ENGLISH LANGUAGE AND COMPREHENSION

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

EXPLANATION:-

1. (2) The correct word could be 'mined/minted/minced etc.'
2. (4) 'Main street at' is the correct expression. Main - most important, chief, primary. And It is used to mention a specific time.
3. (4) Except- not including somebody/something; apart from the fact that (क्र छा' ड़ ड़ सकेर सिखा). Accept- to agree to take something that somebody offers you (स्वी का र य ग्र हन क्र्रा
4. (1) Replace 'are' with 'is'. 'The Indian population' is used as a single unit.
5. (2) Replace 'represent' with 'represents'. Singular Subject( fiscal deficit) takes a singular verb (represents)

WORD

| Abandon | Give up |
| :--- | :--- |
| Algaecide | A substance for killing alga |


| Allegory | A story, play, picture, etc. In which each character or event is a symbol representing an idea or a quality, such as truth, evil, death, etc.; the use of such symbols | एक, प्रती क्कथT T, |
| :---: | :---: | :---: |
| Almanac | A publication containing astronomical or meteorological information | पं चा ${ }^{\text {¢ }}$ |
| Annex | To unite, to join | ज' ड. ना |
| Conscription | Compulsory enlistment for military service |  |
| Constraint | The state of being checked, restricted, or compelled to avoid or perform some action | बा ध |
| Egghead | A person with intellectual interests or pretensions | बहु तस' चने वा ला ठर्यरिग |
| Fetter | A chain used to restrain a prisoner, typically placed around the ankles. | बे ड. १ |
| Fungicide | Pesticides that kill or prevent the growth of fungi and their spores |  |
| Genial | Pleasant and friendly, convivial | मिलनसा र |
| Incongruous | Strange and out of place; not suitable in a particular situation | बे मे ल |
| Jar | To have a harshly disagreeable or disconcerting effect | निरा प T जसकप्र\% T T व हा' ना |
| Laconic | Using only a few words to say something | सं क्षिए पत |
| Lacuna | A blank space or a missing part | कमी |
| Philistine | A person who does not like, understand or enjoy the beauty of art, literature, music, etc. | अशि क्षि त, क्ला , स हित यु <br> संगी तअ दि के सै ${ }^{*}$ दर्य का न स्मझने वा ला |
| Prepuce | Foreskin. | $\overline{\text { ¢ वचा }}$ |
| Profuse | Given or produced in great quantity | अर्यक्किमा ऽTT में , प्रचु र |
| Protract | To extend forward or outward | निक्लना (आ गे से) |
| Recklessness | Carelessness, casualness | ला परवा ही |
| Ruthenium | A chemical element | एकरा स यनिक तर व |
| Sage | A mature or venerable person of sound judgment | समझदा र |
| Spontaneity | Voluntary or undetermined action or movement | स वचछं दता |

## MEANING IN ENGLISH

Give up
A substance for killing algae

A story, play, picture, etc. In which each character or event is a symbol representing an idea or a quality, such as truth, evil, death, etc.; the use of such symbols

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GENERAL INTELLIGENGE \& REASONING

1. (1) $32,35,39,42,46,49,53$

2. (2) Lizard
3. (3)
4. (4) From equation (i), if interchange 4 and 6, We have,
$8-6 \times 3+4 \div 2$
$=8-18+2$
$=-8$
From equation (ii), if Interchange 4 and 6,
We have
$6+3 \times 4-8 \div 2$
$=6+12-4$
$=14$
5. (3) 11
6. (3)
7. (4) $101,10201,10302 \Rightarrow 10302$
$-101=10201$
95, $9025,9120 \Rightarrow 9120-95$
$=9025$
Similarly,
102 , $10404,10506 \Rightarrow 10506$
$-102=10404$
8. (1) $\mathrm{FONT}=(6+15) \times(14+20)=714$

GLUE $=(7+12) \times(21+5)=494$
Similarly, $\mathrm{JOKE}=(10+15) \times(11+5)=400$
9. (3) As Ranchi is Capital of Jharkhand, Similarly Dispur is capital of Assam.
10. (1) The face opposite to the face showing A will have the letter B.
11. (3)


Similarly,

12. (3) 1. Thigh
2. Stomach
3. Lips
4. Nose
5. Skull
13. (1)j t m $\underline{\operatorname{Pr}} \mathrm{s} \mid j \mathrm{t}$ mPrs|jtmp $\mathrm{r} \mathrm{s} \mid \mathrm{jtmprs}$
14. (4)
15. (3) $5 \# 2=25 \Rightarrow(5)^{2}=25$
$8 \# 2=64 \Rightarrow(8)^{2}=64$
Similarly,
$11 \# 2 \Rightarrow(11)^{2}=121$
16. (2)


Only Conclusion II follows.
17. (2)


K is maternal uncle of L
18. (4) $\mathrm{Q} \quad \mathrm{M}$ I $\mathbf{W}$ T $\mathbf{P}$ $\underbrace{17}_{-4} \underbrace{13}_{-4} 9 \underbrace{23}_{-3} \underbrace{20}_{-4} 16$ O K G Z V R $\underbrace{15}_{-4} \underbrace{11}_{-4} 7 \underbrace{26}_{-4} \underbrace{22}_{-4} 18$
19. (2) $34,24,8 \Rightarrow(32-24)=8$ $48,42,6 \Rightarrow(48-42)=6$ Similarly, $56,50,6 \Rightarrow(56-50)=6$
21. (4) Nephew
22. (2) ? : $225 \Rightarrow \sqrt{225}=15-4=11$ $9: 169 \Rightarrow 9+4=(13)^{2}=169$ $12: 256 \Rightarrow 12+4=(16)^{2}=$ 256
23. (2) $46,93,187 \Rightarrow(46 \times 3)+93$ $\Rightarrow 185+2=187$
$123,247,495 \Rightarrow(123 \times 2)+$ $247 \Rightarrow 493+2=495$
Similarly,
$313,627,1255 \Rightarrow(313 \times 2)$ $+627=1253+2=1255$
24. (2) B and A
25. (2)

ANSWER KEY

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

## QUANTITATIVE APTITUDE

1. (4) We know, from properties of right-angle

$\frac{P X}{X R}=\left(\frac{P Q}{Q R}\right)^{2}$

Or, PX: $\mathrm{XR}=\left(\frac{15}{20}\right)^{2}$
Or, PX: XR = $9: 16$
2. (1) $\mathrm{As} A B=\mathrm{AC}$ and $\angle \mathrm{AZB}=90^{\circ}$ From angle bisector theorem,

$\frac{\mathrm{AB}}{\mathrm{AC}}=\frac{\mathrm{BZ}}{\mathrm{ZC}} \Rightarrow \mathrm{BZ}=\mathrm{ZC}$
$\therefore \mathrm{BZ}=21 \mathrm{~cm}$
3. (1) As multiplication of 6 and 1 gives 6.
From options,
We have only option (1) to have unit digit 6 .
4. (4) Let two numbers are $x, y$ ATQ,
$x-y=\frac{20}{100}(x+y)$
Or, $5 \mathrm{x}-5 \mathrm{y}=\mathrm{x}+\mathrm{y}$
$4 x=6 y$
$x: y=3: 2$
5. (3) Let marked price of an article $=100$
Equivalent discount of $40 \%$
and $20 \%=40+20-\frac{40 \times 20}{100}$
$=60-8=52 \%$
ATQ,
$52=4632$
$100=\frac{4632}{52} \times 100$
$100=9650$
Marked price is 9650
6. (1) Let, $\mathrm{OB}=\mathrm{OD}=\mathrm{OA}=\mathrm{OC}$ radius of circle.

$\mathrm{OF}=$ Distance of chord $\mathrm{AB}=7$
$\mathrm{OE}=$ Distance of anothers chord CD $=15$
$\mathrm{AF}=\mathrm{FB}=\frac{48}{2}=24$
As perpendicular from centre divides chord equally]
$\therefore \mathrm{OA}=\mathrm{OB}=\sqrt{(24)^{2}+(7)^{2}}$
$=25$
$\therefore$ Half of chord CD
$=\sqrt{(25)^{2}+(15)^{2}}=20 \mathrm{~cm}$
$\therefore$ Length of chord $=40 \mathrm{~cm}$
7. (4) Let cost price of an article $=100$ units
$\therefore$ Selling price of an article = 120 units
After reducing Rs. 20 of each cost price and selling price
New cost price $=100$ units -20
New selling price $=120$ units -20
$\therefore$ Profit $=20$ units
Profit percentage
$=\frac{20}{100 \text { units }-20} \times 100$
ATQ,
$\frac{20}{100 \text { units }-20} \times 100=40$
1 units $=.40$
$\therefore$ Initial cost price $=100 \times .40$

$$
=40
$$

8. (4) Ratio of efficiency of A and B = 3: 1
Total efficiency $=(3+1)=4$
$\therefore$ Total work $=(4 \times 32)$ units

$$
=128 \text { units }
$$

$\therefore$ B alone complete $=\frac{128}{1}$ days
$=128$ days
9. (2) Total GDP of country P (L )
$=225+250+200+125+100$
$=900$
Total GDP of country $\left(\mathrm{L}_{2}\right)=335$ $+350+175+135+145=$ 1140
$\therefore$ Difference $=1140-900$

$$
=240
$$

10. (2)


Let, Amount invested in $4 \%=x$
Amount invested in $6 \%=y$
Amount invested in $10 \%=z$
ATQ,
$4 \% x=6 \% y=10 \% z$
$2 \mathrm{x}=3 \mathrm{y}=5 \mathrm{z}$
$\therefore \mathrm{x}: \mathrm{y}: \mathrm{z}=\frac{1}{2}: \frac{1}{3}: \frac{1}{5}$
$=15: 10: 6=31$
ATQ,
$31 \equiv 15500$
$1 \equiv 500$
$\therefore 10 \equiv 5000$
$\therefore$ Amount invested in $6 \%$ is 5000.
11. (3) We know,

Savings = Income - Exp.

Income of families $\mathrm{A}, \mathrm{C}, \mathrm{E}=$ $(25+18+10)$ lakh $=53$ lakh Exp. of families A, C, $\mathrm{E}=(12+$ $10+9)$ lakh $=31$ lakh
$\therefore$ Savings $=(53-31)$ lakh
$=22$ lakh
12. (3) $\frac{\sin \theta+\cos \theta}{\sin \theta-\cos \theta}+\frac{\sin \theta-\cos \theta}{\sin \theta+\cos \theta}$
$=\frac{(\sin \theta+\cos \theta)^{2}+(\sin \theta-\cos \theta)^{2}}{\sin ^{2} \theta-\cos ^{2} \theta}$
$=\frac{2\left(\sin ^{2} \theta+\cos ^{2} \theta\right)}{\sin ^{2} \theta-\cos ^{2} \theta}=\frac{2}{\sin ^{2} \theta-\cos ^{2} \theta}$
13. (1) Total female teacher in all schools $=240+210+90+60$ $+30=630$
$\therefore$ Average of female teachers
$\left(A_{1}\right)=\frac{630}{5}=126$
Total male teacher in all schools $=180+240+210+150+$ $90=870$
$\therefore$ Average of male teachers $\left(\mathrm{A}_{2}\right)$
$=\frac{870}{5}=174$
$\therefore \mathrm{A}_{2}+\mathrm{A}_{1}=174+126=300$
14. (2) As angle subtended by a chord MN on the circumference of a circle is $90^{\circ}$. So, the chord is diameter. $\therefore$ Length of chord is $(12 \times 2)$ $\mathrm{cm}=24 \mathrm{~cm}$
15. (4) $\cot 3 A=\tan \left(A-36^{\circ}\right)$
$\cot 3 \mathrm{~A}=\cot \left[90^{\circ}-\mathrm{A}+36^{\circ}\right]$
$3 \mathrm{~A}=126-\mathrm{A}$
$\mathrm{A}=31.5^{\circ}$
16. (3) Six consecutive even numbers are $2 \mathrm{n}, 2 \mathrm{n}+2,2 \mathrm{n}+4$, $2 \mathrm{n}+6,2 \mathrm{n}+8,2 \mathrm{n}+10$
ATQ,
$2 \mathrm{n}+2 \mathrm{n}+2+2 \mathrm{n}+4+2 \mathrm{n}+6+$
$2 n+8+2 n+10=35 \times 6$
Or, $12 n+30=120$
Or, $12 \mathrm{n}=180$
Or, $2 \mathrm{n}=30$
Smaller number $=30$
Bigger number $=40$
$\therefore$ Sum $=30+40=70$
17. (1) Half of perimeter of rectangular $=30 \mathrm{~cm}$
$\therefore$ Perimeter of rectangular $=$
60 cm
Breadth $=\mathrm{xcm}$
$\therefore$ Length $=\mathrm{x}+6 \mathrm{~cm}$
ATQ,
$2(x+6+x)=60$
Or, $2 x+6=30$
Or, $x=12$
Breadth $=12 \mathrm{~cm}$
$\therefore$ Length $=18 \mathrm{~cm}$
$\therefore$ Area $=12 \times 18 \mathrm{~cm}^{2}$

$$
=216 \mathrm{~cm}^{2}
$$

18. (3) $\frac{7 \times 4 \div 8}{5 \times 25 \div 125}+\frac{5 \times 4 \div 8}{8 \times 4 \div 16}-$
$\frac{7 \times 4 \div 2}{8 \times 7 \div 4}$
$=\frac{7 \times \frac{1}{2}}{5 \times \frac{1}{5}}+\frac{5 \times \frac{1}{2}}{8 \times \frac{1}{4}} \div \frac{7 \times 2}{8 \times \frac{7}{4}}$
$=\frac{7}{2}+\frac{5}{4}-1 \Rightarrow \frac{14+5-4}{4} \Rightarrow \frac{15}{4}$
19. (4) Total sales of $A\left(J_{1}\right)=150+$
$350+550+450+250=1750$
Total sales of $B\left(\mathrm{~J}_{2}\right)=950+$
$650+750+150+50=2750$
$\therefore$ Difference $=\mathrm{J}_{2}-\mathrm{J}_{1}$
$=2550-1750={ }^{2} 800$
20. (3) Let distance of each trip $=x$ Total distance $=4 \mathrm{x}$

Total time $=\frac{x}{720}+\frac{x}{360}+\frac{x}{180}+\frac{x}{90}$
$=\frac{x+2 x+4 x+8 x}{720}=\frac{15 x}{720}$
$\therefore$ Average speed $=\frac{\text { Distance }}{\text { time }} \mathrm{km} / \mathrm{h}$
$=\frac{\frac{4 x}{15 x}}{720} \mathrm{~km} / \mathrm{h} \Rightarrow \frac{4}{15} \times 720 \mathrm{~km} / \mathrm{h}$
$=192 \mathrm{~km} / \mathrm{h}$.
21. (4) $9 a+9 b+9 c=81$
$a+b+c=81$
$4 a b+4 b c+4 c a=160$
$a b+b c+c a=40$
Now,
$6 a^{2}+6 b^{2}+6 c^{2}$
$=6\left(a^{2}+b^{2}+c^{2}\right)$
$=6\left[(a+b+c)^{2}-2(a b+b c+c a)\right]$
$=6[81-80] \Rightarrow 6$
22. (3) $a+\frac{1}{a}=8$

Squaring both sides
$a^{2}+\frac{1}{a^{2}}=62$
Again squaring on both sides.
$a^{4}+\frac{1}{a^{4}}=3844-2$
Or, $a^{4}+\frac{1}{a^{4}}=3842$
23. (4) $\sin \mathrm{p}=\frac{15}{22}$
$\therefore \cos \mathrm{p}=\sqrt{1-\sin ^{2} \mathrm{p}} \Rightarrow \frac{\sqrt{259}}{22}$
$\therefore \tan p=\frac{\sin p}{\cos p}=\frac{15 / 22}{\sqrt{259} / 22}$
$=\frac{15}{\sqrt{259}}$


## GENERAL AWARENESS

1.(4) India is the world's largest producer of milk, pulses and Jute. India ranks as the second-largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton.
2.(4)

39 ${ }^{\text {th }}$ Belgaum 1924 M.K. Gandhi
$45^{\text {th }}$ Karachi 1931 Vallabbhai J. Patel
$51^{\text {st }}$ Haripura 1938 Subhash Chandra Bose
52 ${ }^{\text {nd }}$ Tripura 1939 Subhash Chandra Bose
3.(1)
4.(1) Anshu Malik is an Indian freestyle wrestler. She won the silver medal in the women's 57 kg event at the 2021 World Wrestling Championships held in Oslo, Norway.
5.(1)
6.(2)
7.(4) The Union Minister of Agriculture and Farmers Welfare, Narendra Singh Tomar inaugurated the National Seed Congress in 2022 in Gwalior. The State Academy of Agricultural and Allied Sciences (SAAS) was launched.
9.(1) Champions - Germany

Runner-up - Belgium
Top scorer- Jeremy Hayward
Best player - Germany Niklas Wellen
Best young player - Mustapha Cassiem
The 2026 Men's FIH Hockey World Cup will be held in Wavre, Belgium and Amstelveen, Netherlands.
10.(2)
11.(1) Avogadro's number is $6.023 \times 10^{23 .}$
12.(4) 'Got to be There' was Michael Jackson's first album.
Elizabeth Taylor called Michael Jackson the "King of Pop" for the first time.
Climb every mountain" was the first song Michael sang in public.
13.(1) Provisions related to Tribal areas in states of Assam, Meghalaya, Tripura, Mizoram - 6th Schedule Forms of oaths and Affirmations of offices for elected officials including judges - 3rd Schedule Provisions related to Languages

## - 8th Schedule

14.(2) C.E.O

Microsoft - Satya Nadella
Adobe Inc - Shantanu Narayen
Flipkart-Kalyan Krishnamurthy
15.(1) 1 st July - Doctor's Day 29th Aug - National Sport's Day
16.(4) Jawaharlal Nehru Port(Nhava Sheva Port) is the second largest container port in India after Mundra Port. It is located on the eastern shores of Arabian Sea in Navi Mumbai. It was opened 26 May 1989.
Mundra Port is located on the northern shores of the Gulf of Kutch.
Paradeep Port was opened on 12 March 1966.
17.(2) Seventh part was repealed by the Constitution (Seventh Amendment) Act, 1956.
19.(1) Rauf is related to Jammu and Kashmir.
Bhavageete, Jaanapada Geethe are the folk songs of Karnatka.
20.(2) Radha Sridhar received the

Sangeet Natak Akademi Award for the year 2018 for her contribution to which Bharatnatyam dance.
21.(4) Sokhta Koh is a Harappan site on the Makran coast, near the city of Pasni, in the Balochistan province of Pakistan. It was first surveyed by American archaeologist George F. Dales in 1960.
Chanhu-daro is located 130 kilometers ( 81 mi ) south of Mohenjodaro, in Sindh, Pakistan.
Surkotada is located in Rapar Taluka of Kutch. It is a smaller fortified IVC site with 1.4 hectares (3.5 acres) in area.
22.(3) The 2022 Vivo Pro Kabaddi League was the ninth season of Pro Kabaddi League. The tournament was played across Bengaluru, Pune and Hyderabad while the playoffs were played in Mumbai. Jaipur Pink Panthers defeated Puneri Paltan in the final match to win their second title.
Most raid points - Arjun Deshwal Most successful raid - Arjun Deshwal
Most tackle points - Ankush
Most successful tackle - Ankush
23.(3) The retina is the innermost, light-sensitive layer of tissue of the eye of most vertebrates and some molluscs.
The pupil is a black hole located in the center of the iris of the eye that allows light to strike the retina.
The lens of the eye, also called the crystalline lens, is an important part of the eye's anatomy that allows the eye to focus on objects at varying distances.
24.(2) An object of mass $m$ moving with velocity v has a kinetic energy of 1/2( $\mathrm{mv}^{2}$ ).
25.(1)

## ANSWER KEY

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[^0]:    1. (4) 2. (4) 3. (1) 4. (1) 5. (1)
    2. (2) 7. (4) 8. (3) 9. (1) 10. (2)
    11.(1) 12.(4) 13.(1) 14.(2) 15. (1)
    3. (4) 17.(2) 18. (*) 19.(1) 20. (2)
    21.(4) 22.(3) 23. (3) 24.(2) 25. (1)
