

## Combined Higher Secondary Level Examination 2024 Tier I

Exam Date	11/07/2024
Exam Time	2:30 PM - 3:30 PM
Subject	CHSL Exam 2024 Tier I

### Section : English Language

**Q.1** Identify the error in the tense of the sentence and select the option that correctly rectifies the error.  
Between two evils, I always picks the one I have never tried before.

- Ans**
- 1. Between two evils, I always pick the one I have never tried before.
  - 2. Between two evils, I always is picking the one I have never tried before.
  - 3. Between two evils, I always picked the one I have never tried before.
  - 4. Between two evils, I always picking the one I have never tried before.

**Q.2** The following sentence has been split into four segments. Identify the segment that contains a grammatical error.

The teacher will / certainly help you / if you will / ask her.

- Ans**
- 1. certainly help you
  - 2. The teacher will
  - 3. if you will
  - 4. ask her

**Q.3** The following sentence has been divided into three segments. Identify the segment that contains a grammatical error. If you don't find any error, select 'No error' as your answer.  
It was possible to achieve anything, / if one has the grit and determination / to keep going.

- Ans**
- 1. No error
  - 2. It was possible to achieve anything.
  - 3. if one has the grit and determination
  - 4. to keep going.

**Q.4** The following sentence has been divided into four segments. Identify the segment that contains a grammatical error.

My Vice-Chancellor works / eighteen hours / a day, / seven days week.

- Ans**
- 1. seven days week.
  - 2. My Vice-Chancellor works
  - 3. eighteen hours
  - 4. a day,

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Organic agriculture offers a means to substitute costlier agricultural inputs such as HYV seeds, chemical fertilisers and pesticides with locally produced organic inputs that are cheaper and thereby generate good returns on \_\_\_\_1\_\_\_\_. Organic agriculture also generates income through exports as the demand for organically grown crops is on a \_\_\_\_2\_\_\_\_. Studies across countries have shown that organically grown food has more nutritional value than chemical farming, thus providing us with healthy foods. Since organic farming requires more labour input than \_\_\_\_3\_\_\_\_ farming, India will find organic farming an attractive \_\_\_\_4\_\_\_\_. Finally, the produce is pesticide-free and produced in an environmentally \_\_\_\_5\_\_\_\_ way.

**SubQuestion No : 5**

**Q.5** Select the most appropriate option to fill in blank number 1.

- Ans**
- 1. loss
  - 2. profit
  - 3. expenditure
  - 4. investment

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Organic agriculture offers a means to substitute costlier agricultural inputs such as HYV seeds, chemical fertilisers and pesticides with locally produced organic inputs that are cheaper and thereby generate good returns on \_\_\_\_1\_\_\_\_. Organic agriculture also generates income through exports as the demand for organically grown crops is on a \_\_\_\_2\_\_\_\_. Studies across countries have shown that organically grown food has more nutritional value than chemical farming, thus providing us with healthy foods. Since organic farming requires more labour input than \_\_\_\_3\_\_\_\_ farming, India will find organic farming an attractive \_\_\_\_4\_\_\_\_. Finally, the produce is pesticide-free and produced in an environmentally \_\_\_\_5\_\_\_\_ way.

**SubQuestion No : 6**

**Q.6** Select the most appropriate option to fill in blank number 2.

- Ans**
- 1. decline
  - 2. rise
  - 3. growth
  - 4. stagnation

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Organic agriculture offers a means to substitute costlier agricultural inputs such as HYV seeds, chemical fertilisers and pesticides with locally produced organic inputs that are cheaper and thereby generate good returns on \_\_\_\_1\_\_\_\_. Organic agriculture also generates income through exports as the demand for organically grown crops is on a \_\_\_\_2\_\_\_\_. Studies across countries have shown that organically grown food has more nutritional value than chemical farming, thus providing us with healthy foods. Since organic farming requires more labour input than \_\_\_\_3\_\_\_\_ farming, India will find organic farming an attractive \_\_\_\_4\_\_\_\_. Finally, the produce is pesticide-free and produced in an environmentally \_\_\_\_5\_\_\_\_ way.

**SubQuestion No : 7**

**Q.7** Select the most appropriate option to fill in blank number 3.

- Ans**
- 1. insipid
  - 2. mechanical
  - 3. rigorous
  - 4. conventional

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Organic agriculture offers a means to substitute costlier agricultural inputs such as HYV seeds, chemical fertilisers and pesticides with locally produced organic inputs that are cheaper and thereby generate good returns on \_\_\_\_\_1\_\_\_\_\_. Organic agriculture also generates income through exports as the demand for organically grown crops is on a \_\_\_\_\_2\_\_\_\_\_. Studies across countries have shown that organically grown food has more nutritional value than chemical farming, thus providing us with healthy foods. Since organic farming requires more labour input than \_\_\_\_\_3\_\_\_\_\_ farming, India will find organic farming an attractive \_\_\_\_\_4\_\_\_\_\_. Finally, the produce is pesticide-free and produced in an environmentally \_\_\_\_\_5\_\_\_\_\_ way.

**SubQuestion No : 8**

**Q.8** Select the most appropriate option to fill in blank number 4.

- Ans
- 1. obstacle
  - 2. proposition
  - 3. burden
  - 4. challenge

**Comprehension:**

In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

Organic agriculture offers a means to substitute costlier agricultural inputs such as HYV seeds, chemical fertilisers and pesticides with locally produced organic inputs that are cheaper and thereby generate good returns on \_\_\_\_\_1\_\_\_\_\_. Organic agriculture also generates income through exports as the demand for organically grown crops is on a \_\_\_\_\_2\_\_\_\_\_. Studies across countries have shown that organically grown food has more nutritional value than chemical farming, thus providing us with healthy foods. Since organic farming requires more labour input than \_\_\_\_\_3\_\_\_\_\_ farming, India will find organic farming an attractive \_\_\_\_\_4\_\_\_\_\_. Finally, the produce is pesticide-free and produced in an environmentally \_\_\_\_\_5\_\_\_\_\_ way.

**SubQuestion No : 9**

**Q.9** Select the most appropriate option to fill in blank number 5.

- Ans
- 1. sustainable
  - 2. innovative
  - 3. destructive
  - 4. harmful

**Q.10** Select the option that will improve the underlined part of the given sentence.  
Neither Janki or I am to receive the award.

- Ans
- 1. either
  - 2. no
  - 3. nor
  - 4. not

**Q.11** Select the most appropriate option that can substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'.

The film was made in Botswana, whose wildlife parks is larger to those in Kenya.

- Ans
- 1. are larger than
  - 2. are large than
  - 3. No substitution required
  - 4. as large than

**Q.12** Select the most appropriate homophones to fill in the blanks.

It was against her \_\_\_\_\_ to earn more \_\_\_\_\_ than that decided by the board of directors.

- Ans
- 1. principle, profit
  - 2. principal; profit
  - 3. principal; prophet
  - 4. principle; prophet

**Q.13** Select the most appropriate homophones to fill in the blanks.  
I \_\_\_\_\_ that he has been promoted to the post of \_\_\_\_\_ officer.

- Ans**
- 1. herd; sealing
  - 2. heard; sealing
  - 3. herd; ceiling
  - 4. heard; ceiling

**Q.14** Select the most appropriate meaning of the given idiom.  
To throw dust in one's eyes

- Ans**
- 1. To talk in an abusive language
  - 2. To mislead someone by tricks
  - 3. To make someone blind forever
  - 4. To hit someone with stone

**Q.15** Select the most appropriate ANTONYM of the given word.  
Queer

- Ans**
- 1. Doubtful
  - 2. Fantastic
  - 3. Eccentric
  - 4. Ordinary

**Q.16** Select the correctly spelt word.

- Ans**
- 1. Quintessential
  - 2. Quintessintial
  - 3. Quintesential
  - 4. Quintessential

**Q.17** Select the most appropriate option to fill in the blank and complete the sentence.  
You just wait in the lobby. I will be back after \_\_\_\_\_.

- Ans**
- 1. a fast meal
  - 2. a quick shower
  - 3. a fast shower
  - 4. a quick food

**Q.18** Select the most appropriate synonym of the given word.  
Anxiety

- Ans**
- 1. Serenity
  - 2. Distress
  - 3. Dilemma
  - 4. Ease

**Q.19** Select the most appropriate ANTONYM of the word 'Contaminate' from the given sentence.

Crews were requested to purify the system since a brain-eating amoeba was discovered in the drinking water.

- Ans**
- 1. requested
  - 2. discovered
  - 3. purify
  - 4. system

**Q.20** Select the most appropriate option to fill in the blank.  
The guard did not want anything bad to happen, so he ordered the group to step back to avoid anything \_\_\_\_\_.

- Ans**
- 1. customary
  - 2. terrible
  - 3. habitual
  - 4. diplomatic

**Q.21** Rectify the sentence by selecting the correct spelling from the options.

Psychology developed as a significant discipline of study in the twentieth century.

- Ans**
- 1. Pscycology
  - 2. Psychology
  - 3. Pcychology
  - 4. Pscichology

**Q.22** Select the most appropriate meaning of the underlined idiom in the given sentence.  
Every piece of furniture in her house is in apple-pie order.

- Ans**
- 1. Very neatly arranged
  - 2. Painted in light colours
  - 3. Very delicately arranged
  - 4. Kept in a disorganised way

**Q.23** Select the most appropriate option that can substitute the underlined segment in the given sentence.

He has recovered now and is feeling too strong to walk.

- Ans**
- 1. too weak to walk
  - 2. weak enough to walk
  - 3. strong to walk
  - 4. strong enough to walk

**Q.24** Select the most appropriate option that can substitute the underlined segment in the given sentence.  
Peter was the last to know that she had been cheating of him.

- Ans**
- 1. cheating up him
  - 2. cheating in him
  - 3. cheat of him
  - 4. cheating on him

**Q.25** Select the most appropriate ANTONYM of the underlined word.  
I left the job because of a hostile working environment.

- Ans**
- 1. Morose
  - 2. Friendly
  - 3. Rustic
  - 4. Violent

Q.1 Select the word-pair that best represents a similar relationship to the one expressed in the pair of words given below.

(The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word)

Compress : Expand

- Ans
- 1. Hopeful : Optimistic
  - 2. Observe : Notice
  - 3. Limit : Boundless
  - 4. Defend : Protect

Q.2 If 'A' stands for '+', 'B' stands for '×', 'C' stands for '+' and 'D' stands for '-', what will come in place of the question mark (?) in the following equation?

$$5 \text{ B } 5 \text{ C } 216 \text{ A } 9 \text{ D } 3 = ?$$

- Ans
- 1. 64
  - 2. 46
  - 3. 23
  - 4. 32

Q.3 Identify the figure in the options that when put in place of the question mark (?) will logically complete the series?

$\begin{array}{r} 10 \\ \times \\ 5 \end{array} 15$	$\begin{array}{r} 15 \\ \times \\ 10 \end{array} 25$	$\begin{array}{r} 20 \\ \times \\ 15 \end{array} 35$	$\begin{array}{r} 25 \\ \times \\ 20 \end{array} 45$	?
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Ans

1.

$$\begin{array}{r} 30 \\ \times \\ 20 \end{array} 10$$

2.

$$\begin{array}{r} 30 \\ \times \\ 25 \end{array} 5$$

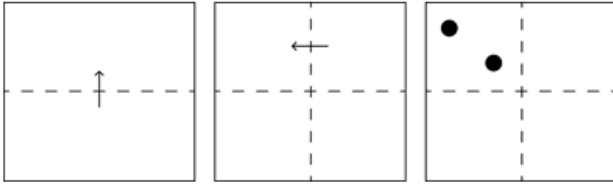
3.

$$\begin{array}{r} 30 \\ \times \\ 20 \end{array} 50$$

4.

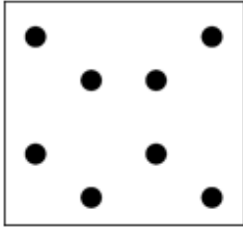
$$\begin{array}{r} 30 \\ \times \\ 25 \end{array} 55$$

Q.4 A square sheet of paper is folded along the dotted line successively along the directions shown and is then punched in the last. How would the paper look when unfolded?

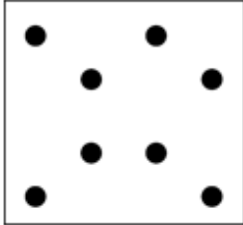


Ans

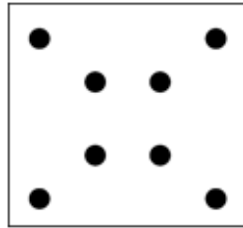
X 1.



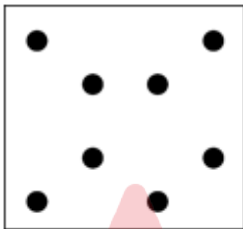
X 2.



✓ 3.



X 4.



Q.5 The position of how many letters will remain unchanged if each of the letters in the word NUCLEAR is arranged in the alphabetical order?

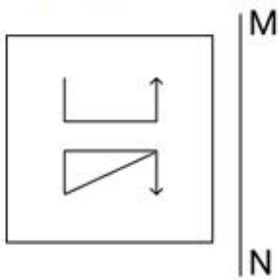
Ans X 1. None

✓ 2. One

X 3. Two

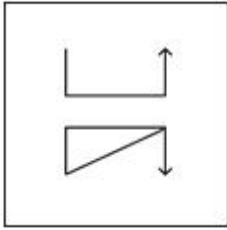
X 4. Three

Q.6 Select the correct mirror image of the given figure when the mirror is placed at MN, as shown.

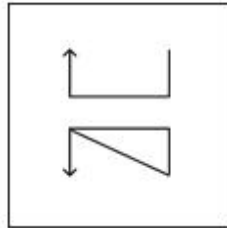


Ans

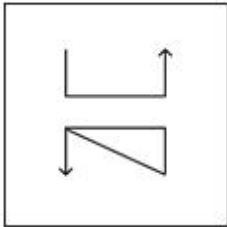
1.



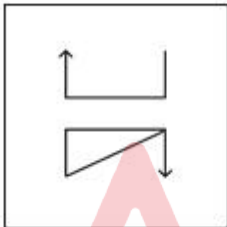
2.



3.



4.



Q.7 Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series.

JIG\_KG\_U\_EGZM\_GE

Ans  1. PGMC

2. NGCL

3. NGMC

4. PGLC

Q.8 Select the set in which the numbers are related in the same way as are the numbers of the following sets.  
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)  
(25, 8, 11)  
(28, 8, 12)

Ans  1. (22, 13, 19)

2. (17, 7, 8)

3. (42, 6, 21)

4. (15, 5, 8)



Q.9 What should come in place of the question mark (?) in the given series?

50, 51, 54, 55, 58, ?

Ans  1. 62

2. 64

3. 59

4. 60

Q.10 Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series.  
a \_ z b \_ y c \_ x \_ a z \_ b y c c \_ a a \_ b b \_ c c x \_ a z \_ b y \_ c x

Ans  1. acbaczyabc

2. bacazbxyacb

3. bacabzxyabc

4. abcabxzyabc

Q.11 What will come in the place of the question mark (?) in the following equation if '+' and '-' are interchanged and '×' and '÷' are interchanged?

$$24 \div 9 + 182 \times 13 - 2 = ?$$

Ans  1. 204

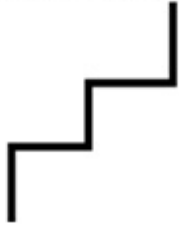
2. 238

3. 172

4. 224

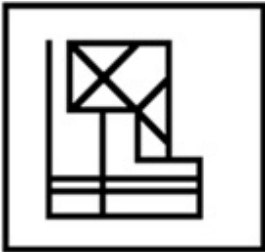


Q.12 Select the option figure in which the given figure is embedded as its part (rotation is NOT allowed).



Ans

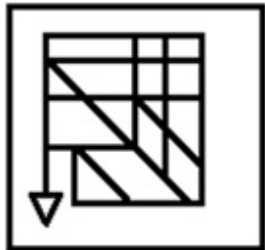
✗ 1.



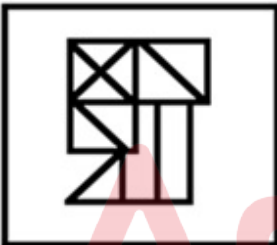
✗ 2.



✓ 3.



✗ 4.



Q.13 CEHM is related to YADI in a certain way based on the English alphabetical order. In the same way, IKNS is related to EGJO. To which of the following is OQTY related, following the same logic?

Ans ✗ 1. KOPU

✗ 2. KNOU

✓ 3. KMPU

✗ 4. KNPU

Q.14 13 is related to 156 following a certain logic. Following the same logic, 22 is related to 264. To which of the following is 31 related following the same logic?  
(NOTE : Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying etc., to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)

Ans ✗ 1. 376

✗ 2. 370

✗ 3. 374

✓ 4. 372

Q.15 Which of the following numbers will replace the question mark (?) in the given series?  
800 400 480 240 320 ?

- Ans
- 1. 180
  - 2. 200
  - 3. 160
  - 4. 120

Q.16 Three of the following four are alike in a certain way and thus form a group. Which is the one that does NOT belong to that group?

(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster.)

- Ans
- 1. RVX
  - 2. JNP
  - 3. CGI
  - 4. HKM

Q.17 In a certain code language,  
'A + B' means 'A is the sister of B',  
'A - B' means 'A is the brother of B',  
'A × B' means 'A is the father of B',  
'A ÷ B' means 'A is the daughter of B'.

Based on the above, how is K related to P if 'J ÷ K + L × O - P'?

- Ans
- 1. Mother
  - 2. Father's sister
  - 3. Mother's sister
  - 4. Sister

Q.18 Select the correct mirror image of the given combination when the mirror is placed at MN as shown below.

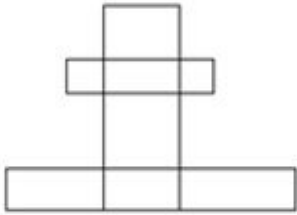


- Ans
- 1.  $\Sigma$  b a m  $\Upsilon$  R
  - 2. d 2 m  $\epsilon$   $\Upsilon$  R
  - 3.  $\Sigma$  p w e  $\Upsilon$  R
  - 4.  $\Sigma$  b m  $\epsilon$   $\Upsilon$  R

Q.19 In a certain code language, 'DARK' is coded as '3975' and 'READ' is coded as '5873'. How is 'K' coded in the given language?

- Ans
- 1. 7
  - 2. 9
  - 3. 3
  - 4. 5

Q.20 How many rectangles are there in the figure?



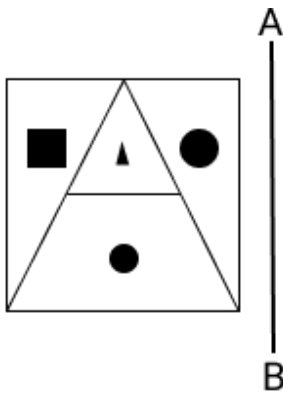
- Ans
- 1. 15
  - 2. 16
  - 3. 17
  - 4. More than 17

Q.21 In a certain code language, 'TWIN' is coded as 2359 and 'WING' is coded as 5302. What is the code for 'T' in the given code language?

- Ans
- 1. 2
  - 2. 9
  - 3. 3
  - 4. 5

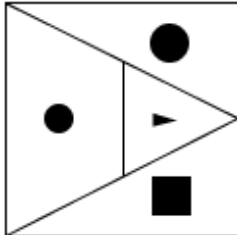


Q.22 Select the correct mirror image of the given figure when the mirror is placed at AB.

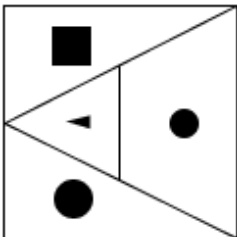


Ans

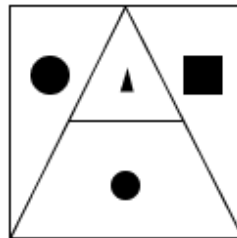
✗ 1.



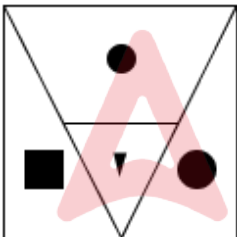
✗ 2.



✓ 3.



✗ 4.



Q.23 What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and '×' and '÷' are interchanged?

$$17 \div 4 - 28 + 125 \times 5 = ?$$

Ans

✓ 1. 71

✗ 2. 74

✗ 3. 73

✗ 4. 72

Q.24 If 18 January 2013 was Friday, then what was the day of the week on 19 December 2021?

Ans

✓ 1. Sunday

✗ 2. Thursday

✗ 3. Saturday

✗ 4. Wednesday

**Q.25** Three statements are followed by conclusions numbered I, II. You have to consider these statements to be true, even if they seem to be at variance with commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

**Statements:**

All ground is wind.

Some tables are ground.

All wind is earth.

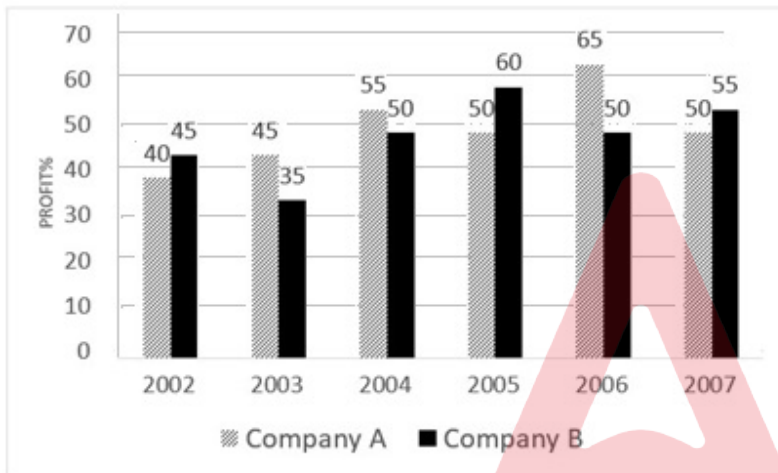
**Conclusion (I):** No tables are earth.

**Conclusion (II):** All earth is ground.

- Ans**
- 1. Only conclusion (I) follows.
  - 2. Neither conclusion (I) nor (II) follows.
  - 3. Only conclusion (II) follows.
  - 4. Both conclusions (I) and (II) follow.

Section : Quantitative Aptitude

**Q.1** Study the following graph and answer the question that follows.  
The following bar graph shows the percentage profit earned by two companies A and B over the given years.



The incomes of two companies A and B in 2006 were in the ratio 3 : 4, respectively. What was the respective ratio of their expenditures in 2006?

- Ans**
- 1. 14 : 19
  - 2. 7 : 22
  - 3. 27 : 35
  - 4. 15 : 22

**Q.2** Shantanu's income decreased from ₹42,800 to ₹37,236. Find the percentage decrease in his income.

- Ans**
- 1. 12%
  - 2. 11%
  - 3. 14%
  - 4. 13%

Q.3 The value of  $1\frac{1}{3} \div \left[ 2\frac{1}{6} \div \left\{ 14\frac{1}{3} - \left( 2\frac{1}{3} + 3\frac{1}{2} \right) \right\} \right]$  is:

Ans

✗ 1.  $3\frac{2}{13}$

✓ 2.  $5\frac{3}{13}$

✗ 3.  $4\frac{3}{17}$

✗ 4.  $3\frac{2}{17}$

Q.4 The table shows the percentage distribution of the population (only male and female) according to Gender and Literacy.

State	Percentage literate	Gender	
		Literate	Illiterate
		M : F	M : F
A	55	5 : 6	4 : 5
B	72	1 : 1	3 : 2
C	78	4 : 3	3 : 2

If state B has 7 crore people, then the number of illiterate females in the state is:

Ans

✗ 1. 117.6 lakhs

✓ 2. 78.4 lakhs

✗ 3. 201.6 lakhs

✗ 4. 130.67 lakhs

Q.5 A shopkeeper sold an article at a 26% profit. On selling it for ₹2,250 more, he would get a profit of 41%. If this article is sold at 12% profit, then the selling price would be:

Ans

✓ 1. ₹16,800

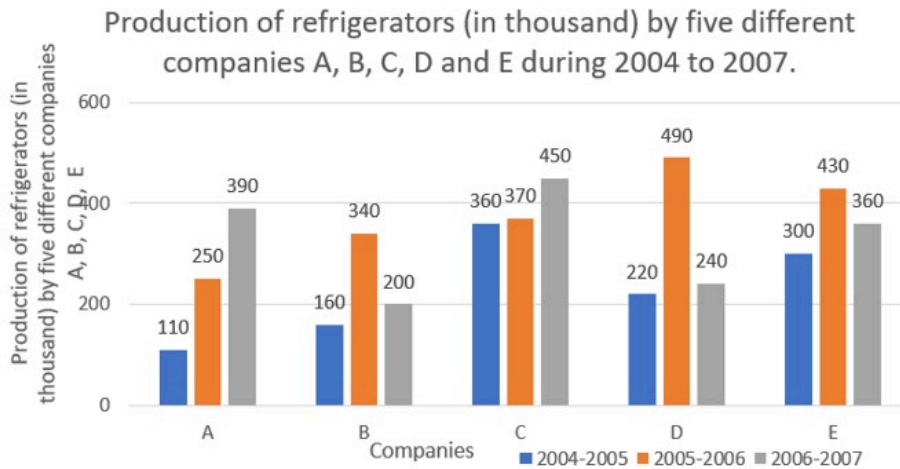
✗ 2. ₹15,000

✗ 3. ₹15,800

✗ 4. ₹16,120

**Q.6** Study the given bar-graph and answer the question that follows.

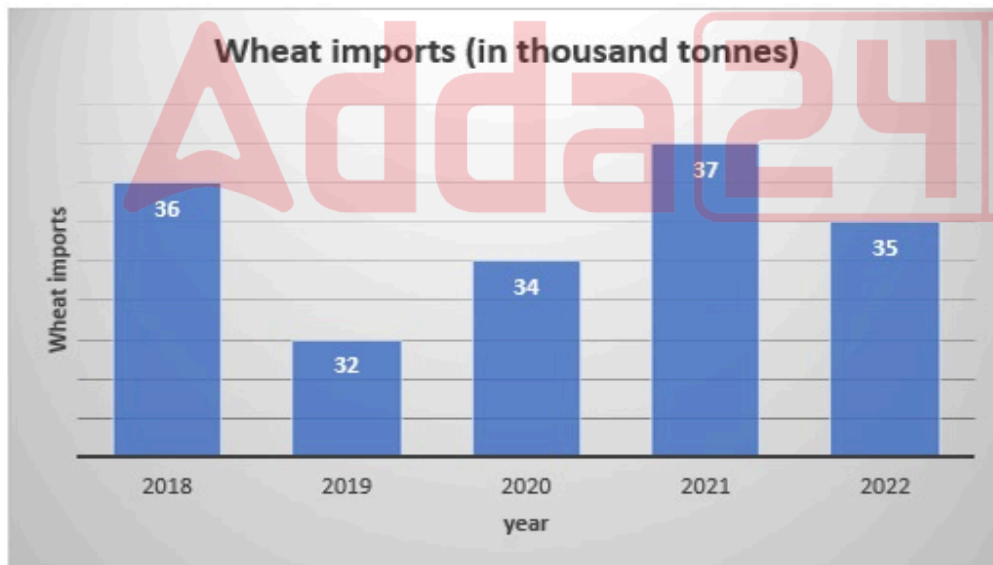
The bar-graph shows the production of refrigerators (in thousand) by five different companies A, B, C, D and E during 2004 to 2007.



What is the difference between 60% of the average production of refrigerators by all the companies for the year 2005-2006 and 70% of the average of all the companies in 2006-2007?

- Ans**
- 1. 4000
  - 2. 40
  - 3. 400
  - 4. 4

**Q.7** The following graph shows the wheat imports (in thousand tonnes) over the five years:



What is the ratio of the years which have below-average imports to those which have above-average imports?

- Ans**
- 1. 3 : 1
  - 2. 3 : 2
  - 3. 2 : 3
  - 4. 1 : 3



Q.8 Out of a class of 200 people, 50 people's average marks is 40, and the remaining 150 people's average is 60. Find the people's weighted average.

- Ans
- 1. 50
  - 2. 55
  - 3. 150
  - 4. 200

Q.9 In how many years will a sum of ₹4,250 yield a simple interest of ₹510 at a rate of 6% per annum?

- Ans
- 1.  $3\frac{1}{2}$  years
  - 2.  $2\frac{1}{2}$  years
  - 3. 3 years
  - 4. 2 years

Q.10 Teena does half of a task in 6 days. Later, with Shyam's help, she completes the remaining work in 4 days. Shyam alone can finish the entire work in:

- Ans
- 1. 21 days
  - 2. 24 days
  - 3. 18 days
  - 4. 12 days

Q.11  $\triangle ABC$  and  $\triangle DEF$  are similar triangles, and their areas are  $81 \text{ cm}^2$  and  $144 \text{ cm}^2$ , respectively. If  $EF = 20 \text{ cm}$ , then what is the value of  $BC$ ?

- Ans
- 1. 9 cm
  - 2. 13 cm
  - 3. 15 cm
  - 4. 12 cm

Q.12 In two successive years, 75 and 50 employees of a company appeared at the departmental examination. Respectively, 84% and 52% of them passed. The average rate of pass percentage is:

- Ans
- 1.  $41\frac{1}{5}\%$
  - 2. 41%
  - 3. 71%
  - 4.  $71\frac{1}{5}\%$

Q.13 Let  $C$  be a circle with center  $O$  and  $PQ$  be the diameter of  $C$ . Let  $AB$  be a chord on  $C$ . If  $\angle QOB = 40^\circ$ ,  $\angle AOP = 80^\circ$ , then find  $\angle AOB$ .

- Ans
- 1.  $100^\circ$
  - 2.  $60^\circ$
  - 3.  $90^\circ$
  - 4.  $70^\circ$

Q.14 The sum of the present ages of a father and son is 50 years. If after 5 years, the father's age will be 5 times the age of the son, then what was the father's age 5 years ago?

- Ans
- 1. 36
  - 2. 47
  - 3. 43
  - 4. 40

Q.15 If  $640 \div 8 + 930 \div 15 - k + 32 \times 5 = 1104 \div 16 \times 148 \div 37$ , then the value of  $k$  is:

- Ans
- 1. 276
  - 2. 26
  - 3. 35
  - 4. 302

Q.16 Find the whole surface area of a cuboid having a length of 19 cm, breadth of 9 cm and height of 4.5 cm.

- Ans
- 1.  $619 \text{ cm}^2$
  - 2.  $497 \text{ cm}^2$
  - 3.  $917 \text{ cm}^2$
  - 4.  $594 \text{ cm}^2$

Q.17 Simplify  $\frac{\sin 60^\circ - \cos 60^\circ}{\sin 60^\circ + \cos 60^\circ}$ .

- Ans
- 1.  $2 + \sqrt{3}$
  - 2.  $\sqrt{3} - 1$
  - 3.  $2 - \sqrt{3}$
  - 4.  $\sqrt{3} - 2$

Q.18  $\Delta ABC \sim \Delta EDF$  and  $\text{area}(\Delta ABC) : \text{area}(\Delta EDF) = 1 : 4$ . If  $AB = 7 \text{ cm}$ ,  $BC = 8 \text{ cm}$  and  $CA = 9 \text{ cm}$ , then  $DF$  is equal to:

- Ans
- 1. 16 cm
  - 2. 18 cm
  - 3. 14 cm
  - 4. 12 cm

Q.19 Two circles of radii 3 units and  $r$  units, respectively, have a 6 units distance between their centers. If the length of the direct common tangent is  $\sqrt{35}$  units, then the value of  $r$  is \_\_\_ units.

- Ans
- 1. 6
  - 2. 4
  - 3. 5
  - 4. 3

Q.20 Find the mean proportion to 0.72 and 2.85 (round up to one decimal place).

- Ans
- 1. 0.4
  - 2. 2.8
  - 3. 0.7
  - 4. 1.4

Q.21 There are two circles touching each other externally. The radius of the first circle with centre O is 12 cm. The radius of the second circle with centre A is 5 cm. Find the length of their common tangent touching the two circles at points P and Q.

- Ans
- 1.  $4\sqrt{15}$  cm
  - 2.  $14\sqrt{5}$  cm
  - 3.  $5\sqrt{41}$  cm
  - 4.  $5\sqrt{14}$  cm

Q.22 The cost price of a fan is ₹4,400. A merchant wants to make a 24% profit by selling it. At the time of sale, merchant declares a discount of 12% on the marked price. Find the marked price.

- Ans
- 1. ₹2,600
  - 2. ₹2,060
  - 3. ₹6,200
  - 4. ₹6,020

Q.23 The price of a product increases by 10% in the first year and 20% in the second year. What is the overall percentage increase in the price of the product over the two years?

- Ans
- 1. 30%
  - 2. 32%
  - 3. 28%
  - 4. 36%

Q.24 If the speed of a boat in still water is 3 km/h and if its speed upstream is 1 km/h, find the speed of the stream.

- Ans
- 1. 2 km/h
  - 2. 1 km/h
  - 3. 0.25 km/h
  - 4. 0.5 km/h

Q.25 The surface area of a spherical ball is  $1386 \text{ cm}^2$ . What will be its volume?

- Ans
- 1.  $4825 \text{ cm}^3$
  - 2.  $5000 \text{ cm}^3$
  - 3.  $4851 \text{ cm}^3$
  - 4.  $4800 \text{ cm}^3$

Section : General Awareness

Q.1 In badminton, 0 points is called \_\_\_\_\_.

- Ans
- 1. in
  - 2. love
  - 3. play
  - 4. out

**Q.2** Which of the following statements is INCORRECT with respect to High Yielding Varieties (HYVs)?

**Ans**  1. HYVs had a shorter period of maturity.

2.

The usage of HYVs was complemented with the attraction of more investment in farm machines.

3. HYVs led to decrease in the cropping intensity.

4. They made green revolution technology as land-saving technology.

**Q.3** The Sun Temple at Konark was built under the rule of which dynasty?

**Ans**  1. Pallava Dynasty

2. Pandya Dynasty

3. Eastern Ganga Dynasty

4. Rashtrakuta Dynasty

**Q.4** Who was the chief guest at the first Republic Day celebration of India in 1950?

**Ans**  1. Sukarno

2. Kwame Nkrumah

3. Josip Broz Tito

4. Gamal Abdel Nasser

**Q.5** From which of the following states was Vibrant Village programme launched, on 10 April 2023?

**Ans**  1. Sikkim

2. Arunachal Pradesh

3. Mizoram

4. Nagaland

**Q.6** Which of the following planets does NOT have rings?

**Ans**  1. Uranus

2. Venus

3. Jupiter

4. Saturn

**Q.7** The Lucknow Gharana which came into existence in the time of Wajid Ali Shah was developed by who among the following?

**Ans**  1. Ustad Bakhtawar Khan

2. Pandit Kalka Prasad

3. Pandit Thakur Prasad

4. Pandit Bindawar Prasad

**Q.8** Which writ literally means 'what is your authority'?

**Ans**  1. Habeas Corpus

2. Mandamus

3. Quo-Warranto

4. Prohibition

**Q.9** As of 2022, which is the tallest hydroelectric power plant in India?

- Ans**
- 1. Sardar Sarovar Hydropower Plant
  - 2. Nathpa Jhakri Power plant
  - 3. Koyna Hydroelectric Power Plant
  - 4. Tehri Hydroelectric Power Plant

**Q.10** Which of the following types is NOT an element of classical Carnatic music?

- Ans**
- 1. Kriti
  - 2. Padam
  - 3. Sthayi
  - 4. Thumri

**Q.11** Who was the Indian Buddhist monk who is credited with the development of many ancient martial art forms in the 5<sup>th</sup> century?

- Ans**
- 1. Bodhidharma
  - 2. Atisa
  - 3. Bodhiruchi
  - 4. Paramartha

**Q.12** What is the keyboard shortcut for inserting a new slide into an MS-PowerPoint presentation?

- Ans**
- 1. Ctrl + S
  - 2. Ctrl + X
  - 3. Ctrl + M
  - 4. Ctrl + N

**Q.13** In Fencing, a defensive blade movement that blocks the opponent's offensive action is called \_\_\_\_\_.

- Ans**
- 1. parry
  - 2. reprise
  - 3. saber
  - 4. redoublement

**Q.14** Which Article of the Constitution of India vests plenary powers in Parliament to legislate on the subject of citizenship?

- Ans**
- 1. Article 8
  - 2. Article 5
  - 3. Article 11
  - 4. Article 6

**Q.15** Select the INCORRECT pair of the location of the refinery and its state from the following

- Ans**
- 1. Tatipaka Refinery – Telangana
  - 2. Bina Refinery – Madhya Pradesh
  - 3. Koyali Refinery – Gujarat
  - 4. Numaligarh Refinery – Assam

**Q.16** Which folk music does NOT belong to Tamil Nadu?

- Ans**
- 1. Ammanaivari
  - 2. Villu Pattu
  - 3. Khubakeshei
  - 4. Nattupura

- Q.17** What is the name of the famous British social reformer known for founding the Indian Home Rule League in 1916?
- Ans**
- 1. Maria Rye
  - 2. Annie Besant
  - 3. Catherine Osler
  - 4. Anne Knight

**Q.18** Match India's neighbouring countries in column A with their official languages in column B.

Column A (Country names)	Column B (Official Languages)
1. Sri Lanka	a. Mandarin
2. China	b. Burmese
3. Myanmar	c. Tamil
4. Bhutan	d. Dzongkha

- Ans**
- 1. 1-d, 2-a, 3-b, 4-c
  - 2. 1-c, 2-a, 3-b, 4-d
  - 3. 1-a, 2-b, 3-c, 4-d
  - 4. 1-b, 2-a, 3-c, 4-d

**Q.19** Which of the following is a rare group of genetic disorders caused by mutations of certain genes affecting the colour (pigmentation) of the skin, hair and eyes?

- Ans**
- 1. Alkaptonuria
  - 2. Alagille syndrome
  - 3. Albinism
  - 4. Angelman syndrome

**Q.20** In Microsoft Word, the Mail Merge Wizard is located under the \_\_\_\_\_ tab.

- Ans**
- 1. Review
  - 2. Home
  - 3. Insert
  - 4. Mailings

**Q.21** In which of the following years was the Juvenile Justice (Care and Protection of Children) Act, 2015 amended?

- Ans**
- 1. 2015
  - 2. 2021
  - 3. 2019
  - 4. 2013

**Q.22** What is a revenue deficit in the government budget?

- Ans**
- 1. The excess of expenditure over revenue, excluding interest payments on debt
  - 2. The excess of revenue over expenditure, including interest payments on debt
  - 3. The excess of revenue over expenditure, excluding interest payments on debt
  - 4. The excess of expenditure over revenue, including interest payments on debt

**Q.23** The \_\_\_\_\_ results from an increase in the proportion of workers relative to non-workers in the population.

- Ans**
- 1. age structure of population
  - 2. demographic dividend
  - 3. population momentum
  - 4. old-age dependency ratio

**Q.24** For which of the following discoveries in 1827 was the German physicist, Georg Simon Ohm best known?

- Ans**
- 1. For clarifying the mathematical relationship between electrical current, resistance and voltage
  - 2. For measuring the magnetic properties of nuclear particles
  - 3. For invention of the magnetometer, which is a device capable of measuring the direction and strength of a magnetic field
  - 4. For developing a device capable of amplifying and modulating electromagnetic signals that could also function as an oscillator

**Q.25** Which of the following Sections of the Indian Penal Code deals with 'rape'?

- Ans**
- 1. Section 370
  - 2. Section 380
  - 3. Section 375
  - 4. Section 385

