ENGLISH LANGUAGE AND COMPREHENSION

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

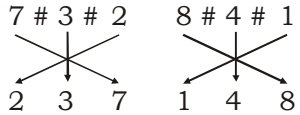
EXPLANATION:-

2. (1) 'Trunk' is incorrectly spelt here, means- the main stem of a tree apart from limbs and roots
12. (4) Replace 'doesn't' with 'don't'. You takes 'don't'
17. (4) 'Subject+ was/were+ v_3' is the correct structure of Past Indefinite (Passive Voice.)
19. (2) No error

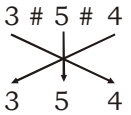
WORD	MEANING IN ENGLISH	MEANING IN HINDI
Acrimonious	Angry and bitter	उग्र, कटु
Amalgamate	Used especially about organizations, groups, etc. To join together to form a single organization, group, etc.	(संस्थाओं, संगठनों आदि को) मिलाकर एक कर देना
Cessation	The stopping of something; a pause in something	समापन, विराम
Coalesce	To come together to form one larger group, substance, etc.	संगठित होना
Colloquial	(Used about words, phrases, etc.) Used in spoken conversation, not in formal situations	बोलचाल या बातचीत की भाषा
Colonialism	The practice by which a powerful country controls another country or countries, in order to become richer	उपनिवेशवाद
Crusade	A religions war	धर्मयुद्ध
Dismantle	To take something to pieces; to separate something into the parts it is made from	(किसी वस्तु) को विखंडित या टुकड़े-टुकड़े कर देना
Incipience	Beginning to exist or to be apparent	उदगम
Inscription	Words that are written or cut on something	शिलालेख
Integrate	To join things so that they become one thing or work together	एकीकृत करना
Libel	The act of printing a statement about somebody that is not true and would give people a bad opinion of him/her	अपमान-लेख
Libertine	A freethinker in matters of religion, an immoral person	धर्म के मामले मे उदार, व्यभिचारी
Nark	To annoy someone	चिढ़ाना
Omega	The extreme or final part, end	अंत
Panacea	Something that will cure all diseases or solve all problems and difficulties; a universal remedy	रामबाण, सर्वरोगहर
Parochial	Only concerned with small issues that happen in your local area and not interested in more important things	संकीर्ण, छोटे मुद्दों से संबंधित
Plagiarism	Presenting work or ideas from another source as your own, with or without consent of the original author	साहित्यिक चोरी
Solace	A person or thing that makes you feel better or happier when you are sad or disappointed	सांत्वना
Venial	A slight fault that can be forgiven	क्षम्य

GENERAL INTELLIGENCE & REASONING

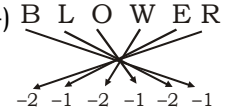
1. (1) **t** t k **l** t t **k** | t t **k** l t **t** k l **t** t k **l**
2. (4) Hexagon is opposite to the site containing triangle
3. (2) 7 # 3 # 2 = 237
8 # 4 # 1 = 148
Similarly,



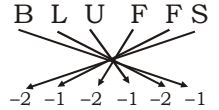
Similarly,



4. (4) The symbol $ will be on the face opposite to the one having €.
5. (2) 14, 55, 41 ⇒ 14 + 41 = 55
36, 99, 63 ⇒ 36 + 63 = 99
Similarly,
128, 949, 821⇒ 128 + 821 ⇒ 949
6. (4) B L O W E R



P D U N J A
Similarly,



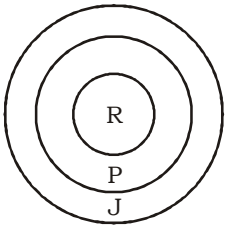
Q E D T J A

7. (2)
8. (4) 6, 12, 24 ⇒ 6 × 24 = 144 = $(12)^2$

28, 14, 7 ⇒ 28 × 7 = 196 = $(14)^2$
Similarly,
25, 10, 4 ⇒ 25 × 4 = 100 = $(10)^2$

9. (4) Father
↑
Shreya ⇔ Son
↑
( ) ← pointed boy

10. (4) Blade [As steering is rent of car, similarly Blade is rent of Fan]
11. (4)
12. (4) After arranging given words in logical manner. We will get word at fourth position → Represent
13. (4) 14. (2)
15. (1)
16. (4)



So, Only conclusions III follows.

17. (3)

4800, 2400, 1200, 600, 300, **150**
÷2 ÷2 ÷2 ÷2 ÷2

18. (3) 11322 – 1258 ⇒ $\frac{11322}{9}$
= 1258

49401 – 5489 ⇒ $\frac{49401}{9}$
= 5489

28125 – 3125 ⇒ $\frac{28125}{9}$
= 3125

But, 49374 – 5485 ⇒ $\frac{49374}{9}$
= 5486 ≠ 5485

19. (3)

A	B	D	G
1	2	4	7
	+1	+2	+3

Q	**S**	**V**	**Y**
17	19	22	25
	+2	+3	+3

V	W	Y	B
22	23	25	2
	+1	+2	+3

L	M	O	R
12	13	15	18
	+1	+2	+3

20. (3) Race takes place on Track, similarly, cricket is played on pitch
21. (2) BACK = 2325215

	B	A	C	K
Opposite Value	↓	↓	↓	↓
	25	26	24	16
Place Value	–2	–1	–3	–11
	23	25	21	5

CAME = 2125117

	C	A	M	E
Opposite Value	↓	↓	↓	↓
	24	26	14	22
Place Value	–3	–1	–13	–5
	21	25	1	17

Similarly,

	G	B	J	H
Opposite Value	↓	↓	↓	↓
	20	25	17	19
Place Value	–7	–2	–10	–8
	13	23	7	11

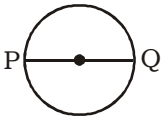
22. (2) There are maximum 13 triangles in given figure.
23. (1) 20 ÷ 5 × 10 – 5 + 2
If we interchange + and ×, – and ÷
20 – 5 + 10 ÷ 5 × 2
= 20 – 5 + 2 × 2
= 19
24. (3)
25. (1) 9 : 30 ⇒ 9 × 3 = 27 + 3 = 30
11 : 36 ⇒ 11 × 3 = 33 + 3 = 36
Similarly,
13 × 3 = 39 + 3 = 42

ANSWER KEY

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

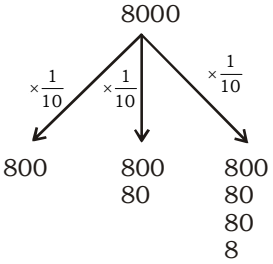
QUANTITATIVE APTITUDE

1. (3) To divide the 48ab by 2, 5, 7, We check divisibility for 10 and 7.
For divisible by 10 → Last digit (= b) must be zero.
∴ b = 0
Again to divide 48a0 by 7, a must be equal to 3.
Now, 10a – b = (10 × 3) – 0 = 30
2. (4) The total income in years P and Q = 650 + 450 = 1100
Expenditure in year S and T = 150 + 100 = 250
∴ Difference = 1100 – 250 = 850
∴ Excess % = $\frac{850}{250} \times 100$
= 340%
3. (3) Let, Side of cube = a cm
∴ Volume of cube = a^3 cm^3
ATQ, $a^3 = 1728$
Or, $a^3 = (12)^3$
a = 12
∴ Total surface are = $6a^2$ cm^2
= 6 × $(12)^2$ cm^2
= 864 cm^2
4. (1) As the chord PQ, made at angle 180° on the centre.
So the chord PQ is diameter.



∴ Length of diameter PQ = 54 cm
5. (1) For half yearly compound
1.5 y ≡ 3y

20% ≡ 10% = $\frac{1}{10}$



∴ Interest = 2400 + 240 + 8 = 2648
∴ Amount = 8000 + 2648 = 10648
6. (2) ATQ,
100% ≡ 1800
12% ≡ 18 × 12 = 216
18% + 15% = 18 × 33 = 594
∴ Ratio of number of teachers in hindi to number of teachers in English Math = 216 : 594
= 4 : 11
7. (2) Equivalent discount = 10% + 20% – $\frac{20 \times 10}{100}$
= 30% – 2% ⇒ 28%

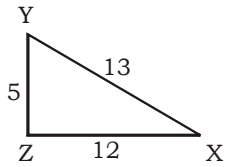
8. (2) Diameter of circle = 20 cm
Radius of circle = 10 cm
Distance of chord (OP) = 6 cm
∴ Half of length of chord $= \sqrt{(10)^2-(6)^2}$ cm
= 8 cm
Length of chord = 8 × 2 = 16 cm
Sum of length of radius and chord = 10 + 16 = 26

9. (4) Let, two numbers are 9x, 16x
After increasing 40 of both numbers, new numbers are 9x + 40, 16x + 40
ATQ,
$\frac{9x+40}{16x+40}=\frac{2}{3}$
27 x + 120 = 32x + 80
5x = 40
x = 8
∴ Numbers are 72, 128
∴ Difference between two numbers 128 – 72 = 56

10. (3) Total production by M, N and O in 2017 = 1364 Lakh ton
Total production by M, N, O in 2018 = 932 Lakh ton
Total production by M, N, O in 2019 = 930 Lakh ton
Total production by M, N, O in 2020 = 1355 Lakh ton
∴ 2019 has the minimum production of wheat.

11. (2) 20% of 1st number = 30
∴ 100% of 1st number = (30 × 5) = 150
ATQ,
6 units ≡ 150
1 unit ≡ 25
5 units ≡ 125
9 units ≡ 225
Difference between 3rd and 2nd number = 225 – 125 = 100
∴ 50% of difference = 50

12. (3) $\cos x = \frac{5}{13}$



Now,
$\tan x + \cot x = \frac{5}{12}+\frac{12}{5} \Rightarrow \frac{169}{60}$

13. (1) Let, Efficiency of a man = M
Efficiency of a boy = B
ATQ, 8M = 10B
Or, M : B = 5 : 4
Total work = (8 × 5) × 174 units
= 6960 units
Efficiency of 12 men and 14 boys = (12 × 5) + (14 × 4)
= 60 + 56 = 116
∴ Number of days required
$= \frac{6960}{116}$ days = 60 days

14. (3)
Players : Teachers
24 : x (26+24) = 50
26
24 = 12×2 : 1×2
As gap between 26 and 24 is
∴ Age of teacher = 50 years

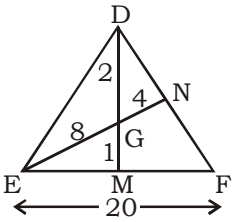
15. (2) $A+\frac{1}{A}=-1 \Rightarrow A^3=1$
Now,
$\frac{A^6+A^3-1}{A^9+A^3-1}=\frac{(A^3)^2+A^3-1}{(A^3)^3+A^3-1}$
$= \frac{1+(-1)-1}{(1)^3-1-1}=-1$

16. (2) $(x+1)^2+(x+2)^2=16$
$x^2+2x+1+x^2+4x+4=16$
$2x^2+6x+5=16$
$4x^2+12x+10=32$
$4x^2+12x+40=32+30=62$

17. (2) Speed of 1st train $= \frac{360}{30}$ m/s
= 12 m/s
Let, Speed of 2nd train = S m/s
ATQ, $\frac{360+360}{12+S}=15$
720 = 180 + 15S
$S=\frac{720-180}{15}$, S = 36 m/s

18. (1) Cost price Selling price
100 –15% 85 28
+13% 113
ATQ, 28 ≡ 300
For gaining 20%
∴ Selling price $= \frac{300}{100}\times 120$
= 360

19. (3) We know centroid (G) divides the median in 2 : 1.
For the median of EN



2 + 1 ≡ 12
3 ≡ 12, 2 ≡ 8 1 ≡ 4
For ΔEGM ∠G = 90°
∴ GM = 6 (From triplet)
∴ Again for median DM - GM ≡ 6
DG ≡ 2 GM = 12
∴ DM = DG + GM
= 12 + 6 ⇒ 18 cm

20. (3) $\sec x + \tan x = \sqrt{3}$
We know,
$\sec^2 x - \tan^2 x = 1$
(secx + tanx) (secx – tanx) = 1
$\sec x - \tan x = \frac{1}{\sqrt{3}}$
$\sec x + \tan x = \sqrt{3}$
$\sec x - \tan x = \frac{1}{\sqrt{3}}$
$2\tan x = \sqrt{3}-\frac{1}{\sqrt{3}}=\frac{3-1}{\sqrt{3}}$
$\Rightarrow \tan x = \frac{1}{\sqrt{3}}$

21. (1) Total expenditure of J in A and B = 400 + 300 = 700
∴ Average expenditure $= \frac{700}{2}$
= 350
Total expenditure of K in C and D = 500 + 300 = 800
∴ Average expenditure of K = 400
∴ Difference of average expenditure of J and average expenditure of K = 400 – 350 (L_1) = 50
Total expenditure of company k = 1000 + 700 + 500 + 300 + 200 = 2700

$\therefore$ Average of expenditure of company k (L_2)= $\frac{2700}{5}$ = 540

$\therefore$ The vlaue of $L_2 - L_1$ = 540 – 50 = 490

22. (1)

Average age of Male | Average age of Female

40=(32+8)x : 24

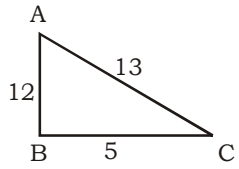
32

8×1 : 1×8

As difference between 32 and 24 is 8, So ratio is equivalent to difference.

$\therefore$ Average age of male employees = 40 years

23. (1)



CosA + sinC

$\frac{12}{13}+\frac{12}{13} \Rightarrow \frac{24}{13}$

24. (4) $\frac{15\div5\times3-12\times12\div6+15\div5\times6}{18\div3\times5-12\div6\times5+18\div9\times5}$

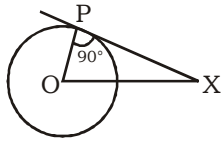
$= \frac{3\times3-12\times2+3\times6}{6\times5-2\times5+2\times5}$

$= \frac{9-24+18}{30-10+10} \Rightarrow \frac{1}{10}$

25. (2) OP = radius = 10 cm

OX = 26 cm

$\therefore$ PX = $\sqrt{(26)^2-(10)^2}$ cm



(As ΔOPX is right angle triangle)

= 24 cm

ANSWER KEY

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

GENERAL AWARENESS

1.(3) **Sarangi** -Shakoor Khan, Pt Ram Narayan, Ramesh Mishra, Sultan Khan, Ustad Binda Khan

Flute -Hari Prasad Chaurasia, Pannalal Ghosh, TR Mahalingam

2.(1) The Battle of Peshawar was fought on 27 November 1001 between Mahmud of Ghazni and Jayapala, near Peshawar. Jayapala was defeated and captured, and as a result of the humiliation of the defeat, he later immolated himself in a funeral pyre.

3.(1) Jayaprakash Narayan is remembered for leading the mid-1970s opposition against Prime Minister Indira Gandhi, for whose overthrow he had called for a "total revolution". His biography, Jayaprakash, was written by Rambriksh Benipuri. In 1999, he was posthumously awarded the Bharat Ratna, in recognition of his social service. Other awards include the Magsaysay award for Public Service in 1965.

4.(4)

5.(4) In 2012 the overall expection of life at birth was 78.8 years.

6.(1) Hiroshima Day is observed on August 6 to commemorate the atomic bombing of Hiroshima, Japan, in 1945, at the end of World War II.

7.(4)

8.(4) GSAT-24 is a 24-Ku band communication satellite weighing 4180 kg with Pan India coverage for meeting DTH application needs. NSIL has leased the entire satellite capacity to M/s Tata Play.

9.(1)

10.(2) Bold text or remove bold formatting - Ctrl+B or Ctrl+2

Underline text or remove underline - Ctrl+U or Ctrl+4

Apply or remove strikethrough formatting - Ctrl+5

11.(4) 12. (3)

13.(3)

14.(2) **First Amendment Act, 1951**, made several changes to the Fundamental Rights provisions of the Indian constitution.

Ninth Amendment Act of 1960 provided that the transfer of disputed territories to Pakistan from India was legal.

13th Amendment Act, 1962 gave the status of a state to Nagaland and made special provisions for it.

15.(3)

16.(1)

17.(1) SOVA Virus is the new mobile banking Trojan virus, which can encrypt an Android phone for ransom.

18.(2) Ngultrum is the Currency of Bhutan.

Kyat is the currency of Myanmar

Renminbi is the official currency of China. The Yuan is the basic unit of the Renminbi.

Thimphu is the Capital of Bhutan.

Lotay Tshering is the Prime Minister of Bhutan.

19.(2) **89th Amendment Act, 2003** - The National Commission for Scheduled Tribes was established.

19th Amendment Act, 1966- provided High Court with the power to hear about the election petition.

91st Amendment Act, 2003- strengthened the act by adding provisions for disqualification of defectors and banning them from being appointed as ministers for a period of time.

20.(4)

21.(1)

Maharastra	39	38	63
Services	61	35	32
Haryana	38	38	40

37th National Games will be played in Goa

22.(4) Renu Kohli was first woman to win the Dronacharya Award for athletics coach in 2002.

Sunita Sharma is India's first woman cricket coach.She received the Dronacharya Award in 2005.

Purnima Mahato is an archery coach was awarded Dronacharya award in 2013.

23.(3) 24.(4)

25.(1) The earth covers an angle of 360° with every rotation within the span of 24 hours. This indicates that it rotates by 15° every hour. Thus, for the purpose of convenience, time zones have been split into 24 equally-spaced time zones

ANSWER KEY

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