

ENGLISH LANGUAGE AND COMPREHENSION

1. (3) 2. (1) 3. (3) 4. (2) 5. (4) 6. (3) 7. (4) 8. (4) 9. (2)
 10. (3) 11. (2) 12. (1) 13. (1) 14. (1) 15. (1) 16. (1) 17. (1) 18. (4)
 19. (3) 20. (1) 21. (1) 22. (4) 23. (1) 24. (3) 25. (2)
 12. (1) To + V_{b,f} is the correct structure.
 13. (1) "Hair" as a noun is required here.
 17. (1) 'Clover' is incorrectly spelt here, means -a small plant with three round leaves on each stem,
 18. (4) Add article 'a' before 'fit'. 'In a fit of' is the correct phrase. (के आवेश में)
 20. (1) Replace 'older' with 'old'. Use of comparative degree is unnecessary here.

WORD	MEANING IN ENGLISH	MEANING IN HINDI
Abdication	An act of giving up sovereign power or high office	त्याग
Accessory	Assist, Substitute, Additional	सहयोगी, विकल्प
Armament	Weapons, especially large guns, bombs, tanks, etc.	युद्धसामग्री, विशेषतः तोप, बम, टैंक
Avenge	To punish somebody for hurting you, your family, etc.	बदला लेना, प्रतिशोध लेना
Blasphemy		
Conscription	Compulsory enlistment for military service	सैन्य सेवा के लिए अनिवार्य भर्ती
Consecration	The act of dedicating something to God, sanctifying it and making it holy.	पवित्र बनाने की क्रिया
Dawdle	To go somewhere very slowly	सुस्ती से चलना, धीरे धीरे चलना
Expeditious	Done with speed and efficiency.	जल्दी से किया हुआ
Flicker	To move irregularly or unsteadily	अनियमित या अस्थिर रूप से चलना
Hustler	One who obtains money by fraud or deceit	वह जो छल या कपट से धन प्राप्त करता हो
Laggard	A person who makes slow progress and falls behind others,	फिसड्डी, अक्षम
Militaristic	Advocating or pursuing an aggressive military policy	सैन्यवादी
Nephrologist	A specialist of kidney	किडनी रोग विशेषज्ञ
Novice	Person who is new and without experience in a certain job, situation, etc.	नौसिखिया
Obstetrician	a hospital doctor who looks after women who are pregnant	प्रसूति-विज्ञान चिकित्सक
Pathologist	A medical healthcare provider who examines bodies and body tissues	रोगविज्ञानी
Primatologist	A scientific study of primates	नरवानर का अध्ययन
Repeal	To revoke or abrogate by legislative enactment	रद्द करना
Reverence	A feeling of great respect	
Sacrilege	Treating a religious object or place without the respect that it deserves,	पवित्र वस्तु या स्थान का अपमान अपवित्रीकरण
Slick	Slippery	चिकना

GENERAL INTELLIGENCE & REASONING

1. (2) A B C
 -4 | +8 | +11 |
 E J N
 -4 | +8 | +11 |
 I R Y
 -4 | +8 | +11 |
 M Z J
 -4 | +8 | +11 |
 O H U
 2. (1) The habitat of the fish is the Aquarium. Similarly, the

- place where a bee lives is called a hive.
 3. (2) P R O T E I N S
 Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓
 11 9 12 7 5 9 14 19
 R E F F C T S
 Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓
 9 22 21 15 5 3 20 19
 Similarly,

- S C E N A R I O
 Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓ Opp. Place Value ↓
 8 24 22 13 1 18 9 15
 4. (2)
 5. (1) O⁺⁴ S⁺⁵ X (Odd)
 F⁺⁴ J⁺⁴ N
 I⁺⁴ M⁺⁴ Q
 N⁺⁴ R⁺⁴ V
 6. (3) 11 : 81 ⇒ (11 - 2)² = 81
 22 : 400 ⇒ (20 - 2)² = 400
 17 : 225 ⇒ (17 - 2)² = 225

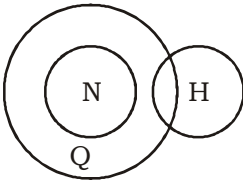
7. (4)
8. (4)
9. (1) $L \Rightarrow 7 - F$
 $L \Rightarrow 8 - 9$

8 and L can appear on the adjacent face of F.

10. (4) $14 + 13 + 3 = 30$
 $39 + 14 + 3 = 56$

Similarly,
 $28 + 11 + 4 = 43$

11. (2)



12. (4)

13. (4) 2, 3, 5, 7, 11, 13

This is a prime number series.

14. (4) $(36 \times 3) - 9 = 99$
 $(36 \times 3) - 2 = 106$
 $(72 \times 3) - 9 = 207$
 $72 \times 3 - 2 = 214$

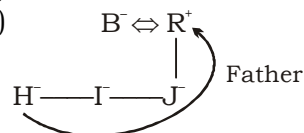
Similarly
 $(24 \times 3) - 9 = 63$
 $(29 \times 3) - 2 = 70$

15. (3) A dog has four legs.
Similarly, parrot has two legs.

16. (1)

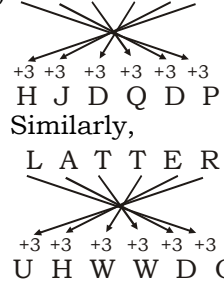
17. (3)

18. (3)



19. (1) $104 - 1124864 \Rightarrow 1124864$, is completely divisible by 104.
 $102 - 1061208 \Rightarrow 1061208$, is completely divisible by 102.
 $106 - 1191016 \Rightarrow 1191016$, is completely divisible by 106.
 $108 - 1257912 \Rightarrow 1257912$, is completely divisible by 108.

20. (1) M A N A G E



21. (4) Just as the editor's job is to edit the newspaper.

Similarly, the work of growing crops is of the farmer.

22. (3) $638 \text{ --- } 2552 \Rightarrow \frac{2552}{638} = 4$

$1074 \text{ --- } 4396 \Rightarrow \frac{4396}{1074} = 4$

4.09 (Odd)

$508 \text{ --- } 2032 \Rightarrow \frac{2032}{508} = 4$

$618 \text{ --- } 2472 \Rightarrow \frac{2472}{618} = 4$

23. (4)

24. (3) By hit and trial method

Interchanging 4 and 3.

$4 + 3 \times 7 - 2 = 29$

$3 + 4 \times 7 - 2 = 29$

$3 + 26 = 29$

$29 = 29$

25. (4)

ANSWER KEY

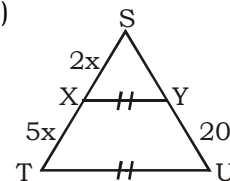
1. (2) 2. (1) 3. (2) 4. (2) 5. (1)
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QUANTITATIVE APTITUDE

1. (2) Total colour = $8 + 2 + 1 + 6 + 10 + 8 + 12 + 3 = 50$

Required% = $\frac{10}{50} \times 100 = 20\%$

2. (2)



$\frac{2x}{5x} = \frac{5\%}{20}$

$5\% = 8 \text{ cm}$

$8 \text{ U} = 20 + 8 = 28 \text{ cm}$

3. (3) $100\% = 800$

$1\% = 8$

Rohit obtained marks = $15 \times 8 = 120$

Raju obtained marks = $20 \times 8 = 160$

ATQ,

$\frac{40}{160} \times 100 = 25\%$

4. (2) Curved surface area of cone = $\pi r l$

ATQ,

$2 \times \frac{22}{7} \times r = 88$

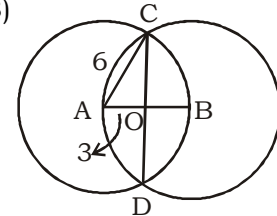
$4 = 14 \text{ cm}$

$l^2 = h^2 + r^2 \Rightarrow l^2 = 28^2 + 14^2$

$l = 14\sqrt{5}$

$\pi r l = \frac{22}{7} \times 14 \times 14\sqrt{5} = 616\sqrt{5} \text{ cm}^2$

5. (3)



$CO^2 = AC^2 - AO^2$

$CO^2 = 6^2 - 3^2$

$CO = 3\sqrt{3}$

$CD = 2 \times 3\sqrt{3} = 6\sqrt{3}$

6. (1) 40 40

Loss : Profit
 $-20 : (40 + 20) = 60$



$40 : 40$

\therefore Profit percentage of remaining pens is 60.

7. (2) $P + Q \rightarrow 20$ 5 (Eff.)

100

$Q \rightarrow 25$ 4 (Eff.)

Efficiency of P = $5 - 4 = 1$ units

Time taken by P = $\frac{100}{1}$

= 100 days.

8. (4) I $\rightarrow \frac{500 + 450}{900 + 800} \times 100 = 55.88$

II \rightarrow Total bike = $500 + 450 + 650 + 700 + 800 = 3100$

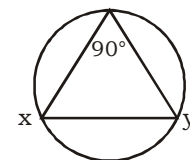
Total cars = $1000 + 550 + 750 + 900 + 800 = 4000$

$\Rightarrow \frac{3100}{4000} \times 100 = 77.5$

9. (2)

$\pi r l = 88$

$r = 14$



The angle subtended by the diameter on the circumference is 90° .

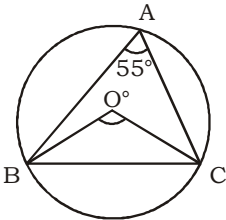
(Diameter = Chord) = $xy = 14 \times 2 = 28 \text{ cm}$

10. (1) $1 - 2 + 3 - 4 + 5 - 6 \dots \dots 100^{\text{th}}$ terms.

= $(1 - 2) + (3 - 4) + (5 - 6) + \dots$

$$\begin{aligned} & \dots\dots\dots + (99 - 100). \\ & = -1 -1 -1 -1 -1 \dots\dots\dots -1 \text{ (50 terms)} \\ & = -50 \end{aligned}$$

$$\begin{aligned} 11. (3) & \frac{1}{4} \times \frac{1}{4} \div \frac{1}{2} + \frac{1}{4} \div \frac{1}{4} \times \frac{1}{2} \times \frac{1}{2} \\ & = \frac{1}{8} + \frac{1}{2} = \frac{5}{8} \\ 12. (4) & \text{ATQ,} \end{aligned}$$



As angle subtended on the circumference is half of the angle subtended on centre by a chord.

$$\begin{aligned} \angle BOC &= 2\angle BAC \\ \angle BOC &= 2 \times 55 = 110 \\ 13. (3) & \text{ATQ,} \\ A \times 20\% &= B \times 10\% \\ A : B &= 1 : 2 \\ 1 \text{ unit} &= 2550 \\ 2 \text{ units} &= 5100 \end{aligned}$$

$$\begin{aligned} 14. (3) & \frac{\tan A - \sin A}{\tan A + \sin A} \\ & = \frac{\frac{\sin A}{\cos A} - \sin A}{\frac{\sin A}{\cos A} + \sin A} = \frac{1 - \cos A}{1 + \cos A} \\ & = \frac{1 - \frac{1}{\sec A}}{\frac{1}{\sec A} + 1} \Rightarrow \frac{\sec A - 1}{\sec A + 1} \end{aligned}$$

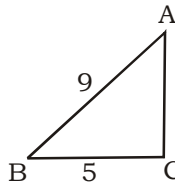
$$\begin{aligned} 15. (2) & \text{ATQ,} \\ SP &= 100 \times \frac{80}{100} \times \frac{60}{100} \\ SP &= 336 \end{aligned}$$

$$\begin{aligned} 16. (2) & 120 - 62.5 \xrightarrow{4.3} \\ & 30 - 58.2 \xrightarrow{4.3} \\ & \text{Decrease in age due to new members.} \\ & = 150 \times 4.3 = 645 \\ & \text{Average age of new members} \\ & = 62.5 - \frac{645}{30} = 41 \end{aligned}$$

$$\begin{aligned} 17. (3) & \text{Income} = \text{Exp.} + \text{Saving} \\ \text{Income} &= 5 + 4 = 9 \text{ units} \\ 9 \text{ units} &= 36000 \\ 1 \text{ unit} &= 400 \end{aligned}$$

$$5 \text{ units} = 5 \times 4000 = 20000$$

$$18. (1) \cos B = \frac{5}{4}$$



$$\cos B = \frac{\text{Base}}{\text{Hypotenous}}$$

$$\begin{aligned} AC^2 &= AB^2 - BC^2 \\ AC^2 &= 81 - 25 \\ AC^2 &= 56 \\ AC &= 2\sqrt{14} \\ \text{Then} \end{aligned}$$

$$\text{Cosec} B = \frac{9}{2\sqrt{14}}$$

$$\begin{aligned} 19. (3) & \text{Let, } P = \text{Principal} \\ R &= 10\% \\ T &= 3 \text{ years} \\ SI &= 403 - P \end{aligned}$$

$$\begin{aligned} SI &= \frac{P \times R \times T}{100} \\ 403 - P &= \frac{P \times 10 \times 3}{100} \\ P &= 310 \end{aligned}$$

$$20. (1) x^4 + \frac{1}{x^4} = 47$$

$$\left(x^2 + \frac{1}{x^2}\right) - 2 = 47$$

$$x^2 + \frac{1}{x^2} = 49$$

Again

$$\left(x + \frac{1}{x}\right)^2 - 2 = 49$$

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

Cubing both sides.

$$\left\{ \left(x + \frac{1}{x}\right) = v \text{ then } \left(x^3 + \frac{1}{x^3}\right) = v^3 - 3v \right\}$$

$$x^3 + \frac{1}{x^3} = 3^3 - 3 \times 3 = 18$$

$$\begin{aligned} 21. (3) & \text{Number of person} \times \text{Average weight} = \text{Total weight} \\ 20 \times 60 &= 1200 \\ 21 \times 59 &= 1239 \\ \text{Weight of new person} &= 39 \text{ years.} \end{aligned}$$

$$22. (4) \frac{\sqrt{1-\sin A}}{\sqrt{1+\sin A}}$$

$$\frac{(1-\sin A)^2}{\sqrt{(1+\sin A)(1-\sin A)}}$$

$$\frac{1-\sin^2 A}{\sqrt{1-\sin^2 A}} = \frac{1-\sin A}{\cos A}$$

$$= \frac{1}{\cos A} - \frac{\sin A}{\cos A} \Rightarrow \sec A + \tan A$$

$$23. (1) k + \frac{1}{k} = 2, k = 1$$

Then,

$$k^{17} + \frac{1}{k^{12}} = 1^{17} + \frac{1}{1^{12}} = 2$$

$$24. (4) \text{Speed of car} = \frac{40}{24} = 100 \text{ km/h}$$

$$\text{New speed} = (100 - 40) = 60 \text{ km/h}$$

$$\text{New time} = \frac{40}{60} \times 60 = 40 \text{ minutes.}$$

$$25. (1) \text{Total production in all years by J.}$$

$$(L_1) = 120 + 80 + 40 + 30 + 20 = 290$$

$$\text{Total production in all years by K.}$$

$$(L_2) = 50 + 60 + 120 + 100 + 70 = 400$$

$$L_2 - L_1 = 400 - 290 \Rightarrow 110$$

ANSWER KEY

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

GENERAL AWARENESS

1. (2) Disadvantages of Dams
Displacement of people during construction.
Reservoirs often emit a high percentage of greenhouse gases.
Often disrupts local ecosystems.
It disrupts the groundwater table.
Blocks progression of water to other countries, states or regions.
2. (3) **Wipro** was founded in 1945 by Mohamed Premji headquartered in Bengaluru.
Mindtree Ltd was founded in 1999, headquartered in Bangalore. Mindtree was acquired by Larsen & Toubro in 2019 before being merged with L&T Infotech (LTI) in 2022 to form LTIMindtree.
Amazon was founded in 1994 by Jeff Bezos Washington, U.S.
Microsoft was founded in 1975 by Bill Gates, Paul Allen headquartered in Washington, U.S.
3. (1) Ninth season of Pro Kabaddi League was played across Bengaluru, Pune and Hyderabad while the playoffs were played in Mumbai.

- Jaipur Pink Panthers defeated Puneri Paltan in the final match. Most raid points - India Arjun Deshwal (296) (Jaipur Pink Panthers)
- 4.(1) Roger Federer(Switzerland) won 20 Grand Slams. Djokovic(Serbia) has won 22 Grand Slam men's singles titles, tied with Rafael Nadal(Spain) for the most Grand Slams won by a male player.
- 5.(3) Total Coastal Areas of India - 3,287,263 km². Gujarat -1214.7 k.m. Andaman & Nicobar Islands - 1962 km.
- 6.(2) Patanjali was a sage in India who is believed to have authored a number of Sanskrit works, the most prominent of which is the Yoga Sutras, a classical yoga text dating to 200 BCE - 200 CE. Bismillah Khan was a Shehnai Player. Sitara Devi was a Kathak dancer.
- 7.(3) **Bombay Stock Exchange (BSE)**, is located on Dalal Street in Mumbai. Established in 1875 by cotton merchant Premchand Roychand. SS Mundra is the Chairman and Sundararaman Ramamurthy is MD & CEO.
- The Securities and Exchange Board of India (SEBI)** is the regulatory body for securities and commodity market in India under the ownership of Ministry of Finance. It was established on 12 April 1988 as an executive body and was given statutory powers on 30 January 1992 through the SEBI Act, 1992. Madhabi Puri Buch is the Chairman of SEBI.
- National Stock Exchange** was founded 1992 in Mumbai. Girish Chandra Chaturvedi is the Chairperson and Ashish kumar Chauhan is the MD & CEO.
- 8.(4) The Pallavas ruled the parts of the Andhra Pradesh and Tamil Nadu during the time period 4th - 6th century CE. They had their capital at Kanchipuram. Aihole was the capital of the Chalukyas. Puhar was the capital of Chola. The Raichur Doab was situated between the rivers Krishna and Tungabhadra.
- 9.(2) The primary objective of the Third Five Year Plan of the Indian Economy was to develop India as a self-reliant and self-economy generating country.
- 11.(2) **Alt + P** - opens the Page Layout tab in the Ribbon.
Alt + I - open the Insert file menu.
- 12.(3) **Jharkhand** has the largest reserves of coal in India. The main coalfields are Jharia, Bokaro, Giridih and Karanpura.
Rajasthan has the largest copper reserves in India and is 2nd in terms of production, after MP.
Karnataka has the largest recoverable reserves of manganese ore.
- 13.(3) **Mahi** originates from Vindhya Range and fall into Arabian Sea.
Narmada originates from Amarkantak and fall into Arabian Sea.
Tapi originates from Satpura Range and fall into Arabian Sea.
- 14.(1) Read-only memory, or ROM, is a type of computer storage containing non-volatile, permanent data that, normally, can only be read, not written to. ROM contains the programming that allows a computer to start up or regenerate each time it is turned on.
- 15.(2) The Aram Bagh is the oldest Mughal Garden in India, built by the Mughal Emperor Babur in 1528. Babur was temporarily buried there before being interred in Kabul.
- 16.(2) Three bulk drug parks in Gujarat, Himachal Pradesh, and Andhra Pradesh(March,2023). Nitish Kumar is the Chief Minister and Phagu Chauhan is the Governor of Bihar. Pushkar Singh Dhama is the Chief Minister and Gurmit Singh is the Governor of Uttarakhand.
- 17.(4) Public health and sanitation, Public Order - State list
Union List: 100 items on which Parliament has exclusive power to make laws
State List: 61 items on which States can make and regulate laws.
Concurrent List: 52 items on which both Central and State governments can make laws.
- 18.(3) The Battle of Plassey was a decisive victory of the British East India Company over the Nawab of Bengal and his French allies on 23 June 1757, under the leadership of Robert Clive. The victory was made possible by the defection of Mir Jafar, who was Nawab Siraj-ud-Daulah's commander in chief. The battle helped the British East India Company take control of Bengal.
- 19.(3) **Gita Sehgal** - Refusing Holy Orders
Ram Prasad Bismil - Musings from the Gallows(Autobiography), Atmakatha, Nij Jeevan Ki Ek Chhata, Kranti Geetanjali.
Yashpal - Jhutha Sach, Meri Teri Uski Baat, Desh Ka Bhavishya, Pinjre Ki Udan.
- 21.(2) **Article 32** gives the right to individuals to move to the Supreme Court to seek justice when they feel that their right has been 'unduly deprived'.
Article 76 mentions that the Attorney General of India is the highest law officer of India.
Article 126 - Appointment of acting Chief Justice
- 23.(3) I- League was founded in 1996 (as National Football League) and in 2007(as I-League). Round Glass Punjab won the 2022 - 23 season.
- 24.(2) **National Commission for Protection of Child Rights (NCPCR)** established by Protection of Child Rights (CPCR) Act, 2005. The Commission works under the aegis of Ministry of Women and Child Development. The Commission became operational on 5 March 2007. Priyank Kanoongo is the Chairman.
UNICEF was Founded on 11 December 1946, New York. Ministry of Women and Child Development founded on 30 January 2006. Krishna Raj is Minister of State and Smriti Irani is the Union Minister.
Niti Aayog was founded on 1 January, 2015. Chairperson - Prime Minister Vice Chairperson - Suman Bery CEO - B.V.R.Subrahmanyam
- 25.(1) **Vikram Sarabhai** - Father of the Indian space program
C.V. Raman - grand old man of Indian science. He got Nobel Prize in Physics in 1930. Venkatraman Radhakrishnan was the son of C.V Raman.

ANSWER KEY

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