \frac{1}{\sqrt{3}}$, $\tan B = \sqrt{3}$
tanA = tan30°, tanB = tan 60°
A = 30°, B = 60°
Now, cos (a + b) = cos (30°+60°) = 0

22. (4) 50% A = 80% B
Or, A : B = 80 : 50
A : B = 8 : 5

23. (4) $a + \frac{1}{a} = 2$, $b + \frac{1}{b} = -2$
$\therefore a = 1$ $\therefore b = -1$
Now,

$$a^2+\frac{1}{a^2} + b^2 + \frac{1}{b^2}$$

$= (1)^2 + (1)^2 + (-1)^2 + (-1)^2$
= 4 [As the power of –1 is even $\therefore$ (–1 = +1)]

24. (1) Let, efficiency of A = 100
Efficiency of B = 180
$\therefore$ Ratio of efficiency = 100 : 180 $\Rightarrow$ 5 : 9
$\therefore$ Total work = 5 × 9 = 45 units
Total efficiency = 5 + 9 = 14

$\therefore$ Time required $=\frac{45}{14}$ days.

25. (4) Amount = 3120
Principal = 2000
$\therefore$ Interest = 1120

$\therefore$ Interest in 1 year $=\frac{1120}{2}$
= 560

$\therefore$ Interest rate $=\frac{560}{2000}\times 100$
= 28%

ANSWER KEY

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

GENERAL AWARENESS

1.(1) Bhratnatyam - Birju Maharaj, Rukmini Devi, Singhajit Singh, Uday Shankar, Mrinalini Sarabhai, Sonal Mansingh.
Kathak - Sitara Devi, Roshan Kumari, Sunayana Hazarilal, Rohini Bhate.
Sattriya - Jatin Goswami, Sharodi Saikia, Sunil Kothari, Mohan Bhagawati
Manipuri - Yumlembam Gambhini Devi, Guru Bipin Sinha, Darshana Jhaveri, Nirmala Mehta.

2.(4) **Physics** - Alain Aspect, John Clauser,Anton Zeilinger
Chemistry- Carolyn R. Bertozzi,

Morten P. Meldal, Karl Barry Sharpless
Physiology or Medicine- Svante Pääbo
Literature - Annie Ernaux
Peace - Ales Bialiatski; **Memorial;Centre for Civil Economics** - Liberties Ben S. Bernanke;Douglas W. Diamond;Philip H. Dybvig

3.(2)

4.(4) The East India Company first arrived via sea route at Surat in the year 1608 for the purpose of establishing trade with India.

5.(2) Aims of Niti Aayog-
To evolve a shared vision of national development priorities, sectors and strategies with the active involvement of States.
To foster cooperative federalism through structured support initiatives and mechanisms with the States on a continuous basis, recognizing that strong States make a strong nation.
To develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.
To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.
To pay special attention to the sections of our society that may be at risk of not benefiting adequately from economic progress.
To design strategic and long-term policy and programme frameworks and initiatives, and monitor their progress and their efficacy. The lessons learned through monitoring and feedback will be used for making innovative improvements, including necessary mid-course corrections.

6.(1) Mughal Emperor, Aurangzeb, appointed Jai Singh to lead his army against Shivaji and deputed several Mughal commanders like Dilir Khan, Rai Singh, Sujan Singh and Daud Khan to serve Jai Singh in his campaign

7.(3) U-19 t-20 Wrold Cup 2022-
Champions - India (5th title)
Runners-up - England
Player of the series - Dewald Brevis
Most runs - Dewald Brevis (506)
Most wickets - Dunith Wellalage (17)

8.(3) India, France re-elected as President and Co-President of International Solar Alliance.

9.(1) Left Bank - Zanskar River, Suru River, Soan River, Panjnad River, Ghaggar-Hakra River, Luni River
Right Bank - Shyok River, Hunza River, Gilgit River, Swat River, Kunar River, Kabul River, Kurram River, Gomal River, Zhob River

10.(3) Mayurbhanj Chhau of Odisha, the Seraikella Chhau of Jharkhand, and the Purulia Chhau of West Bengal.

11.(4) Dutee Chand is the first Indian to win a gold medal in 100m race in a global competition.
P. T. Usha - Golden Girl, Payyoli Express

12.(2) The theme for the 9th World Ayurveda Congress (WAC) this year is 'Ayurveda For One Health'.
Union minister of state for Tourism and Ports, Shipping and Waterways - Shripad Naik

13.(2) **Amitav Ghosh** - Sea of Poppies, The Hungry Tide, The Shadow Lines, The Glass Palace: A Novel, River of Smoke, The Great Derangement, Gun Island, The Calcutta Chromosome, Flood of Fire
Kalki Koechlin - Skeleton Woman, The Elephant In The Womb, Three Plays: The Hindu Metroplus Award Winners.
Samir Soni - My Experiments with Silence: The Diary Of-An-Introvert.

14.(4)

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.(2)

17.(1) 2023 ICC Women's T20 World Cup - South Africa.

18.(2) **P waves**, or Primary waves, are the first waves to arrive at a seismograph. P waves are the fastest seismic waves and can move through solid, liquid, or gas.
S waves, or secondary waves, are the second waves to arrive during an earthquake. They are much slower than P waves and can travel only through solids.
L waves are last to reach on the surface. They are more damaging.

19.(4) **Monel metal** - nickel and copper
Magnalium - 5% magnesium and 95% aluminum
Rolled gold - Copper and Aluminium

20.(1) Tributaries of Kaveri river are Arkavathy, Shimsha, Hemavati, Kapila, Shimsha, Honnuhole, Amaravati, Lakshmana Kabini, Lokapavani, Bhavani, Noyyal, and Tirtha.
Tributaries of the Mahi River are the Anas, Hiran, Eru and Chap Rivers.

21.(2) Milam - Village in Uttarakhand

22.(4) **A ring** network is a network topology in which each node connects to exactly two other nodes, forming a single continuous pathway for signals through each node – a ring.
Star topology is a type of network topology in which every device in the network is individually connected to a central node, known as the switch or hub.

23.(4) Frictional unemployment is a form of unemployment reflecting the gap between someone voluntarily leaving a job and finding another.

24.(1)

25.(3)

ANSWER KEY

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