

# GOVT, OF NCT OF DELHI

# Delhi Subordinate Services Selection Board FC-18, Institutional Area, Karkardooma, Delhi – 110092.

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Participant ID	
Participant Name	
Test Center Name	iON Digital Zone iDZ 2 Sector 62
Test Date	13/09/2021
Test Time	12:30 PM - 2:30 PM
Subject	TGT Maths-(Female)

Section: General Ability

Q.1 निम्नलिखित परिदृश्य के लिए कार्रवाई का सबसे तार्किक पाठ्यक्रम चुनें।

कार चलाते समय, आपने दुर्घटना से किसी को चोट पहुंचाई। आप \_\_\_\_\_\_

Ans

- A. कार रोकेंगे, प्राथमिक उपचार देंगे और फिर चिकित्सक के पास ले जाएंगे।
- X B. कार रोकेंगे और उससे बहस करने लगेंगे।
- 🗙 C. अपनी गाड़ी नहीं रोकेंगे और चले जाएंगे।
- 🗙 D. कार रोकेंगे, उसे प्राथमिक उपचार देंगे और फिर उसे वहीं छोड़ देंगे।

**TEACHERS** 

Question ID: 9277596902

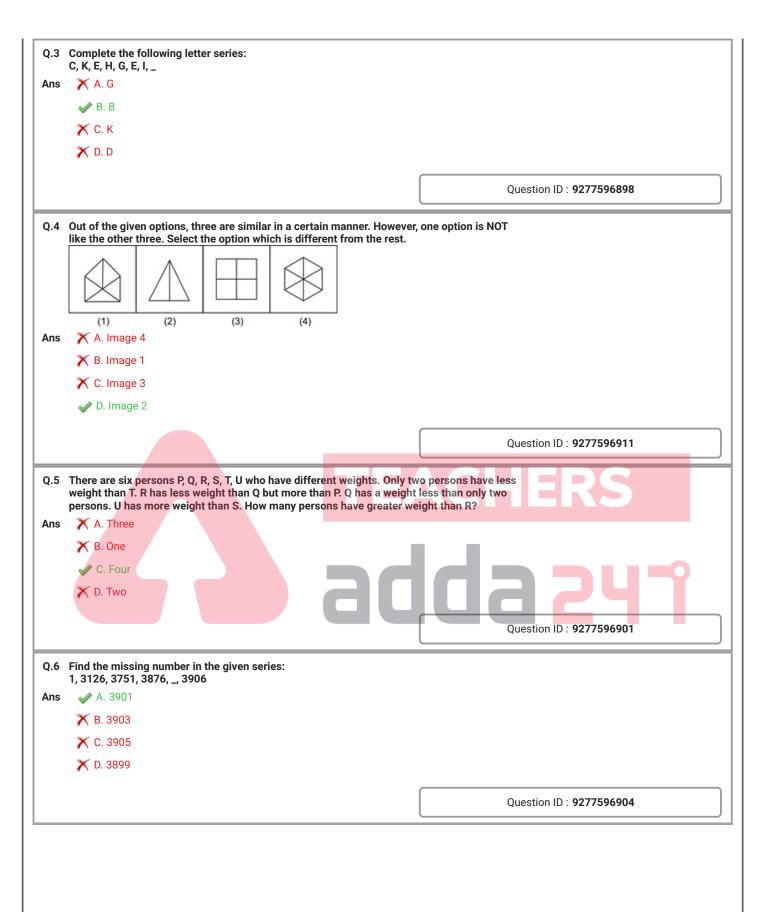
- Q.2 Study the following information to answer the question given below:
  - If a person wants to apply for the Indian passport he needs certain documents.

    Documents required are:
  - 1) Birth certificate
  - 2) Aadhar card
  - 3) Permanent address proof for more than 10 years.
  - 4) Last educational qualification certificate.
  - If some of the above condition not fulfilled then.
  - 1a) If a person does not have Birth certificate, then he must attach his 10th class certificate.
  - 2a) If a person does not have Aadhar card, his passport will not be processed.
  - 3a) If a person does not have permanent address proof then his parents passport should be attached and then his passport will be processed but will take 2 months extra time to issue the passport.
  - 4) If 1, 2, and 3 not fulfilled and also he failed to show 1a), 2a), and 3a) his passport process will be rejected.

Sumit want to go abroad for further studies. He applied for Indian passport. He attached his parents Indian passports with his passport application since his father working in a private sector, they do not live in a city for more than 4 years. And for his birth certificate, he attached his 10th mark sheet. He also has an Aadhar card. He attached his graduation degree with the application form.

Ans

- X A. His passport will be issued on time.
- X B. His passport will not be processed.
- C. His passport will be rejected.
- D. It will take 2 months extra to issue the passport.



Q.7 At a family gathering, there are 6 members present - A, B, C, D, E, and F. C is the daughter of A, and her brother is D. F is the only child of E, and E is married to C. B is the mother of D. There are two couples present at the gathering. D's both parents are present in the gathering. There are four males in the family.

How is A related to F?

Ans X A. Paternal grandmother

X B. Paternal grandfather

C. Maternal grandfather

D. Maternal grandmother

Question ID: 9277596907

Q.8 Out of the given options, three are similar in a certain manner. However, one option is NOT like the other three. Select the option which is different from the rest.

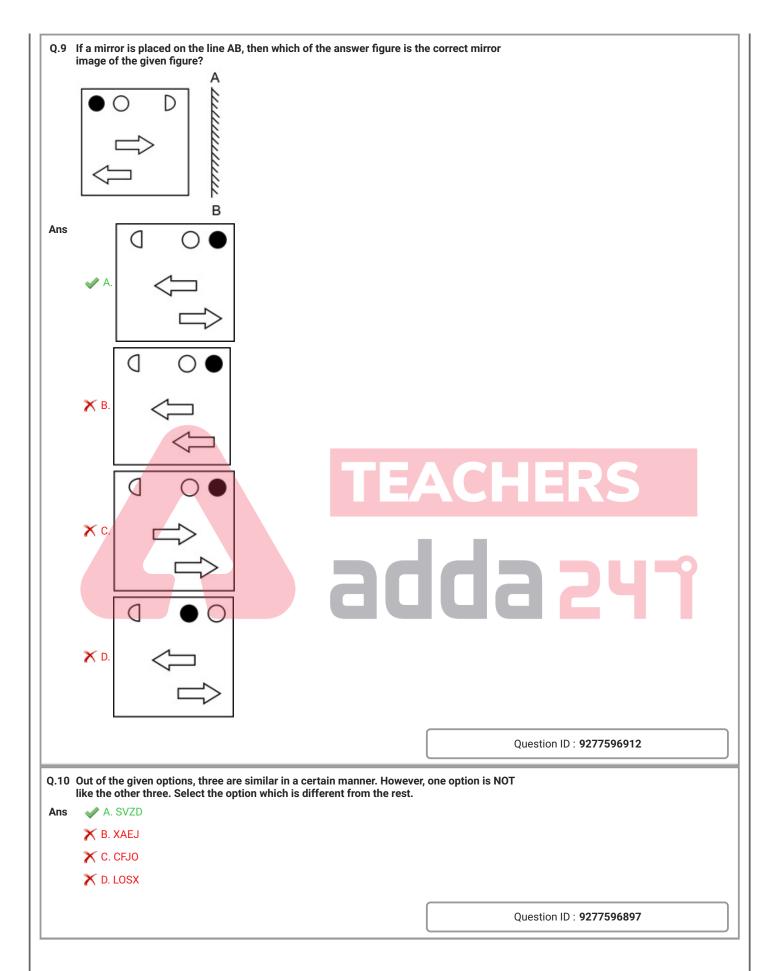
Ans X A. Bharat Ratna

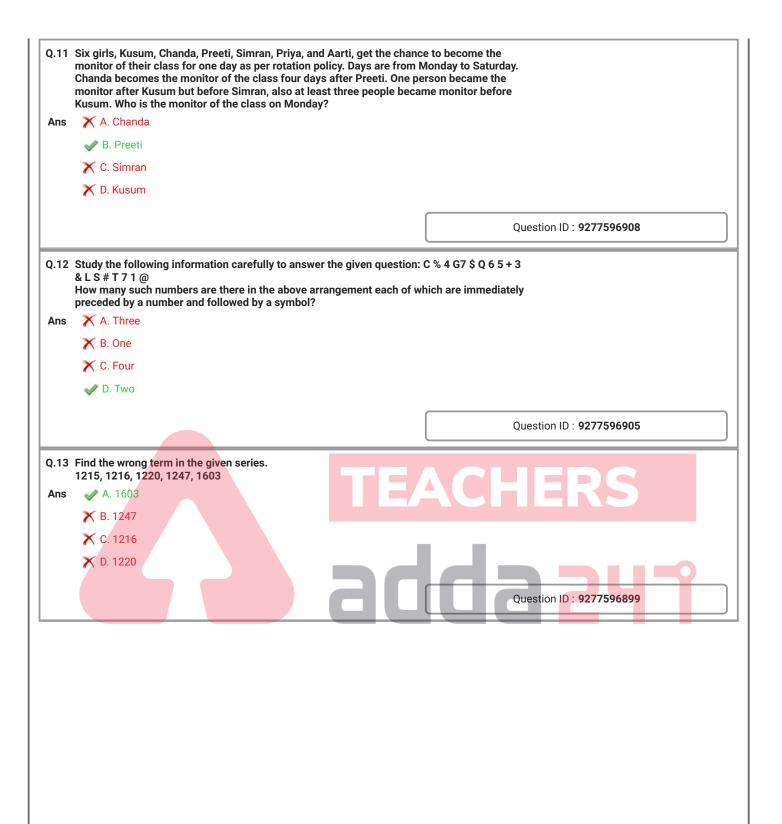
B. Nobel Prize

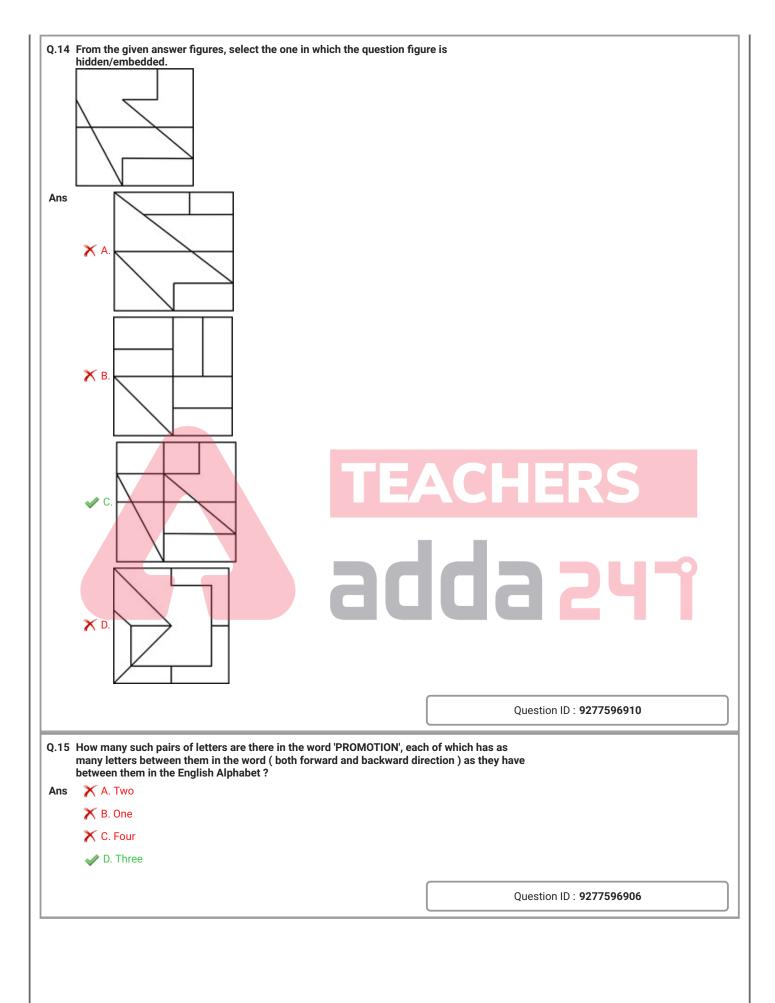
X C. Vir Chakra

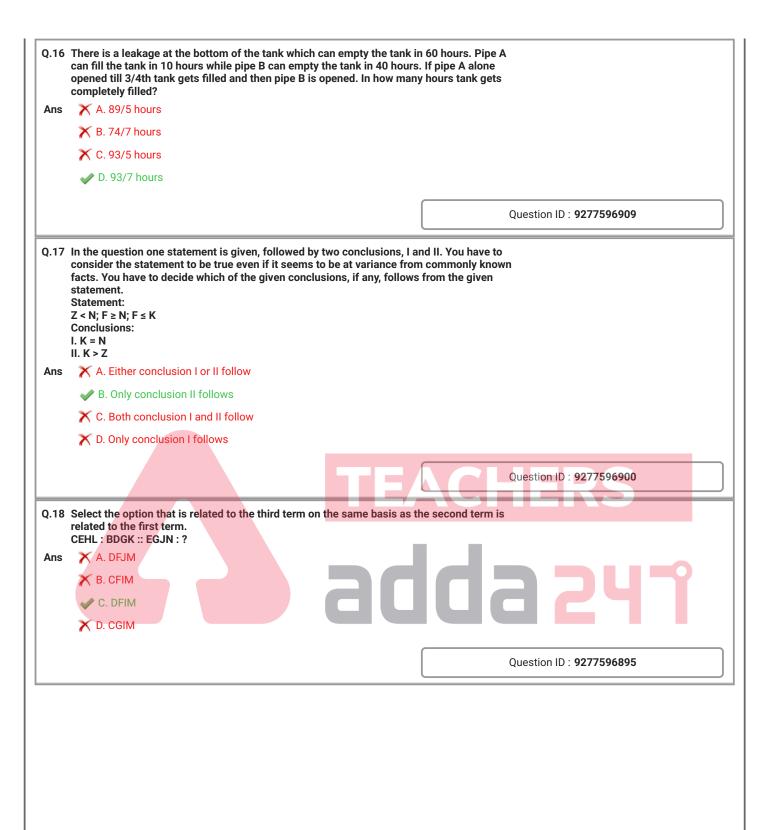
X D. Padma Bhushan

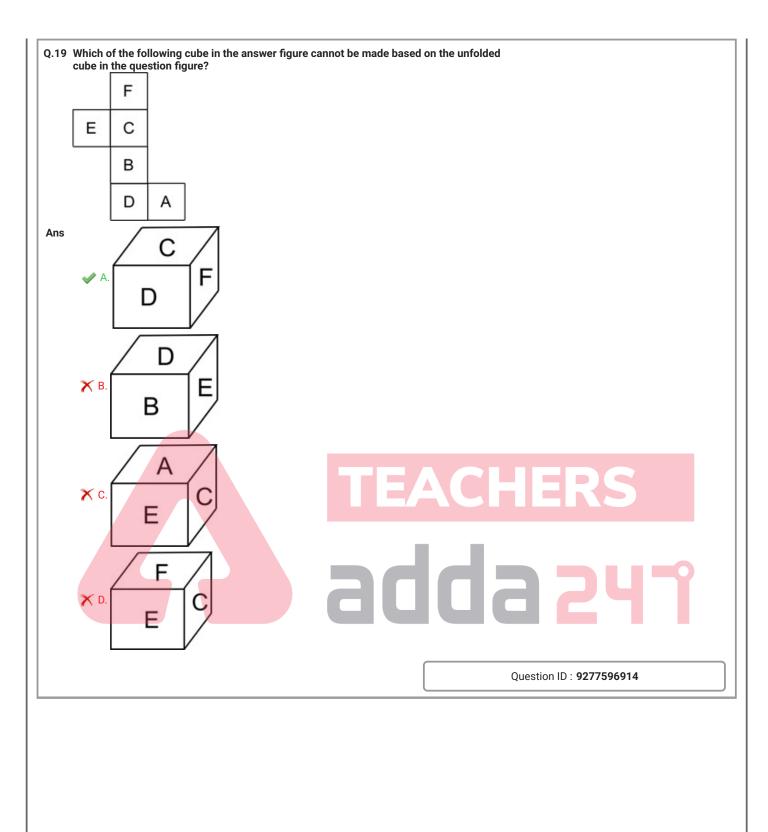






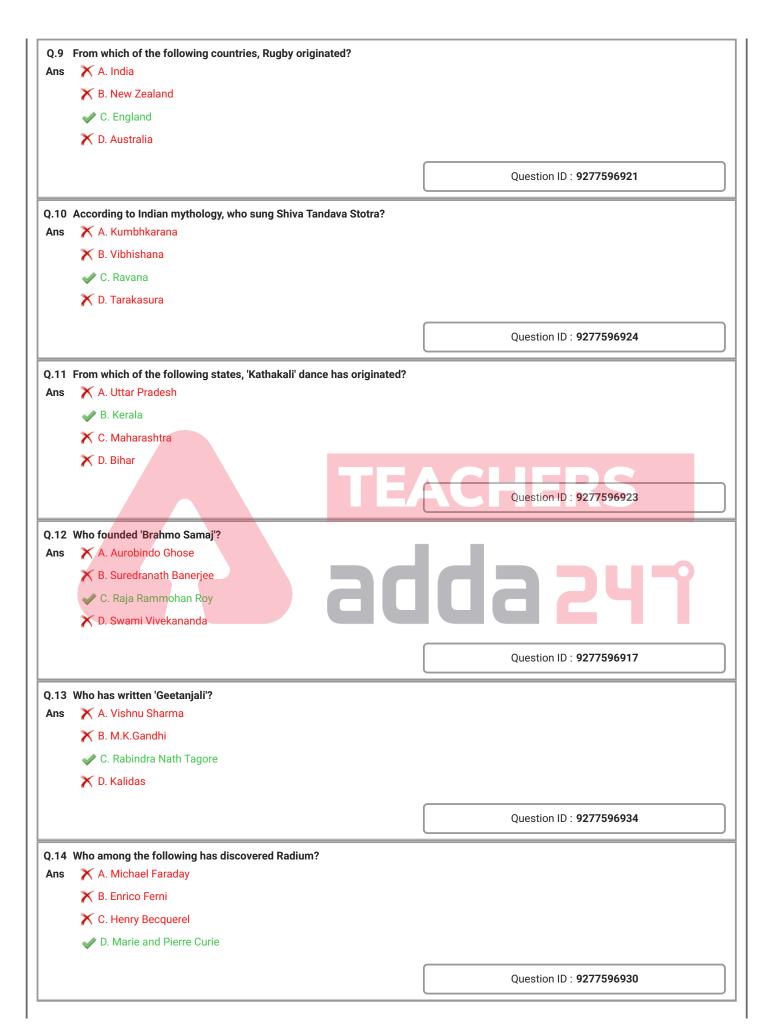


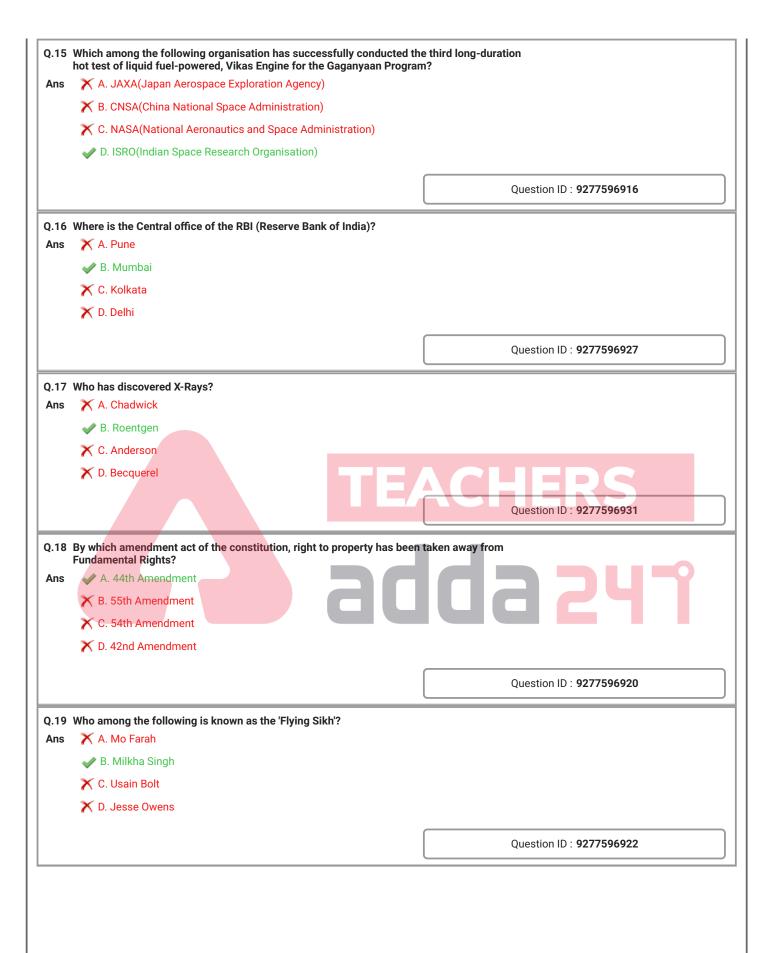


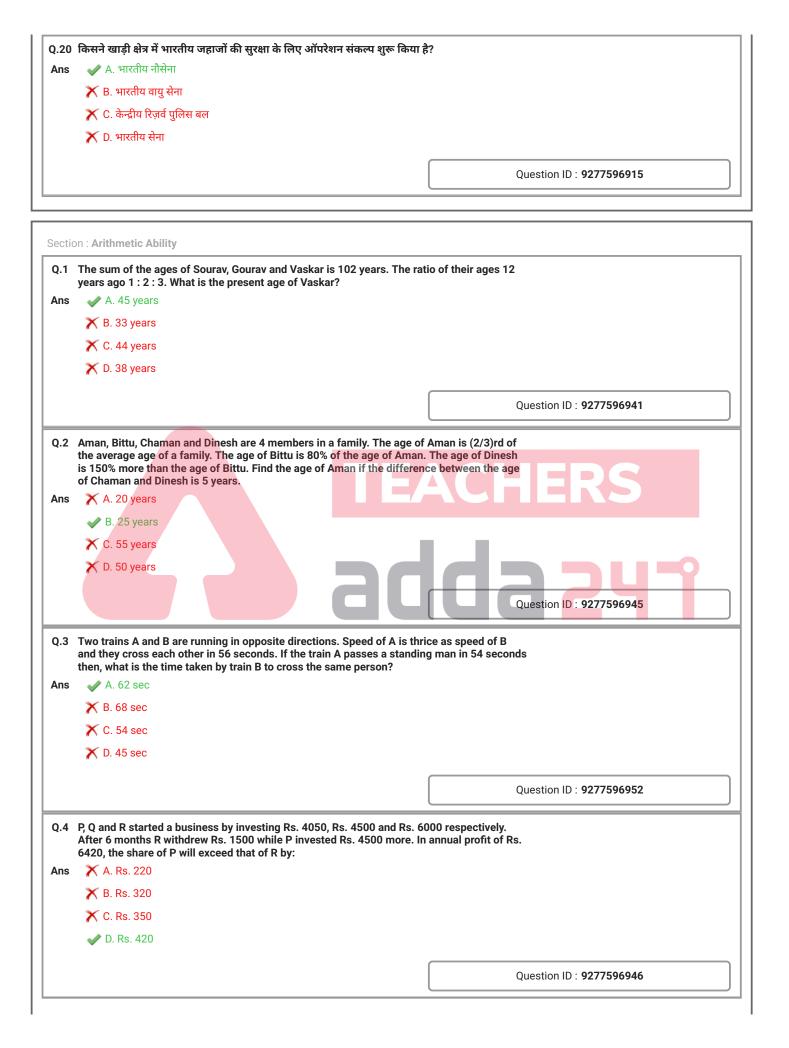


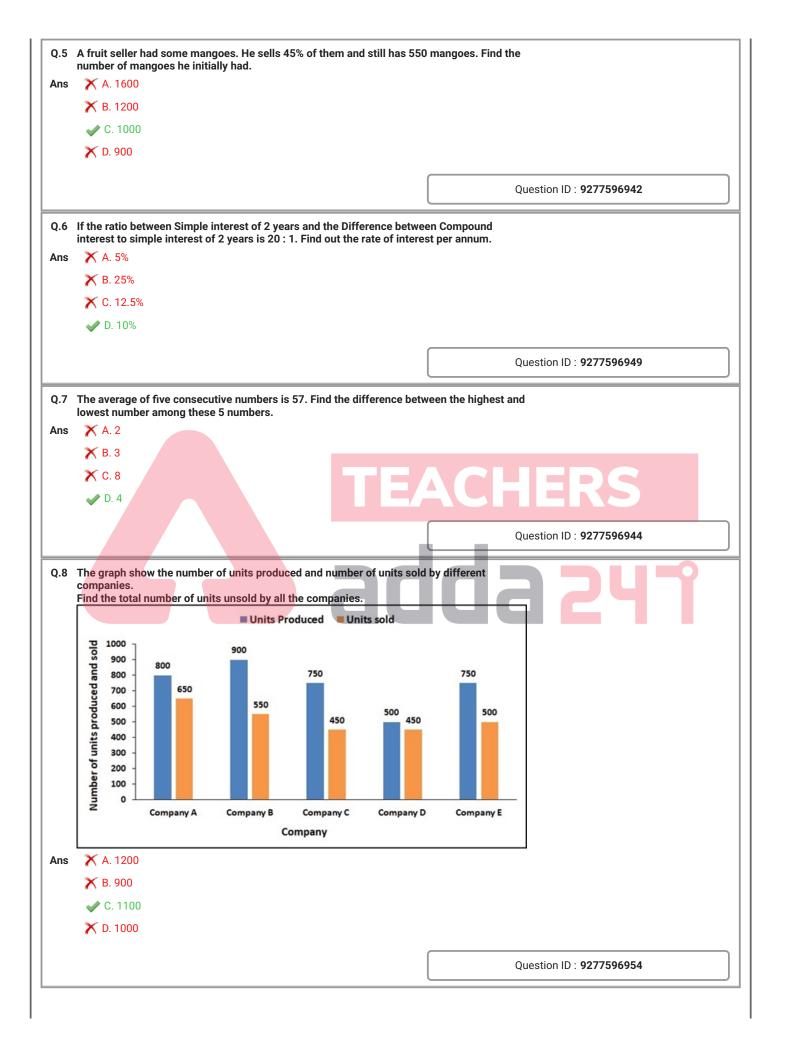
Q.20 In the following Venn Diagram, 'Group A' represents those who study 'Arts', 'Group B' represents those who study 'Commerce' and 'Group C' represents those 'Science'. The number given in the diagram represents the member of persons of that particular category. How many persons study only Arts or only Commerce? 3 11 Ans X A. 21 X B. 7 ✓ C. 14 X D. 11 Question ID: 9277596913 Section: General Awareness Q.1 When did Gandhiji start the 'Quit India Movement'? X A. July 1942 X B. August 1949 X C. August 1945 D. August 1942 Question ID: 9277596918 Q.2 ओजोन परत वायुमंडल के निम्नलिखित में से किस क्षेत्र में मौजूद है? Ans 🟋 A. मध्यमण्डल X C. बाह्यमण्डल \chi D. तापमण्डल Question ID: 9277596925 Q.3 Where is the headquarter of WEF (World Economic Forum)? X A. Manila Ans B. Geneva X C. New York X D. Washington DC Question ID: 9277596932

Q.4 If 'B' is the radial outward velocity of galaxy, 'D' is the distance of galaxy from Earth, and 'H' is the Hubble constant. Then, B = ?				
Ans XA.H+D				
<b>X</b> B. H ÷ D				
<b>X</b> C. H − D				
✓ D. H × D				
	Out at the ID - 0077750000			
	Question ID : 9277596929			
Q.5 If Red Litmus changes to Blue, then what is the nature of the substances?				
Ans X A. Neutral				
X B. hydrophobic				
✓ C. Basic				
X D. Acidic				
	Out at the ID - 0077750000			
	Question ID : 9277596928			
Q.6 In which among the following cities, headquarters of 'International Union for Conservation of Nature and Natural Resources' is located?				
Ans X A. Washington DC				
X B. Vienna				
✓ C. Gland	ACLIEDO			
X D. London	ACHERS E			
	Out after ID - 007750000			
	Question ID : 9277596926			
Q.7 Who is the author of 'A Dangerous Place'?				
Ans A. D.P.Moynihan				
✗ B. Leo Tolstoy				
C. Lewis Carrol				
X D. Mark Twain				
	Question ID : 9277596933			
	Question ib . 9277390933			
Q.8 निम्नलिखित में से कौन नीति आयोग के उद्देश्यों में से एक है?				
Ans X A. अच्छे अंतरराष्ट्रीय संबंधों की परिकल्पना को साझा करना				
🗙 B. चुनाव आयोग से संबंधित परिकल्पना को साझा करना	🔀 B. चुनाव आयोग से संबंधित परिकल्पना को साझा करना			
🗙 C. केंद्रीय उन्मुख विकास की परिकल्पना को साझा करना				
✔ D. राज्य के साथ राष्ट्रीय विकास की परिकल्पना को साझा करना				
	Out at the ID - 00777704040			
	Question ID : 9277596919			

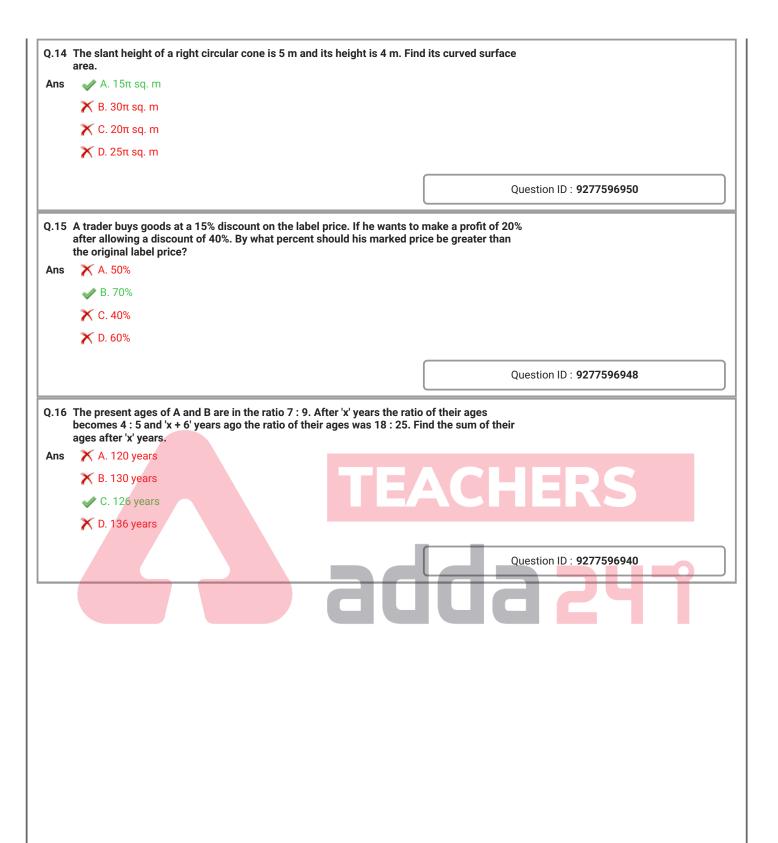




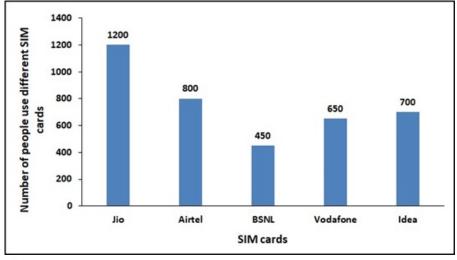




	The cost price of a packet milk is Rs. 30 per litre but a trader is labelling it as Rs. 40 per litre. Also he mixes 50% water and gives a 30% discount. Find the Profit Percentage of trader.				
Ans	<b>★</b> A. 25%				
	<b>★</b> B. 45%				
	<b>★</b> C. 50%				
	✓ D. 40%				
	Question ID : 9277596947				
Q.10	Q.10 What approximate value will come in the place of question mark(?) in the following question?				
	497.01 + 12.97 - 55.03 = ? % of 500				
Ans	<b>★</b> A. 34				
	<b>✓</b> B. 91				
	<b>X</b> C. 81				
	<b>X</b> D. 19				
	Outpotion ID : 0277506026				
	Question ID : <b>9277596936</b>				
Q.11	Q.11 Six bells commence tolling together and toll at intervals of 3, 4, 5, 6, 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together?				
Ans	ns 🗸 A. 31				
	X B. 15				
	<b>★</b> C. 16				
	<b>★</b> D. 30				
	Question ID: 9277596938				
Q.12 What will come in the place of question mark(?) in the following question?					
	54% of 700 + 25% of 616 = 39% of 1300 +?				
Ans	<b>X</b> A. 65				
	<b>X</b> B. 35				
	<b>✓</b> C. 25				
	<b>X</b> D. 15				
	Question ID : 9277596935				
Q.13	Q.13 The population of a town increased from 75,000 to 1,00,00 in a decade. The percent increase of population in a decade is:				
Ans					
	<b>★</b> B. 20%				
	<b>★</b> C. 25%				
	✓ D. 33.33%				
	Question ID : 9277596943				



Q.17 The bar graph represents the number of people in a district who use different SIM cards. If ratio of Male and female in Jio SIM and Vodafone SIM is 5:3 and 6:7 respectively, then find the number of females who use Jio SIM is what percent more/less than the number of males who use Vodafone SIM.



Ans

- X A. 45%
- X B. 55%
- ✓ C. 50%
- X D. 40%

Question ID: 9277596953

Q.18 What will come in the place of question mark(?) in the following question?

$$(3/7) \div (4/3) \times (7/9) \times 9 \div 3 = ?$$

Ans

- X A. 0.5
- **B**. 0.75
- X C. 1.25
- X D. 1

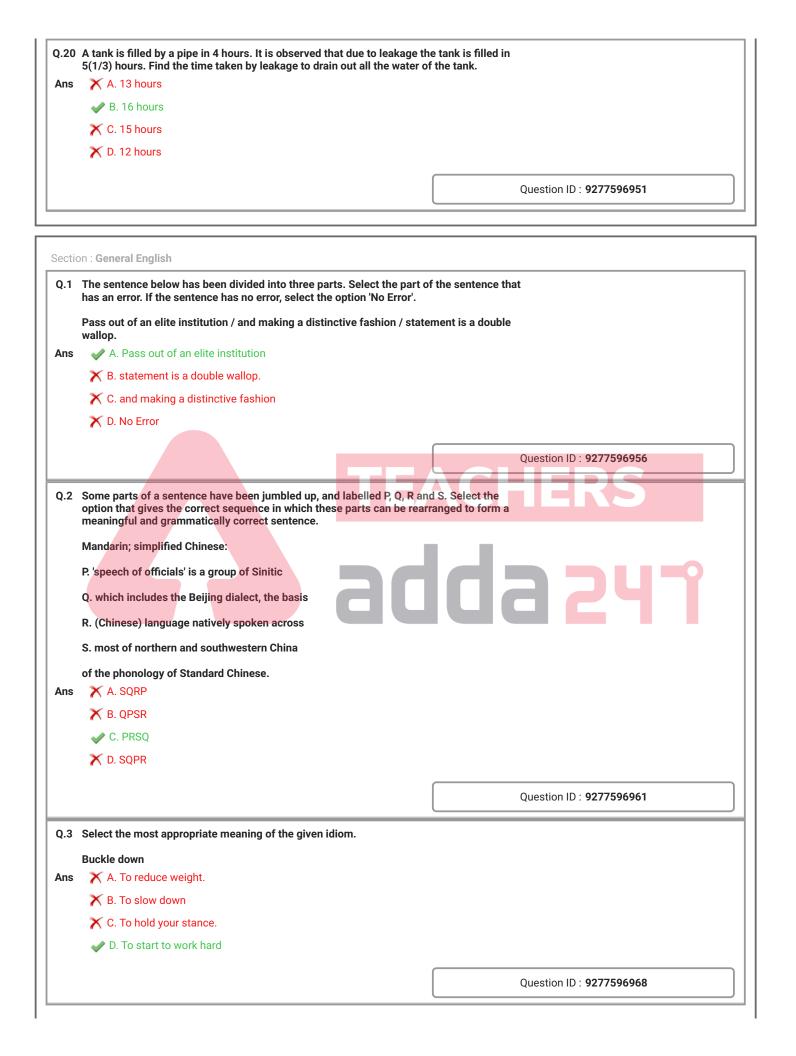
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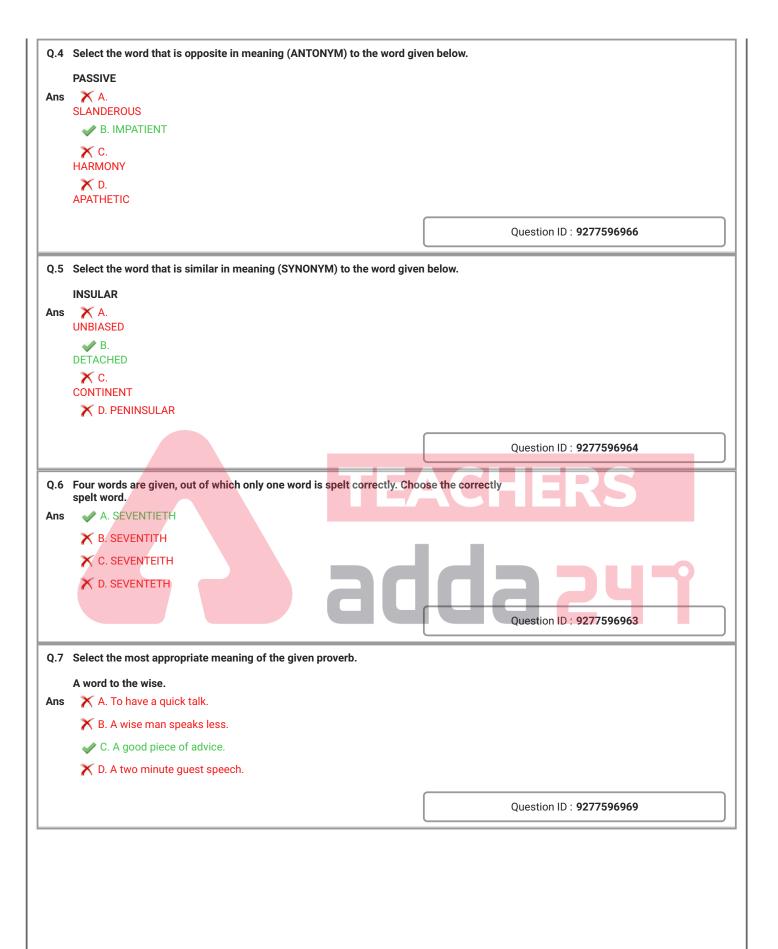
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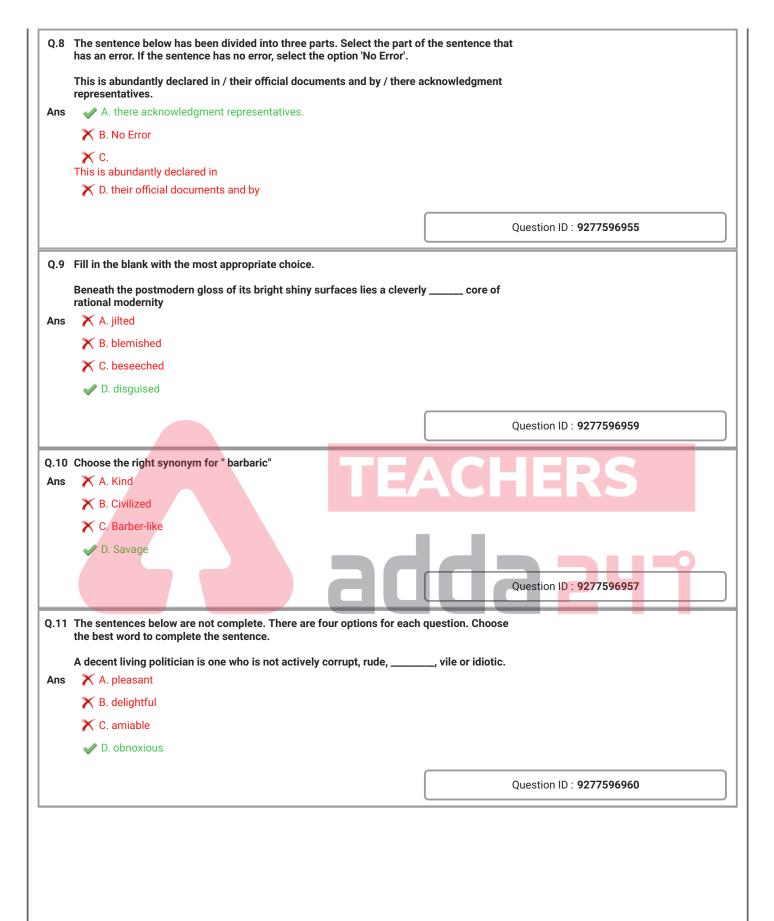
Q.19 Let N be the greatest number that will divide 1205, 4265 and 6705, leaving the same remainder in each case. Then sum of the digits in N is:

Ans

- X A. 4
- ✓ B. 2
- X C. 3
- X D. 1







Q.12 The question below consist of a set of labelled sentences. Out of four options given, select the most logical order of the sentences which form a paragraph.

The UN was established after World War II with the aim of preventing future wars, succeeding the ineffective League of Nations.

- P. The Charter was adopted on 25 June 1945 and took effect on 24 October 1945, when the UN began operations.
- Q. On 25 April 1945, 50 governments met in San Francisco for a conference and started drafting the UN Charter.
- R. It also ensures delivering humanitarian aid, promoting sustainable development, and upholding international law.
- S. Pursuant to the Charter, the organization's objectives include maintaining international peace and security, protecting human rights.

At its founding, the UN had 51 member states; with the addition of South Sudan in 2011, membership is now 193, representing almost all of the world's sovereign states.

Ans

X A. SQRP

✓ B. QPSR

X C. SRQP

X D. PQRS

Question ID: 9277596962

Q.13 Select the most appropriate meaning for the word given below.

Cache

Ans

X A. A large bedroom for a number of people in a school or institution.

B. A collection of items of the same type stored in a hidden or inaccessible place.

X C. A Large container.

D. A large burial ground, especially one not in a churchyard.

Question ID: 9277596967

Q.14 Select the word that is similar in meaning (SYNONYM) to the word given below.

**SALACIOUS** 

Ans

**X** A.

CLEAN

X B. MORAL

**X** C.

CONSPIRACY

✓ D. OBSCENE

Q.15 Select the word segment that substitutes (replaces) the bracketed word segment correctly and completes the sentence meaningfully. Select the option 'no correction required' if the sentence is correct as given.

The goalie (returned), with head bowed in contrition, as the ref showed him the yellow card.

Ans «

A. retreated

X B. No correction required

X C. went back

D. retrenched

Question ID: 9277596958

#### Comprehension:

A passage is given with 5 questions following it. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Karl Otto Lagerfeld was a German creative director, fashion designer, artist, photographer, and caricaturist who lived in Paris. He was known as the creative director of the French fashion house Chanel, a position held from 1983 until his death, and was also creative director of the Italian fur and leather goods fashion house Fendi, and of his own eponymous fashion label. He collaborated on a variety of fashion and art-related projects. Lagerfeld was recognized for his signature white hair, black sunglasses, fingerless gloves, and high, starched, detachable collars. Lagerfeld was known to misrepresent his birth year, claiming to be younger than his actual age, and to misrepresent his parents' background. For example, he claimed that he was born in 1938 to "Elisabeth of Germany" and Otto Ludwig Lagerfeldt from Sweden. These claims have been conclusively proven to be false, as his father was from Hamburg and spent his entire life in Germany, with no Swedish connection. There is also no evidence that his mother Elisabeth Bahlmann, the daughter of a middle-class local politician, called herself "Elisabeth of Germany". He was known to insist that no one knows his real birth date. In an interview on French television in February 2009, Lagerfeld said that he was "born neither in 1933 nor 1938".

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SubQuestion No: 16

Q.16 Two assertions are given below (A & B) on the basis of your understanding of the passage, which one of the assertions is correct?

A. His claims of being born in 1938 to Elisabeth of Germany and Otto Ludwig Lagerfeldt from Sweden are false.



B. Karl Lagerfeld was known as the creative director of the French fashion house Fendi, a position he held from 1983 until his death.

Ans

X A. Both are incorrect.

X B. Both are correct.

C. A is correct and B is incorrect

X D. A is incorrect and B is correct

#### Comprehension:

A passage is given with 5 questions following it. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Karl Otto Lagerfeld was a German creative director, fashion designer, artist, photographer, and caricaturist who lived in Paris. He was known as the creative director of the French fashion house Chanel, a position held from 1983 until his death, and was also creative director of the Italian fur and leather goods fashion house Fendi, and of his own eponymous fashion label. He collaborated on a variety of fashion and art-related projects. Lagerfeld was recognized for his signature white hair, black sunglasses, fingerless gloves, and high, starched, detachable collars. Lagerfeld was known to misrepresent his birth year, claiming to be younger than his actual age, and to misrepresent his parents' background. For example, he claimed that he was born in 1938 to "Elisabeth of Germany" and Otto Ludwig Lagerfeldt from Sweden. These claims have been conclusively proven to be false, as his father was from Hamburg and spent his entire life in Germany, with no Swedish connection. There is also no evidence that his mother Elisabeth Bahlmann, the daughter of a middle-class local politician, called herself "Elisabeth of Germany". He was known to insist that no one knows his real birth date. In an interview on French television in February 2009, Lagerfeld said that he was "born neither in 1933 nor 1938".

#### SubQuestion No: 17

Q.17 What is the meaning of 'eponymous' from the given passage?

**Ans** X A. Something that works on its own.

B. One for whom or which something is or is believed to be named.

X C. Collaborate with another company

X D. Something that causes confusion.

Question ID: 9277596975

#### Comprehension:

A passage is given with 5 questions following it. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Karl Otto Lagerfeld was a German creative director, fashion designer, artist, photographer, and caricaturist who lived in Paris. He was known as the creative director of the French fashion house Chanel, a position held from 1983 until his death, and was also creative director of the Italian fur and leather goods fashion house Fendi, and of his own eponymous fashion label. He collaborated on a variety of fashion and art-related projects. Lagerfeld was recognized for his signature white hair, black sunglasses, fingerless gloves, and high, starched, detachable collars. Lagerfeld was known to misrepresent his birth year, claiming to be younger than his actual age, and to misrepresent his parents' background. For example, he claimed that he was born in 1938 to "Elisabeth of Germany" and Otto Ludwig Lagerfeldt from Sweden. These claims have been conclusively proven to be false, as his father was from Hamburg and spent his entire life in Germany, with no Swedish connection. There is also no evidence that his mother Elisabeth Bahlmann, the daughter of a middle-class local politician, called herself "Elisabeth of Germany". He was known to insist that no one knows his real birth date. In an interview on French television in February 2009, Lagerfeld said that he was "born neither in 1933 nor 1938".

SubQuestion No: 18

Q.18 What is the meaning of 'Caricaturist' from the given passage?

**Ans** X A. Someone who exaggerates.

X B. A person who studies different cultures.

C. The art of creating representations.

X D. A person who cultures fabrics.

#### Comprehension:

A passage is given with 5 questions following it. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Karl Otto Lagerfeld was a German creative director, fashion designer, artist, photographer, and caricaturist who lived in Paris. He was known as the creative director of the French fashion house Chanel, a position held from 1983 until his death, and was also creative director of the Italian fur and leather goods fashion house Fendi, and of his own eponymous fashion label. He collaborated on a variety of fashion and art-related projects. Lagerfeld was recognized for his signature white hair, black sunglasses, fingerless gloves, and high, starched, detachable collars. Lagerfeld was known to misrepresent his birth year, claiming to be younger than his actual age, and to misrepresent his parents' background. For example, he claimed that he was born in 1938 to "Elisabeth of Germany" and Otto Ludwig Lagerfeldt from Sweden. These claims have been conclusively proven to be false, as his father was from Hamburg and spent his entire life in Germany, with no Swedish connection. There is also no evidence that his mother Elisabeth Bahlmann, the daughter of a middle-class local politician, called herself "Elisabeth of Germany". He was known to insist that no one knows his real birth date. In an interview on French television in February 2009, Lagerfeld said that he was "born neither in 1933 nor 1938".

SubQuestion No: 19

Q.19 Karl Lagerfeld was not recognized for which of the following?

Ans

A. Gold chains

X B. Fingerless gloves

X C. Signature white hair

X D. Detachable collars

Question ID: 9277596974

#### Comprehension:

A passage is given with 5 questions following it. Read the passage carefully and choose the best answer to each question out of the four alternatives.

Karl Otto Lagerfeld was a German creative director, fashion designer, artist, photographer, and caricaturist who lived in Paris. He was known as the creative director of the French fashion house Chanel, a position held from 1983 until his death, and was also creative director of the Italian fur and leather goods fashion house Fendi, and of his own eponymous fashion label. He collaborated on a variety of fashion and art-related projects. Lagerfeld was recognized for his signature white hair, black sunglasses, fingerless gloves, and high, starched, detachable collars. Lagerfeld was known to misrepresent his birth year, claiming to be younger than his actual age, and to misrepresent his parents' background. For example, he claimed that he was born in 1938 to "Elisabeth of Germany" and Otto Ludwig Lagerfeldt from Sweden. These claims have been conclusively proven to be false, as his father was from Hamburg and spent his entire life in Germany, with no Swedish connection. There is also no evidence that his mother Elisabeth Bahlmann, the daughter of a middle-class local politician, called herself "Elisabeth of Germany". He was known to insist that no one knows his real birth date. In an interview on French television in February 2009, Lagerfeld said that he was "born neither in 1933 nor 1938".

SubQuestion No : 20

- Q.20 Two assertions are given below (A & B) on the basis of your understanding of the passage, which one of the assertions is correct?
  - A. Karl Otto Lagerfeld was a German creative director, fashion designer, artist, photographer, and caricaturist who was born in London.
  - B. He was known to insist that no one knows his real birth date.

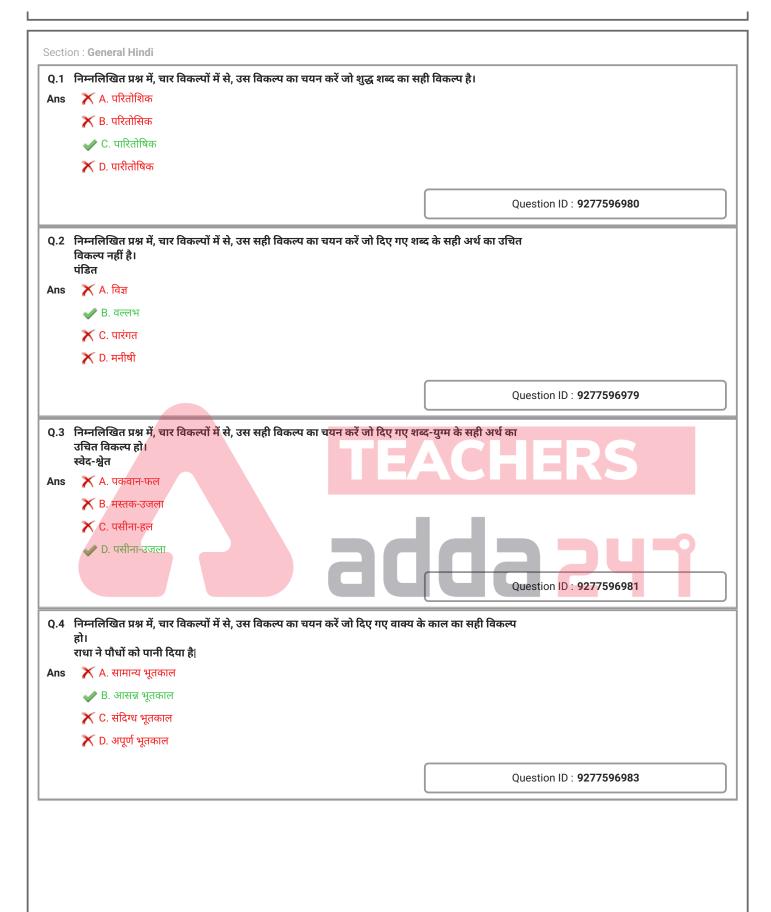
Ans

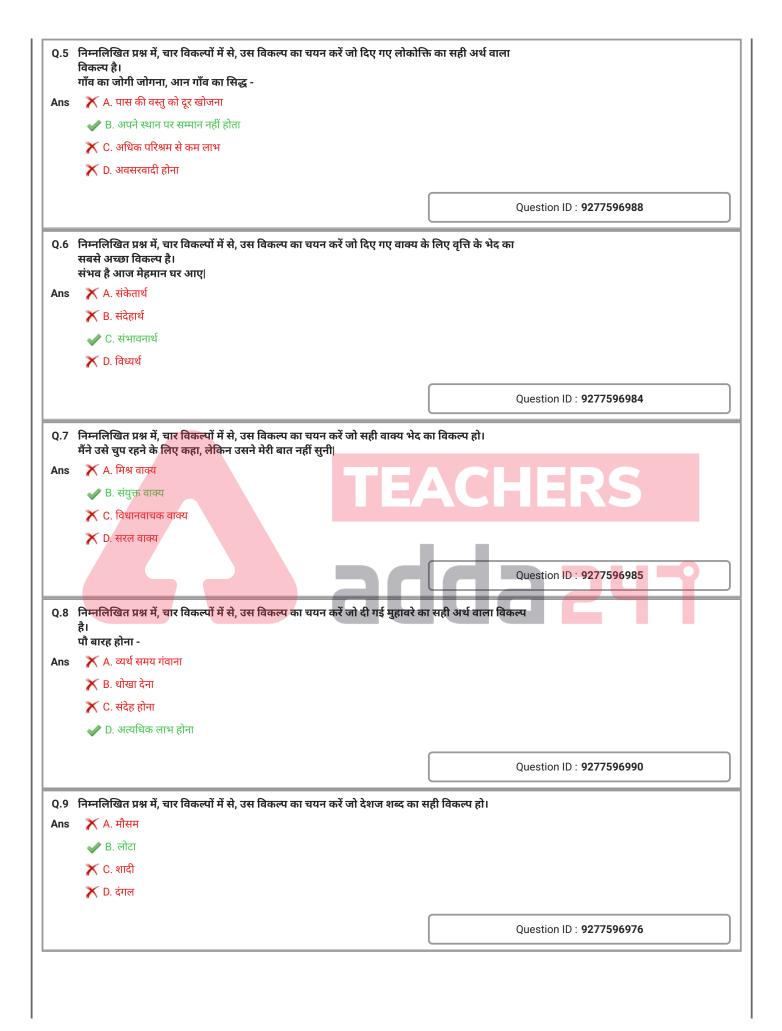
A. A is incorrect and B is correct

X B. A is correct and B is incorrect

C. Both are incorrect.

X D. Both are correct.





Q.10	Q.10   निम्नलिखित प्रश्न में, चार विकल्पों में से, उस विकल्प का चयन करें जो दी गई मुहावरे का सही अर्थ वाला विकल्प				
	है। लोहा लेना -				
Ans					
	🗙 B. लज्जित होना				
	🗙 C. हरा देना				
	✔ D. युद्ध करना				
	• 355				
	Question ID: 9277	7596989			
0.11	Q.11   निम्नलिखित प्रश्न में, चार विकल्पों में से, उस विकल्प का चयन करें जो कोष्ठक में दिए गए शब्द के अनुसार				
	विशेषण के भेद वाला विकल्प हो। मेरे लिए (थोडा सा) खाना लेकर आओ।				
Ans	Ans 🧼 A. परिमाणवाचक				
	🔀 B. सार्वनामिक				
	🗙 C. अनिश्चित संख्यावाचक				
	🗙 D. निश्चित संख्यावाचक				
	Question ID : 9277	7596977			
Q.12	Q.12 निम्नलिखित प्रश्न में, च <mark>ार विकल्पों</mark> में से, उस विकल्प का चयन करें जो विराम चिह्न युक्त वाक्य का सही विकल्प हो।				
Ans	Ano. X A are than 3; and are for 3; some finally				
	Alls A. कल रविवार है छुट्टी का दिन है आराम मिलेगा।	S			
	✔ C. कल रविवार है; छुट्टी का दिन है; आराम मिलेगा				
	X D. कल रविवार है-छुट्टी का दिन है-आराम मिलेगा।				
	Question ID: 9277	7596987			
Q.13 नि <mark>म्नलिखित प्रश्न में, चा</mark> र विकल्प <mark>ों में से, उस विकल्प</mark> का चयन करें जो दिए गए वाक्य के लिए पक्ष के भेद का सबसे अच्छा विकल्प है। अब तक हम काफी खाना बना चुके हैं!					
Ans					
	🔀 B. सातप्यद्योतक				
	✓ C. पूर्णताद्योतक				
	🔀 D. नित्यताद्योतक				
	Question ID : 9277	7596986			
Q.14	Q.14  निम्नलिखित प्रश्न में, चार विकल्पों में से, उस सही विकल्प का चयन करें जो रिक्त स्थान के लिए उपयुक्त शब्द का				
	सही विकल्प है । हताशा, निराशा और असफलता जैसे शब्द हमारे जीवन के शब्दकोष में होने चाहिए				
Ans					
	🗙 B. शुद्ध				
	<b>४</b> C. सदा				
	✔ D. नहीं				
	Question ID : 9277	7596982			

# Q.15 निम्नलिखित प्रश्न में, चार विकल्पों में से, उस विकल्प का चयन करें जो भाववाचक संज्ञा का सही विकल्प नहीं है।

Ans

🟋 A. सुखदायी

🟋 B. दूरी

🥓 C. सुखद

X D. धिक्कार

Question ID: 9277596978

#### Comprehension:

नीचे दिए गये गद्यांश के बाद 5 प्रश्न दिए गये हैं। इस गद्यांश को ध्यानपूर्वक पढ़ें और चार विकल्पों में से प्रत्येक प्रश्न का सर्वोत्तम उत्तर चुनें।

सत्संग से लौकिक और पारलौकिक दोनों प्रकार के सुख प्राप्त होते हैं। यदि कोई मनुष्य इस जीवन में दुखी रहता है तो कम से कम कुछ समय के लिए श्रेष्ठ पुरुषों की संगति में वह अपने सांसारिक दुखों का विस्मरण कर देता है। महापुरुषों के उपदेश सदैव सुख शांति प्रदान करते हैं। दुख के समय मनुष्य जिनका स्मरण करके धीरज प्राप्त करता है। सत्संग में लीन रहने वाले मनुष्य को दुखों का भय नहीं रहता है। वह अपने दिल को समझता है, जिससे दुखों का कोई कारण ही शेष नहीं रह जाता। सत्संग के प्रभाव से धैर्य का लाभ होता है जिससे मन में क्षमा की शक्ति स्वयं ही आ जाती है। क्षमा सभी प्रकार के दुर्गुणों का विनाश कर देती है और मन को शांति व संतोष प्रदान करती है।

SubQuestion No: 16

#### Q.16 इनमें से कौन-सा परमार्थ का विलोम शब्द है?

Ans

📉 🗙 A. निर्वाण

🥒 B. स्वार्थ

🗶 C. मोक्ष

X D. भलाई

Question ID : 9277596995

#### Comprehension:

नीचे <mark>दिए गये गद्यांश</mark> के बाद 5 प्रश्न दिए ग<mark>ये हैं। इस गद्यां</mark>श को ध्यानपूर्वक पढ़ें और चार विकल्पों में से प्रत्येक प्रश्न का सर्<del>वोत्तम उत्तर चुनें।</del>

सत्संग से लौकिक और पारलौकिक दोनों प्रकार के सुख प्राप्त होते हैं। यदि कोई मनुष्य इस जीवन में दुखी रहता है तो कम से कम कुछ समय के लिए श्रेष्ठ पुरुषों की संगति में वह अपने सांसारिक दुखों का विस्मरण कर देता है। महापुरुषों के उपदेश सदैव सुख शांति प्रदान करते हैं। दुख के समय मनुष्य जिनका स्मरण करके धीरज प्राप्त करता है। सत्संग में लीन रहने वाले मनुष्य को दुखों का भय नहीं रहता है। वह अपने दिल को समझता है, जिससे दुखों का कोई कारण ही शेष नहीं रह जाता। सत्संग के प्रभाव से धैर्य का लाभ होता है जिससे मन में क्षमा की शक्ति स्वयं ही आ जाती है। क्षमा सभी प्रकार के दुर्गुणों का विनाश कर देती है और मन को शांति व संतोष प्रदान करती है।



SubQuestion No: 17

# Q.17 परोपकार के अंतर्गत व्यक्ति दूसरों की सहायता कर किसकी प्राप्ति करता है?

Ans

🗙 A. बलिदान की

🗙 B. दिखावे की

\chi C. बाहरी ज्ञान की

#### Comprehension:

नीचे दिए गये गद्यांश के बाद 5 प्रश्न दिए गये हैं। इस गद्यांश को ध्यानपूर्वक पढें और चार विकल्पों में से प्रत्येक प्रश्न का सर्वोत्तम उत्तर चुनें।

सत्संग से लौकिक और पारलौकिक दोनों प्रकार के सुख प्राप्त होते हैं। यदि कोई मनुष्य इस जीवन में दुखी रहता है तो कम से कम कुछ समय के लिए श्रेष्ठ पुरुषों की संगति में वह अपने सांसारिक दुखों का विस्मरण कर देता है। महापुरुषों के उपदेश सदैव सुख शांति प्रदान करते हैं। दुख के समय मनुष्य जिनका स्मरण करके धीरज प्राप्त करता है। सत्संग में लीन रहने वाले मनुष्य को दुखों का भय नहीं रहता है। वह अपने दिल को समझता है, जिससे दुखों का कोई कारण ही शेष नहीं रह जाता। सत्संग के प्रभाव से धैर्य का लाभ होता है जिससे मन में क्षमा की शक्ति स्वयं ही आ जाती है। क्षमा सभी प्रकार के दुर्गृणों का विनाश कर देती है और मन को शांति व संतोष प्रदान करती है।

SubQuestion No: 18

# Q.18 इस अनुच्छेद का कोई उपयुक्त शीर्षक-

Ans 🗙 A. स्वार्थ और परमार्थ

\chi B. परोपकार के अनेक रूप

С. परोपकार ही सच्ची मानवता है

\chi D. योग्य जीव मनुष्य

Question ID: 9277596996

#### Comprehension:

नीचे दिए गये गद्यांश के बाद 5 प्रश्न दिए गये हैं। इस गद्यांश को ध्यानपूर्वक पढ़ें और चार विकल्पों में से प्रत्येक प्रश्न का

सत्संग से लौकिक और पारलौकिक दोनों प्रकार के सुख प्राप्त होते हैं। यदि कोई मनुष्य इस जीवन में दुखी रहता है तो कम से कम कुछ समय के लि<mark>ए श्रेष्ठ पुरुषों</mark> की संगति में वह अपने सांसारिक दुखों का विस्मरण कर देता है। महापुरुषों के उपदेश सदैव सुख शांति प्रदान करते हैं। दुख के समय मनुष्य जिनका स्मरण करके धीरज प्राप्त करता है। सत्संग में लीन रहने वाले मनुष्य को दुखों का भय नहीं रहता है। वह अपने दिल को समझता है, जिससे दुखों का कोई कारण ही शेष नहीं रह जाता। सत्संग के प्रभाव से धैर्य का लाभ होता है जिससे मन में क्षमा की शक्ति स्वयं ही आ जाती है। क्षमा सभी प्रकार के दुर्गुणों का विनाश कर देती है और मन को शांति व संतोष प्रदान करती है।

SubQuestion No: 19

# Q.19 परोपकार रूपी गुण किसको किससे अलग करता है?

Ans

🗙 A. जीव को मानव से

🗶 B. मानव को ईश्वर से

🧪 C. मानव को पशु से

🗙 D. मानव को मनुष्य से

Question ID: 9277596993

# Comprehension:

नीचे दिए गये गद्यांश के बाद 5 प्रश्न दिए गये हैं। इस गद्यांश को ध्यानपूर्वक पढें और चार विकल्पों में से प्रत्येक प्रश्न का सर्वोत्तम उत्तर चुनें।

सत्संग से लौकिक और पारलौकिक दोनों प्रकार के सुख प्राप्त होते हैं। यदि कोई मनुष्य इस जीवन में दुखी रहता है तो कम से कम कुछ समय के लिए श्रेष्ठ पुरुषों की संगति में वह अपने सांसारिक दुखों का विस्मरण कर देता है। महापुरुषों के उपदेश सदैव सुख शांति प्रदान करते हैं। दुख के समय मनुष्य जिनका स्मरण करके धीरज प्राप्त करता है। सत्संग में लीन रहने वाले मनुष्य को दुखों का भय नहीं रहता है। वह अपने दिल को समझता है, जिससे दुखों का कोई कारण ही शेष नहीं रह जाता। सत्संग के प्रभाव से धैर्य का लाभ होता है जिससे मन में क्षमा की शक्ति स्वयं ही आ जाती है। क्षमा सभी प्रकार के दुर्गुणों का विनाश कर देती है और मन को शांति व संतोष प्रदान करती है।

SubQuestion No: 20

# Q.20 अनुच्छेद के अनुसार सच्ची मानवता क्या है?

\chi B. ईश्वर के लिए सब न्योछावर कर देना

X C. अपने लिए सब न्योछावर कर देना

🗙 D. पशुओं के लिए सब न्योछावर कर देना

Section: Discipline1

Q.1 What condition holds for perpendicularity of 2 vectors?

Ans

- X A. the vectors are equal
- X B. one of the two vectors is zero
- C. their dot product is zero
- X D. their cross product is zero

Question ID: 9277597004

Q.2 The graph of a quadratic equation y=ax²+bx+c is a parabola, when it will be upwards and downwards curve?

Ans

- X B. it will be open upwards if a<0 and downwards if a>0
- × c. it will never be open upwards
- X D. it will never be open downwards

Question ID: 9277597005

Q.3 When the fluid (F) is incompressible then which of following condition holds?

Ans

- X A. F=0
- ✓ B. div(F)=0
- ★ c. div(F) is non zero
- X D. scalar product vanishes



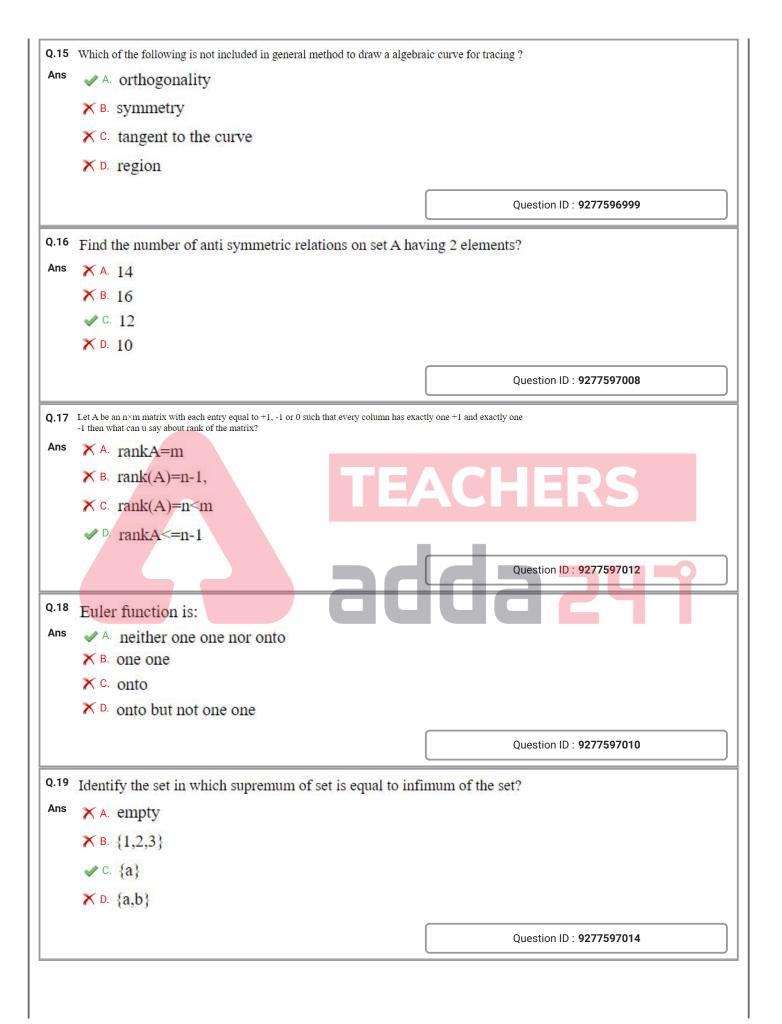
Question ID: 9277597002

Q.4 If f be a function defined in [a, b] and is twice differentiable, then it is said to be concave upwards if:

Ans

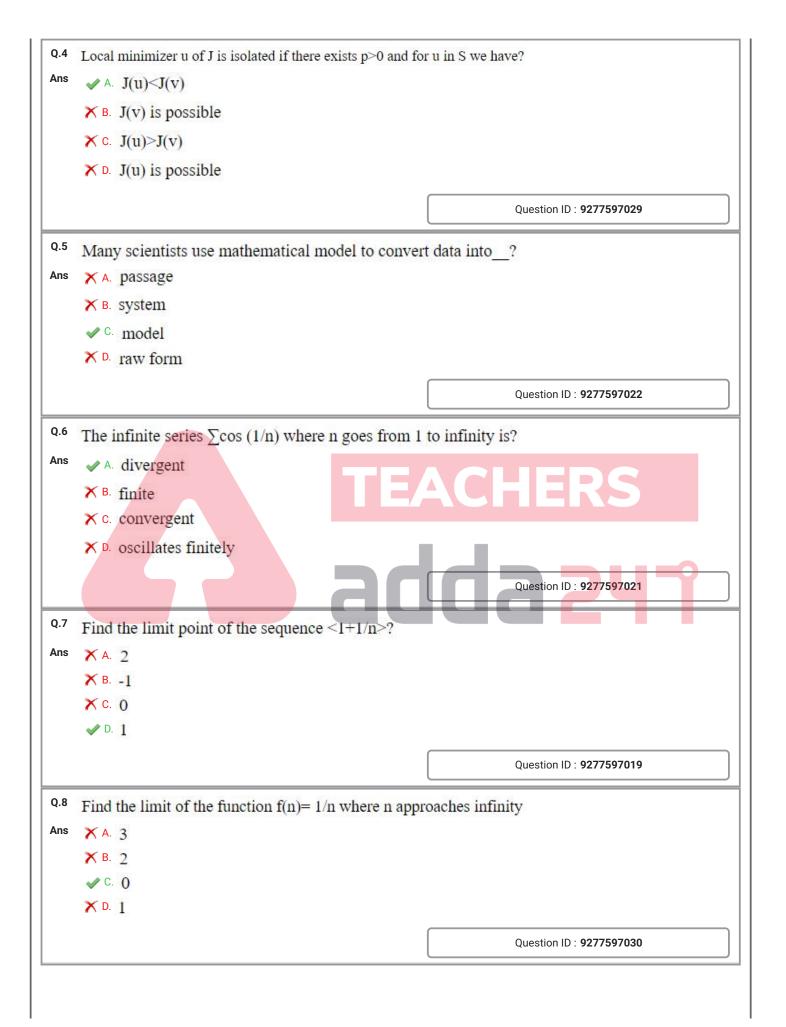
- $\times$  A. f'(x) < 0 for all x
- $\times$  c. f(x)>0 for all x
- $\times$  D. f'(x) < 0 for all x

Q.5 The surface area of a sphere of radius a is Ans XA. 0 × B. 4πa √ C. 4πa<sup>2</sup> × D. -4πa<sup>2</sup> Question ID: 9277597001 The inverse of 3 modulo 7 is ? Ans X A. -4 **X** B. −1 √ C. -2 **X** D. −3 Question ID: 9277597009 If A = 2i+j+k B=4i+j-k find A.B? Ans X A. 10 X B. 11 X C. 9 ✓ D. 8 Question ID: 9277597003 Q.8 The points a,b,c,d, taken in that order, in the complex plane are the vertices of a parallelogram if \_\_? Ans  $\times$  A. a+b=c+d X B. a-b=b-c √ C. a+c=b+d X D. a+b=b+c Question ID: 9277597006 Which of the following is correct for the function  $f(x) = x^3 - 3x^2 - 9x - 1$ ? Ans X A. it has local maximum at 3 but has no local minimum ✓ B. it has local maximum at -1 and local minimum at 3 × c. it has local maximum at 3 and local minimum at -2 X D. it neither has local maximum not local minimum Question ID: 9277596998 Q.10 A real number sequence < f\_n> is said to be oscillating finitely if? Ans ✓ A. it is not divergent ➤ B. it is not convergent X c. it is not bounded; it is not convergent; it is not divergent X D. it is not bounded Ouestion ID: 9277597015 Q.11 Which theorem states that "Every bounded sequence has at least a limit point"? Ans ✓ A. Bolzano weierstrass theorem X B. Representation theorem X C. Sandwich theorem X D. Initial value problem Question ID: 9277597016 Q.12 If |A| = 4, find the number of partitions of A? Ans X A. 10 X B. 25 ✓ C. 15 X D. 20 Question ID: 9277597007 Q.13 To reduce the matrix to row echleon form the leading entry of each row must be? Ans X A. 2 X B. 0 X C. -1 ✓ D. 1 Question ID: 9277597013 Q.14 When is a curve said to be symmetric about the pole or origin? Ans X A if curve changes when r is replaced by 2r X B. if curve changes when r is replaced by -r X D. if curve doesn't change when r is replaced by 2r Question ID: 9277597000



Ans  $\checkmark$  A. gcd(a,m)=1**X** B. gcd(a,m) is any non zero number  $\times$  c. gcd(a,m)=m $\times$  D. gcd(a,m) is any prime number Question ID: 9277597011 Section: Discipline2 Find the limit of function f(x,y)=x+2y as(x,y)-->(1,2)? Ans X A. 3 X B. 2 X C. 4 √ D. 5 Question ID: 9277597036 **Q.2** For what value of k does the function f(x,y)=3xy; where (x,y) is not equal to (2,3) and k whenever (x,y)=(2,3)? Ans ✓ A. 18 X B. 8 X C. 12 X D. 6 Question ID: 9277597034 Q.3 Logistic growth equation is given by? Ans ✓ A. rN((K-N)/K) X B. rN/K ★ c. rN(K-N)  $\times$  D. rN/(k(k-N))Question ID: 9277597024

Q.20 The congruence relation ax=b(mod m) has a unique solution if?



Q.9 Let  $A=\{z\in C: |z|>1\}$  B =  $\{z\in C: z \text{ is not equal to } 0\}$  then which is the false statement? Ans X A. there is a continuous onto function f:A-->B ➤ B. there is a non constant Analytic function f:A-->B ✓ c. there is a non constant Analytic function from f:B-->A X D. there is a continuous function one to one function f:B-->A Question ID: 9277597033 Q.10 Which rule is used to calculate limits when the function reaches to indeterminate forms? X A. C and D rule Ans X B. Leibnitz rule ✓ C. L' Hospital's rule X D. Cinco rule Question ID: 9277597031 Q.11 If L be a limit point of the sequence <A> then there exists a subsequence <B> of the sequence <A> which converges to? X A. 2L Ans X B. 3L V C. L X D. 4L Question ID: 9277597032 Q.12 (B(x,y) symmetric group of order n) is a closed subspace of (B(x,y) group of order n) for what value of n? ✓ A. n greater than or equal to 2 X B. for infinite n X c. for n equal to one X D. for n having zero value Question ID: 9277597028 The solution of the initial value problem xy'-y=0 with y(1)=1 is?  $\times$  A. y=2x-1  $\times$  B. y=1/x✓ c. y=x  $\times$  D. y=1/(2x-1) Question ID: 9277597026

Q.14 Change in number of individuals in population over a period of time is called Ans X A. logistic growth X B. exponential growth C. population growth X D. sigmoid growth Ouestion ID: 9277597025 What will we do to make the given differential equation exact? X A. we divide it by its derivatives X B. we do integration on both sides X c. we bipolarate the same ✓ D. we multiply it with integrating factor Question ID: 9277597023 The infinite series -1-3-5-7..... diverges to? X A. infinity ✓ B. negative of infinity X c. zero XD. one Question ID: 9277597020 Pick the true statement Ans X A. series always converges to a finite number X c. every convergent sequence is not bounded X D. No Cauchy sequence is convergent Question ID: 9277597018 Q.18 Function f(x,y) is said to be continuous at (a,b) whenever  $|f(x,y)-f(a,b)| \le if$ ? Ans X A. no such function exists × c. |y-b|≤delta X D. |x-a|<delta Question ID: 9277597035 Q.19 All non trivial solutions of x²y"+xy'+4xy are?

Ans

✓ A. bounded and non periodic

X B. periodic

x c. bounded and periodic

X D. unbounded

Question ID: 9277597027

Q.20 Let A is a subset of R and f:A to R is given by  $f(x)=x^2$ , then f is uniformly continuous if?

Ans

X A. A is dense subset of R

X B. A is open

✓ C. A is bounded subset of R.

X D. A is unbounded

Question ID: 9277597017

Section: Discipline3

The area bounded by the curve  $y=2\sqrt{x}$ , y=-x, x=1 and x=4 is given by?

Ans

X A. 25

✓ B. 101/6

**★** c. (1/2)

X D. (1/56)

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Q.2 Function f:[a,b]-->R, P and Q are partition of [a,b] s.t. P is contained in Q then?

Ans

 $\times$  A. L(f,P)>=U(f,Q)

X B. both never hold

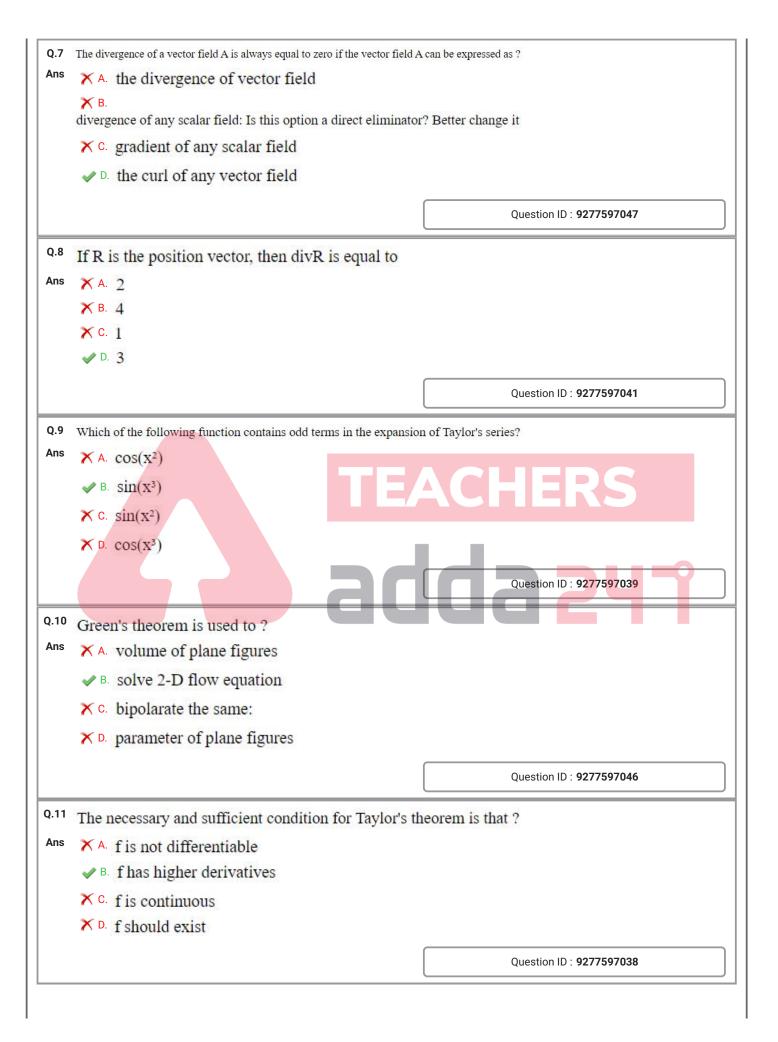
 $\checkmark$  C.  $L(f,P) \le L(f,Q)$ 

X D. one is true other is false

Question ID: 9277597049

Question ID: 9277597044

Q.3 In which case improper integral becomes equal to Riemann integrable? X A. never possible X c. sometimes differentiable X D. occurs somehow Question ID: 9277597050 Find radius of convergence of  $\infty \sum n=0$   $(x-7)^{(n+1)/n}n$ .? Ans X A. 0 X B. 2 X C. 1 ✓ D. infinity Question ID: 9277597055 Q.5 For the function to be Riemann integrable what will be the condition in terms of affecting the power series? Ans X A. upper integral does not exist X B. lower integral is less then upper integral × c. lower integral does not exist ✓ D. lower integral is same as upper integral Question ID: 9277597056 Pick the wrong statement? A discontinuity always occurs at upper limit Ans Discontinuity occurs at both upper and lower limits of the function **X** C. Improper integral of 2nd kind has discontinuity at lower limit **X** D. Improper integral of 2nd kind has discontinuity at upper limit Question ID: 9277597051



Q.12 The line integrals can be converted to surface integral using ----- in multiple connected domain? X A. Riemann equation X B. Baire's Sandwich theorem X C. Sandwich theorem ✓ D. Green's theorem Question ID: 9277597045 Find the value of f(x, y)=8x+5y-7 at (x,y)=(1,2)Ans ✓ A. 11 X B. 14 X C. 13 X D. 12 Question ID: 9277597040 Q.14 A function is said to be Riemann integrable of over [a,b] s.t.any number L lying between L(f,P) and U(f,P) s.t. for €>0 Ans  $\checkmark$  A.  $|U(f,P)-L| < \epsilon$  and  $|L-L(f,P)| < \epsilon$ × B. |U(P,f)-L|>€ X c. contractive  $\times$  D.  $|L-L(f,P)| \ge \epsilon$ Question ID: 9277597048 Q.15 The domain of cos(x) is \_\_\_? Ans X A. [0,1] **X** B. [1,2] ✔ C. [-1,1] X D. [-1,0] Question ID: 9277597037 Q.16 Find the interior of  $\{1,2,3,4,\}$ ? X A. {3} **X** B. {1} c. empty X D. {2} Question ID: 9277597052

Q.17 If p and q are positive numbers and  $p^2+q^2=1$  then maximum value of p+q is? Ans X A. infinity **X** B. √3 ✓ C. √2 X D. 14 Question ID: 9277597042 Q.18 Evaluate the double integral  $x\sin(x+y)dxdy$  over  $R = [0,\pi;0,\pi/2]$ ? Ans  $\times$  A.  $\pi+2$ **×** B. −2π × c. 2π ✓ D. π-2 Question ID: 9277597043 Q.19 The limit points of <1,0,2,1,0,2,1,0,2...>? Is/are: Ans X A. 2 only ✓ B. 1,0,2 X c. 1 only X D. 0 only Question ID: 9277597054 Q.20 The set of limit points of a sequence is: Ans ✓ A. closed set X B. both open and closed X c. neither open nor closed X D. open set Question ID: 9277597053 Section: Discipline4

Q.1 Which property does not hold as a binary operation in groups? Ans X A. Matrix multiplication X B. multiplication X C. addition ✓ D. subtraction Question ID: 9277597067 If f(z) = u + iv is an analytic function in domain D then? Ans ✓ A. u and v form orthogonal family X B. u and v are parallel X c. u and v intersect each other X D. u and v bipolarate each other Question ID: 9277597074 A linear operator define by T in metric space is said to be bounded iff? Ans  $\times$  A. T(x) is positive  $\times$  B. ||T(x)|| exists  $\checkmark$  C.  $||T(x)|| \le k||x||$  $\times$  D. T(x) is negative Question ID: 9277597061 A set G with one binary operation which is closed as well as associative is called? Ans X A. groupoid × B. monoid C. semigroup X D. group Question ID: 9277597070 A metric space X is said to be complete if Ans X B. if every convergent sequence in it is bounded **X** C. if every Cauchy sequence in X has more than 2 convergent subsequences X D. if Cauchy sequence in X is not convergent Question ID: 9277597057

Q.6 A metric space defined by  $\{d(x,y)=r \text{ for all } x,y \in R\}$  is called as Ans ✓ A. sphere X B. set X c. open ball 🗙 D. algebra Ouestion ID: 9277597060 Q.7 Which is known as multiplicative identity of group with respect to external binary operation? Ans X A. 0 **X** B. **Q** ✓ C. 1 X D. R Question ID: 9277597068 Q.8 How many subgroups(p) of non cyclic groups G is possible? Ans ✓ A. p+3 **X** B. p **x** c. p+2 X D. p+1 Question ID: 9277597071 Find the domain of the function defined by f(z)=z/(z+z') where z' denotes complex conjugate of z? Q.9  $\times$  A. Im(z) is not equal to 0  $\times$  B. Im(z)=0 $\times$  c. re(z)=0 ✓ D. re(z) is not equal to 0 Question ID: 9277597076 Q.10 Let A be a subset of R. which of the following properties imply A is compact? **X** A. Ans there is no one one and continuous function from A onto (0,1)✓ B. Every continuous function f from A to R is bounded X c. there exists a continuous function from A onto [0,1] **X** D. Every sequence {x} in A has no convergent subsequence converging to a point in A Question ID: 9277597062 Q.11 For any two subsets X and Y let  $X+Y = \{x+y:x \in X, y \in Y\}$  then find the wrong one? Ans X A. if X is closed Y is compact then X+Y is closed X B. if X and Y are compact then X+Y is compact C. If X and Y are closed then X+Y is closed X D. if X and Y are open sets then X+Y is open Question ID: 9277597063 Q.12 Continuous function C[a,b] from a to b is called X A. not defined X B. cyclic X c. not bounded ✓ D. bounded function Question ID: 9277597059 Q.13 Choose the wrong statement X A. every non abelian group has abelian subgroup X B. Every element generates a cyclic subgroup of its own order ✓ C. Klein's group is not abelian X D. a subgroup of a cyclic group is cyclic Question ID: 9277597069 Q.14 What are maximal subgroups of Klein's group? Ans ✓ A. {e,c}  $\times$  B. {e,a}, {e,b}, {e,c} X C. {e,a} X D. {e,b} Question ID: 9277597072 The symmetric property in a metric space is Ans  $\times$  A. d(x,y)>0 $\times$  B. d(x,y)=0 $\checkmark$  C. d(x,y)=d(y,x) $\times$  D. d(x,y)<0Question ID: 9277597058 Q.16 Integrate  $1/(z^3-1)^2$ , the counter clockwise around the circle |z-1|=1? Ans  $\times$  A.  $-2\pi i/9$ × B. 2πi × c. 4πi √ D. -4πi/9 Question ID: 9277597075 Q.17 For what values of z the function defined by the equation z=sinhu.cosv+isinhu.sinv; w=u+iv ceases to be analytic? ✓ A. +i,-i X B. 1 X C. 0 X D. -1 Question ID: 9277597073 Q.18 Number of onto homomorphism from Klein's group to Symmetric group of order 4? Ans X A. 1 X B. 2 C. does not exist X D. 3 Question ID: 9277597064 Q.19 The external direct product of two groups is abelian if and only if? Ans both are not abelian - do you mean None is abelian - if so, better change it like that X B. one is abelian other is abelian - What option is this? Is this not included in the previous option itself? ✓ D. both are abelian Question ID: 9277597066 Q.20 Let K be a group with 8 elements. Let H be a subgroup of K and H<K. It is known that the size of H is at least 3. The size of H is? Ans X A. 1 X B. 3 X C. 2 ✓ D. 4 Question ID: 9277597065

Q.1 How many real roots are possible for the equation x5-x4+x3-1=0? Ans X A. atleast three real roots ✓ B. at least one real root X c. no real root X D. atleast two real roots Question ID: 9277597078 **Q.2** The line integral of function F = yzi, in the counterclockwise direction, along the circle  $x^2+y^2=1$  at z=1 is? Ans X A. 0 X B. 2 C. πi × D. -πi Question ID: 9277597079 Q.3 What will be the minimum degree of polynomial with integer coefficients, having roots 2-√5,3,4? Ans ✓ A. 4 X B. 1 X C. 2 X D. 3 Question ID: 9277597080 Q.4 Which theorem connects the result <T(x),y>=<x,z>? Ans A. Riesz representative theorem X B. Hilbert Theorem X C. Hahn Banach Theorem X D. Picard theorem Question ID: 9277597086 If u = (1,0,1) v = (0,1,1) find the cosine of angle between these two vectors using inner product? X A. (1/4) ✓ B. (1/2) X C. 0 X D. (1/3) Question ID: 9277597085

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Q.6
     Find the residue of (2z+1)/((z+1)(z-1)) at z=1?
Ans
    X A. (1/2)

✓ B. (3/2)

     X c. (5/2)
     X D. (7/2)
                                                                            Question ID: 9277597081
Q.7
     Find the residue of z^3/(z^2-1) at z = infinity?
Ans
    X A. -2

✓ B. -1

     X C. 2
     X D. 1
                                                                            Question ID: 9277597082
Q.8
     Choose the wrong statement
     X A. If R is integral domain then R[x] is also an integral domain
     \times B. If R is integral domain then unit of R and R[x] are same

✓ c. R[x] is not CRU

     \times D. R[x] is infinite ring
                                                                            Question ID: 9277597084
    Evaluate the integral (1/z)dz where C is the circle z=e^{(ib)} where 0 < b < \pi?
Ans \times A. 2\pi i
     X B. 0
      C. πi
     × D. -πi
                                                                            Question ID: 9277597077
Q.10
     Which of the following is not a polynomial ring?
Ans
     \times A. Q[x]
     X B. C[X]
     \times c. R[x]
      \checkmark D. R[x]-Z[x]
                                                                            Question ID: 9277597083
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Section: Teaching Methodology

Q.1 CIC stands for \_\_\_.

Ans X A. Competent interactional classroom

X B. Competent intern classroom

X C. Competent institutional classroom

D. Classroom interactional competence

Question ID: 9277597089

### Q.2 From following which is not a type of Blog?

Ans X A. Group blog

X B. Micro blog

C. Social blog

X D. Personal blog

Question ID: 9277597093

# Q.3 In 2009 which Shiksha Abhiyan was launched?

Ans 🕜 A. The Rashtriya Madhyamik

X B. The primary Section

X C. The Prabhakar Madhyamik

X D. The Secondary Section

# **TEACHERS**

Question ID: 9277597096

## Q.4 Constructivist theory in education is based on \_\_\_

Ans

A. the idea that people actively construct or make their own knowledge

X B. the idea that learn from the society

C. the knowledge from the book they learn

X D. the idea that teacher give

Question ID: 9277597088

### Q.5 Hard applied discipline emphasizes on which of the following?

Ans X A. Emphasize understanding and interpretation

B. Emphasize Products and techniques

X C. Emphasize Process and Protocols

X D. Emphasize discoveries and Explanations

Question ID: 9277597090

Q.6	Which one is not a part of Organisation and Integration of Learning Experiences and Content?
Ans	X A. Available learning situations in school
	✓ B. Principles of teachers
	➤ C. Inputs for effective classroom interaction
	X D. Developmental level of learning
	Question ID : 9277597094
Q.7	Which colour is regarded as masculine?
Ans	X A. Grey
	✗ B. Red
	★ C. Pink
	✓ D. Blue
	Question ID : 9277597092
Q.8	Educational realism is the belief that we should study, critical thinking, and the
	scientific method to teach students to perceive and understand reality.
Ans	X A. fallacy
	X B. irrational
	✓ C. logic  ✓ D. incohord
	X D. incoherent
	Question ID : 9277597087
Q.9	Which pairs help participants to develop interpersonal skills, confidence, communication, and assertiveness?
Ans	X A. Female
	X B. Transgender
	✓ C. Mix gender
	X D. Male
	Question ID : 9277597091
Q.10	is the major means of learning.
Ans	X A. Writing
	✓ B. Experience
	★ C. Practice
	X D. Reading
	Question ID : <b>9277597095</b>