# **Combined Graduate Level Examination 2024 Tier II**

Exam Date	20/01/2025
Exam Time	9:00 AM - 12:00 PM
Subject	CGLE 2024 Tier II Paper I

# Section: Module I Mathematical Abilities

Q.1 In a circle centered at O, a diameter AB is extended to a point C outside the circle. CD is a tangent at point D on the circle. If  $CD = 7\sqrt{3}$  cm and  $\angle DBC = 120^{\circ}$ , then the length of the diameter of the circle is equal to:

Ans X 1. 16 cm

√ 2. 14 cm

X 3. 18 cm

X 4. 20 cm

Q.2 Simplify  $(5z - 7y)^2 + (7z + 5y)^2 - 49z^2$ 

Ans

$$\sqrt{1.} 25z^2 + 74y^2$$

$$\times$$
 2.  $35z^2 + 70y^2$ 

$$\times$$
 3.  $26z^2 + 82y^2$ 

$$\times$$
 4.  $30z^2 + 83y^2$ 

Q.3 Murlidhar, the owner of a grocery store, offers a discount scheme 'buy 5 water bottles get 1 for free' to his customers. What is the effective percentage discount offered by Murlidhar? (correct up to two decimal places)

Ans X 1. 13.67%

X 2. 20.00%

X 3. 13.33%

**4**. 16.67%

Q.4 Which number among 38211, 38121, 32118, and 31128 is divisible by 24?

Ans

X 1. 32118

2. 31128

X 3. 38121

X 4. 38211

Q.5 In a circle with centre O, an arc ABC subtends an angle of 134° at the centre of the circle. The chord AB is produced to a point P. ∠CBP is equal to:

Ans

√ 1. 67°

X 2. 113°

X 3.45°

X 4.89°

Q.6	Let PQR be a right angled triangle, right-angled at R. Let PQ = 29 cm, QR = 21 cm and
	$\angle Q = \theta$ . Find the value of $\cos^2 \theta - \sin^2 \theta$ .
Ans	× 1. $\frac{40}{840}$
	840
	840
	× 2. $\frac{840}{40}$
	× 4. 841 41
	41
Q.7	P and Q take part in 400 m race. P runs at 12 km/hr. P gives Q a start of 20 m and still
	beats him by 13 seconds. The speed of Q is: (Round up to two decimal places.)
Ans	X 1. 11.38 km/hr
	√ 2. 10.29 km/hr
	X 3. 11.61 km/hr
	X 4. 10.87 km/hr
Q.8	Two years ago, the population of a town was 9487500. Due to migration to big cities, it
Q.0	decreases every year at the rate of 8%. The present population of the town is:
Ans	X 1. 9060110
	× 2.7060320
	× 3. 8070120
	√ 4. 8030220
Q.9	The average of first 92 even numbers is
Ans	<b>★</b> 1.94
	<b>★</b> 2.91
	<b>※</b> 3.92
	√ 4. 93
Q.10	The ratio of the ages of two friends is 4 : 3 which will become 6 : 5 after 4 years. What
Ans	will be the sum of their ages (in years) after 22 years from now?  1.56
Alls	✓ 2. 58
	× 4.50
Q.11	8 kg of maize costing ₹51 per kg, is mixed with 9 kg of maize costing ₹68 per kg. The average per kg price of mixed maize is:
Ans	
	<b>×</b> 2. ₹58
	<b>×</b> 3. ₹59
	<b>X</b> 4. ₹61

Q.12	A tank when full can be emptied by an outlet pipe A in 5.6 hours, while an inlet pipe B can fill the same empty tank in 7 hours. If pipes A and B are turned on alternatively for 1 hour each starting with pipe A when the tank is full, how long will it take to empty the tank?
Ans	X 1. 48 hours
	✓ 2. 47 hours
	X 3. 56 hours
	X 4. 55 hours
Q.13	The ratio between the length and the breadth of a rectangular park is $3:2$ , and the perimeter of the park is $120 \text{ m}$ . Find the area (in $\text{m}^2$ ) of the park.
Ans	√ 1. 864
	<b>★</b> 2. 968
	<b>X</b> 3. 144
	<b>★</b> 4. 454
Q.14	A man sells a mobile phone for ₹680 and loses something. If he had sold it for ₹1070, his gain would have been double the former loss. The cost price (in ₹) of the mobile phone is:
Ans	X 1. 820
	<b>×</b> 2.800
	<b>X</b> 3. 830
	<b>✓</b> 4. 810
Q.15	Akshay places three identical rings of diameter 21 cm in such a manner that each one touches the other two rings. He observes that there is a space enclosed by the
	circles. What is the area (in cm <sup>2</sup> ) of this portion? (Take $\pi = \frac{22}{7}$ )
	Note – Rounded off to nearest 2 decimal places and $\sqrt{3} = 1.732$
Ans	X 1. 18.25
	<b>★</b> 2. 24.12
	<b>→</b> 3. 17.70
	<b>X</b> 4. 20.65
Q.16	If A and B are two events such that $P(A \cup B) = \frac{3}{4}$ , $P(A \cap B) = \frac{1}{4}$ and $P(B) = \frac{1}{2}$ , then the events A and B are
Ans	X 1. Not Mutually Exclusive
	X 2. Mutually Exclusive
	√ 3. Independent
	X 4. Dependent
Q.17	Find the simple interest (in ₹) on ₹2000 at 6.5% per annum rate of interest for the period from 13 February 2023 to 27 April 2023
Ans	<b>X</b> 1. 27
	<b>★</b> 2. 25
	<b>→</b> 3. 26
	<b>X</b> 4. 24
Q.18	ABCD is a quadrilateral in which diagonal BD = 70 cm, AL⊥BD and CM⊥BD such that AL = 18 cm and CM = 20. Find the area (in cm²) of the quadrilateral ABCD.
Ans	X 1. 1310
	<b>X</b> 2. 1300
	<b>X</b> 4. 1320

Q.19 If  $\cos 27^{\circ} = \frac{p}{q}$ , then find the value of  $\csc 27^{\circ} - \cos 63^{\circ}$ .

Ans

$$1. \frac{\mathbf{q}^2}{\mathbf{p}\sqrt{\mathbf{q}^2 - \mathbf{p}^2}}$$

$$\times$$
 3.  $\frac{\mathbf{q}}{\mathbf{p}\sqrt{\mathbf{q}^2-\mathbf{p}^2}}$ 

$$\times$$
 4.  $\frac{p}{q\sqrt{q^2-p^2}}$ 

Q.20 If a:b=2:3, b:c=5:7, then find the ratio c:a.

Ans

X 1. 15:21

X 2. 20 : 21

**3**. 21 : 10

X 4. 10 : 21

Q.21 The age of some students is given in years as 12, 13, 16, 18,14, 19, 13, 17, 15 and 11. The median age (in years) of the students is:

Ans

X 1. 13.5

X 2. 14

X 3. 15

**4**. 14.5

Q.22 Amit gets 6% increase in his sale amount in the first year and 20% in the second year, with that his present sale is ₹254400, what was his sale (in ₹) two years ago?

Ans

**1. 200000** 

X 2. 180000

X 3. 212000

**X** 4. 240000

Q.23 Find the median of the following data.

Class interval 0 - 20 20 - 40 40 - 60 60 - 80 80 - 100 Frequency 9 16 24 15 4

Ans

X 1.55

X 2.58

**3**. 47.5

X 4.50

Q.24 The present ages of Sweeta and Suman are in the ratio 4: 5. Six years back, the ratio of their ages was 2: 3. What is the present age of Sweeta?

Ans

X 1. 16 years

2. 12 years

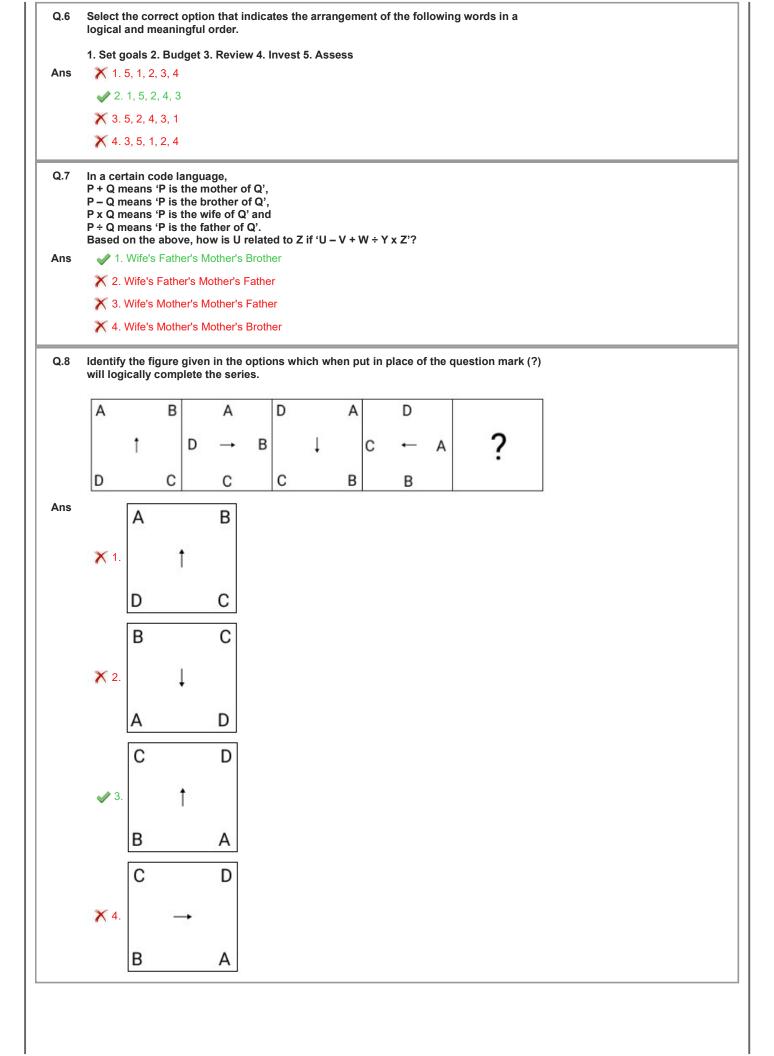
X 3. 8 years

X 4. 20 years

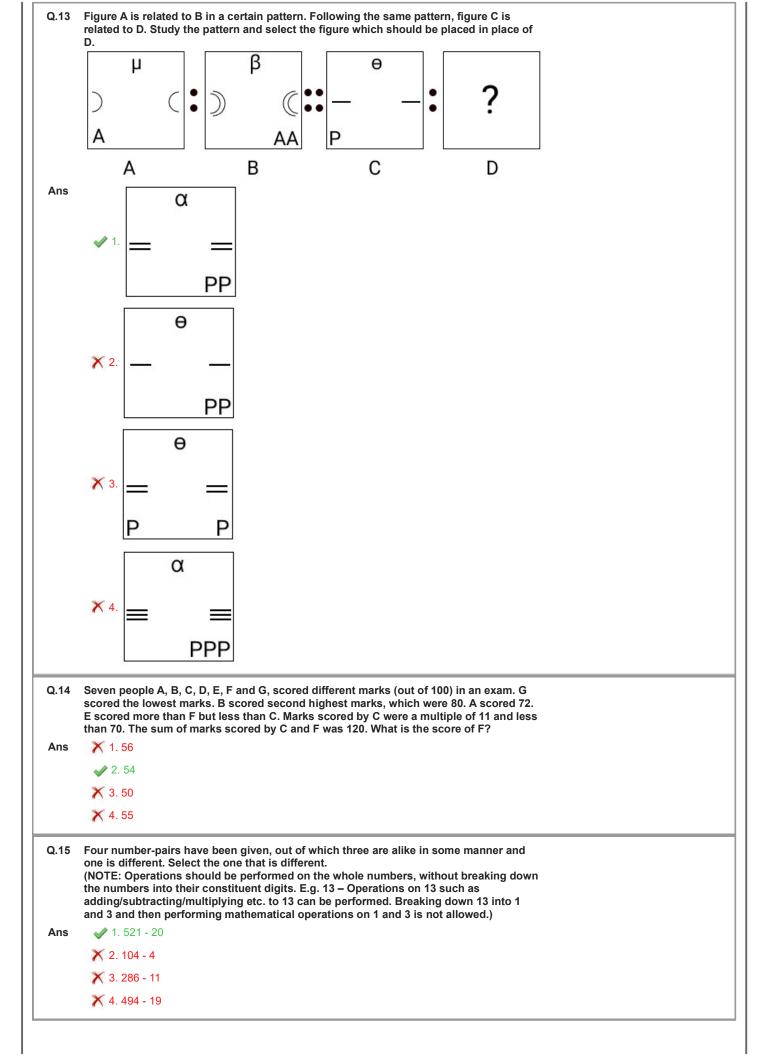
Q.25	If $\sin A = \frac{5}{13}$ , then find the value of $\frac{\cos A - 2 \tan A}{\sin A + 3 \tan A}$ .
Ans	X 1. $\frac{11}{255}$
	× 2. $\frac{12}{255}$
	× 4. $\frac{13}{255}$
Q.26	
	Adi and Dia together have ₹1,440. If $\frac{3}{10}$ of Adi's amount is equal to $\frac{3}{5}$ of Dia's amount,
Ans	how much amount does Dia have?
	× 2. ₹540
	<b>×</b> 3. ₹464
	<b>X</b> 4. ₹512
Q.27	If the diameter of the base of a cone is 56 cm and its curved surface area is 3080 cm <sup>2</sup> ,
Ans	then what will be its volume (in cm <sup>3</sup> )? (Use $\pi$ = 22/7) $\checkmark$ 1. 17248
74.10	<b>★</b> 2. 15391
	× 3. 14670
	<b>X</b> 4. 12250
Q.28	If $x = 4 + \sqrt{6}$ and $y = 4 - \sqrt{6}$ then the value of $x^2 + y^2$ is:
Ans	<b>★</b> 1.43
	<b>★</b> 2.42
	3.51
	<b>◆</b> 4. 44
Q.29	The LCM of $2^3 \times 9^2 \times 13$ , $2^2 \times 13^2 \times 19$ and $9^3 \times 13^2 \times 19^2$ is:
Ans	× 1. 2 <sup>3</sup> ×9 <sup>2</sup> ×13 <sup>2</sup> ×19
	$\checkmark 2. 2^3 \times 9^3 \times 13^2 \times 19^2$
	X 3. 2 <sup>2</sup> ×9 <sup>2</sup> ×13 <sup>2</sup> ×19 <sup>3</sup>
	× 4. 2 <sup>2</sup> ×9 <sup>3</sup> ×13×19 <sup>2</sup>
Q.30	$(a^5 \times b^3 \times c^7)$
	$\frac{(a^5 \times b^3 \times c^7)}{(a^4 \times b^8 \times c^9)}$ in simplified form is:
Ans	$\checkmark$ 1. $(a^1) \times (b^{-5}) \times (c^{-2})$
	$\times$ 2. $(a^{-3}) \times (b^{-10}) \times (c^{-4})$
	$\times$ 3. $(a^{-1}) \times (b^4) \times (c^{-5})$
	V . (6) . (16) . (-1)

 $\times$  4. (a<sup>6</sup>) × (b<sup>6</sup>) × (c<sup>-4</sup>)

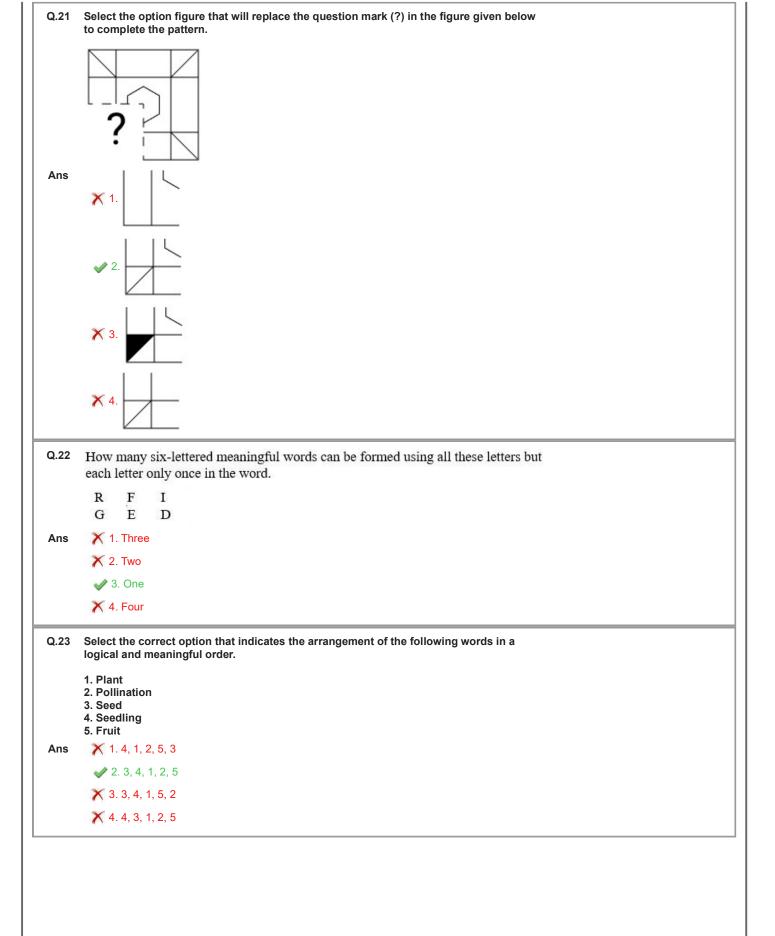
Read the following information and answer the question which follows. "Like seasoned gardeners, Gardener G practices crop rotation to maintain soil fertility, leading to thriving and diverse plant growth." Which of the following can be inferred from the given statement? (An inference is something which is not directly stated but can be derived from the given facts/information in the statement) 1. The thriving and diverse plant growth in Gardener G's garden is likely influenced by the practice of crop rotation. 2. Gardener G is consulted by other gardeners in the area for best gardening practices. Ans 1. Only (II) can be inferred. 2. Neither (I) nor (II) can be inferred. 3. Only (I) can be inferred. 4. Both (I) and (II) can be inferred. Q.2 A question is given, followed by two statements labelled I and II. Identify which of the statements is/are sufficient to answer the question. Five houses of five different colours (blue, green, yellow, red and violet), with equal space between every two adjacent houses, are constructed in a row facing north. Which coloured house is exactly in the middle of the row? Statements: (I) Green and yellow coloured houses are constructed at the extreme ends of the row. (II) Violet and blue coloured houses are immediate neighbouring houses of green and yellow coloured houses, respectively. Ans X 1. Data in Statement II alone is sufficient to answer the question while data in Statement I is not 2. Data in Statements I and II together is not sufficient to answer the question 💢 3. Data in Statement I alone is sufficient to answer the question while data in Statement II is not Q.3 Each of the digits in the number 3571869 is arranged in ascending order from left to right. The position(s) of how many digits will remain unchanged as compared to that/those in the original number? Ans X 1. None 2. One 🗙 3. Two X 4. Three Given below is a statement (Cause) followed by possible effects numbered I, II and III. Q.4 Read the 'Cause' carefully and decide which of the three can be possible effect/s. Cause - Heavy rains yesterday in City X have caused flooding in many areas including the railway station and airport. Effect I - Railways has announced a delay in the departure of three trains scheduled to start from City X this morning. Effect II - A number of flights were unable to land in the airport of City X last evening. Effect III - Finance ministry has extended the date for filing tax returns by a month. Ans 1. Only I is a possible effect. 2. Both I and II are possible effects. X 3. Both II and III are possible effects. ¥ 4. Only II is a possible effect. In a certain code language, 'CURB' is coded as '3517' and 'BOAT' is coded as '4638'. Q.5 What is the code for 'B' in the given code language? Ans X 1.4 X 2.7 **3**.3 X 4.8



A question is followed by two statements numbered (I) and (II). You have to decide Q.9 whether the data provided in the statements are sufficient to answer the question. Read both the statements and select the appropriate option. Shourya delivered parcels to five locations A, B, C, D and E while prioritising delivery of heavier parcels first. Which location was delivered in the end? Statements: (I) The parcel for location C was heavier than all other parcels. (II) The parcel for location D was lighter than the parcels assigned to locations B and A. Ans 💢 1. Data in statement (II) alone is sufficient to answer the question, whereas data in statement (I) alone is not. ✓ 2. Data in statements (I) and (II) together are not sufficient to answer the question. X 3. Data in statements (I) and (II) together are sufficient to answer the question. 💢 4. Data in statement (I) alone is sufficient to answer the question, whereas data in statement (II) alone is not. Q.10 In a certain code language, A + B means 'A is the mother of B', A - B means 'A is the brother of B', AxB means 'A is the wife of B' and A ÷ B means 'A is the father of B'. Based on the above, how is U related to Z if 'U - V x W  $\div$  Y + Z'? X 1. Mother's mother's father Ans 2. Mother's father's brother 3. Mother's mother's brother 4. Mother's father's father Q.11 Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of ::? #: ORW :: RUZ : % Ans X 1. # = VYD % = KNK X 2. # = VYD % = LNS X 4. # = UYD % = KNS Q.12 Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion(s) logically follow(s) from the statements. Statements: All dolls are robots. Some robots are toys. Some toys are cycles. Conclusions: (I) Some toys are dolls. (II) No cycle is a robot. Ans X 1. Only conclusion (I) is true. 2. Only conclusion (II) is true. 3. Neither conclusion (I) nor (II) is true. X 4. Both conclusions (I) and (II) are true.



Paras ranked 5<sup>th</sup> from the top and 24<sup>th</sup> from the bottom in his class. How many students Q.16 are there in his class? Ans X 1. 29 X 2. 26 X 3. 27 **4**. 28 Q.17 Select the correct mirror image of the given combination when the mirror is placed at line MN as shown. 47F29M8 Ans 47F2M e8 1 X 47F29M8 .5 V 47Fe2M8.8 X 47F59W8.4× In a certain code language, 'he enjoys music' is coded as 'lo po jo' and 'music and dance' is coded as 'kb jo fk'. How is 'music' coded in the given language? √ 1. jo Ans X 2. po X 3. lo X 4. fk 17 is related to 159 following a certain logic. Following the same logic, 11 is related to 105. To which of the following is 13 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 /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.) X 1. 116 Ans X 2. 109 X 3. 103 4. 123 What will come in the place of the question mark (?) in the following equation, if '+' and Q.20 '-' are interchanged and 'x' and '÷' are interchanged?  $98 \div 7 + 288 \times 2 - 144 \times 3 - 152 \div 2 + 120 = ?$ **1.774** Ans X 2. 671 X 3.632 X 4.743



Q.24 In this question, a statement is followed by two courses of action, numbered I and II. You must assume everything in the statement to be true and on the basis of the information given in the statement, decide which of the course of action/s logically follows for pursuing.

Statement: Many people have complained to the Finance Ministry regarding a delay in receiving refunds of their Income Tax returns.

#### Courses of action:

The Finance Ministry must institute an enquiry into the complaints received regarding delay in income tax refunds.

The Finance Ministry must compensate the income tax payees by paying interest on their refunds for the duration of the delay.

Ans

1. Both I and II follow.

X 2. Only I follows.

X 3. Neither I nor II follows.

X 4. Only II follows.

Q.25 M, N, O, X, Y and Z are sitting around a circular table facing the centre (but not necessarily in the same order). O is an immediate neighbour of Y. Z sits second to the right of O. X is the immediate neighbour of both M and N. M is not an immediate neighbour of O. Who sits to the immediate left of Y?

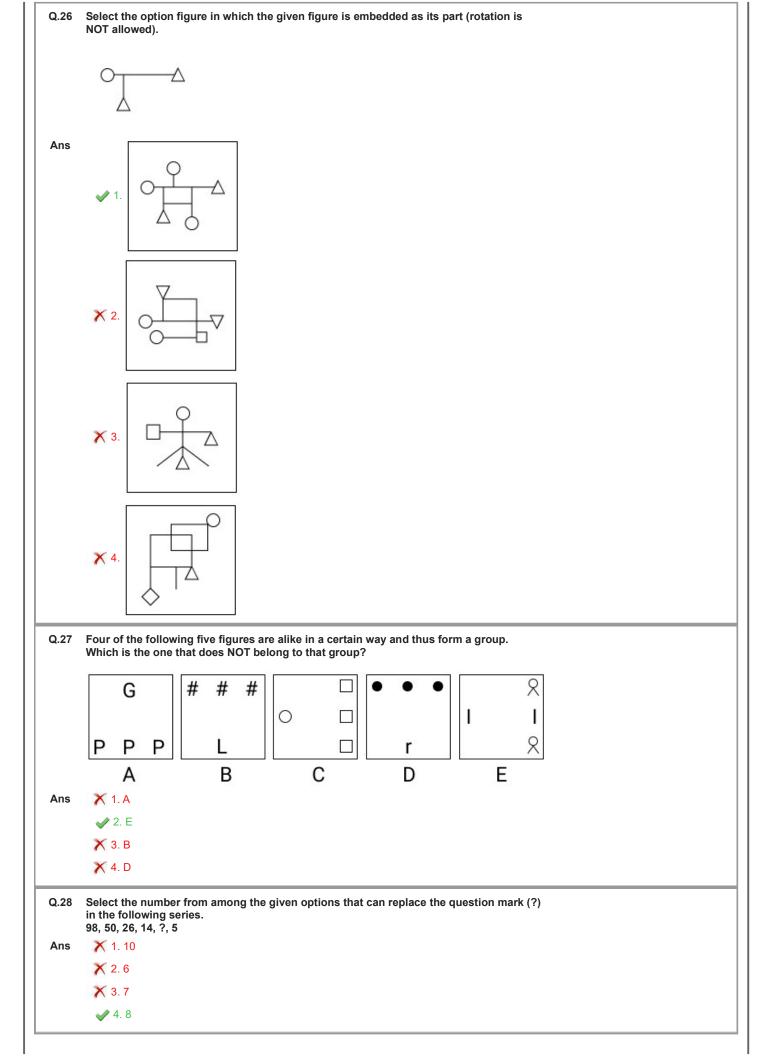
Ans

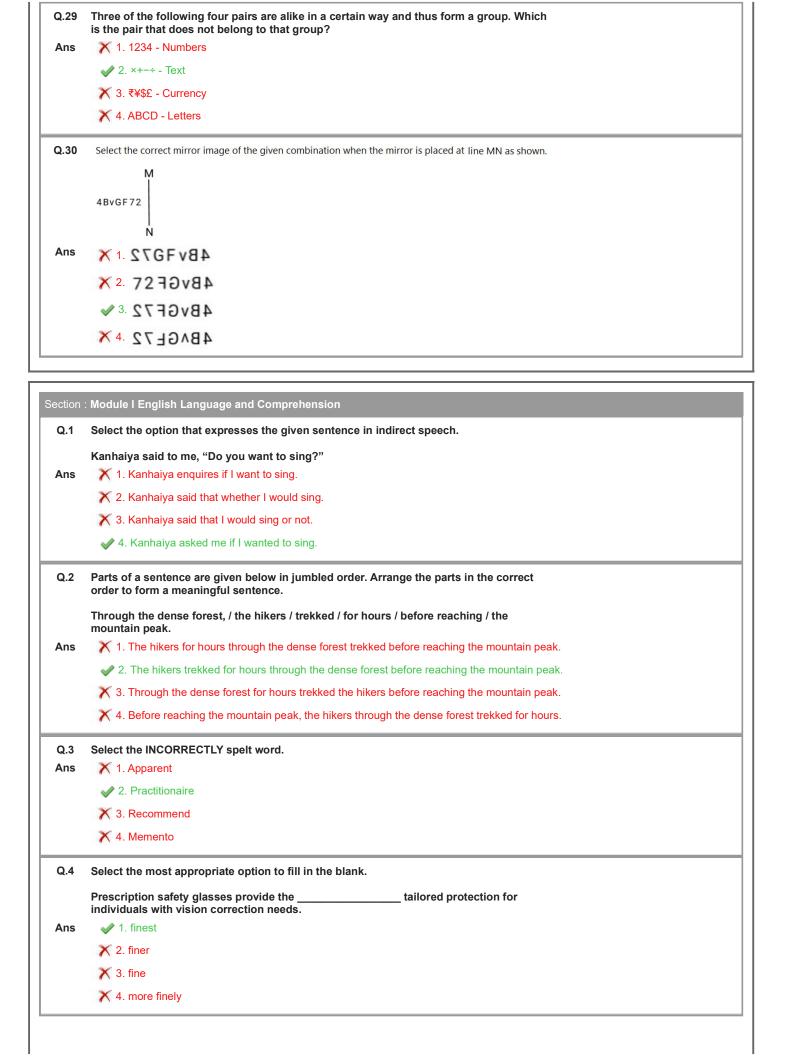
X 1. N

2. O

X 3. X

X 4. M





Q.5	Select the option that can be used as a one-word substitute for the given group of words.
	Someone who walks on foot
Ans	X 1. Stalker
	× 2. Auditor
	X 3. Decanter
	√ 4. Pedestrian
Q.6	Select the option that expresses the given sentence in passive voice.
	Don't park your car here.
Ans	√ 1. Let your car not be parked here.
	X 2. Let not your car be parked here.
	X 3. Let your car be parked here.
	X 4. Have not your car be parked here.
Q.7	Select the most appropriate idiom to fill in the blank.
	A lot of people are still over the GDP issue.
Ans	X 1. over the fence
	X 2. breaking a leg
	X 4. by the fence
Q.8	Select the most appropriate option to fill in the blank.
	The blueberries in the basket are blue. The denotation of the word 'blue' is
Ans	X 1. gloominess
	X 2. sadness
	X 4. negativity
Q.9	Select the option that can be used as a one-word substitute for the given group of
	words. Someone who loves and admires himself the most
Ans	X 1. Recluse
	× 2. Altruist
	✓ 3. Narcissist
	X 4. Omniscient
Q.10	Select the most appropriate ANTONYM of the word given below. Ameliorate
Ans	X 1. Succour
	X 2. Recondite
	✓ 3. Exacerbate
	× 4. Motto

Q.11	Select the option that expresses the given sentence in passive voice.
	Scientists have recently discovered a new species of marine life in the unexplored depths of the ocean.
Ans	X 1. A new species of marine life was recently discovered in the unexplored depths of the ocean by scientists.
	X 2. A new species of marine life had recently been discovered in the unexplored depths of the ocean by scientists.
	3. A new species of marine life has recently been discovered in the unexplored depths of the ocean by scientists.
	X 4. A new species of marine life was recently being discovered in the unexplored depths of the ocean by scientists.
Q.12	Select the correct spelling of the incorrectly spelt word in the given sentence.
	Good characteristics are indispensible to succeed in life.
Ans	X 1. Indispenscible
	√ 2. Indispensable
	X 3. Indespensible
	X 4. Indespensable
Q.13	Select the option that expresses the given sentence in reported speech.
	The soldier said to his fellow soldiers, "I have buried our brave comrade here.
Ans	X 1. The soldier told us that I had buried their brave comrade here.
	X 2. The soldier told his fellow soldiers that I had buried our brave comrade there.
	X 4. The soldier told us that he had buried our brave comrade there.
Q.14	Select the most appropriate option to fill in the blank.
	The comedian's jokes were so funny that the entire audience erupted in
Ans	X 1. loiter
	× 2. latter
	√ 3. laughter
	X 4. later
Q.15	Select the most appropriate option that can substitute the underlined words in the given sentence.
	In the makeshift <u>place of activity, debate or conflict</u> , there were hundreds of people with the queen's team of advisors and servants sitting within the ring against the wall.
Ans	X 1. casino
	√ 2. arena
	X 3. aviary
	X 4. dormitory
Q.16	Complete the dialogue for Person B using the correct idiom.
	Person A: We are all going to the club this weekend. Do you want to come?
	Person B: Thank you for asking. But I don't like clubs. It's
Ans	X 1. not my cup, not my tea
	X 2. not my cup of coffee
	X 3. my cup of coffee
	✓ 4. not my cup of tea

Q.17	Select the most appropriate ANTONYM of the given word.
	Thrifty
Ans	X 1. Indifferent
	X 2. Thankful
	✓ 3. Extravagant
	× 4. Intolerant
0.40	The other particular test for a second bloods to be a second to be
Q.18	The given sentence is divided into four segments. Identify the segment that contains a grammatical error.
	When I returned to the office, / no work was left / as my friend Rahul / has done everything.
Ans	X 1. When I returned to the office,
	✓ 2. has done everything
	X 3. no work was left
	X 4. as my friend Rahul
Q.19	Select the most appropriate synonym of the given word.
	Charisma
Ans	✓ 1. Charm
	X 2. Influence
	X 3. Atmosphere
	× 4. Reputation
	T. Fopulation
Q.20	Select the most appropriate option that can substitute the underlined words in the given sentence.
	The nation has chosen the government by the people over monarchy.
Ans	X 1. oligarchy
	X 2. autocracy
	√ 3. democracy
	X 4. theocracy
Q.21	Sentences of a paragraph are given below. While the first and the last sentences (1 and 6) are in the correct order, the sentences in between are jumbled up. Arrange the
	sentences in the correct order to form a meaningful and coherent paragraph.
	There are some backward areas in Andhra Pradesh.     Rayalaseema is one of them.
	B. Massive degradation of natural resources and extensive changes in land use have resulted in poor crop productivity in Rayalaseema.
	C. The National Soil Survey and Land use planning organisation is doing its job by
	giving suggestions to the farmers of Rayalaseema.  D. Soil Organic Carbon (SOC), which is crucial for maintaining soil quality, has
	decreased by 84% in the region. Poor soil fertility and soil degradation, like in Rayalaseema region, are the major causes of food shortage.
	6. The advice is about which crops are to be cultivated and which not.
Ans	X 1. CBAD
	X 2. CDBA
	X 3. DCBA
	√ 4. ABDC
Q.22	Select the most appropriate option to fill in the blank.
	This is the book that I have read till now.
Ans	X 1. better interest
	✓ 2. most interesting
	X 3. interesting
	X 4. more interesting

Q.23	Select the most appropriate ANTONYM of the given word.
	Melancholy
Ans	X 1. Mechanical
	★ 2. Profitable
	X 3. Miserable
	✓ 4. Pleasant
Q.24	The following sentence has been split into four segments. Identify the segment that contains a grammatical error.  I, you and she/ have been working happily/ in the same company and in the same branch/ for the last nine years.
Ans	√ 1. I, you and she
	X 2. for the last nine years
	X 3. have been working happily
	X 4. in the same company and in the same branch
Q.25	Select the option that expresses the given sentence in indirect speech.
	He said, "I shall need a copy of the documents."
Ans	✓ 1. He said that he would need a copy of the documents.
	X 2. He said that he is going to need a copy of the document.
	X 3. He said that he will need a copy of the documents.
	X 4. He said that he shall need a copy of the document.
Q.26	Select the option that expresses the following sentence in passive voice.
	After we come to power at the Centre, we will conduct a countrywide caste census.
Ans	X 1. A countrywide caste census should be conducted by us when we come to power at the Centre.
	X 2. A countrywide caste census will have been conducted by us after we come to power at the Centre.
	✗ 3. A countrywide caste census will be conducted by us as and when we come to power at the Centre.
	√ 4. A countrywide caste census will be conducted by us after we come to power at the Centre.
Q.27	Select the most appropriate article to fill in the blank. Rabindranath Tagore, poet, was famous for his poetical work, Gitanjali.
Ans	X 1. no article required
	X 2. an
	<b>✗</b> 3. a
	✓ 4. the
	*
Q.28	A sentence has been split up into segments and given below in jumbled order. While the first and the last segments of the sentence (1 and 6) are in the correct order, the segments in between are jumbled up. Arrange the segments in the correct order to form a meaningful and coherent sentence.  1) An outstanding feature of the 21 <sup>st</sup> century has been P) greater security and education which Q) the improvement of the income and R) living conditions of the S) working man leading to 6) has meant greater political power.
Ans	<b>X</b> 1. S, R, Q, P
	✓ 2. Q, R, S, P
	<b>X</b> 3. S, P, Q, R
	<b>★</b> 4. P, R, Q, S

Q.29	Select the option that can be used as a one-word substitute for the given group of words.
	Speaking disrespectfully about sacred or religious things
Ans	✓ 1. Blasphemy
	🗶 2. Bigamy
	X 3. Belligerent
	× 4. Biped
	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.
	The greatest disease in the West today is not TB or leprosy; it is being unwanted, unloved, and uncared for. We can cure (1) diseases with medicine, but the only cure for loneliness, despair, and hopelessness is love. There are many in the world who are (2) for a piece of bread but there are many more dying for a little love. The poverty in the West is a different kind of poverty – it is not only a poverty of (3) but also of (4) There's a hunger for affection as there is a hunger for God.
	SubQuestion No : 30
Q.30	Select the most appropriate option to fill in blank 1.
Ans	X 1. masculine
	× 2. stubborn
	√ 3. physical
	X 4. radical
	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.
	The greatest disease in the West today is not TB or leprosy; it is being unwanted, unloved, and uncared for. We can cure (1) diseases with medicine, but the only cure for loneliness, despair, and hopelessness is love. There are many in the world who are (2) for a piece of bread but there are many more dying for a little love. The poverty in the West is a different kind of poverty – it is not only a poverty of (3) but also of (4) There's a hunger for affection as there is a hunger for God.
	SubQuestion No : 31
Q.31	Select the most appropriate option to fill in blank 2.
Ans	X 1. ignoring
	✓ 2. dying
	X 3. neglecting
	X 4. disregarding
	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.
	The greatest disease in the West today is not TB or leprosy; it is being unwanted, unloved, and uncared for. We can cure (1)diseases with medicine, but the only cure for loneliness, despair, and hopelessness is love. There are many in the world who are (2) for a piece of bread but there are many more dying for a little love. The poverty in the West is a different kind of poverty – it is not only a poverty of (3) but also of (4) There's a hunger for affection as there is a hunger for God.
	SubQuestion No : 32
Q.32	Select the most appropriate option to fill in blank 3.
Ans	X 1. profusion
	✓ 2. Ioneliness
	X 3. abundance
	X 4. lavishness

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

SubQuestion No: 33

Q.33 Select the most appropriate option to fill in blank 4.

Ans

X 1. covetous

2. spirituality

X 3. educate

X 4. materialistic

#### Comprehension:

Read the given passage and answer the questions that follow.

The extraction of indigo dye involves harvesting the small, green leaves of the Indigofera plant before its flowers bloom. These leaves undergo a process of soaking in water and churning until a navy blue froth is released. The upper portion of the resulting mixture is drained for irrigation, while the leaves are repurposed as fertilizer. After allowing the water and fine sediment to settle for a day, the liquid is separated from the sediment. The obtained deep blue paste is then subjected to filtration to remove dirt and impurities, followed by compression into cakes and drying for several days. Once dried, the indigo is ready for use as a dye. Lime (Ca(OH)<sub>2</sub>) can be added to the initial water and leaves mixture, and various natural sugars can be dissolved into the paste to enhance the extraction process.

SubQuestion No: 34

Q.34 What is the overall tone of the passage?

Ans

1. Humorous and light-hearted

2. Critical and analytical

3. Informative and instructional

¥ 4. Emotional and sentimental

#### Comprehension:

Read the given passage and answer the questions that follow.

The extraction of indigo dye involves harvesting the small, green leaves of the Indigofera plant before its flowers bloom. These leaves undergo a process of soaking in water and churning until a navy blue froth is released. The upper portion of the resulting mixture is drained for irrigation, while the leaves are repurposed as fertilizer. After allowing the water and fine sediment to settle for a day, the liquid is separated from the sediment. The obtained deep blue paste is then subjected to filtration to remove dirt and impurities, followed by compression into cakes and drying for several days. Once dried, the indigo is ready for use as a dye. Lime (Ca(OH)<sub>2</sub>) can be added to the initial water and leaves mixture, and various natural sugars can be dissolved into the paste to enhance the extraction process.

SubQuestion No: 35

Q.35 What is the central theme of the passage describing the extraction process of indigo dye from the Indigofera plant?

Ans

X 1. The impact of lime and natural sugars on the indigo extraction process

X 2. The various uses of indigo dye in different industries

3. The intricate process of harvesting and processing indigo leaves

💢 4. The cultivation and growth cycle of the Indigofera plant

Read the given passage and answer the questions that follow.

The extraction of indigo dye involves harvesting the small, green leaves of the Indigofera plant before its flowers bloom. These leaves undergo a process of soaking in water and churning until a navy blue froth is released. The upper portion of the resulting mixture is drained for irrigation, while the leaves are repurposed as fertilizer. After allowing the water and fine sediment to settle for a day, the liquid is separated from the sediment. The obtained deep blue paste is then subjected to filtration to remove dirt and impurities, followed by compression into cakes and drying for several days. Once dried, the indigo is ready for use as a dye. Lime (Ca(OH)<sub>2</sub>) can be added to the initial water and leaves mixture, and various natural sugars can be dissolved into the paste to enhance the extraction process.

SubQuestion No: 36

Q.36 Select the most appropriate synonym of the word 'impurities' from the options given below.

Ans

X 1. purity

2. scum

X 3. pureness

X 4. cleanliness

#### Comprehension:

Read the given passage and answer the questions that follow.

The extraction of indigo dye involves harvesting the small, green leaves of the Indigofera plant before its flowers bloom. These leaves undergo a process of soaking in water and churning until a navy blue froth is released. The upper portion of the resulting mixture is drained for irrigation, while the leaves are repurposed as fertilizer. After allowing the water and fine sediment to settle for a day, the liquid is separated from the sediment. The obtained deep blue paste is then subjected to filtration to remove dirt and impurities, followed by compression into cakes and drying for several days. Once dried, the indigo is ready for use as a dye. Lime (Ca(OH)<sub>2</sub>) can be added to the initial water and leaves mixture, and various natural sugars can be dissolved into the paste to enhance the extraction process.

SubQuestion No: 37

Q.37 In the extraction process described, what is the purpose of allowing the water and fine sediment at the bottom of the tank to settle for a day?

Ans

X 1. To enhance the aroma of the indigo dye

2. To facilitate the separation of liquid from sediment

X 3. To create a unique texture in the final indigo paste

X 4. To promote the growth of additional indigo leaves

#### Comprehension:

Read the given passage and answer the questions that follow.

Reading is an important communication skill that has many benefits and it has great impact on a person's life. We should develop a reading habit as it allows us to learn new information and gives us access to a wide range of opportunities and ideas. So, reading regularly not only broadens our aspect and knowledge but also improves our intelligence, perspective, judgement and understanding of the world. It helps to stimulate creativity and imagination, to relieve the stress and pressure, and to provide a source of entertainment. The major benefit of reading is to develop the analytical and critical skills of a reader. The former involves gathering information and breaking it down into parts for better understanding, while the latter involves evaluating the same information and making judgments based on evidence. Reading a book or any content improves our language and vocabulary, so we can easily comprehend the words and their use in the context. It also helps in cognitive development in young children so at the primary level, children are more involved in reading rather than writing.

SubQuestion No: 38

Q.38 Which skill is used by a reader when he evaluates the same information and makes judgments based on evidence?

Ans

1. Critical skill

2. Technical skill

X 3. Analytical skill

X 4. Drawing skill

Read the given passage and answer the questions that follow.

Reading is an important communication skill that has many benefits and it has great impact on a person's life. We should develop a reading habit as it allows us to learn new information and gives us access to a wide range of opportunities and ideas. So, reading regularly not only broadens our aspect and knowledge but also improves our intelligence, perspective, judgement and understanding of the world. It helps to stimulate creativity and imagination, to relieve the stress and pressure, and to provide a source of entertainment. The major benefit of reading is to develop the analytical and critical skills of a reader. The former involves gathering information and breaking it down into parts for better understanding, while the latter involves evaluating the same information and making judgments based on evidence. Reading a book or any content improves our language and vocabulary, so we can easily comprehend the words and their use in the context. It also helps in cognitive development in young children so at the primary level, children are more involved in reading rather than writing.

SubQuestion No: 39

Q.39 Cognitive development in a child is related to:

Ans

1. technical development

2. mental development

X 3. social development

¥ 4. environmental development

## Comprehension:

Read the given passage and answer the questions that follow.

Reading is an important communication skill that has many benefits and it has great impact on a person's life. We should develop a reading habit as it allows us to learn new information and gives us access to a wide range of opportunities and ideas. So, reading regularly not only broadens our aspect and knowledge but also improves our intelligence, perspective, judgement and understanding of the world. It helps to stimulate creativity and imagination, to relieve the stress and pressure, and to provide a source of entertainment. The major benefit of reading is to develop the analytical and critical skills of a reader. The former involves gathering information and breaking it down into parts for better understanding, while the latter involves evaluating the same information and making judgments based on evidence. Reading a book or any content improves our language and vocabulary, so we can easily comprehend the words and their use in the context. It also helps in cognitive development in young children so at the primary level, children are more involved in reading rather than writing.

SubQuestion No: 40

Q.40 According to the passage, what is the role of reading?

Ans

1. To give strength to the body

2. To learn new information to avail opportunity

X 3. To not to share information

¥ 4. To make environment healthy

## Comprehension:

Read the given passage and answer the guestions that follow.

Reading is an important communication skill that has many benefits and it has great impact on a person's life. We should develop a reading habit as it allows us to learn new information and gives us access to a wide range of opportunities and ideas. So, reading regularly not only broadens our aspect and knowledge but also improves our intelligence, perspective, judgement and understanding of the world. It helps to stimulate creativity and imagination, to relieve the stress and pressure, and to provide a source of entertainment. The major benefit of reading is to develop the analytical and critical skills of a reader. The former involves gathering information and breaking it down into parts for better understanding, while the latter involves evaluating the same information and making judgments based on evidence. Reading a book or any content improves our language and vocabulary, so we can easily comprehend the words and their use in the context. It also helps in cognitive development in young children so at the primary level, children are more involved in reading rather than writing.

SubQuestion No: 41

Q.41 Which skill is used by a reader when he gathers information and breaks it down in a logical pattern to solve a problem?

Ans

1. Speaking skill

X 2. Critical skill

3. Analytical skill

X 4. Reasoning skill

Read the given passage and answer the questions that follow.

Engaging in regular physical activity is not only beneficial for physical well-being but also has a profound impact on mental health. Studies have shown that exercise releases endorphins, chemicals in the brain that act as natural painkillers and mood elevators. Additionally, consistent exercise has been linked to reduced symptoms of anxiety and depression. Contrary to common misconceptions, it doesn't require intense workouts; even moderate activities like walking or yoga can contribute to improved mental well-being. Making exercise a regular part of one's routine not only supports physical fitness but also nurtures a positive and resilient mindset.

SubQuestion No: 42

# Q.42 Select the most appropriate title for the given passage.

Ans

X 1. The Impact of Technology on Health

X 2. The Importance of a Balanced Diet

3. Importance of Regular Physical Activities

X 4. The Benefits of Mindfulness Meditation

#### Comprehension:

Read the given passage and answer the questions that follow.

Engaging in regular physical activity is not only beneficial for physical well-being but also has a profound impact on mental health. Studies have shown that exercise releases endorphins, chemicals in the brain that act as natural painkillers and mood elevators. Additionally, consistent exercise has been linked to reduced symptoms of anxiety and depression. Contrary to common misconceptions, it doesn't require intense workouts; even moderate activities like walking or yoga can contribute to improved mental well-being. Making exercise a regular part of one's routine not only supports physical fitness but also nurtures a positive and resilient mindset.

SubQuestion No: 43

# Q.43 Select the option that provides an accurate summary of the main points discussed in the passage.

Ans

- X 1. The passage discusses the negative effects of technology on health.
- X 2. Exercise only impacts physical well-being, not mental health.
- 3. Engaging in regular physical activity positively impacts mental health by releasing endorphins and reducing symptoms of anxiety and depression.
- 4. Exercise requires intense workouts for mental health benefits.

#### Comprehension:

Read the given passage and answer the questions that follow.

Engaging in regular physical activity is not only beneficial for physical well-being but also has a profound impact on mental health. Studies have shown that exercise releases endorphins, chemicals in the brain that act as natural painkillers and mood elevators. Additionally, consistent exercise has been linked to reduced symptoms of anxiety and depression. Contrary to common misconceptions, it doesn't require intense workouts; even moderate activities like walking or yoga can contribute to improved mental well-being. Making exercise a regular part of one's routine not only supports physical fitness but also nurtures a positive and resilient mindset.

SubQuestion No: 44

# Q.44 Determine the tone of the passage by choosing the option that reflects the overall emotional quality of the writing.

Ans

1. Informative

X 2. Critical

X 3. Dramatic

X 4. Humorous

Read the given passage and answer the questions that follow.

Engaging in regular physical activity is not only beneficial for physical well-being but also has a profound impact on mental health. Studies have shown that exercise releases endorphins, chemicals in the brain that act as natural painkillers and mood elevators. Additionally, consistent exercise has been linked to reduced symptoms of anxiety and depression. Contrary to common misconceptions, it doesn't require intense workouts; even moderate activities like walking or yoga can contribute to improved mental well-being. Making exercise a regular part of one's routine not only supports physical fitness but also nurtures a positive and resilient mindset.

SubQuestion No: 45

# Q.45 Which of the following is a fact mentioned in the passage?

Ans

- 1. Exercise releases endorphins, contributing to improved mental well-being.
- 2. Exercise requires intense workouts for mental health benefits.
- X 3. Regular exercise has no impact on mental health.
- X 4. Only intense physical activities are linked to reduced anxiety and depression.

## Section: Module II General Awareness

Q.1 What is the primary goal of the International Comparison Programme (ICP), led by the United Nations Statistics Division (UNSD)?

Ans

- √ 1. To calculate Purchasing Power Parities (PPPs) and price level indices
- 2. To collect data on international trade
- X 3. To implement statistical offices globally
- X 4. To produce unemployment estimates globally
- Q.2 In which of the following cases did the Supreme court of India give a ruling that, 'in case of any conflict between the fundamental rights and the directive principles, the former would prevail'?
- Ans X 1. Golaknath Case. 1967
  - X 2. Keshvananda Bharti Case, 1973
  - X 3. Minerva Mills Case, 1980
  - 4. Champakam Doraijan Case, 1951
- Q.3 Which of the following is NOT an antecedent river in India?

Ans

- 🟋 1. Indus
- 2. Yamuna
- X 3. Kosi
- 💢 4. Ganga
- Q.4 Which endemic species of owl of Central India is listed as Endangered in the IUCN Red List since 2018?

Ans

- 1. Long-eared Owlet
- X 2. Snowy Owlet
- 3. Forest Owlet
- X 4. Barn Owlet
- Q.5 Which substance is commonly used as an acid-base indicator, which turns red in acidic solutions and blue in basic solutions?

Ans

- 1. Litmus paper
- X 2. Phenol
- X 3. Bromothymol blue
- X 4. Methyl orange

Q.6	Which of the following best defines liberalisation?
Ans	★ 1. The process of enforcing strict government control over economic activities.
	X 2. The process of maintaining existing government regulations and restrictions on economic activities.
	✗ 3. The process of increasing government regulations and restrictions on economic activities.
Q.7	When did James Chadwick prove the existence of the neutron – an elementary particle devoid of any electric charge?
Ans	X 1. 1920
	√ 2. 1932
	<b>×</b> 3. 1941
	<b>★</b> 4. 1955
Q.8	Which of the following is the headquarters of the South Central Zone of Indian Railways?
Ans	X 1. Jabalpur
	✓ 2. Secunderabad
	X 3. Bilaspur
	🗙 4. Hajipur
Q.9	What is the name of the software launched by the National Minorities Development and Finance Corporation (NMDFC) for digitising Ioan accounting processes and integrating the MIS portal, including the release of mobile apps for Android and IOS?
Ans	1. MILAP (Minority Loan Accounting Software for Projects)
	X 2. DIGIT (Digital Integration for Government Transactions)
	X 3. LOAN-X (Loan Accounting Network for NMDFC)
Q.10	The productivity of which of the following crops had initially increased due to the Green Revolution?
Ans	X 1. Rice and pulses
	X 2. Wheat and sugarcane
	X 4. Rice and cotton
Q.11	Which letter code indicates mid-latitude desert climate in Köppen climate classification?
Ans	🗶 1. Cfa
	<b>★</b> 2. Dw
	X 3. EF
	✓ 4. BWk
Q.12	Which international treaty was adopted in 1992 to combat global warming and prepare for its effects?
Ans	X 1. Minamata Convention on Mercury
	✓ 2. United Nations Framework Convention on Climate Change
	✗ 3. Vienna Convention for the Protection of the Ozone Layer
	X 4. Stockholm Convention on Persistent Organic Pollutants

Q.13	Who discovered the laws of levers and pulleys, which allow us to move heavy objects using small forces?
Ans	✓ 1. Archimedes
	X 2. Democritus
	X 3. Pythagoras
	X 4. Eudoxus
Q.14	The Kushan emperor Kanishka, who ruled from the late first to the early/mid-second century AD was the Kushan ruler.
Ans	X 1. second
	× 2. fourth
	× 4. fifth
Q.15	According to Census of India 2011, what was the recorded population growth rate of Hindu religion?
Ans	√ 1. 16.8%
	× 2. 14,3%
	<b>★</b> 3. 18.5%
	<b>★</b> 4. 11.7%
Q.16	Which theme encapsulates Wings India 2024, the Aviation Expo, that was inaugurated by Union Minister for Civil Aviation in January 2024?
Ans	√ 1. Connecting India to the World in Amrit Kaal: Setting the Stage for India Civil Aviation @2047.
	X 2. Aviation and Sustainable Development in the Indian Aerospace: Future possibilities in Amrit Kaal.
	✗ 3. Aviation Expo-Wings India in Amrit Kaal: Shaping the Future of Indian Civil Aviation.
	X 4. Advancements in Aerospace: A Glimpse into India's Aviation Future in Amrit Kaal.
Q.17	Which of the following is NOT the qualification for the appointment of judges of supreme court?
Ans	X 1. A judge of high court for at least five years
	2. An advocate of supreme court for at least ten years
	X 3. An advocate of high court for at least ten years
	X 4. A distinguished judge in the opinion of the President
Q.18	The equation $F = k \left( q_1 \times \frac{q_2}{r^2} \right)$ is representation of:
	(Where F is the attractive or repulsive electric force of two point charges $q_1$ and $q_2$ and r is the distance between two charges)
Ans	✓ 1. Coulomb's law
	X 2. Biot-Savart law
	X 3. Charle's law
	X 4. Ohm's law
Q.19	Who was the first sultan (in the recorded history of the Dargah Sharif) to visit the shrine of khwaja Muinuddin Chisti?
Ans	X 1. Alauddin Khilji
	X 2. Jalaluddin Khilji
	X 3. Balban
	✓ 4. Muhammad bin Tughluq

Who among the following was the President of India when India launched its first Q.20 Nuclear test in Pokhran? X 1. Dr APJ Abdul Kalam Ans 💢 2. Giani Zail Singh ¥ 4. Fakhruddin ali Ahmed Q.21 Which amino acid is a precursor to serotonin, a neurotransmitter that regulates your appetite, sleep and mood? 1. Tryptophan Ans X 2. Methionine X 3. Valine X 4. Isoleucine Q.22 In which of the following years did Mahatma Gandhi lead the Satyagraha and hunger strike for the first time in India? X 1. 1917 Ans X 2. 1919 X 3. 1920 **4.** 1918 Q.23 In which year was the fluid mosaic model proposed by Singer and Nicolson? The model commonly represented cell membrane structure and dynamics. X 1. 1981 Ans X 2. 1993 3. 1972 X 4. 1960 Q.24 Who set a new Guinness World Record for the fastest badminton shot, measuring a speed of 565 km/hr in July 2023? Ans 1. Kidambi Srikanth X 2. Saina Nehwal 3. Satwiksairaj Rankireddy X 4. PV Sindhu In which sport did India defeat Pakistan 2-1 to lift the Men's Junior Asia Cup in 2023, Q.25 overtaking them in winning the maximum titles at the prestigious event? Ans 1. Hockey X 2. Basketball X 3. Badminton X 4. Football Section: Module I Computer Knowledge Module

Q.1 ROM is primarily used for which of the following purposes?

Ans 1. Storing the BIOS or firmware

2. Storing files for permanent access

X 3. Temporary data storage

¥ 4. Random data access

Q.2	What does the function COUNT() do in MS Excel 2010?
Ans	X 1. Stores the number of cells
	X 2. Duplicates the number of cells
	X 4. Prints the number of cells
Q.3	What happens when a user inserts a new row into an MS Excel worksheet?
Ans	X 1. The new row is added at the bottom of the worksheet.
	× 2. The existing rows are shifted to the right.
	X 3. The existing data in the row is overwritten.
Q.4	Which keyboard shortcut is used to increase the indent in a paragraph in MS Word 2010?
Ans	✓ 1. Ctrl + M
	X 2. Ctrl + K
	X 3. Ctrl + D
	X 4. Ctrl + U
Q.5	In a multipart email message, what does the boundary parameter in the Content-Type header signify?
Ans	X 1. It defines the length of the email message.
	✓ 2. It marks the start and end of each part in a multipart message.
	X 3. It separates the email's body from the attachments.
	X 4. It limits the file size of each attachment.
Q.6	In a Local Area Network (LAN), which of the following is most commonly used to ensure that data packets are efficiently forwarded to the correct device, based on its MAC address?
Ans	X 1. Router
	X 2. Hub
	✓ 3. Layer 3 Switch
	★ 4. Bridge
Q.7	Which option in MS Word allows a user to align text within a document to the left,
	center, right, or justify it across the page?
Ans	✓ 1. Paragraph Alignment: Adjusts the alignment of text to the left, center, right, or justifies it
	X 2. Font Style: Changes the appearance of text but does not affect its alignment
	X 3. Line Spacing: Adjusts the space between lines of text but does not affect text alignment
	X 4. Text Direction: Changes the orientation of the text, such as vertical or horizontal, but not its alignment
Q.8	Which file extension is most commonly used for executable installation files on a Windows system?
Ans	X 1mp3
	√ 2exe
	<b>★</b> 3jpg
	<b>★</b> 4txt
Q.9	What is the size of each ASCII character in bits?
Ans	X 1. 5 bits
	X 2. 16 bits
	X 3. 4 bits
	✓ 4. 8 bits

Q.10	Which of the following scenarios correctly illustrates the interdependence of system software and application software?
Ans	✗ 1. A device driver operating as application software to provide printing functionality.
	X 2. An operating system requiring a media player to manage hardware resources.
	✗ 3. A word processor functioning independently without the need for an operating system.
	4. An antivirus program relying on system utilities to perform disk scans and remove malware.
0.44	Which of the following actions can typically be performed in the Outbox?
Q.11 Ans	1. Deleting received emails
	X 2. Managing contact lists
	X 3. Viewing archived emails
	✓ 4. Editing emails that are yet to be sent
Q.12	Why do desktop and laptop operating systems require more advanced memory management techniques than embedded systems?
Ans	★ 1. They run only one application at a time, simplifying memory management.
	X 2. Memory management is not necessary for desktop and laptop operating systems.
	3. They utilise more hardware resources and need dynamic memory allocation.
	X 4. They rely on static memory allocation due to limited hardware resources.
Q.13	What are the correct steps for creating a blank presentation in MS PowerPoint?
Ans	★ 1. New -> Blank Presentation -> File
	√ 2. File -> New -> Blank Presentation
	X 3. Blank Presentation → New → File
	★ 4. File -> Blank Presentation -> New
Q.14 Ans	How can you exit a slide show and return to editing mode in MS PowerPoint?  X 1. Press Ctrl + S  X 2. Press Spacebar  X 3. Press Alt + Tab  4. Press Esc
Q.15	The method is commonly used to verify the integrity of data.
Ans	X 1. Compression
	✓ 2. Hashing
	X 3. Duplication
	X 4. Caching
Q.16	What is the purpose of enabling passwords on a PC?
Ans	1. For printing of the data in the PC
	√ 2. For providing an additional layer of security
	X 3. For reducing the installed applications
	X 4. For improving the data signal strength
Q.17 Ans	What type of media is commonly used for WAN communication?  1. HDMI Cable
	What type of media is commonly used for WAN communication?
	What type of media is commonly used for WAN communication?  1. HDMI Cable

Q.18 What is a common sign that a computer might be infected with a virus? Ans X 1. Increased hard drive space 2. Improved system security 3. Unusual system slowdowns and unexpected errors X 4. Faster system boot times Q.19 Which of the following statements about the Central Processing Unit (CPU) is/are correct? The CPU is often referred to as the 'brain' of the computer. The CPU consists of three main units: the control unit (CU), arithmetic logic unit (ALU), and cache memory. X 1. Both 1 and 2 Ans 2. Only 1 X 3. Only 2 X 4. Neither 1 nor 2 Q.20 What is the role of User Account Control (UAC) in Windows when modifying system 1. To adjust display settings Ans X 2. To automate software updates X 3. To monitor memory usage and performance 4. To prompt for permission before making system-wide changes