भारतीय विमानपत्तन प्राधिकरण
(मिनी रत्न - श्रेणी - 1 सार्वजनिक क्षेत्र का उद्यम)
AIRPORTS AUTHORITY OF INDIA
(Schedule – 'A' Mini Ratna – Category – 1 Public Sector Enterprise)

Participant ID	
Participant Name	
Test Center Name	
Test Date	25/03/2021
Test Time	4:00 PM - 6:00 PM
Subject	Jr. Executive (ATC)

Section : **General Knowledge**

Q.1 **Which of the following is a non-metal required by the human body?**

Ans
- ✗ A. Zinc
- ✗ B. Iron
- ✓ C. Iodine
- ✗ D. Gold

Question ID : **9767557961**
Status : **Answered**
Chosen Option : **3**

Q.2 **Which Indian author penned 'Godaan' ('The Gift of Cow')?**

Ans
- ✗ A. Ramdhari Singh Dinkar
- ✗ B. Vishnu Prabhakar
- ✓ C. Munshi Premchand
- ✗ D. Mahadevi Verma

Question ID : **9767557959**
Status : **Answered**
Chosen Option : **3**

Q.3 **In whose honour has 29th August been designated as India's National Sports day?**

Ans
- ✗ A. Mithali Raj
- ✗ B. Sachin Tendulkar
- ✓ C. Major Dhyan Chand
- ✗ D. Milkha Singh

Question ID : **9767557968**
Status : **Answered**
Chosen Option : **3**

Q.4 Who was the last Mughal emperor of India?

Ans
  ✗ A. Akbar

  ✗ B. Humayun

  ✓ C. Bahadur Shah Zafar

  ✗ D. Shah Jahan

Question ID : **9767557965**
Status : **Answered**
Chosen Option : **3**

Q.5 India is considered to be which of the following types of economy?

Ans
  ✗ A. Traditional Economy

  ✗ B. Pure Market Economy

  ✗ C. Pure Command Economy

  ✓ D. Mixed Economy

Question ID : **9767557960**
Status : **Answered**
Chosen Option : **4**

Q.6 Which significant event took place in 1757?

Ans
  ✗ A. First Census in India

  ✗ B. The Sepoy Mutiny

  ✓ C. Battle of Plassey

  ✗ D. Formation of East India Company

Question ID : **9767557966**
Status : **Answered**
Chosen Option : **3**

Q.7 Who was known as the 'Frontier Gandhi/Sarhadi Gandhi' due to his ideologies?

Ans
  ✗ A. Jawahar Lal Nehru

  ✗ B. Muhammad Ali Jinnah

  ✗ C. Lal Bahadur Shastri

  ✓ D. Khan Abdul Ghaffar Khan

Question ID : **9767557967**
Status : **Answered**
Chosen Option : **4**

Q.8 What is the full form of BRO?

Ans ✔ A. Border Roads Organisation

✘ B. Broad Road Organisation

✘ C. Border Road Office

✘ D. Border River Organisation

Question ID : **9767557964**
Status : **Answered**
Chosen Option : **1**

Q.9 Every year, in which Indian state does monsoon set in first?

Ans ✔ A. Kerala

✘ B. Maharashtra

✘ C. Karnataka

✘ D. Tamil Nadu

Question ID : **9767557962**
Status : **Answered**
Chosen Option : **1**

Q.10 How many union territories are there in India as of January 2021?

Ans ✘ A. Nine

✔ B. Eight

✘ C. Six

✘ D. Seven

Question ID : **9767557963**
Status : **Answered**
Chosen Option : **2**

Section : **General Intelligence**

Q.1 Select the number-pair in which the two numbers share a different relationship from that shared by the two numbers in the rest of the number-pairs.

Ans ✔ A. 42 – 82

✘ B. 35 – 62

✘ C. 66 – 84

✘ D. 85 – 94

Question ID : **9767557978**
Status : **Answered**
Chosen Option : **1**

Q.2 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 conclusions logically follow(s) from the statements.

Statements:
1. All pins are bins.
2. All bins are not papers.

Conclusions:
I. Some papers are pins.
II. All pins are not papers.

Ans ✘ A. Both conclusions I and II follow

✘ B. Only conclusion I follows

✔ C. Only conclusion II follows

✘ D. Neither conclusion I nor II follows

Question ID : **9767557973**
Status : **Answered**
Chosen Option : **4**

Q.3 Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.
OA, LG, IM, FS, ?

Ans ✘ A. CX

✘ B. DY

✘ C. CZ

✔ D. CY

Question ID : **9767557969**
Status : **Answered**
Chosen Option : **4**

Q.4 Select the alphanumeric-cluster from among the given options that can replace the question mark (?) in the following series.
Y11, S7, M5, G3, ?

Ans ✘ A. Z2

✘ B. A1

✔ C. A2

✘ D. B2

Question ID : **9767557970**
Status : **Answered**
Chosen Option : **3**

Q.5 Select the option that is related to the third number in the same way as the second number is related to the first number.
15 : 5 :: 26 : ?

Ans ✔ A. 6

✘ B. 9

✘ C. 4

✘ D. 8

Question ID : **9767557977**
Status : **Answered**
Chosen Option : **1**

Q.6 Select the correct option that indicates the arrangements of the given words in a logical and meaningful order.
1. Nucleus
2. Molecule
3. Atom
4. Proton
5. Compound

Ans
✗ A. 4, 1, 3, 5, 2

✗ B. 5, 3, 2, 4, 1

✗ C. 5, 2, 3, 4, 1

✔ D. 4, 1, 3, 2, 5

Question ID : **9767557975**
Status : **Answered**
Chosen Option : **4**

Q.7 Select the option in which the letter-clusters share the same relationship as that shared by the given pair of letter-clusters.
GI : VC

Ans
✔ A. HY : WS

✗ B. AC : OW

✗ C. CY : DB

✗ D. GL : VB

Question ID : **9767557971**
Status : **Answered**
Chosen Option : **3**

Q.8 A question is given, followed by two arguments. Decide which of the arguments is/are valid with respect to the question.
Question:
Should school-going children have internet access at home?
Arguments:
(I): Yes, because through the internet students can have access to educational videos on YouTube, articles addressing current events that impact their lives, and online tests or quizzes required in their coursework.
(II): No, it's a waste of time.

Ans
✗ A. Neither argument (I) nor argument (II) is valid

✔ B. Only argument (I) is valid

✗ C. Only argument (II) is valid

✗ D. Both arguments (I) and (II) are valid

Question ID : **9767557974**
Status : **Answered**
Chosen Option : **2**

Q.9 Select the correct water image of the given figure.

Ans   ✗ A.

     ✗ B.

     ✗ C.

     ✔ D.

Question ID : **9767557983**
Status : **Answered**
Chosen Option : **4**

Q.10 In a certain code language, 'Tudo Bem' is written as 'All Fine', 'Como Esta' is written as 'How You', and 'Bem Como' is written as 'Fine You'. How will 'Tudo Esta' be written as in the same language?

Ans   ✗ A. All You

     ✗ B. All Fine

     ✔ C. All How

     ✗ D. How Fine

Question ID : **9767557972**
Status : **Answered**
Chosen Option : **3**

Q.11 Two different positions of the same dice are shown. Select the letter that will be on the face opposite to the face having the letter T?

Ans   ✗ A. Q

     ✗ B. R

     ✔ C. P

     ✗ D. U

Question ID : **9767557982**
Status : **Answered**
Chosen Option : **3**

Q.12 Select the option in which the numbers are related in the same way as are the numbers of the following set.
(18, 6, 36)

Ans   ✗ A. (30, 15, 60)

     ✗ B. (40, 10, 80)

     ✔ C. (24, 8, 48)

     ✗ D. (25, 5, 50)

Question ID : **9767557979**
Status : **Answered**
Chosen Option : **3**

Q.13 Select the option that is related to the third figure in the same way as the second figure is related to the first figure.

Ans ✗ A.

✔ B.

✗ C.

✗ D.

Question ID : **9767557981**
Status : **Answered**
Chosen Option : **4**

Q.14 Select the number from among the given options that can replace the question mark (?) in the following series.
100, 120, 145, 180, 235, ?

Ans ✗ A. 325

✗ B. 335

✗ C. 315

✔ D. 330

Question ID : **9767557976**
Status : **Answered**
Chosen Option : **4**

Q.15 Select the figure from among the given options that can replace the question mark (?) in the following series.

Ans ✗ A.

✗ B.

✗ C.

✔ D.

Question ID : **9767557980**
Status : **Answered**
Chosen Option : **4**

Section : **General Aptitude**

Q.1 The average rate of three stationery items A, B and C is Rs. 80. If the average price of A and B is Rs. 77.5 and that of B and C Rs. 87.5, then the price of B is:

Ans ✔ A. Rs. 90

✘ B. Rs.65

✘ C. Rs. 85

✘ D. Rs. 75

Question ID : **9767557994**

Status : **Answered**

Chosen Option : **1**

Q.2 Aman purchased 4 pens, 5 pencils and 8 scales for Rs. 120. Had Aman purchased 7 pens, 8 pencils and 11 scales, he would have to pay Rs. 192. Pankaj demanded 2 pens, 2 pencils and 2 scales. If Aman purchased only what was demanded by Pankaj, then how much would he have paid?

Ans ✘ A. Rs. 32

✔ B. Rs. 48

✘ C. Rs. 38

✘ D. Rs. 42

Question ID : **9767557997**

Status : **Answered**

Chosen Option : **2**

Q.3

Ans ✔ A.

✘ B.

✘ C.

✘ D.

Question ID : **9767557985**

Status : **Answered**

Chosen Option : **1**

Q.4 The outer and inner radius of a hemispherical bowl are 40 cm and 35 cm respectively. Find the total surface area of the bowl.

Ans ✘ A. 6125 π

✘ B. 5055 π

✔ C. 6025 π

✘ D. 5255 π

Question ID : **9767557996**

Status : **Answered**

Chosen Option : **3**

Q.5 If the cost of 30 articles is Rs. 4,500, then find out the cost of 12 articles.

Ans
  ✗ A. Rs. 1,600

  ✔ B. Rs. 1,800

  ✗ C. Rs. 1,500

  ✗ D. Rs. 2,000

Question ID : **9767557990**
Status : **Answered**
Chosen Option : **2**

Q.6

Ans
  ✔ A.

  ✗ B.

  ✗ C.

  ✗ D.

Question ID : **9767557988**
Status : **Answered**
Chosen Option : **1**

Q.7

Ans
  ✔ A. Rs. 2,000

  ✗ B. Rs. 3,500

  ✗ C. Rs. 1,000

  ✗ D. Rs. 5,000

Question ID : **9767557989**
Status : **Answered**
Chosen Option : **1**

Q.8 In an arithmetic progression (AP), the 9th term is 5 times the 2nd term and the 8th term is 1 more than 10 times the first term. What is the 4th term of the geometric progression (GP) whose first term is the second term of AP and whose common ratio is equal to the common difference of AP?

Ans
  ✗ A. 1792

  ✗ B. 192

  ✔ C. 448

  ✗ D. 576

Question ID : **9767557998**
Status : **Answered**
Chosen Option : **3**

Q.9 Raj and Rajat can finish a piece of work in 30 days and 40 days respectively. Raj started the work alone. After how many days should Rajat join him so that the work is finished in 24 days?

Ans ✗ A. 14 days

✗ B. 10 days

✗ C. 12 days

✔ D. 16 days

Question ID : **9767557992**

Status : **Answered**

Chosen Option : **4**

Q.10 By selling a fan for Rs 3,540, a shopkeeper gains 18 percent. Find the selling price when the profit is reduced to 12 percent.

Ans ✗ A. Rs. 2,900

✔ B. Rs. 3,360

✗ C. Rs. 2,640

✗ D. Rs. 3,000

Question ID : **9767557993**

Status : **Answered**

Chosen Option : **2**

Q.11

Ans ✗ A.

✗ B.

✗ C.

✔ D.

Question ID : **9767557987**

Status : **Answered**

Chosen Option : **4**

Q.12 A certain number of men can finish a piece of work in 40 days. If there were 4 men less, it would take 4 days more for the same work to be finished. How many men were there initially?

Ans ✔ A. 44

✗ B. 38

✗ C. 42

✗ D. 36

Question ID : **9767557991**

Status : **Answered**

Chosen Option : **1**

Q.13 There is 30 percent increase in an amount in 3 years at x percent rate of simple interest. Find the compound interest on Rs. 30,000 after 4 years at the same rate.

Ans
- ✗ A. Rs. 9,930
- ✗ B. Rs. 13,293
- ✗ C. Rs. 11,980
- ✔ D. Rs. 13,923

Question ID : **9767557995**

Status : **Answered**

Chosen Option : **4**

Q.14 What is the product of the smallest 8 whole numbers?

Ans
- ✗ A. 40320
- ✗ B. 5040
- ✗ C. 1
- ✔ D. 0

Question ID : **9767557984**

Status : **Answered**

Chosen Option : **4**

Q.15

Ans
- ✗ A.
- ✗ B.
- ✗ C.
- ✔ D.

Question ID : **9767557986**

Status : **Answered**

Chosen Option : **4**

Section : **General English**

Q.1 Select the most appropriate option to fill in the blanks.
There was a time when Hyderabad was the only city _____ badminton players, but now we can see a huge talent _____ pan India.

Ans
- ✗ A. to produce; cropping in
- ✗ B. produce; crop up
- ✔ C. producing; cropping up
- ✗ D. produced; cropping from

Question ID : **9767558001**

Status : **Answered**

Chosen Option : **3**

Q.2 Select the most appropriate ANTONYM of the given word.
GREGARIOUS

Ans ✗ A. Sociable

✓ B. Reserved

✗ C. Affable

✗ D. Talkative

Question ID : **9767558000**

Status : **Answered**

Chosen Option : **2**

Q.3 The following sentence has been divided into parts. One of them may contain an error.
Select the part that contains the error from the given options.
Dr. Trehan says / he felt an overwhelming sense of helplessness / when he is watching
many of his patients / die of heart disease.

Ans ✗ A. Dr.Trehan says

✓ B. when he is watching much of his patients

✗ C. he felt an overwhelming sense of helplessness

✗ D. die of heart disease

Question ID : **9767558004**

Status : **Answered**

Chosen Option : **2**

Q.4 Sentences of a paragraph are given below. While the first and the last sentences are in the
correct order, the sentences in between are jumbled up. Arrange the sentences A, B, C and
D in the correct order to form a meaningful and coherent paragraph.
S 1: Oceans cover three-quarters of the Earth's surface.
S 2:_____
S3:_____
S 4:_____
S 5:_____
S 6: Nations trying to tap ocean resources must adhere to the United Nation's Sustainable
Development Goal of using resources for sustainable development.
Options:
A: However, this potential needs to be harnessed in a balanced manner, where the
preservation and health of oceans are given their due importance.
B: Oceans are said to be the last frontiers of growth and development.
C: But, the immense potential that the oceans present remains to be tapped fully.
D: They contain 97% of the Earth's water and represent 99% of the living area on the planet.

Ans ✗ A. A, C, B, D

✗ B. B, A, C, D

✗ C. B, C, D, A

✓ D. D, B, C, A

Question ID : **9767558011**

Status : **Answered**

Chosen Option : **4**

Q.5 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the right order to form a meaningful and coherent paragraph.
A: Its people thrived on agriculture and enjoyed a happy community life.
B: The Sumerian civilization is the oldest civilization known to mankind.
C: The term Sumer is today used to designate southern Mesopotamia.
D: Sumer used to be a flourishing urban civilization till 3000 BC.

Ans ✗ A. B, C, A, D

✓ B. B, C, D, A

✗ C. D, A, C, B

✗ D. A, C, D, B

Question ID : **9767558012**
Status : **Answered**
Chosen Option : **2**

Q.6 Select the most appropriate ANTONYM of the given word.

DETERMINED

Ans ✗ A. Resolute

✓ B. Suspicious

✗ C. Stubborn

✗ D. Firm

Question ID : **9767557999**
Status : **Answered**
Chosen Option : **2**

Q.7 Select the most appropriate option to fill in the blanks.
The Statue of Unity is the world's _____ statue and an iconic landmark of new India.

Ans ✗ A. tall

✗ B. most tallest

✗ C. taller

✓ D. tallest

Question ID : **9767558002**
Status : **Answered**
Chosen Option : **4**

Q.8 Select the option that expresses the given sentence in direct speech.
He told me that he had a tough time locating my house.

Ans ✗ A. He said to me, "I will have a tough time locating your house."

✗ B. He tells me, "I had a tough time locating your house."

✓ C. He said, "I had a tough time locating your house."

✗ D. He says, "I have a tough time locating my house."

Question ID : **9767558006**
Status : **Answered**
Chosen Option : **2**

Q.9 Select the most appropriate option that can substitute the underlined words in the given sentence.

The <u>art of growing plants in water without using soil</u> is getting popular worldwide as it can be highly productive, profitable and in less space without any soil.

Ans ✗ A. Hydromonics

✗ B. Hydrophilia

✓ C. Hydroponics

✗ D. hydrophonically

Question ID : **9767558014**
Status : **Answered**
Chosen Option : **3**

Q.10 Select the option that is NOT expressed in active voice.

Ans ✗ A. Aruna and her friends were planning to spend a weekend in Goa.

✗ B. Aruna and her friends started enquiring from other hotels if they had rooms available for that weekend.

✗ C. She called the Manager of Sunshine Resort to book two rooms overlooking the sea.

✓ D. She was informed by the Manager that there were no rooms available for that weekend.

Question ID : **9767558010**
Status : **Answered**
Chosen Option : **4**

Q.11 Select the option that expresses the given sentence in reported speech.

Addressing the nation, the President said, "There are some days when we need a hand. There are other days when we are called to lend a hand. That's how we help each other and move on."

Ans ✗ A. Addressing the nation, the President warned the people that there are some days when they will need a hand and there are other days when they will be called to lend their hand.He counselled them that this is how people help each other and move on.

✓ B. Addressing the nation, the President said that there are some days when we need a hand and there are other days when we are called to lend a hand. He added that that is how we help each other and move on.

✗ C. Addressing the nation, the President says to his countrymen there were some days when we needed a hand.There were other days when we were called to lend a hand. He further said that that's how we helped each other and moved on.

✗ D. Talking to his countrymen, the President commented that there are some days when we need a hand and there are other days when we are called to lend a hand. He added that that is how help each other and move on.

Question ID : **9767558007**
Status : **Answered**
Chosen Option : **2**

Q.12 Parts of a sentence are given below in jumbled order. Arrange the parts in the right order to form a meaningful sentence.

A. to lift 8 million people
B. Odisha is the only state
C. in the shortest possible time
D. out of poverty

Ans   ✗ A. C, D, A, B

       ✗ B. D, A, B, C

       ✔ C. B, A, D, C

       ✗ D. A, C, D, B

Question ID : **9767558013**
Status : **Answered**
Chosen Option : **3**

Q.13 The following sentence has been divided into parts. One of them may contain an error.
Select the part that contains the error from the given options.
In the recently concluded Paris Climate Agreement, / India will agree to reduce / its carbon emission intensity / by one-third from the 2005 levels.

Ans   ✗ A. In the recently concluded Paris Climate Agreement

       ✗ B. its carbon emission intensity

       ✔ C. India will agree to reduce

       ✗ D. by one-third from the 2005 levels

Question ID : **9767558003**
Status : **Answered**
Chosen Option : **3**

Q.14 Select the most appropriate option expressed in indirect speech.

Ans   ✔ A. He wanted to know what I wanted to do when I grew up.

       ✗ B. Dad has planned to take us all to Europe this summer vacation.

       ✗ C. It's raining hard. I don't think we can go out today.

       ✗ D. You made this cake, didn't you?

Question ID : **9767558008**
Status : **Answered**
Chosen Option : **1**

Q.15 Select the most appropriate option expressed in direct speech.

Ans   ✗ A. Most of the Bollywood stars expressed their jubilance after the Indian cricket team secured a historic test series win against Australia.

       ✗ B. The teacher told the students that she will give them detailed guidelines for the project.

       ✗ C. Most TV channels gave a live coverage to the swearing-in ceremony of the newly elected US President.

       ✔ D. Could you please introduce yourself?

Question ID : **9767558005**
Status : **Answered**
Chosen Option : **4**

Q.16 The following sentences describe the process of baking a cake in a microwave. Identify the step which is NOT expressed in passive voice.

Ans ✔ A. Place the mixture in the microwave oven for a few minutes till the cake is bouncy.

✘ B. The cooking time may have to be adjusted to suit the type of machine you have.

✘ C. This mixture is then transferred into a pre- greased baking dish.

✘ D. To make a cake some butter, sugar, eggs, milk and flour is taken in a mixing bowl and blended till soft and creamy.

Question ID : **9767558009**
Status : **Answered**
Chosen Option : **4**

Comprehension:

Read the given passage and answer the following questions.

It's hard to imagine urban India without its metro trains, the giant aluminium snakes sliding above and below the grounds of bustling metropolises, carrying in its bellies India's teeming millions. Delhi has the largest network, 389 kilometres and 285 stations. Mumbai, which will build 235 km by 2025, is close on its heels. Ten other Indian cities have metros, 15 more have it in various stages of completion. And it's clear why. An Indian city feels it has arrived only when it has a metro rail, the fastest, most economical and non-polluting mass rapid transport solution. Most of the credit for this urban engineering marvel being replicated across India goes to one engineer, E Sreedharan, popularly known as 'Metro Man'.

Sreedharan's first brush with fame was repairing the Pamban bridge in 1963, parts of which had been washed away in a cyclone. The railways estimated it would take six months to repair the sole link between mainland India and Rameshwaram. Sreedharan did it in just 46 days. A legend was born. But significant as it was, even this wasn't a turning point in his life. "I had a very ordinary, uneventful career in the Indian Railways from December 1954 to June 1990. No doubt, restoration of the Pamban bridge gave me an excellent opportunity to demonstrate my technical and organisational competence. But it wasn't a turning point in my career".

What was it then? Sreedharan says it was a stirring article in Reader's Digest, which highlighted the need for 'out-of-the-box' thinking when faced with a major challenge. He was then Member (Engineering) on the Railway Board in 1990. It so happened that the senior railway engineer, in what seemed like the last phase of his career, was facing what appeared to be an insurmountable challenge. Railways minister George Fernandes had mentioned his dream project, a Mumbai to Mangalore railway line that would complete India's last great missing rail link.

Based on your reading of the passage answer the following questions by choosing the best option.

SubQuestion No : 17

Q.17 A turning point in one's life is a:

Ans ✘ A. moment of celebration when one gets recognition

✘ B. developmental stage in one's life

✘ C. time when luck knocks at one's door

✔ D. a time at which a decisive change in a situation occurs

Question ID : **9767558017**
Status : **Answered**
Chosen Option : **4**

Comprehension:

Read the given passage and answer the following questions.

It's hard to imagine urban India without its metro trains, the giant aluminium snakes sliding above and below the grounds of bustling metropolises, carrying in its bellies India's teeming millions. Delhi has the largest network, 389 kilometres and 285 stations. Mumbai, which will build 235 km by 2025, is close on its heels. Ten other Indian cities have metros, 15 more have it in various stages of completion. And it's clear why. An Indian city feels it has arrived only when it has a metro rail, the fastest, most economical and non-polluting mass rapid transport solution. Most of the credit for this urban engineering marvel being replicated across India goes to one engineer, E Sreedharan, popularly known as 'Metro Man'.

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What was it then? Sreedharan says it was a stirring article in Reader's Digest, which highlighted the need for 'out-of-the-box' thinking when faced with a major challenge. He was then Member (Engineering) on the Railway Board in 1990. It so happened that the senior railway engineer, in what seemed like the last phase of his career, was facing what appeared to be an insurmountable challenge. Railways minister George Fernandes had mentioned his dream project, a Mumbai to Mangalore railway line that would complete India's last great missing rail link.

Based on your reading of the passage answer the following questions by choosing the best option.

SubQuestion No : 18

Q.18 As per Sreedharan, he had an uneventful life in Indian Railways from _____ to _____.

Ans ✗ A. December 1955; June 1990

   ✗ B. June 1954; December 1990

   ✗ C. June 1990 ; December 1954

   ✔ D. December 1954; June 1990

Question ID : **9767558016**
Status : **Answered**
Chosen Option : **4**

Comprehension:

Read the given passage and answer the following questions.

It's hard to imagine urban India without its metro trains, the giant aluminium snakes sliding above and below the grounds of bustling metropolises, carrying in its bellies India's teeming millions. Delhi has the largest network, 389 kilometres and 285 stations. Mumbai, which will build 235 km by 2025, is close on its heels. Ten other Indian cities have metros, 15 more have it in various stages of completion. And it's clear why. An Indian city feels it has arrived only when it has a metro rail, the fastest, most economical and non-polluting mass rapid transport solution. Most of the credit for this urban engineering marvel being replicated across India goes to one engineer, E Sreedharan, popularly known as 'Metro Man'.

Sreedharan's first brush with fame was repairing the Pamban bridge in 1963, parts of which had been washed away in a cyclone. The railways estimated it would take six months to repair the sole link between mainland India and Rameshwaram. Sreedharan did it in just 46 days. A legend was born. But significant as it was, even this wasn't a turning point in his life. "I had a very ordinary, uneventful career in the Indian Railways from December 1954 to June 1990. No doubt, restoration of the Pamban bridge gave me an excellent opportunity to demonstrate my technical and organisational competence. But it wasn't a turning point in my career".

What was it then? Sreedharan says it was a stirring article in Reader's Digest, which highlighted the need for 'out-of-the-box' thinking when faced with a major challenge. He was then Member (Engineering) on the Railway Board in 1990. It so happened that the senior railway engineer, in what seemed like the last phase of his career, was facing what appeared to be an insurmountable challenge. Railways minister George Fernandes had mentioned his dream project, a Mumbai to Mangalore railway line that would complete India's last great missing rail link.

Based on your reading of the passage answer the following questions by choosing the best option.

SubQuestion No : 19

Q.19 The greatest learning from Sreedharan's life would be:

Ans   ✗ A. to work hard to make a name for himself

     ✔ B. 'out of the box' thinking helps to solve critical problems

     ✗ C. perfection and excellence should be one's hallmark

     ✗ D. to complete all projects in time

Question ID : **9767558018**
Status : **Answered**
Chosen Option : **1**

Comprehension:

Read the given passage and answer the following questions.

It's hard to imagine urban India without its metro trains, the giant aluminium snakes sliding above and below the grounds of bustling metropolises, carrying in its bellies India's teeming millions. Delhi has the largest network, 389 kilometres and 285 stations. Mumbai, which will build 235 km by 2025, is close on its heels. Ten other Indian cities have metros, 15 more have it in various stages of completion. And it's clear why. An Indian city feels it has arrived only when it has a metro rail, the fastest, most economical and non-polluting mass rapid transport solution. Most of the credit for this urban engineering marvel being replicated across India goes to one engineer, E Sreedharan, popularly known as 'Metro Man'.

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Based on your reading of the passage answer the following questions by choosing the best option.

SubQuestion No : 20

Q.20 Sreedharan became famous as the Metro Man of India after:

Ans   ✗   A. the replication of Delhi metro model in other cities of India

      ✗   B. the restoration of the damaged Pamban bridge in record time

      ✔   C. the construction of the Metro railway network in Delhi.

      ✗   D. the completion of the Mumbai Mangalore railway line

Question ID : **9767558019**
Status : **Answered**
Chosen Option : **3**

Section : **Domain Questions**

Q.1 Determine the probability that when a hand of 7 cards is drawn from a box of 52 cards, it consists atleast 3 kings?

Ans   ✗ A.

      ✔ B.

      ✗ C.

      ✗ D.

Question ID : **9767558033**
Status : **Marked For Review**
Chosen Option : **2**

Q.2 What will be the number of permutations of n different things, taken r at a time, where repeatition is allowed?

Ans ✔️ A.

❌ B.

❌ C.

❌ D.

Question ID : **9767558029**

Status : **Answered**

Chosen Option : **1**

Q.3

Ans ❌ A.

✔️ B.

❌ C.

❌ D.

Question ID : **9767558045**

Status : **Answered**

Chosen Option : **2**

Q.4

Ans ✔️ A.

❌ B.

❌ C.

❌ D.

Question ID : **9767558038**

Status : **Answered**

Chosen Option : **2**

Q.5 If P(A) = 0.7, P(B) = 0.5 and P (B/A) = 0.3, find (i) P(A/B) (ii) P(A∪B)?

Ans ❌ A. 0.14, 0.98 respectively

✔️ B. 0.21, 0.99 respectively

❌ C. 0.14, 0.99 respectively

❌ D. 0.21, 0.98 respectively

Question ID : **9767558037**

Status : **Answered**

Chosen Option : **3**

Q.6

Ans

✗ A.

✗ B.

✔ C.

✗ D.

Question ID : **9767558024**

Status : **Answered**

Chosen Option : **3**

Q.7

Ans

✗ A.

✗ B.

✔ C.

✗ D.

Question ID : **9767558044**

Status : **Answered**

Chosen Option : **3**

Q.8

In above figure if P is (3, 1, 7), find the co-ordinates of F?

Ans

✗ A. 0, 1, 49

✗ B. 9, 1, 49

✔ C. 3, 0, 7

✗ D. 3, 1, 0

Question ID : **9767558043**

Status : **Answered**

Chosen Option : **3**

Q.9

Ans

✗ A.

✔ B.

✗ C.

✗ D.

Question ID : **9767558022**

Status : **Answered**

Chosen Option : **2**

Q.10 Determine the co-ordinates of the point where the line through the points A (2, 3, 2) and B (5, 1, 6) crosses the XY- plane?

Ans ✖ A.

✖ B.

✖ C.

✔ D.

Question ID : **9767558041**

Status : **Answered**

Chosen Option : **2**

Q.11

Ans ✖ A.

✔ B. Both vectors have different magnitudes but same direction

✖ C.

✖ D. Elements of both vectors are not proportional

Question ID : **9767558021**

Status : **Answered**

Chosen Option : **4**

Q.12 The minute hand of a watch is 2 cm long. How far does its tip move in 45 minutes? (use π = 3.14)

Ans ✖ A. 3.14

✔ B. 9.42

✖ C. 6.28

✖ D. 12.56

Question ID : **9767558049**

Status : **Answered**

Chosen Option : **2**

Q.13 Find the quantity of methods of picking 4 cards from a set of 52 playing cards if four cards are of the same unit?

Ans ✖ A. 715

✖ B. 11440

✔ C. 2860

✖ D. 5720

Question ID : **9767558028**

Status : **Answered**

Chosen Option : **1**

Q.14

Ans
  ✗ A. $\cos 2x \cos x$

  ✗ B. $\sin x$

  ✓ C. $\sin 3x$

  ✗ D. $2\sin 3x$

Question ID : **9767558047**

Status : **Answered**

Chosen Option : **3**

Q.15 A train, which is moving at the rate of 60 miles per hour, is brought to rest in 3 minutes with a uniform retardation, find this retardation, and also the distance that the train travels before coming to rest?

Ans
  ✗ A.

  ✓ B.

  ✗ C.

  ✗ D.

Question ID : **9767558025**

Status : **Answered**

Chosen Option : **2**

Q.16 A stone is thrown vertically with the velocity which would just carry it to height of 100 feet. Two seconds later another stone is projected vertically from the same place with the same velocity, find when and where will they meet?

Ans
  ✗ A.

  ✗ B.

  ✓ C.

  ✗ D.

Question ID : **9767558026**

Status : **Answered**

Chosen Option : **2**

Q.17 One summer peter visits 4 villages (A, B, C and D) in a random order. Find the probability that he visits (i) A before B (ii) A before B and B before C respectively?

Ans
  ✓ A.

  ✗ B.

  ✗ C.

  ✗ D.

Question ID : **9767558034**

Status : **Answered**

Chosen Option : **4**

Q.18 Two dancers Seema and Reema appeared in audition of a dance competition. The probability that seema will be selected in this dance competition is 0.05 and that reema will be selected is 0.10. The probability that both will get selected is 0.02. Determine the probability that:

(i) Both seema and reema will not get selected in the competition.
(ii) Atleast one of them will not be selected in the competition
(iii) Only one of them will be selected in the competition

Ans
  ✗ A. 0.11, 0.05, 0.95 respectively

  ✗ B. 0.13, 0.02, 0.11 respectively

  ✔ C. 0.87, 0.98, 0.11 respectively

  ✗ D. 0.95, 0.98,0.13 respectively

Question ID : **9767558036**
Status : **Answered**
Chosen Option : **3**

Q.19

Ans
  ✗ A.

  ✗ B.

  ✔ C.

  ✗ D.

Question ID : **9767558020**
Status : **Answered**
Chosen Option : **3**

Q.20 Find out the quantity of four-digit numbers that can be created by utilizing the digits from 1 to 9 if repetition of digits are to be allowed?

Ans
  ✔ A. 3024

  ✗ B. 336

  ✗ C. 1680

  ✗ D. 3036

Question ID : **9767558031**
Status : **Answered**
Chosen Option : **4**

Q.21 A badminton team of two players is picked from two boys and two girls. Find the probability that the team will have (i) no boy (ii) one boy (iii) two boys?

Ans
  ✗ A. respectively

  ✗ B. respectively

  ✔ C. respectively

  ✗ D. respectively

Question ID : **9767558035**
Status : **Answered**
Chosen Option : **2**

Q.22

Ans

✗ A. 1.5

✗ B.

✗ C.

✔ D. 1

Question ID : **9767558023**

Status : **Answered**

Chosen Option : **4**

Q.23 Determine the angle between the two planes $2x + y - 2z = 3$ and $3x - 6y - 2z = 9$ using vector method?

Ans

✗ A.

✗ B.

✗ C.

✔ D.

Question ID : **9767558039**

Status : **Answered**

Chosen Option : **4**

Q.24

Ans

✗ A.

✔ B. 1

✗ C.

✗ D. 0

Question ID : **9767558048**

Status : **Answered**

Chosen Option : **2**

Q.25 Two trains travelling in the same direction at 80 and 44 kmph completely pass off another in 1 minute. If the length of the first train is 375 m, what is the length of the second train?

Ans

✔ A. 225 m

✗ B. 2325 m

✗ C. 215 m

✗ D. 205 m

Question ID : **9767558027**

Status : **Answered**

Chosen Option : **1**

Q.26 Which of the following is TRUE for "complementary event or 'not event'"?

Ans ✗ A. The set A-B

✗ B.

✓ C. The set A' or S-A

✗ D.

Question ID : **9767558032**
Status : **Answered**
Chosen Option : **3**

Q.27

Ans ✗ A. $\sec x$

✗ B. $\cot x$

✗ C. $\csc x$

✓ D. $\tan x$

Question ID : **9767558046**
Status : **Answered**
Chosen Option : **4**

Q.28 Which of the following is NOT a known factor to uniquely determine a plane?

Ans ✓ A. The equation of a plane lying in extraordinary form

✗ B. It passes through three given non collinear points

✗ C. The normal to the plane and its distance from the origin is given

✗ D. It passes through a point and is perpendicular to a given direction.

Question ID : **9767558040**
Status : **Answered**
Chosen Option : **3**

Q.29 Find the quantity of arrangements of the letters of the word INDEPENDENCE if all the vowels always occur together?

Ans ✓ A. 16800

✗ B. 16400

✗ C. 12600

✗ D. 138600

Question ID : **9767558030**
Status : **Answered**
Chosen Option : **1**

Q.30 Find the distance between the points P (2, -1, 3) and Q (-5, 2, 1)?

Ans ✔ A.

✘ B.

✘ C. 8

✘ D.

Question ID : **9767558042**
Status : **Answered**
Chosen Option : **2**

Q.31

Ans ✔ A.

✘ B.

✘ C.

✘ D.

Question ID : **9767558053**
Status : **Answered**
Chosen Option : **1**

Q.32

Ans ✔ A.

✘ B.

✘ C.

✘ D.

Question ID : **9767558069**
Status : **Answered**
Chosen Option : **3**

Q.33

Ans ✘ A.

✘ B.

✘ C.

✔ D.

Question ID : **9767558063**
Status : **Answered**
Chosen Option : **4**

Q.34 A stream of water flowing horizontally with a speed of 20 m/s pushes out of a tube of cross-sectional area $10^{-1}m^2$ and hits at a vertical wall nearby. Find the force exerted on the wall by the impact of water, assuming that it does not rebound?

Ans ✗ A.

 ✔ B.

 ✗ C.

 ✗ D.

Question ID : **9767558061**
Status : **Answered**
Chosen Option : **3**

Q.35
Ans ✗ A.

 ✔ B.

 ✗ C.

 ✗ D.

Question ID : **9767558077**
Status : **Answered**
Chosen Option : **2**

Q.36
Ans ✗ A.

 ✗ B.

 ✗ C.

 ✔ D.

Question ID : **9767558072**
Status : **Answered**
Chosen Option : **4**

Q.37
Ans ✗ A.

 ✔ B.

 ✗ C.

 ✗ D.

Question ID : **9767558067**
Status : **Answered**
Chosen Option : **3**

Q.38

Ans   ✗ A.

  ✔ B.

  ✗ C.

  ✗ D.

Question ID : **9767558052**

Status : **Answered**

Chosen Option : **2**

Q.39

Ans   ✗ A.

  ✗ B.

  ✔ C.

  ✗ D.

Question ID : **9767558076**

Status : **Answered**

Chosen Option : **3**

Q.40

Ans   ✗ A.

  ✗ B.

  ✔ C.

  ✗ D.

Question ID : **9767558050**

Status : **Answered**

Chosen Option : **2**

Q.41 A galvanometer coil has a resistance of 14 Ω and the metre shows full scale deflection for a current of 4 mA. How will you convert the metre into a voltmeter of range 0 to 16 V?

Ans   ✗ A.

  ✗ B.

  ✗ C.

  ✔ D.

Question ID : **9767558074**

Status : **Answered**

Chosen Option : **4**

Q.42

Ans   ✔️ A.

    ❌ B.

    ❌ C.

    ❌ D.

Question ID : **9767558056**
Status : **Answered**
Chosen Option : **1**

Q.43

Ans   ❌ A.

    ✔️ B.

    ❌ C.

    ❌ D.

Question ID : **9767558068**
Status : **Answered**
Chosen Option : **2**

Q.44

Ans   ❌ A.

    ❌ B.

    ❌ C.

    ✔️ D.

Question ID : **9767558062**
Status : **Answered**
Chosen Option : **3**

Q.45

Ans   ✔️ A.

    ❌ B.

    ❌ C.

    ❌ D.

Question ID : **9767558055**
Status : **Answered**
Chosen Option : **1**

Q.46

Ans   ✗ A.

     ✔ B.

     ✗ C.

     ✗ D.

Question ID : **9767558057**

Status : **Answered**

Chosen Option : **3**

Q.47

Ans   ✗ A.

     ✗ B.

     ✔ C.

     ✗ D.

Question ID : **9767558071**

Status : **Answered**

Chosen Option : **3**

Q.48

Ans   ✔ A.

     ✗ B.

     ✗ C.

     ✗ D.

Question ID : **9767558059**

Status : **Answered**

Chosen Option : **1**

Q.49

Ans   ✗ A.

     ✗ B.

     ✔ C.

     ✗ D.

Question ID : **9767558060**

Status : **Answered**

Chosen Option : **3**

Q.50

Ans

✗ A.

✗ B.

✔ C.

✗ D.

Question ID : **9767558058**

Status : **Answered**

Chosen Option : **3**

Q.51

Ans

✗ A.

✗ B.

✗ C.

✔ D.

Question ID : **9767558064**

Status : **Answered**

Chosen Option : **2**

Q.52

Ans

✔ A.

✗ B. (a)3.0×10^{-2} T (b) 0.5

✗ C.

✗ D. (a)$0.82.0 \times 10^{-3}$ T (b) 0.5

Question ID : **9767558075**

Status : **Answered**

Chosen Option : **3**

Q.53

Ans

✗ A.

✗ B.

✗ C.

✔ D.

Question ID : **9767558066**

Status : **Answered**

Chosen Option : **1**

Q.54

Ans   ✔ A.

    ✘ B.

    ✘ C.

    ✘ D.

Question ID : **9767558070**
Status : **Answered**
Chosen Option : **1**

Q.55

Ans   ✔ A.

    ✘ B.

    ✘ C.

    ✘ D.

Question ID : **9767558073**
Status : **Answered**
Chosen Option : **4**

Q.56

Ans   ✔ A.

    ✘ B.

    ✘ C.

    ✘ D.

Question ID : **9767558078**
Status : **Answered**
Chosen Option : **2**

Q.57

Ans   ✔ A.

    ✘ B.

    ✘ C.

    ✘ D.

Question ID : **9767558054**
Status : **Answered**
Chosen Option : **3**

Q.58

Ans   ✗ A.

   ✔ B.

   ✗ C.

   ✗ D.

Question ID : **9767558065**
Status : **Answered**
Chosen Option : **2**

Q.59 Assume a parallel plate capacitor which is maintained at potential of 100 V. If the partition distance between the plates of the capacitor and area of the plates are 5 mm and 25 cm^2 respectively. Compute the displacement current for the time in μs?

Ans   ✗ A.

   ✗ B.

   ✗ C.

   ✔ D.

Question ID : **9767558051**
Status : **Answered**
Chosen Option : **3**

Q.60 A copper block of mass 3 kg is heated in a furnace to a temperature of 450 °C and then placed on a large ice block. Find the maximum amount of ice that can melt? (specific heat of copper = 0.39 Jg^{-1}K^{-1} , heat of fusion of water = 335 Jg^{-1}K^{-1})

Ans   ✔ A.

   ✗ B.

   ✗ C.

   ✗ D.

Question ID : **9767558079**
Status : **Answered**
Chosen Option : **1**