

**ENGLISH LANGUAGE AND COMPREHENSION**

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

**EXPLANATION:-**

1. (2) Replaces 'I' with 'me'. Objective case of pronoun is required here.  
 8. (3) 'One of the +superlative degree + plural noun+ singular verb' is the correct structure.  
 9. (3) Replace 'were' with 'was'.  
 'Everyone' takes a singular a singular verb.  
 13. (2) We need an adjective in positive degree (sticky).  
 18. (4) 'Artifact' is incorrectly spelt here, ,means- An object produced or shaped by human craft.  
 20. (4) Area' is incorrectly spelt here.-

**WORD**

**MEANING IN ENGLISH**

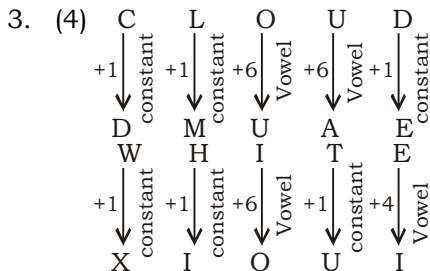
**MEANING IN HINDI**

Abase	Behave in a way that belittles or degrades	अपमानित करना
Aesthetic	Concerned with beauty or art	सौंदर्य विषयक
Affectation	The act of taking on or displaying an attitude or mode of behaviour not natural to oneself or not genuinely felt	दिखावा
Approbation	Approval or praise.	प्रशंसा
Arduous	Full of difficulties; needing a lot of effort	दुष्कर; श्रमसाध्य, मेहनत भरा
Arrogate	To claim or take something without having any right to do so	हथियाना
Avarice	Extreme desire, greed	लोभ
Contempt	A strong feeling of dislike and having no respect for someone or something	अवमानना
Cupidity	Greed for money or possessions.	पैसे इत्यादि के लिए लालच
Devilry	Wicked activity.	धूर्तता, शैतानी
Egotist	One who talks about oneself	बड़बोला
Highbrow	Interested in or concerned with matters that many people would find too serious to be interesting	अतिगंभीर या उच्चस्तरीय
Insurgent	A person fighting against the government or armed forces of their own country	मामलों से संबंधित विद्रोही
Largesse	Generosity in bestowing money or gifts upon others	उदारता
Malign	Baleful, harmful	हानिकर, क्षतिकर
Nihilistic	A viewpoint that traditional values and beliefs are unfounded and that existence is senseless and useless	शून्यवादी, नकारवादी
Novice	Person who is new and without experience in a certain job, situation, etc.	नौसिखिया
Obloquy	Strong public condemnation.	अपमान
Odium	General or widespread hatred or disgust incurred by someone as a result of one's action.	नफरत, घृणा
Opprobrium	Harsh criticism or censure.	अपमान
Radical	A person who wants great social or politicalChange	उग्र, सुधारवादी
Samaritan	One who helps the needy and the helpless	परोपकारी
Sorcery	The art or use of magic in which the power of evil, supernatural forces or black magic is used	जादू-टोना

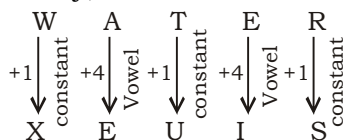
**GENERAL INTELLIGENCE & REASONING**

1. (2) The number 6 is on the opposite face to the one having 8.

2. (2) 4. Ectasia  
 2. Emergence  
 3. Energetic  
 1. Engine  
 5. Envelop



Similarly,



4. (3) As Radians is unit of Angle, So Ampere is unit of electric current.

5. (2) Except Eiffel Tower all other places are in India.

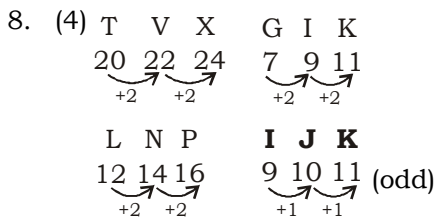
6. (4)

7. (4)  $25, 13, 130 \Rightarrow \sqrt{25} = 5 \times 13 = 65 \times 2 = 130$

$49, 32, 448 \Rightarrow \sqrt{49} = 7 \times 32 = 224 \times 2 = 448$

Similarly,

$36, 12, 144 \Rightarrow \sqrt{36} = 6 \times 12 = 72 \times 2 = 144$



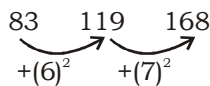
9. (3)  $9, 15, 21 \Rightarrow 9+21 \Rightarrow \frac{30}{2} \Rightarrow 15$

$31, 37, 43 \Rightarrow 31+43 \Rightarrow \frac{74}{2} \Rightarrow 37$

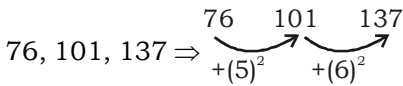
Similarly,

$65, 71, 77 \Rightarrow 65+77 \Rightarrow \frac{142}{2} \Rightarrow 71$

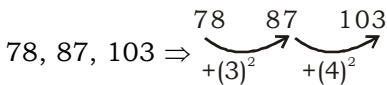
10. (1)  $83, 119, 168 \Rightarrow$



and



Similarly,



11. (3) Seismology

12. (1)

13. (2) There are 17 quadrilaterals.

14. (2)  $13 \times 12 \div 36 + 11 - 7 = 35$

Interchanging  $\times$  and  $\div$ , 11 and 7  
 $13 \div 12 \times 36 + 7 - 11$

$= \frac{13}{12} \times 36 + 7 - 11$

$= 39 + 7 - 11 = 35$

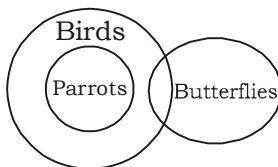
15. (2)  $27:841 \Rightarrow 27+2 \Rightarrow (29)^2 \Rightarrow 841$

$18:400 \Rightarrow 18+2 \Rightarrow (20)^2 \Rightarrow 400$

Similarly,

$? : 324 \Rightarrow \sqrt{324} \Rightarrow 18-2 = 16$

16. (4)

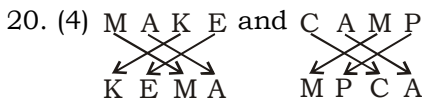


So, neither conclusion I nor II follow.

17. (3) There are 9 brown are Pink.

18. (1) normal / normal / normal

19. (3)  $730 \quad 692 \quad 654 \quad 616 \quad 578$   
 $\quad \quad -38 \quad -38 \quad -38 \quad -38$

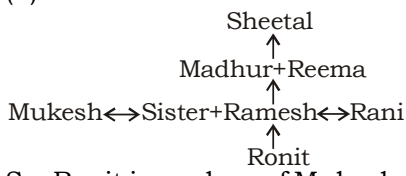


Similarly,



21. (1) 6 and 4 can come on the adjacent faces of the face containing 3 on it.

22. (4)



So, Ronit is nephew of Mukesh.

23. (1) Ziya

- Xena  
 Vikrant  
 Yasir  
 Uday  
 William

So, Yasin is 3rd shortest among all friends.

24. (2)  $N = 2 \Leftrightarrow N$  Plasce Value 14

Now,  $\frac{14}{7} = 2$

KAW = 5  $\Leftrightarrow$  KAW Plasce Value 11+1+23 = 35

Now,  $\frac{35}{7} = 5$

Similarly,

Man Plasce Value 13+1+14 = 28

Now,  $\frac{28}{7} = 4$

25. (1)

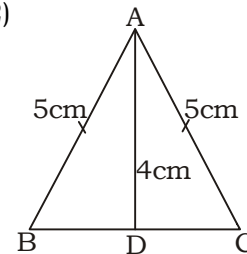
**ANSWER KEY**

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**QUANTITATIVE APITUDE**

1. (1) Difference of company A and B in year 2014 =  $170 - 100 = 70$  crore is maximum

2. (2)



A line drawn from the vertex of the isosceles triangle to the other side cuts an equal side at the right angle triangle

$\Rightarrow \Delta ADB$  is Right angle triangle

then  $BD^2 = AB^2 - AD^2$

$BD^2 = 25 - 16$

$BD^2 = 9$

$(BD = 3 = DC)$

Then  $BC = BD + DC = 3cm + 3cm = 6cm$

3. (2) Ratio of salary of T to the salary of M = 75 : 100  
(3 : 4)
4. (1)  $\sin(x-y) = \frac{1}{2}$   
 $\sin(x-y) = \sin 30^\circ$   
 $x-y = 30^\circ$  -----(i)  
 $\cos(x+y) = \frac{1}{2}$   
 $\cos(x+y) = \cos 60^\circ$   
 $x+y = 60^\circ$  -----(ii)  
 Equation i + Equation ii, we have  
 $x = 45^\circ$   
 $\therefore y = 15^\circ$   
 Now,  $\sin x \cos x + 2\sin^2 x + \cos^3 x \sec x$   
 $= \sin x \cos x + 2\sin^2 x = \cos^2 x$   
 $= \frac{1}{\sqrt{2}} \times \frac{1}{\sqrt{2}} + 2 \times \left(\frac{1}{\sqrt{2}}\right)^2 + \left(\frac{1}{\sqrt{2}}\right)^2$   
 $= \left(\frac{1}{2}\right) + 1 + \frac{1}{2} = 2$
5. (3)  $(x-8)^2 - (x+8)^2 = 0$   
 $x^2 + 64 - 16x - [x^2 + 64 + 16x] = 0$   
 $x^2 + 64 - 16x - x^2 - 64 - 16x = 0$   
 $32x = 0 = x = 0$
6. (1)  $\frac{\text{SP}}{\text{Article Sold}} = \frac{\text{CP}}{\text{Article Purchased}}$   
 $\times (\text{profit})$   
 $= \frac{24,560}{x} = \frac{24,560}{60} \times \frac{120}{100}$   
 $= x = 50$  Article
7. (2)  $32 + 12 \times 36 \div 4 + 4 - 22 \div 11 \times 3$   
 $= 32 + \frac{12 \times 36}{4} + 4 - \frac{22}{11} \times 3$   
 $= 32 + 12 \times 9 + 4 - 6$   
 $= 32 + 108 + 4 - 6$   
 $= 138$
8. (1) Sum of the age of Ram, Raman, Rohan = 23 years  $\times 3 = 69$  years  
 Sum of Age of (Raman+Rohan) = 27 years  $\times 2 = 54$  years  
 Age of Ram = 69 - 54 = 15 years (Present)  
 In 5 years ago Ram's age was = 15 - 5 = 10 years.
9. (4) Total Marks scored by X in all subject = 120 + 160 + 240 + 200 + 40 + 220 = 980  
 Total marks scored by Y in all subject = 60 + 280 + 260 + 140 + 180 + 80 = 1000  
 Ratio of total marks scored by

X to total marks scored by Y.  
 $= X : Y$   
 $= 980 : 100$   
 $= (49 : 50)$

10. (4) Ratio of price of A and B  
 $A : B$   
 $5x : 9x$   
 Ratio of Price of C and D  
 $C : D$   
 $\times 100 \left( \frac{24y}{2400} : \frac{13y}{1300} \right) \times 100$   
 $\therefore y = 100$   
 C is 1500 more than price of B  
 $= 9x + 1500 = 2400$   
 $9x = 900 (x = 100)$   
 Price of A =  $5x = 5 \times 100 = 500$
11. (1) No. of Bricks Required =

$$= \frac{\text{Volume of wall}}{\text{Volume of Brick}}$$

$$= \frac{5 \times 100 \times 8 \times 100 \times 2.25}{25 \times 12.5 \times 16}$$

$$= 10 \times 2 \times 9 = 1800$$

12. (4)
- 
- Required Time (in hr)
- $$= \frac{\text{Total work}}{\text{Combine efficiency}} = \frac{12}{4+3+2}$$
- $$= \frac{12}{9} = \frac{4}{3} \text{ hr or } 1 \text{ hr } 20 \text{ minutes}$$

13. (3)  $1x : 2x : 6x$  - Ratio of Angle of triangle  
 $1x + 2x + 6x = 180^\circ$  (Sum of all angle of triangle is  $180^\circ$ )  
 $9x = 180^\circ$   
 $(x = 20^\circ)$
14. (1)  $p + q = 7$   
 Squaring both side,  
 $p^2 + q^2 + 2pq = 49$   
 $25 + 2pq = 49$   
 $2pq = 24$   
 $pq = 12$

15. (2)  $a^4 + \frac{1}{a^4} = 194$   
 (Add 2 on Both side)

$$a^4 + \frac{1}{a^4} + 2 = 196$$

$$\left(a^2 + \frac{1}{a^2}\right)^2 = 196 \rightarrow a^2 + \frac{1}{a^2} = 14$$
 (Add 2 on Both side)

$$a^2 + \frac{1}{a^2} + 2 = 14 + 2$$

$$\left(a + \frac{1}{a}\right)^2 = 16 \rightarrow a + \frac{1}{a} = 4$$

Taking cube on both sides

$$a^3 + \frac{1}{a^3} = (4)^3 - 3\left(a + \frac{1}{a}\right)$$

$$a^3 + \frac{1}{a^3} = 52$$

16. (2) Speed of boat in still water = 12 km/h

Let distance covered by Ankit = d km and speed of boat in current = C km/h

ATQ,

$$t_{\text{up}} = 2t_{\text{down}}$$

$$\frac{d}{12-C} = \frac{2d}{12+C}$$

$$12+C = 24 - 2C$$

$$3C = 12$$

$$C = 4$$

$\therefore$  Speed of boat in flow of the river is 4 km/h

17. (4) Total expenditure of all companies = 200 + 500 + 400 + 300 + 1100 = 2500

$$\text{Total savings} = 400 + 900 + 700 + 400 + 500 = 2900$$

$\therefore$  Total expenditure is less than total savings = (2900 - 2500) = 400

$$\therefore \text{Required \%} = \frac{400}{2900} \times 100 = 13.79\%$$

18. (4) If principal = P  
 Time = T

For Simple interest,

$$SI = P \times \frac{\text{Rate}}{100} \times \text{time}$$

$$82 = 820 \times \frac{5}{100} \times T$$

$$T = 2$$

$\therefore$  Value of T is 2 years

19. (1) Ratio of cost price and marked price  
 = (100 - Discount%) : (100 + Profit%)  
 = (100 - 10) : (100 + 10)  
 = 90 : 110  
 $\therefore$  profit % = (110 - 90) = 20 (For no discount marked price is equal to selling price)

$$\therefore \% \text{ Profit} = \frac{20}{90} \times 100 = 22.22\%$$

20. (2)  $\frac{4}{3}(\sin^2 35^\circ + \sin^2 55^\circ)$   
 =  $\frac{4}{3}[\sin^2 35^\circ + \cos^2 35^\circ]$  (As  $\sin 35^\circ$  and  $\cos 35^\circ$  are complimentary pair) =  $\frac{4}{3}$

21. (2)  $\frac{1 + \sin^2 45^\circ}{1 - \cos^2 45^\circ}$   
 =  $\frac{1 + \sin^2 45^\circ}{\sin^2 45^\circ}$   
 =  $\frac{1}{\sin^2 45^\circ} + 1$   
 =  $(\sqrt{2})^2 + 1 = 3$

22. (2) From the given value of the sides of the triangle, it is clear triangle is a right angle triangle. For right angle triangle, Circum radius of hypotenuse  
 =  $\frac{50}{2} \text{ cm} = 25 \text{ cm}$

$\therefore$  circumference of circumeirlcle =  $2\pi r$  unit  
 =  $2\pi \times 25 \text{ cm}$   
 =  $50\pi \text{ cm}$

23. (1) To divisible XY7B by 4, last 2 digit must be divisible by 4.  
 $\therefore$  Largest value of B for which number is divisible by 4 is 6

24. (4) Let original price of apple = x  
 $\therefore$  Reduced price of apple =  $\frac{7x}{10}$   
 Before reduction in price of apples =  $\frac{140}{x}$

After reduction in price of apples =  $\frac{140 \times 10}{7x} = \frac{200}{x}$

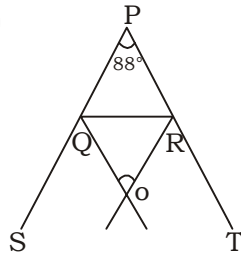
$$\text{ATQ, } \frac{200}{x} - \frac{140}{x} = 5$$

$$= \frac{200 - 140}{x} = 5$$

$$x = 12$$

Original price of apple = Rs.12  
 $\therefore$  Reduced price of apple =  $(12 \times \frac{7}{10}) = \text{Rs.} = 8.4$

25. (2)



From properties of triangle, We know,  
 $\angle QOR = 90^\circ - \frac{\angle P}{2}$   
 =  $90^\circ - \frac{88}{2} = 46^\circ$

### ANSWER KEY

1. (1) 2. (2) 3. (2) 4. (1) 5. (3)
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21. (2) 22. (2) 23. (1) 24. (4) 25. (2)

### GENERAL AWARENESS

1. (4) **Carlos Sainz Jr.** Spain Ferrari  
**Charles Leclerc** Monaco Ferrari  
**Max Verstappen** Belgium Red Bull  
**Sergio Pérez** Mexico Red Bull  
 Lewis Hamilton U.K Mercedes
2. (3) Prime Minister Narendra Modi inaugurated Phase 1 of Modi Shaikshanik Sankul, which is an educational complex for needy students in Ahmedabad. The project aims to provide facilities to students for holistic development.
3. (2) India is at the fifth position in the production of Bauxite.
4. (4) UNCTAD projects that world economic growth will slow to 2.5%

in 2022 and drop to 2.2% in 2023.

United Nations Conference on Trade and Development \ was founded on 30<sup>th</sup> Dec, 1964 by the United Nations General Assembly (UNGA), Headquartered at Geneva, Switzerland.

Secretary-General - Rebeca Grynspan

5. (4) A Digital Banking Unit is a specialised fixed point business unit or hub, set up by scheduled commercial banks, housing certain minimum digital infrastructure for delivering digital banking products and services as well as servicing existing financial products and services digitally in self-service mode at any time. As of now, there is at least one digital banking unit set up in each of the 29 states and eight union territories (UTs).

6. (3)

7. (3) A **solar equinox** is a moment in time when the Sun crosses the Earth's equator, which is to say, appears directly above the equator.

The **summer solstice** (20 or 21 June), also called the estival solstice occurs when one of Earth's poles has its maximum tilt toward the Sun.

The **winter solstice** (22 December), also called the hibernal solstice, occurs when either of Earth's poles reaches its maximum tilt away from the Sun.

8. (1) The Green Revolution was an endeavour initiated by Norman Borlaug in the 1960s. He is known as the 'Father of Green Revolution' in world.

It led to him winning the Nobel Peace Prize in 1970 for his work in developing High Yielding Varieties (HYVs) of wheat.

In India, the Green Revolution was mainly led by M.S. Swaminathan.

9. (2) Santosh Trophy (Football) was founded in 1941.

2022-23 Santosh Trophy won by Karnataka. Knock outs has been played in Saudi Arabia.

**Top goal scorers** - Naro Hari Shrestha and Nijo Joseph

**Best player** - Robin Yadav

**Best goalkeeper** - Rajat Paul Lyngdoh

10.(3) The concept of a geostationary orbit was popularised by the science fiction writer Arthur C. Clarke in the 1940s as a way to revolutionise telecommunications, and the first satellite to be placed in this kind of orbit was launched in 1963.

11.(4) Attorney-General for India - R. Venkataramani  
Solicitor General of India - Tushar Mehta  
Chief Justice of India - Justice Chandrachud  
Vice President of India - Jagdeep Dhankhar

12.(3) Kangchenjunga is bounded in the west by the Tamur River, in the north by the Lhonak River and Jongsang La, and in the east by the Teesta River.

13.(2) Article 27 - Non-payment of religious taxes  
Article 29 - Protection of interest of minorities article

14.(3) David of Basra, was a 3rd- and 4th-century CE Christian metropolitan bishop who undertook missionary work in India around the year 300.

Mother Teresa received 1962 Ramon Magsaysay Peace Prize and the 1979 Nobel Peace Prize. Her authorised biography, written by Navin Chawla, was published in 1992. On 6 September 2017, Mother Teresa and Saint Francis Xavier were named copatrons of the Roman Catholic Archdiocese of Calcutta.

15.(2)

16.(3) Since 1989, the city of Ahmedabad has hosted the International Kite Festival as part of the official celebration of Uttarayan.

17.(1) MICR (magnetic ink character recognition) is a technology invented in the 1950s that's used to verify the legitimacy or originality of checks and other paper documents.

A process called Optical Character Recognition (OCR) converts printed texts into digital image files.

18.(1) Kolar Gold Fields (K.G.F.) the town has been known for gold mining. The mine closed on 28 February 2001 due to a fall in gold prices, despite gold still being present there. One of India's first power-generation units was built in 1889 to support mining operations.

19.(1) **Java** was developed by Sun Microsystems.

**Pascal** is an imperative and procedural programming language, designed by Niklaus Wirth.

**BASIC** (Beginners' All-purpose Symbolic Instruction Code) is a family of general-purpose, high-level programming languages designed for ease of use. The original version was created by John G. Kemeny and Thomas E. Kurtz at Dartmouth College in 1963.

20.(2) GI tag In 2022

Tamil Nadu - Poondu Palani Panchamirtham, Dindigul Locks, Srivilliputtur Palkova, Kandangi Saree

Kerala - Tirur Betel Leaf

21.(4) Dr B.R. Ambedkar, who organised the dalits into the Depressed Classes Association in 1930, clashed with Mahatma Gandhi at the second Round Table Conference by demanding separate electorates for dalits.

When the British government conceded Ambedkars demand, Gandhiji began a fast unto death. He believed that separate electorates for dalits would slow down the process of their integration into society. Ambedkar ultimately accepted Gandhijis position and the result was the Poona Pact of September 1932. It gave the Depressed Classes (later to be known as the Schedule Castes) reserved seats in provincial and central legislative councils, but they were to be voted in by the general electorate.

22.(4) When the electricity is allowed to pass through an aqueous solution of sodium chloride which is also known as brine, it decomposes to form sodium hydroxide.

23.(1) Switzerland is the most innovative economy in the world in 2022 - for the 12th year in a row - followed by the United States, Sweden, the United Kingdom and the Netherlands.

The Global Innovation Index is published by the World Intellectual Property Organization (WIPO).

24.(1)

25.(2)

### ANSWER KEY

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