

ENGLISH LANGUAGE AND COMPREHENSION

1. (3) 2. (3) 3. (3) 4. (1) 5. (4) 6. (2) 7. (3) 8. (3) 9. (4)
 10. (4) 11. (2) 12. (1) 13. (4) 14. (2) 15. (3) 16. (1) 17. (3) 18. (1)
 19. (3) 20. (1) 21. (1) 22. (1) 23. (1) 24. (4) 25. (1)
- (3) It's = Short form of 'it is'
Its = Possessive adjective
 - (3) Aggravate' is incorrectly spelt here, means- to make something worse or more serious. (स्थिति को बिगाड़ देना, बदतर करना या होना, अधिक गंभीर बनाना)
 - (4) Replace 'on' with 'in'. 'Good' is followed by 'at'.
 - (2) 2nd form of the verb is required to have a parallel structure. The sentence is in the Past Tense.
 - (4) Past Indefinite (Passive formation) is required.
 - (2) Replace 'produces' with 'produce'. Plural subject (microbes) takes a plural verb (produce)
 - (3) Present Indefinite Tense is required for a routine action and 'its' a possessive adjective is appropriate in the given context.

WORD	MEANING IN ENGLISH	MEANING IN HINDI
Alien	Of another country; foreign, outlandish	विदेशी
Anomalous	Different from what is normal	नियमविरुद्ध
Climax	The highest point	चरोमोत्कर्ष; पराकाष्ठा
Cramp	A sudden, unexpected tightening of one or more muscles	एँडन
Customary	According to custom; usual	प्रथानुसार, रूढ़िगत, रिवाजी, सामान्य
Damp	A little wet	सीलनभरा, भीगा
Derivation	Something that originates from something else : something derived	व्युत्पत्ति
Docile	Used about a person or animal) quiet and easy to control	सरलता से नियंत्रण में आने वाला, शांत और विनीत
Endemic	Native to a particular area or culture; originating where it occurs.	स्थानिक
Knack	Skill or ability to do something	दक्षता
Nadir	The lowest point	स्थिति विशेष का सबसे बुरा समय, निचला स्तर
Pathology	The medical discipline that provides diagnostic information to patients.	विकृति विज्ञान
Resolute	Having or showing great determination	दृढ़, दृढ़ निश्चयी,
Ridicule	Mocking ,humiliating , derision	उपहास
Vile	Very bad or unpleasant	बहुत खराब या अप्रिय

GENERAL INTELLIGENCE & REASONING

- (3) $39 \times 2 = 78 \Rightarrow 78 + 3 = 81$
 $42 \times 2 = 84 \Rightarrow 84 + 3 = 87$
 Similarly,
 $84 \times 2 = 168 \Rightarrow 168 + 3 = 171$
- (3) Sister-in-law

Priya — Brother \leftrightarrow Wife (Woman)
 |
 Son
- (3) $18, 69, 279 \Rightarrow 18 \times 12 \Rightarrow 216 + 69 = 285 - 6 \Rightarrow 279$
 $12, 45, 183 \Rightarrow 12 \times 12 = 144 + 45 = 189 - 6 \Rightarrow 183$
- (1) B O W L E R

Similarly,
 $32, 125, 503 \Rightarrow 32 \times 12 \Rightarrow 384 + 125 \Rightarrow 509 - 6 \Rightarrow 503$
 $32 \times 12 = 384$
 $384 + 125 = 509$
 $509 - 6 = 503$

Similarly,
 B O W M A N
- (2) $38 : 78 \Rightarrow (38 \times 2) + 2 = 78$
 $102 : 206 \Rightarrow (102 \times 2) + 2 = 206$
 $46 : 94 \Rightarrow (46 \times 2) + 2 = 94$
- (1) Nairobi is the capital of the country of Kenya. Similarly, Oslo is the capital of Norway.
- (2)
- (4)
- (1) Illness \rightarrow doctor \rightarrow consultation \rightarrow drugstore \rightarrow medicine
- (3) FAMILY * LONG = 24
 $6 \times 4 = 24$

(Number of letters)

COUPLE * THE = 18

$$\underbrace{6} \times \underbrace{3} = 18$$

(Number of letters)

Similarly,

OVER * HOSPITAL = 32

$$\underbrace{4} \times \underbrace{8} = 32$$

(Number of letters)

12. (2) $8 \# 6 = 28 \Rightarrow (8 + 6) \times 2 = 28$

$7 \# 4 = 22 \Rightarrow (7 + 4) \times 2 = 11$

Similarly,

$9 \# 3 = 24 \Rightarrow (9 + 3) \times 2 = 24$

13. (1)

14. (1)

15. (3) $U \xrightarrow{+1} V \xrightarrow{-2} T \xrightarrow{+4} X$ (Odd)

$P \xrightarrow{+1} Q \xrightarrow{-2} O \xrightarrow{+3} R$

$Z \xrightarrow{+1} A \xrightarrow{-2} Y \xrightarrow{+3} B$

$F \xrightarrow{+1} G \xrightarrow{-2} E \xrightarrow{+3} H$

16. (3) Just as a wall is made of bricks, similarly a sack is made of jute.

17. (1) $17, 27, 37, 47, 57, 67, 77$

$+10 +10 +10 +10 +10 +10$

18. (3) Interchanging, + and -

I. $11 - 16 \times 3 \div 4 + 12 = 11$

$11 + 16 \times 3 \div 4 - 12 = 11$

$11 + 12 - 12 = 11$

$11 = 11$

II. $15 \times 3 - 45 \div 5 + 30 = 28$

$45 - 9 + 30 = 28$

$66 \neq 28$

19. (4)



20. (4) $20 - 18 = 2$

$15 - 13 = 2$

$14 - 12 = 2$

$25 - 19 = 6$ (odd)

21. (3) $6 \rightarrow M, 5$

$6 \rightarrow 4, R$

$4 \leftrightarrow M$ (Opp.)

22. (4) P Q R S

$+6 \downarrow -3 \downarrow +8 \downarrow -1 \downarrow$

V N Z R

$+6 \downarrow -3 \downarrow +8 \downarrow -1 \downarrow$

B R H Q

$+6 \downarrow -3 \downarrow +8 \downarrow -1 \downarrow$

H H P P

$+6 \downarrow -3 \downarrow +8 \downarrow -1 \downarrow$

N E X O

23. (2)

24. (4) The yen is the currency of

Japan. Similarly - Lira is the

currency of Türkiye.

25. (2)

ANSWER KEY

1. (3) 2. (3) 3. (3) 4. (1) 5. (1)

6. (2) 9. (4) 7. (1) 8. (2) 11. (3)

10. (1) 12. (2) 13. (1) 15. (3) 14. (1)

16. (3) 18. (3) 19. (4) 17. (1) 20. (4)

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

QUANTITATIVE APTITUDE

1. (1) Surface area of cube = $6a^2$

The volume of cube = a^3

According to the question

$6a^2 = 384$

$a^2 = 64$

$a = 8$

$a^3 = 512 \text{ cm}^3$

2. (4) The total number of books sold by S_1 and S_2 (J_1)

$50 + 5 + 40 + 10 + 20 + 60 +$

$15 + 30 + 5 + 25 = 260$

The difference between the

total numbers of books sold

by S_1 in all 5 months and

total numbers of books sold

by S_2 in all 5 months (J_2)

$(50 + 40 + 20 + (5 + 5) - (5 +$

$10 + 60 + 30 + 25) = 0$

Then, $J_1 + J_2 = 260 + 0 = 260$

3. (1) Total number of players participating in game D from all school

$92 + 78 + 66 + 88 + 54 + 110$

$= 488$

Total number of players

participating in game E from

all school

$146 + 102 + 82 + 104 + 96 +$

$118 = 648$

ATQ,

$\frac{488}{648} \times 100 = 75.30\%$

4. (4)

Mohit — 10 $\begin{matrix} \text{Eff.} \\ 3 \end{matrix}$

Rohit — 15 $\begin{matrix} 2 \end{matrix}$ 30

Efficiency of Mohit and Rohit

$= \frac{3}{2}$

Diff. = 1

ATQ,

5 units = 4400

1 units = 880

5. (4) Let cost price = 100%

\therefore Selling price = 90%

ATQ,

$90\% + 8 = (100\% - 5) \times \frac{110}{100}$

Or, $90\% + 8 = 110\% - 55$

Or, $200\% = 135$

Or, $90\% = 60.75$

\therefore Original selling price is ₹60.75

6. (2) The production of refrigerator by A = 300 of The production of refrigerator by E = 60 of ATQ,

$\frac{300}{600} \times 100 = 500\%$

7. (1) $\sin B - \cos A = 0$

Putting $A = B = 45^\circ$

$\sin 45^\circ - \cos 45^\circ = 0$

$\frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}} = 0$

$0 = 0$

Then $A + B = 45^\circ + 45^\circ$

$= 90^\circ$

8. (1) $A = \frac{36 \div 18 \times 5}{36 \div (3 \times 4)} \Rightarrow \frac{10}{3}$

$B = \frac{5 \div 15 \times 5 + 6 \times 2 - 5}{15 \div 5 \times 25 - 2 \times 3 + 6}$

$= \frac{\frac{5}{3} + 7}{75} = \frac{26}{225}$

Then, $A + B = \frac{10}{3} + \frac{26}{225}$

$= \frac{750 + 26}{225}$

$= \frac{776}{225}$

9. (4) Let numbers are

$x, x+2, x+4, x+6, x+8, x$

$+10, x+12, x+14, x+16$

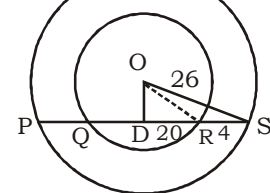
As total numbers are odd,

middle term is always

average of given series.

So, average = 7

10. (2)



$OD^2 = OS^2 - DS^2$

$OD^2 = 26^2 - 24^2$

$OD^2 = 100$

$OD = 10 \text{ cm}$

Again

$OR^2 = OD^2 + DR^2$

$OR^2 = 10^2 + 20^2$

$OR^2 = 100 + 400$

$OR = \sqrt{500}$

$OR = 10\sqrt{5}$

11. (3) L_1 = Difference between the total sales of A and B in all years = $(350 + 550 + 750 +$

$$650 + 450) \sim (1150 + 850 + 950 + 350 + 250)$$

$$= 2750 \sim 3550 \Rightarrow 800$$

$L_2 =$ The value of average

$$\text{sales of A in all years} = \frac{2750}{5}$$

$$= 550$$

$$\text{Then, } L_1 : L_2 = 800 : 550$$

$$= 16 : 11$$

12. (3) According to the question

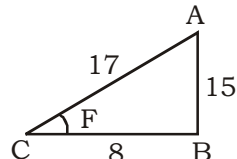
The ratio of number of Boys & Girls = 1 : 2

The average weight of all

$$\text{students} = \frac{30 \times 2 + 36 \times 1}{3}$$

$$= 32$$

13. (3) $\tan F = \frac{15}{8}$



$$AC^2 = AB^2 + BC^2$$

$$AC^2 = 15^2 + 8^2$$

$$AC = 17$$

$$\text{Then, } \sin F + \cos F = \frac{15}{17} + \frac{8}{17}$$

$$= \frac{23}{17}$$

14. (3) $20\% = \frac{1}{5}$

Ratio method ,

Principal Amount

$$5 : 6$$

$$\frac{5}{25} : \frac{6}{36}$$

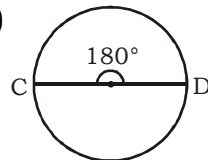
$$\text{Interest} = 11$$

$$11 \text{ units} = 4180$$

$$1 \text{ unit} = 380$$

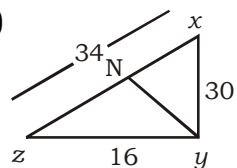
$$25 \text{ units} = 9500$$

15. (4)



$$CD = 14 \times 2 = 28$$

16. (4)



Triplet — 34, 30, 16

We know that

$$ZX \times NY = ZY \times XY$$

$$34 \times NY = 16 \times 30$$

$$NY = \frac{240}{17}$$

17. (4) Divisibility rule of 9 \rightarrow Sum of digits must be divisible by 9.

$$\frac{5+7+2+x+4+1}{9} = \frac{19+x}{9}$$

$$\text{Then, } x = 8$$

18. (2) Three numbers are in the ratio = 2 : 3 : 5

The sum of the largest and the smallest = 5 + 2 = 7 units

According to the question

$$7 \text{ units} = 9800$$

$$1 \text{ unit} = 1400$$

The difference of the largest and smallest = 3 \times 1400

$$= 4200$$

19. (4) Let cost price = 100

$$\text{Increased} = 100 \times \frac{120}{100} \times \frac{130}{100}$$

$$= 156$$

$$\text{Decreased} = 100 \times \frac{78}{100} = 78$$

The required percentage

$$= \frac{156 - 78}{156} \times 100$$

$$= 50\%$$

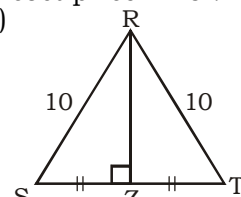
20. (4) Let marked price = 15

Selling price = 8

$$\therefore \text{Cost price} = \frac{8}{80} \times 100 = 10$$

\therefore Ratio of marked price and cost price = 15 : 10 = 3 : 2

21. (2)



From figure

$$RS = RT$$

$$\text{So, } RT = 10 \text{ cm}$$

22. (1) $x - y = 3$

Squaring both sides

$$(x - y)^2 = 3^2$$

$$x^2 + y^2 - 2xy = 9$$

$$29 - 2xy = 9$$

$$2xy = 20$$

$$4xy = 40$$

23. (3) Distance = speed \times time

ATQ,

$$(125 + 375) = (81 + 63) \times \frac{5}{18}$$

\times time

$$500 = \frac{144 \times 5}{18} \times \text{time}$$

$$\text{Time} = 12.5 \text{ seconds}$$

24. (3) $a^4 + \frac{1}{a^4} = 144$

$$\left(a^2 + \frac{1}{a^2}\right)^2 - 2 = 194$$

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

Again

$$\left(a + \frac{1}{a}\right)^2 - 2 = 14$$

$$a + \frac{1}{a} = 4$$

$$a + \frac{1}{a} = V$$

$$\text{Then, } a^3 + \frac{1}{a^3} = V^3 - 3V$$

Cubing both sides

$$a^3 + \frac{1}{a^3} = 4^3 - 3 \times 4$$

$$= 64 - 12$$

$$= 52$$

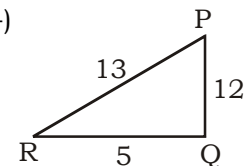
Now,

$$\frac{a^6 + 1}{a^3}$$

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

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

25. (4)



Triplet = 13, 12, 5

Then,

$$\cot P - \tan R \Rightarrow$$

$$\frac{12}{5} - \frac{12}{5} = \frac{0}{5} = 0$$

ANSWER KEY

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

GENERAL AWARENESS

- 1.(1) 5 June - World Environment Day
4 July - Independence Day USA
30 July - International Friendship Day
- 2.(2) Italicize text or remove italic formatting- **Ctrl+3**
Bold text or remove bold formatting - **Ctrl+2**
To switch to the sixth tab - Ctrl+6
- 3.(4) **NCRB** was set-up in 1986 to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators.
Director - Vivek Gogia
Motto - Empowering Indian Police with Information Technology
- 4.(2) 5.(4)
- 6.(3) **PART XI** - Relations between the Union and the States
Part X(Sixth Schedule) - The Scheduled and Tribal Areas
Part XII - Finance, Property, Contracts and Suits
- 7.(1) **Article 1** - India as a 'Union of States'
Article 3 - Formation of new States and alteration of areas, boundaries or names of existing States.
- 8.(1) **M K Gandhi** - Father of the nation
Jawaharlal Nehru - Chacha Nehru
Lal Bahadur Shastri - Man of Peace
- 9.(4) First edition - 2004 (Sri Lanka)
Latest edition - 2022 (Bangladesh)
Current champion - India (7th title)
Most runs - Mithali Raj (588)
Most wickets - Neetu David (26)
- 10.(2) Mass: 5.972×10^{24} kg
Surface area: 510.1 million km²
- 11.(3) **Ball and Socket joint** - Heap and Shoulder
Hinge joints - elbow, knee, interphalangeal (IP) joints of the hand and foot and the tibiotalar joint of the ankle.
Fixed joints- skull bones, teeth in sockets of jaw, etc.
- 12.(1) Vitamin A, also known as Retinol.
Iron ores - hematite, magnetite, titanomagnetite, and ironstone.
- 13.(1)
- 14.(2) Bihar has the highest population growth rate as per the Government of India Report 2011-2019.
Total population - Around 1.3 billion
Percentage of the world population -17.71%
Population density - 464 per sq. km
Rank in population - 2
Life expectancy at birth - 70.42 years
- 15.(4) Six forms of the classical dances recognised by India on a national level. They are Bharatnatyam(Tamil Nadu), Kathak(Uttar Pradesh), Kathakali(Kerla), Manipuri, Kuchipudi (Kerala), Mohiniattam (Kerala), Sattariya(Assam) and Odissi.
- 16.(4) Basketball - 5
Volleyball - 6
- 17.(3)
- 18.(1) **1266-1286** - Ghiyas ud din Balban
1290-1296 - Jalal ud din Firuz Khilji
1246-1266 - Nasiruddin Mahmud Shah
- 19.(2) **Rumtek Monastery** - Sikkim
Tawang Monastery - Arunachal Pradesh
Thikse Monastery - Leh in Ladakh
Tabo Monastery - Himachal Pradesh
Mindrolling Monastery - Dehradun
- 20.(1) Qualitative Measures that affect the credit qualitatively are Marginal Requirements, Selective Credit Control (SCC's) , Moral Suasions.
Quantitative measures refer to those measures that affect the variables, which in turn affect the overall money supply in the economy.
- 21.(1) The Permanent Settlement, also known as the Permanent Settlement of Bengal, was an agreement between the East India Company and Bengali landlords to fix revenues to be raised from land. It was concluded in 1793 by the Company administration headed by Charles, Earl Cornwallis. The Cornwallis Code of 1793 divided the East India Company's service personnel into three branches: revenue, judicial, and commercial.
The Permanent Settlement was introduced first in Bengal and Bihar .These regulations remained in place until the Charter Act of 1833. The other two systems prevalent in India were the Ryotwari System and the Mahalwari System.
- 22.(3)
- 23.(4)
- 24.(1) Endemic species is that ecological state of a species where a species is unique to a defined geographical location.
Asiatic Lion(Gir Forest), Kashmir Stag (Kashmir Valley) ,Lion-Tailed Macaque (Western Ghats), Purple Frog (Western Ghats)
Sangai Deer(Loktak Lake), Nilgiri Tahr(Nilgiri Hills), Pygmy Hog, (Assam),Bronzeback Vine Snake(Western Ghats), Nilgiri Blue Robin(Nilgiri Hills),Malabar Civet(Western Ghats), Anaimalai Gliding, Frog (Anaimalai Hills) , Namdapha Flying Squirrel(Arunachal Pradesh), Indian Giant Squirrel, Bonnet Macaque.
- 25.(1)

ANSWER KEY

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