

Combined Graduate Level Examination 2024 Tier I

Exam Date	25/09/2024
Exam Time	4:00 PM - 5:00 PM
Subject	Combined Graduate Level Examination Tier I

Section : General Intelligence and Reasoning

Q.1 The position of how many letters will remain unchanged if each of the letters in the word 'DOWNSIZE' is re-arranged in the English alphabetical order from left to right?

Ans

X 1. Four

X 2. Three

X 4. One

Q.2 19 is related to 76 following a certain logic. Following the same logic, 27 is related to 108. To which of the following is 49 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

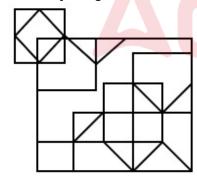
X 1. 190

X 2. 198

X 3. 202

4. 196

Q.3 How many triangles are there in the given figure?



Ans

X 1. 14

2. 17

X 3. 18

X 4. 15

Q.4 Select the option that represents the letters that when placed from left to right in the blanks below will complete the given letter series.

CARET_RCA_ETCRCAR_TCR_ARET_RCA

Ans

X 1. CRCCE

X 2. CRCEC

X 3. CERCC

4. CRECC

Q.5	'LISP' is related to 'ORHK' in a certain way based on the English alphabetical order. In the same way, 'WAND' is related to 'DZMW'. To which of the following is 'BOTE' related, following the same logic?
Ans	X 1. YKFU
	★ 2. YMHV
	X 3. YKFW

Q.6 Select the number that will come in the place of the question mark(?), if '+' and ' - ' are interchanged and '×' and '÷' are interchanged $61 - 42 \times 6 \div 9 + 27 = ?$

Ans \times 1.89 \times 2.84

4. YLGV

※ 3. 101 **№** 4. 97

Q.7 What will come in place of the question mark (?) in the following equation if '÷' and '–' are interchanged and '×' and '+' are interchanged?

 $2 \times 16 \div 36 + 42 - 6 = ?$

X 2. -246

X 3. -216

X 4. -280

Q.8 Which of the following terms will replace the question mark (?) in the given series? AEYT, CGWR, EIUP, ? , IMQL

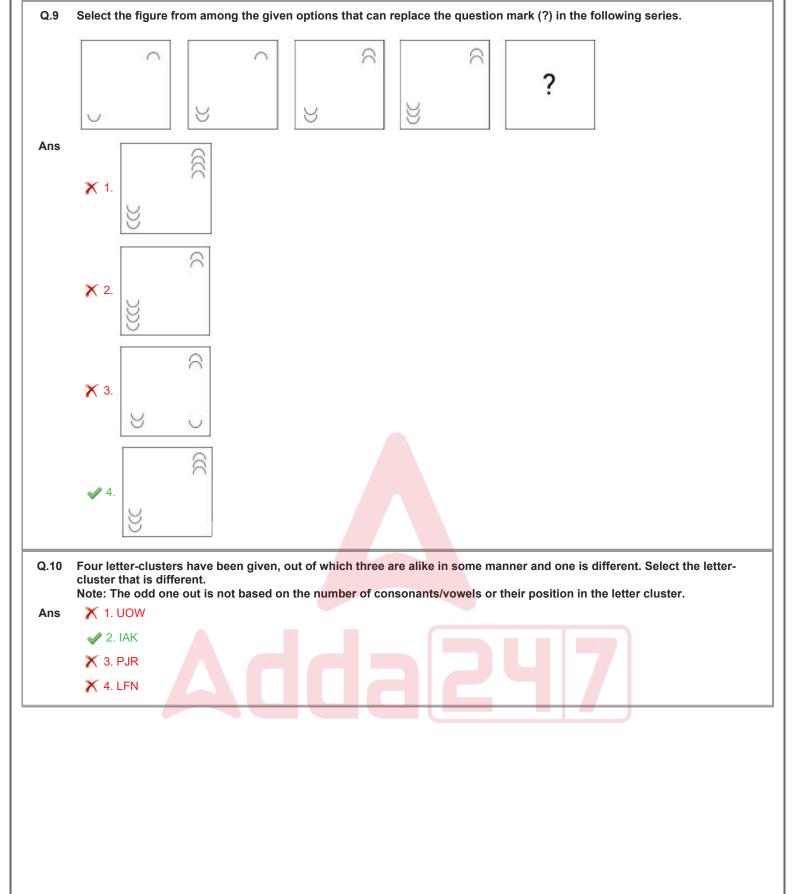
Ans 🗳 1. GKSN

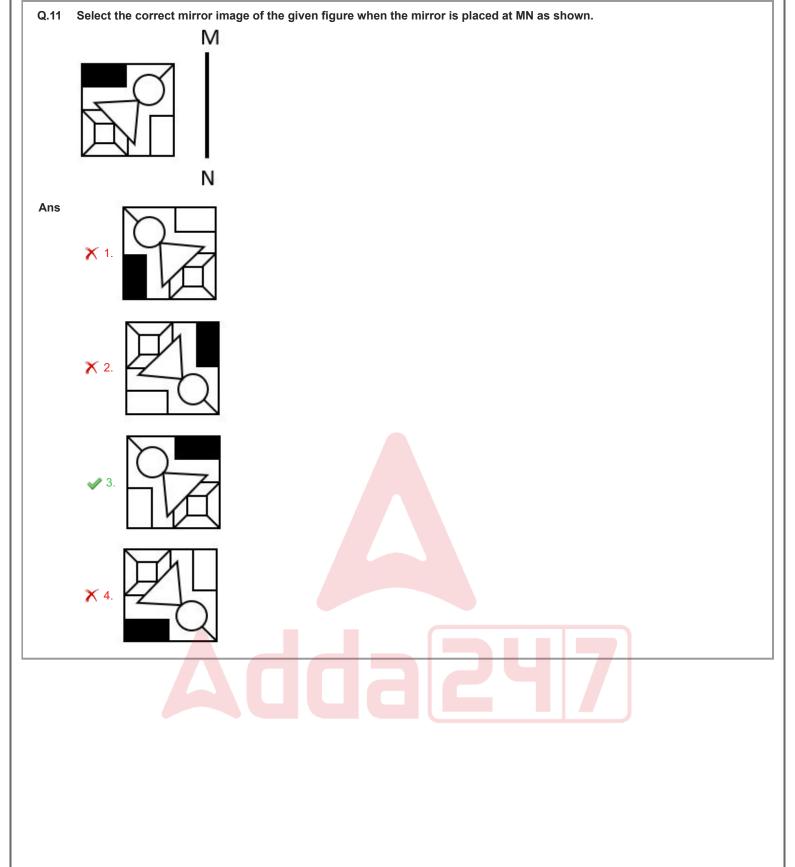
X 2. GLTN

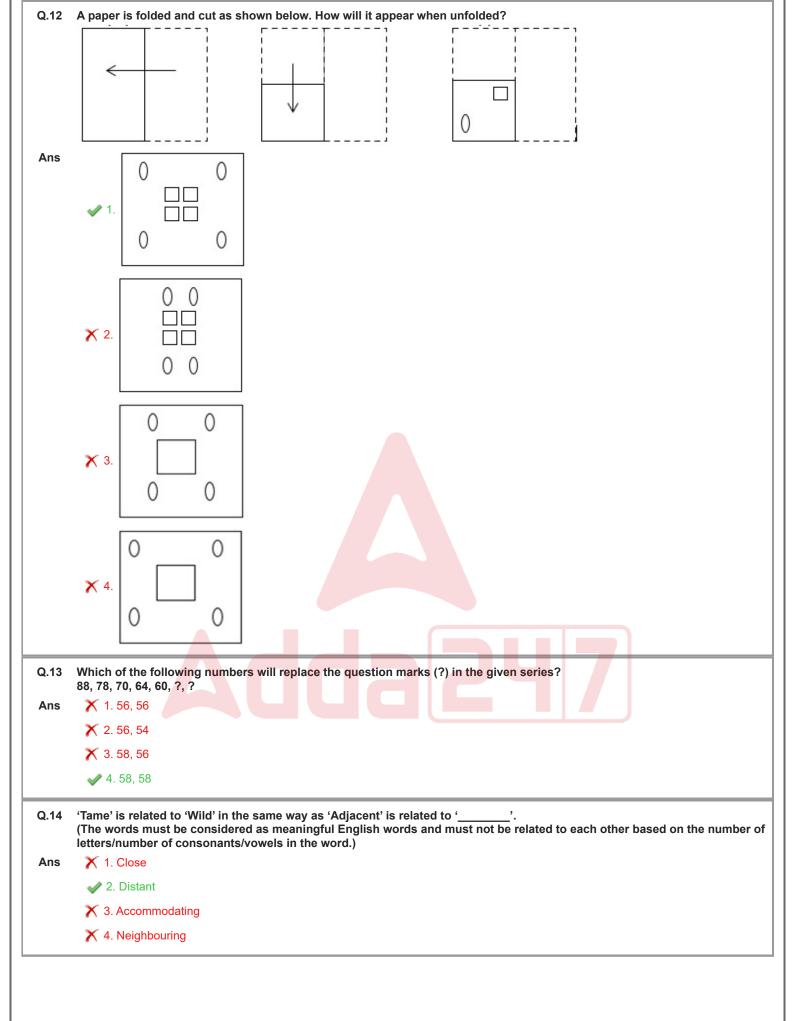
X 3. GKTN

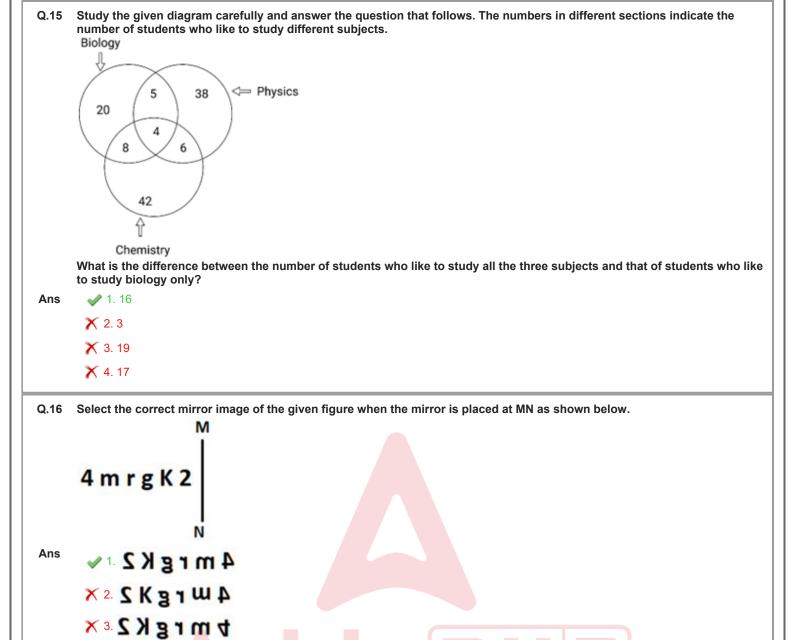
X 4. GLSN



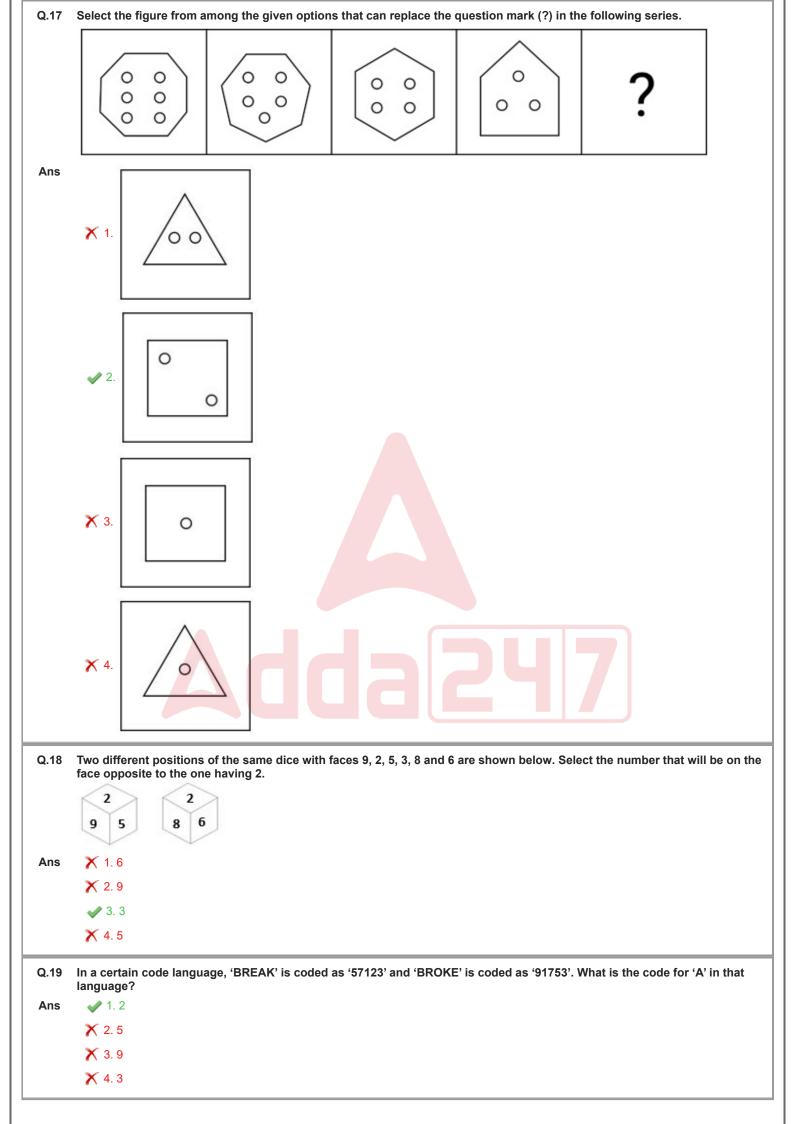


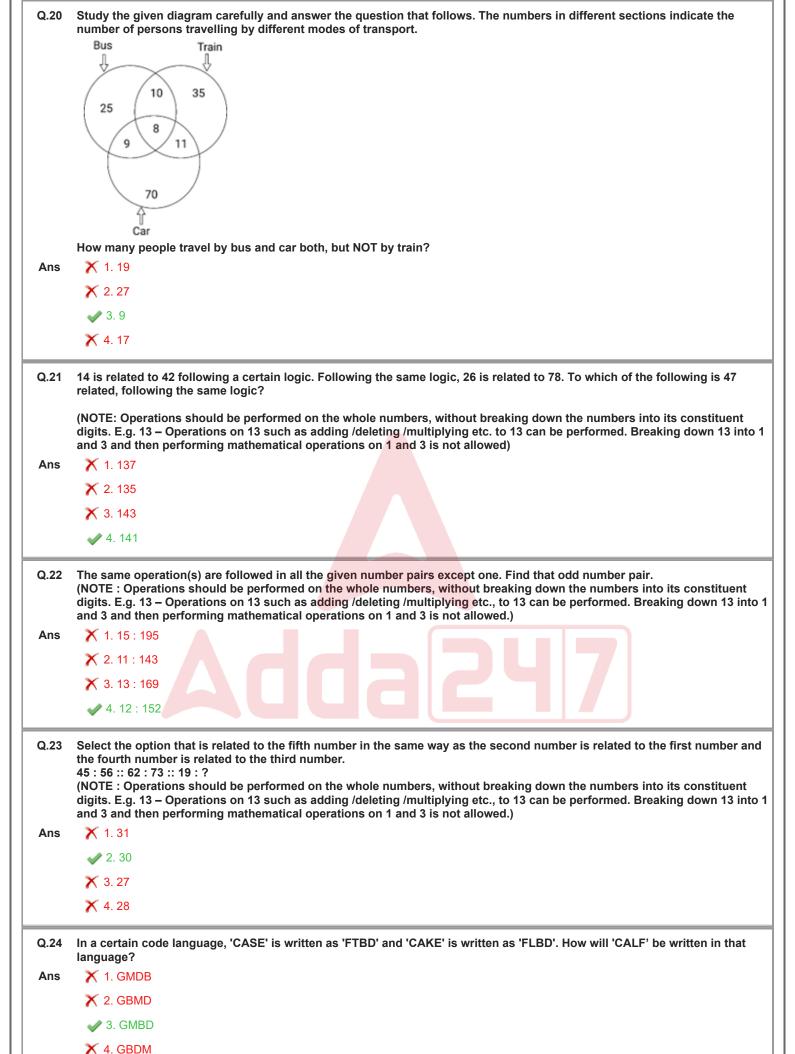


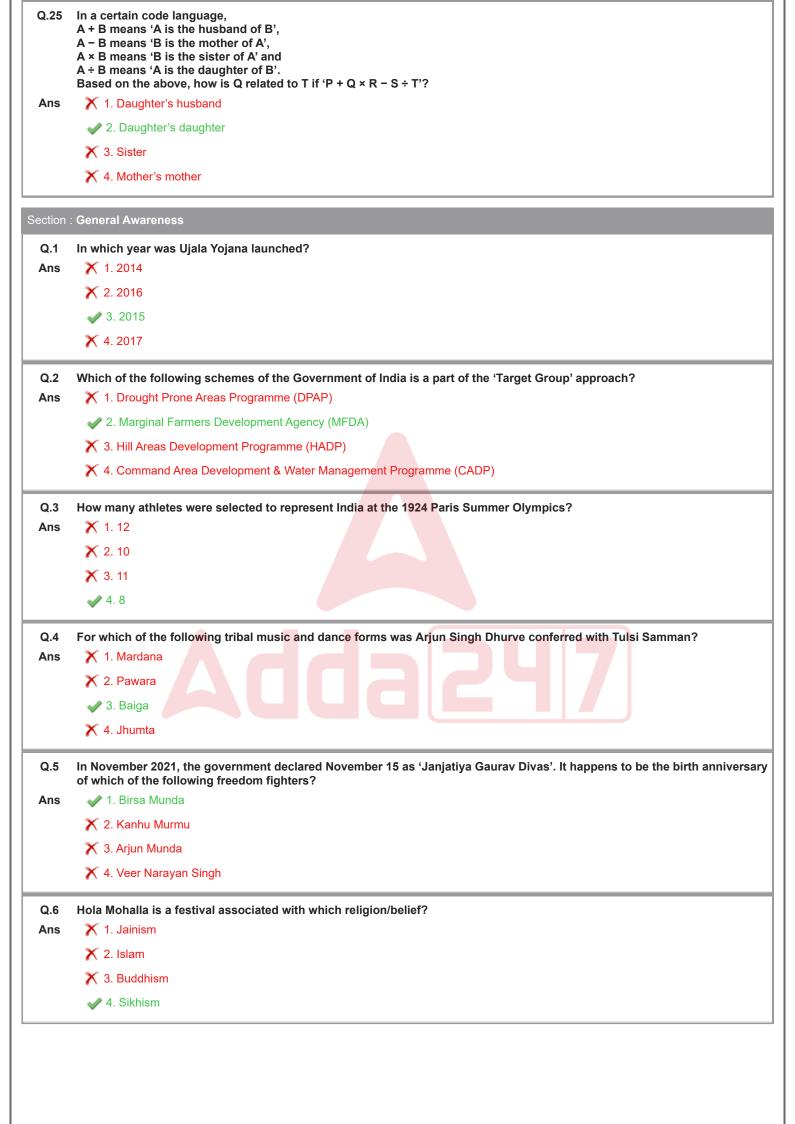




4 mrg K 2 .4 X







Ans	1. 102nd Constitutional Amendment Act
	X 2. 100th Constitutional Amendment Act
	X 4. 103rd Constitutional Amendment Act
Q.8	Which acid is used as a souring agent added to vinegar, pickled vegetables, and sauces, and as a raw material for seasoning?
Ans	X 1. Citric acid
	✓ 2. Acetic acid
	X 3. Tartaric acid
	★ 4. Formic acid
Q.9	Which coal is low-grade, brown and soft with high moisture content?
Ans	X 1. Metallurgical
	✓ 2. Lignite
	X 3. Bituminous
	X 4. Anthracite
Q.10	Which of the following gases plays an important role in welding titanium, aluminium, stainless steel, and magnesium?
Ans	X 1. Fluorine
	× 2. Neon
	✓ 3. Argon
	X 4. Chlorine
Q.11	Which award was started by the Government of Madhya Pradesh in 1980 to the exponents of Hindustani classical music?
Ans	★ 1. Kumar Gandharva Samman
	✓ 2. Tansen Samman
	X 3. Kishore Kumar Samman
	🗙 4. Iqbal Samman
Q.12	Where was the first successful textile mill established in India?
Ans	★ 1. Kolkata
	★ 2. Surat
	✓ 3. Mumbai
	🗙 4. Jaipur
Q.13	Which of the following Acts gave the government enormous powers to repress political activities, and allowed detention of
A 110	political prisoners without trial for two years?
Ans	1. India Contract Act, 1872
	 ✓ 2. Rowlatt Act, 1919 ✓ 3. Original Tables 2 Act, 4874
	X 3. Criminal Tribes Act, 1871
	X 4. Indian Slavery Act, 1843
Q.14	The term Blue Line is associated with which of the following games?
Ans	★ 1. Football
	× 2. Cricket
	X 3. Table Tennis
	✓ 4. Ice Hockey

Q.7 Which of the following Constitutional Amendment Acts led to formation of the Goods and Services Tax Council?

Q.15 Ans	According to the inscriptions, Pushyamitra Shunga was a devotee of which of the following Gods? 1. Rama
Alla	X 2. Shiva
	✓ 3. Krishna
	X 4. Indra
	A. Iliula
Q.16	What action was taken by the government to celebrate the achievement of the Green Revolution in agriculture?
Ans	1. Released a regular salary for the farmers
	★ 2. Distributed free food to all the people
	✓ 3. Released a special stamp, 'Wheat Revolution'
	X 4. Distributed green vegetables to the people
Q.17	Khudai Khidmatgars, a non-violent movement among the Pathans was started by
Ans	🔀 1. Alluri Sitarama Raju
	× 2. Bakht Khan
	✓ 3. Khan Abdul Ghaffar Khan
	★ 4. Sachindra Bakshi
Q.18	Which of the following Articles of the Indian Constitution mentions that 'The State shall, in particular, direct its policy towards securing that the ownership and control of the material resources of the community are so distributed as best to subserve the common good'?
Ans	★ 1. Article 39(a)
	✓ 2. Article 39(b)
	★ 3. Article 39(c)
	★ 4. Article 39(d)
Q.19	In the southern ranges of which hills is Mawsynram, which receives the highest rainfall in the world, located?
Ans	★ 1. Shevaroy hills
	★ 2. Mizo hills
	✓ 3. Khasi hills
	★ 4. Naga hills
Q.20	India finished on which of the following positions in overall medals tally at Commonwealth games 2022?
Ans	★ 1. 3 rd
	✓ 2. 4 th
	★ 3. 1 st
	X 4. 2 nd
Q.21 Ans	To gain control over Kannauj the Tripartite Struggle was fought between which of the following dynasties? 1. Pratihara, Rashtrakuta and Pala
	🔀 2. Solanki, Parmar and Chandella
	🔀 3. Khalji, Tughlaq and Lodhi
	🗙 4. Pallava, Pandya and Chola

Q.22	Which of the following researchers observed densely stained reticular structures surrounding the nucleus (Hint: Figure)?
Ans	★ 1. William Harvey
	X 2. Francis Crick
	✓ 3. Camillo Golgi
	★ 4. Louis Pasteur
Q.23	Which of the following is NOT correct regarding circular flow of income?
Ans	✓ 1. Savings as well as government expenditure are injections to the circular flow.
	★ 2. The income of one sector becomes the expenditure of the other.
	X 3. In a circular flow, leakages are equal to injections.
	★ 4. The real flow and monetary flow move in a circular manner in an opposite direction.
Q.24	The type of reaction that is typically found when a material that is required for the reaction to proceed, such as a surface or
Q.24	a catalyst, is saturated by the reactants is called a order reaction.
Ans	X 1. first
	× 2. second
	✓ 3. zero
	★ 4. third
Q.25	The registered office of the Sangeet Natak Akademi is at:
Ans	★ 1. Kolkata
	✓ 2. New Delhi
	X 3. Chennai
	🗙 4. Mumbai
Section	: Quantitative Aptitude
Q.1	The ratio of circumference and diameter of a circle is 3 : 5. If the circumference is 6 cm, then the radius of the circle is:
Ans	★ 1. 10 cm
	★ 2. 15 cm
	√ 3. 5 cm
	X 4. 1.8 cm
Q.2	The monthly income of Ramesh in year 2021 was ₹18,600 and his monthly expenditure was ₹12,400. In year 2022 his income increased by 15% and his expenditure increased by 8%. Find the percentage increase in his savings.
Ans	√ 1. 29%
	★ 2. 32%
	★ 3. 25%
	★ 4. 27%
Q.3	A class of 30 students appeared in a test. The average score of 12 students is 60, and that of the rest is 80. What is the average score of the class?
Ans	★ 1.73
	★ 2.70
	★ 3.71
	✓ 4.72

Ans

$$\sqrt{1} \cdot \frac{8}{\sqrt{10}}$$

$$\chi$$
 2. $\frac{2}{\sqrt{10}}$

Q.5 The number of pages printed by two printers P1 and P2 over three days are given in the following table. Study the table carefully and answer the question given below.

Days/Printer	P1	P2
Monday	200	250
Tuesday	150	300
Wednesday	225	210

What is the difference between the total number of pages printed by the two printers during these three days?

Ans

Q.6 The value of N in the equation $9 \times N$ of $4 \div 4 - 15 \times 4 = 12$ is:

Ans

Q.7 In \triangle PQR, S and T are the midpoints of the sides PQ and PR, respectively. The length of the side QR is 12 cm. If ST is parallel to QR, then find the length (in cm) of ST.

Ans

Q.8 Find the value of $3\sin 15^{\circ} - 4\sin^3 15^{\circ}$.

Ans

$$\times$$
 2. $\frac{1}{2}$

$$\checkmark$$
 3. $\frac{1}{\sqrt{2}}$

$$\times$$
 4. $\sqrt{2}$

Q.9 F	ind the gain percentage, given that Aditi sold her scooter for ₹40620 gaining $\frac{1}{5}$ th of the selling price.
	X 1. 10%
	★ 2. 20%
	✓ 3. 25%
	★ 4. 35%
Q.10	The single discount equivalent to the discount series of 15%, 20% and 5% is:
Ans	s ✓ 1. 35.4%
	★ 2. 20%
	✗ 3. 32%
	★ 4. 32.5%

Q.11

The sales of two kinds of bicycles B1 and B2 (in lakhs) manufactured by a company over a period of three years are shown in the table below.

Year	B1	B2
2004	195	284
2005	230	300
2006	250	416

From 2004 to 2006, what is the ratio of the total sales of bicycles B1 to the total sales of bicycles B2?

Ans

1. 27:40

X 2. 9:10

X 3. 10:9

X 4. 40:27

Q.12 A tap can fill a cistern in 10 minutes and another tap can empty it in 12 minutes. If both the taps are open, the time (in hours) taken to fill the tank will be:

Ans

X 1. 1.5 hours

X 2. 2.5 hours

X 3. 2 hours

4. 1 hour

Q.13 The below table shows the number of 1 litre bottles of soft drink produced by three companies during 2016-2020. Study the given information carefully and answer the question that follows.

Year	A (in lakhs)	B (in lakhs)	C (in lakhs)
2016	38,000	43,000	51,000
2017	41,000	52,000	57,000
2018	53,000	65,000	63,000
2019	30,000	35,000	32,000
2020	20,000	25,000	28,000

What is the difference in average production of A and C during 2016-2018 (in lakhs)?

Ans

X 1. 7800

X 2. 14,000

3. 13,000

X 4. 9500

Ans

X 1. Purchased 25 apples and 20 oranges and paid a sum of ₹745

X 2. Purchased 10 apples and 13 oranges and paid a sum of ₹353

X 3. Purchased 12 apples and 8 oranges and paid a sum of ₹340

4. Purchased 35 apples and 28 oranges and paid a sum of ₹1,029

Q.15 From a point T, a tangent TP at point P, is drawn to a circle with centre O. A secant TQR (point Q is near to point T) is drawn from the point T. \triangle PQR is inscribed into the circle by joining the points P, Q and R. Draw lines OQ and OR. If \angle PTQ is 27° and \angle TPQ = 55°, what is the degree measure of \angle ROQ?

Ans

1.86

X 2.82

X 3.98

X 4. 94

Q.16

If $x^2 + 1 = x$, then the value of $(x^{14} + x^8 + 1)$ is:

Ans

X 1. 1

X 2. 0

3. 3

X 4. 2

Q.17 A well with 14 cm radius is dug 23 cm deep. Find the volume of the earth taken out of it.

Ans

X 1. 14,178 cm³

X 2. 14,108 cm³

X 4. 15,168 cm³

Q.18 Pranav borrows a sum of ₹335180 at the rate of 13% per annum simple interest. At the end of the first year, he repays ₹23060 towards return of principal amount borrowed. If Pranav clears all pending dues at the end of the second year, including interest payment that accrued during the first year, how much does he pay (in ₹) at the end of the second year?

Ans

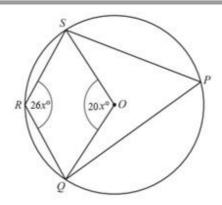
X 1. 398876

X 2. 393949

3. 396269

X 4. 388076

Q.19



NOT TO SCALE

In the figure shown above, quadrilateral PQRS has its vertices on the circumference of the circle with centre O. If $m \angle QOS = 20x^{\circ}$ and $m \angle QRS = 26x^{\circ}$, then what is the value of 'x'?

Ans

X 1.6

2. 5

X 3.4

X 4. 3

Q.20 Seema walks around a circular field at the rate of 3 rounds per hour, while Priya runs around it at the rate of 8 rounds per hour. They start in the same direction from the same point at 11:54 p.m. They shall first cross each other at:

Ans

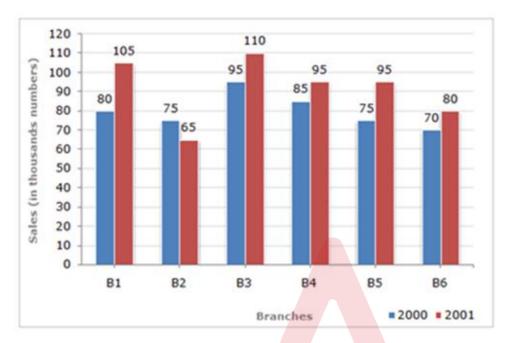
💢 1. 12:06 p.m.

X 2. 12:00 a.m.

X 4. 11:59 p.m.

Q.21 Study the given bar-graph and answer the question that follows.

The bar-graph shows the sales of books (in thousands) from six branches (B1, B2, B3, B4, B5 and B6) of a publishing company during two consecutive years 2000 and 2001.



What percentage of the average sales of branches B1, B2 and B3 in 2001 is the average sales of branches B1, B3 and B6 in 2000?

Ans

X 1. 65.25%

2. 87.5%

X 3. 80.25%

X 4. 78.5%

Q.22

'x' varies directly with the cube of 'y', and inversely with the square of 'z'. If $x = \frac{1}{36}$ when y = 2 and z = 3, then

what is the value of 800x when y = 3 and z = 5?

Ans

$$\times$$
 1. $\frac{9}{800}$

$$\times$$
 3. $\frac{800}{9}$

Ans

$$\times$$
 2. $\frac{2}{\sqrt{3}}$

$$\times$$
 3.3 $\sqrt{3}$

$$\times$$
 4. $\frac{1}{\sqrt{3}}$

Q.24 Which of the following numbers is divisible by 6?

Ans

Q.25 If $sec\theta + tan\theta = x$, then find $sin\theta$.

Ans

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

$$\times 2. \frac{x^2 - 1}{1 + 2x^2}$$

$$\checkmark$$
 3. $\frac{x^2 - 1}{1 + x^2}$

$$\times$$
 4. $\frac{1-x^2}{1+x^2}$

Section : English Comprehension

Q.1 Select the most appropriate homophone to fill in the blank.

Ruby gave her mother a hug and offered to knead the

Ans

Q.2 Select the most appropriate option to substitute the underlined segment in the given sentence.

The line, 'Round the rugged rocks the ragged rascal ran' uses the repetition of usually initial consonant sounds in two or more neighbouring words or syllables.

Ans

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

The mother couldn't _____ such an insult from her son in front of the others.

Ans

Q.4	Parts of the following sentence have been given as options. Select the option that contains an error.
	While I was walking to the store, my friend calls me and ask for a favour.
Ans	🗙 1. While I was walking
	✓ 2. my friend calls me and ask
	X 3. to the store
	X 4. for a favour
Q.5	Select the correct idiom to substitute the underlined segment in the following sentence. Due to her impoverished state, most of her relatives treated her with contempt.
Ans	★ 1. Came in handy
	✓ 2. Turned up their nose at her
	X 3. Turned the corner at her
	X 4. Gave a wide space to her
Q.6	Select the most appropriate ANTONYM of the word in the brackets to fill in the blank.
	She left the party because of her parents' strict time restrictions. [late]
Ans	X 1. exit
	✓ 2. early
	X 3. small
	X 4. suffer
0.7	
Q.7	Select the option that can be used as a one-word substitute for the underlined group of words.
	The soldier struck the enemy with the short sword fixed onto the end of the gun.
Ans	★ 1. Baron
	✓ 2. Bayonet
	★ 3. Bigot
	X 4. Baton
Q.8	Select the most appropriate option to substitute the underlined word segment in the given sentence.
	I picked up my little <mark>cloc</mark> k and it bega <mark>n t</mark> o <u>dance gracefully</u> .
Ans	★ 1. move gradually
	× 2. lift smoothly
	✓ 3. chime prettily
	X 4. work agreeably
Q.9	Select the option that expresses the given sentence in passive voice. We should clean the house regularly.
Ans	★ 1. The house should have been cleaned regularly by us.
	★ 2. The house should be being cleaned regularly by us.
	X 4. The house should be clean regularly by us.
Q.10	Parts of a sentence are given below in jumbled order. Select the option that arranges the parts in the correct sequence to form a meaningful sentence. (P) hard work and perseverance (Q) no matter how difficult (O) lead to success (R) the journey may seem
Ans	✓ 1. POQR — a — a — a — a — a — a — a —
	X 2. ORQP
	X 3. RPQO
	X 4. RPOQ

Q.11	Sentences of a paragraph are given below in jumbled order. Select the option that arranges the sentences in the correct order to form a meaningful and coherent paragraph. A. Summative assessment is the assignment of the student's performance at the end of the academic term. B. This new pattern ensures that besides just textbook teaching and learning, effective child-teacher interaction is encouraged.
	C. The CBSE envisages two types of examinations, Formative and Summative. D. Formative assessment is a part of the teaching-learning process and is done through conversation, quizzes, interviews, projects, assignments, etc.
Ans	X 1. B, C, A, D
	X 2. D, A, C, B
	X 3. A, B, C, D
	✓ 4. C, D, A, B
Q.12	Select the most appropriate synonym of the word in bold. The choice was judicious as further events proved.
Ans	✓ 1. prudent
	★ 2. silly
	🗙 3. hasty
	★ 4. ridiculous
Q.13	Select the most appropriate option to substitute the underlined segment in the given sentence.
4.10	The <u>betrayer of the country</u> was at last unmasked.
Ans	✓ 1. traitor
	× 2. truant
	X 3. transgressor
	X 4. theist
Q.14	Select the most appropriate meaning of the given idiom. Let the dust settle
Ans	★ 1. To make use of a situation
	X 2. Wait for the other person to make a move
	★ 3. To make a space tidy
	✓ 4. To wait for a situation to become clear or certain
Q.15	Select the option that substitutes the INCORRECTLY spelt word in the given sentence. In any time of crisis, there is always one mument that stands out from all the others.
Ans	X 1. mumunt
	× 2. mumont
	X 3. momont
	✓ 4. moment
Q.16	Select the most appropriate synonym for the underlined word in the given sentence. It was his decency that he employed him.
Ans	X 1. Rudeness
	× 2. Deception
	✓ 3. Courtesy
	X 4. Perversion
Q.17	The following sentence has been divided into four segments. Identify the segment that contains a grammatical error.
	Please go and meet the chairperson. / She will be / away for the / few next days.
Ans	★ 1. She will be
	🗙 2. away for the
	✓ 3. few next days.
	★ 4. Please go and meet the chairperson.

Q.18	Select the option that expresses the given sentence in active voice. His father's arm was bandaged by the kind nurse.
Ans	★ 1. The kind nurse has bandaged his father's arm.
	X 2. The kind nurse had bandaged his father's arm.
	✗ 3. The kind nurse bandages his father's arm.
	√ 4. The kind nurse bandaged his father's arm.
Q.19	Read the sentence carefully and select the ANTONYM of the underlined word from the given options.
	I heard his suggestion but I am quite <u>unsure</u> about the risks involved in it.
Ans	X 1. Thoughtful
	× 2. Interested
	✓ 3. Certain
	X 4. Doubtful
Q.20	Select the sentence that contains a spelling error.
Ans	★ 1. Fermented apple juice is touted to have many health benefits though most are anecdotal and not supported by scientific facts.
	★ 2. Intriguing as it is, the house was never sold because it was thought to be haunted.
	X 3. It is important for scientists to acknowledge their humanity and the implications of their inventions.
	✓ 4. There are many believes about ancient artefacts that some of them are patently not true.
	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 rise in global temperature (1) already occurred is leading to extreme weather events that bring (2) heat
	waves and droughts, devastating floods and increasingly powerful hurricanes and tropical storms. The combination of these factors means the impact on human health is increasing and is (3) accelerate. But there is room for hope, particularly if
	governments take action now to (4) the pledges made at Glasgow in November 2021 and to go further in resolving the climate crisis. WHO is (5) governments to lead a just, equitable, and fast phase out of fossil fuels and transition to a clean
	energy future.
	SubQuestion No : 21
Q.21	Select the most appropriate option to fill in blank number 1.
Ans	X 1. which had
	★ 2. that is
	★ 3. which have
	✓ 4. that has
	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 rise in global temperature (1) already occurred is leading to extreme weather events that bring (2) heat
	waves and droughts, devastating floods and increasingly powerful hurricanes and tropical storms. The combination of these factors means the impact on human health is increasing and is (3) accelerate. But there is room for hope, particularly if
	governments take action now to (4) the pledges made at Glasgow in November 2021 and to go further in resolving the
	climate crisis. WHO is (5) governments to lead a just, equitable, and fast phase out of fossil fuels and transition to a clean energy future.
	SubQuestion No : 22
Q.22	Select the most appropriate option to fill in blank number 2.
Ans	✓ 1. intense
	× 2. mild
	★ 3. maximise
	X 4. minor

	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 rise in global temperature (1) already occurred is leading to extreme weather events that bring (2) heat
	waves and droughts, devastating floods and increasingly powerful hurricanes and tropical storms. The combination of these factors means the impact on human health is increasing and is (3) accelerate. But there is room for hope, particularly if
	governments take action now to (4) the pledges made at Glasgow in November 2021 and to go further in resolving the
	climate crisis. WHO is (5) governments to lead a just, equitable, and fast phase out of fossil fuels and transition to a clean energy future.
	SubQuestion No: 23
Q.23	Select the most appropriate option to fill in blank number 3.
Ans	X 1. rarely to
	✓ 2. likely to
	X 3. barely to
	X 4. hardly to
	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 rise in global temperature (1) already occurred is leading to extreme weather events that bring (2) heat waves and droughts, devastating floods and increasingly powerful hurricanes and tropical storms. The combination of these factors
	means the impact on human health is increasing and is (3) accelerate. But there is room for hope, particularly if
	governments take action now to (4) the pledges made at Glasgow in November 2021 and to go further in resolving the climate crisis. WHO is (5) governments to lead a just, equitable, and fast phase out of fossil fuels and transition to a clean
	energy future.
	SubQuestion No: 24
Q.24	Select the most appropriate option to fill in blank number 4.
Ans	√ 1. honour
	X 2. take
	X 3. watch
	★ 4. keep
	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 rise in global temperature (1) already occurred is leading to extreme weather events that bring (2) heat
	waves and droughts, devastating floods and increasingly powerful hurricanes and tropical storms. The combination of these factors means the impact on human health is increasing and is (3) accelerate. But there is room for hope, particularly if
	governments take action now to (4) the pledges made at Glasgow in November 2021 and to go further in resolving the climate crisis. WHO is (5) governments to lead a just, equitable, and fast phase out of fossil fuels and transition to a clean
	energy future.
	SubQuestion No : 25
Q.25	Select the most appropriate option to fill in blank number 5.
Ans	★ 1. calling at
	✓ 2. calling on
	X 3. calling for
	X 4. calling from