भारतीय विमानपत्तन प्राधिकरण

AIRPORTS AUTHORITY OF INDIA

(SCHEDULE – 'A' MINI RATNA- CATEGORY- 1 PUBLIC SECTOR ENTERPRISES)

राजीव गांधी भवन, सफदरजंग हवाई अड्डा, नईदिल्ली- 110003

RAJIV GANDHI BHAWAN, SAFDARJUNG AIRPORT, NEW DELHI-110003

Application Sequence Number	
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Test Date	14/07/2025
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Subject	Junior Executive (Air Traffic Control)

Section : **Part A General Knowledge**

Q.1	**In January 2025, the Government of India announced the appointment of V Narayanan as the new Chairman of _____.**
Ans	✗ 1. Indian Olympic Association (IOA)
	✗ 2. Central Bureau of Investigation (CBI)
	✗ 3. Indian Council of Medical Research (ICMR)
	✓ 4. Indian Space Research Organization (ISRO)

Question ID :	**44100962163**
Option 1 ID :	**441009247688**
Option 2 ID :	**441009247686**
Option 3 ID :	**441009247689**
Option 4 ID :	**441009247687**
Status :	**Answered**
Chosen Option :	**4**

Q.2	Which international institution provided financial assistance to India during the 1991 crisis?
Ans	✗ 1. United Nations (UN)
	✓ 2. International Monetary Fund (IMF)
	✗ 3. Asian Development Bank (ADB)
	✗ 4. World Health Organization (WHO)

Question ID :	**44100943793**
Option 1 ID :	**441009174625**
Option 2 ID :	**441009174623**
Option 3 ID :	**441009174624**
Option 4 ID :	**441009174626**
Status :	**Answered**
Chosen Option :	**2**

Q.3	Which river is of significance in the southern part of the Thar Desert?
Ans	✗ 1. Tapi
	✓ 2. Luni
	✗ 3. Godavari
	✗ 4. Ganga

Question ID :	**44100946476**
Option 1 ID :	**441009185057**
Option 2 ID :	**441009185058**
Option 3 ID :	**441009185056**
Option 4 ID :	**441009185055**
Status :	**Answered**
Chosen Option :	**2**

Q.4	Which Constitutional Amendment led to the constitutional recognition and formalisation of the Panchayati Raj system in India?
Ans	✗ 1. 42nd Amendment
	✓ 2. 73rd Amendment
	✗ 3. 74th Amendment
	✗ 4. 44th Amendment

Question ID :	**44100939389**
Option 1 ID :	**441009157081**
Option 2 ID :	**441009157079**
Option 3 ID :	**441009157080**
Option 4 ID :	**441009157082**
Status :	**Answered**
Chosen Option :	**2**

Q.5	Which of the following is a stringed (Tantuvadya) musical instrument?
Ans	✗ 1. Cymbals
	✗ 2. Mridangam
	✓ 3. Veena
	✗ 4. Xylophone

Question ID :	**44100946735**
Option 1 ID :	**441009186081**
Option 2 ID :	**441009186083**
Option 3 ID :	**441009186084**
Option 4 ID :	**441009186082**
Status :	**Answered**
Chosen Option :	**3**

Q.6	Which coastal plain(s) of India is/are an example(s) of a submerged coast?
Ans	✗ 1. Eastern and Western Coastal Plains
	✓ 2. Only Western Coastal Plain
	✗ 3. Southern Coastal Plain
	✗ 4. Only Eastern Coastal Plain

Question ID :	**44100943271**
Option 1 ID :	**441009172545**
Option 2 ID :	**441009172543**
Option 3 ID :	**441009172546**
Option 4 ID :	**441009172544**
Status :	**Answered**
Chosen Option :	**4**

Q.7	On the eve of Republic Day 2025, how many Armed Forces and Central Armed Police Forces personnel were approved for gallantry awards by the President of India?
Ans	✗ 1. 83
	✗ 2. 103
	✓ 3. 93
	✗ 4. 73

Question ID :	**44100940016**
Option 1 ID :	**441009159595**
Option 2 ID :	**441009159594**
Option 3 ID :	**441009159593**
Option 4 ID :	**441009159596**
Status :	**Answered**
Chosen Option :	**1**

Q.8	Who is the author of the poetry titled 'Main Jab Tak Aai Bahar' for which Sahitya Akademi Award was conferred for the year 2024?
Ans	✔ 1. Gagan Gill
	✘ 2. Dileep Jhaveri
	✘ 3. Dipak Kumar Sharma
	✘ 4. Sohan Koul

Question ID :	**44100962161**
Option 1 ID :	**441009247680**
Option 2 ID :	**441009247678**
Option 3 ID :	**441009247681**
Option 4 ID :	**441009247679**
Status :	**Answered**
Chosen Option :	**3**

Q.9	When was the first Five-year Plan launched?
Ans	✔ 1. 1951
	✘ 2. 1956
	✘ 3. 1967
	✘ 4. 1961

Question ID :	**44100940022**
Option 1 ID :	**441009159617**
Option 2 ID :	**441009159618**
Option 3 ID :	**441009159620**
Option 4 ID :	**441009159619**
Status :	**Answered**
Chosen Option :	**1**

Q.10	What is a significant feature introduced by the 73rd Amendment Act in the Panchayati Raj system?
Ans	✘ 1. Establishment of Panchayats without constitutional backing
	✘ 2. Direct election of urban municipal bodies
	✔ 3. Introduction of Gram Sabha as a constitutional body
	✘ 4. Provision for removal of Panchayat members only through judicial orders

Question ID :	**44100939393**
Option 1 ID :	**441009157097**
Option 2 ID :	**441009157095**
Option 3 ID :	**441009157096**
Option 4 ID :	**441009157098**
Status :	**Answered**
Chosen Option :	**3**

Section : **Part A General Intelligence**

Q.1	In a certain code language, 'creativity sparks innovation' is coded as 'tk jo lo' and 'innovation is needed' is coded as 'mb pt jo'. How is 'innovation' coded in the given language?
Ans	✗ 1. tk
	✓ 2. jo
	✗ 3. mb
	✗ 4. pt

Question ID :	**44100938946**
Option 1 ID :	**441009155334**
Option 2 ID :	**441009155331**
Option 3 ID :	**441009155332**
Option 4 ID :	**441009155333**
Status :	**Answered**
Chosen Option :	**2**

Q.2	In the following triads, each group of letters is related to the subsequent one following a certain logic. Select from the given options, the one which follows the same logic. NAMASTE - AMASTEN - MASTENA ETHICAL - THICALE - HICALET
Ans	✓ 1. CURTAIN - URTAINC - RTAINCU
	✗ 2. CURTAIN - URTAINC - RTIANCU
	✗ 3. CURTAIN - URTIANC - RTAINCU
	✗ 4. CURTAIN - URATINC - RTAINCU

Question ID :	**44100940191**
Option 1 ID :	**441009160292**
Option 2 ID :	**441009160289**
Option 3 ID :	**441009160290**
Option 4 ID :	**441009160291**
Status :	**Answered**
Chosen Option :	**1**

Q.3	Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)
Ans	✗ 1. GJ-MQ
	✓ 2. QT-WU
	✗ 3. IL-OS
	✗ 4. BE-HL

Question ID :	**44100939766**
Option 1 ID :	**441009158594**
Option 2 ID :	**441009158596**
Option 3 ID :	**441009158595**
Option 4 ID :	**441009158593**
Status :	**Answered**
Chosen Option :	**2**

Q.4	**Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?** **BDQ8 DGO12 FJM16 HMK20 ?**
Ans	✗ 1. KRJ21
	✗ 2. IQH23
	✓ 3. JPI24
	✗ 4. QGK25

Question ID :	**44100938982**
Option 1 ID :	**441009155477**
Option 2 ID :	**441009155476**
Option 3 ID :	**441009155475**
Option 4 ID :	**441009155478**
Status :	**Answered**
Chosen Option :	**3**

Q.5	**Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)**
Ans	✗ 1. CJE
	✓ 2. HOK
	✗ 3. RYT
	✗ 4. MTO

Question ID :	**44100939786**
Option 1 ID :	**441009158673**
Option 2 ID :	**441009158674**
Option 3 ID :	**441009158676**
Option 4 ID :	**441009158675**
Status :	**Answered**
Chosen Option :	**2**

Q.6	**Six students, Adi, Poonam, Moni, Bulbul, Shikha and Arun, are sitting in a straight line, facing north.** **Only one person sits to the right of Arun.** **Only two people sit between Moni and Bulbul.** **Only one person sits between Bulbul and Poonam.** **Shikha sits to the immediate left of Adi.** **Adi is not an immediate neighbour of Moni.** **Who sits on the extreme left end?**
Ans	✗ 1. Adi
	✗ 2. Shikha
	✗ 3. Bulbul
	✓ 4. Moni

Question ID :	**44100938950**
Option 1 ID :	**441009155348**
Option 2 ID :	**441009155349**
Option 3 ID :	**441009155347**
Option 4 ID :	**441009155350**
Status :	**Answered**
Chosen Option :	**4**

Q.7	Refer to the following letter and symbol series and answer the question that follows. Counting to be done from left to right only. (Left) N + @ # A ₹ M S T E % R & A K G W < O = P Z D ^ U * Q B F (Right) How many such symbols are there, each of which is immediately preceded by a letter and also immediately followed by another symbol?
Ans	✗ 1. Three
	✗ 2. Two
	✗ 3. None
	✓ 4. One

Question ID :	**44100939153**
Option 1 ID :	**441009156148**
Option 2 ID :	**441009156147**
Option 3 ID :	**441009156145**
Option 4 ID :	**441009156146**
Status :	**Answered**
Chosen Option :	**4**

Q.8	In a certain code language, 'A + B' means 'A is the brother of B', 'A − B' means 'A is the sister of B', 'A / B' means 'A is the husband of B', 'A ! B' means 'A is the mother of B', 'A × B' means 'A is the wife of B' and 'A * B' means 'A is the father of B'. How is M related to K if 'T + O − M + U ! K / S'?
Ans	✓ 1. Mother's brother
	✗ 2. Father
	✗ 3. Father's father
	✗ 4. Mother

Question ID :	**44100939756**
Option 1 ID :	**441009158556**
Option 2 ID :	**441009158554**
Option 3 ID :	**441009158555**
Option 4 ID :	**441009158553**
Status :	**Answered**
Chosen Option :	**1**

Q.9	In a certain code language, 'MATTER' is coded as '83' and 'SOLIDS' is coded as '84'. What is the code for 'LIQUID' in the given code language?
Ans	✗ 1. 81
	✗ 2. 80
	✗ 3. 72
	✓ 4. 78

Question ID :	**44100939019**
Option 1 ID :	**441009155618**
Option 2 ID :	**441009155616**
Option 3 ID :	**441009155615**
Option 4 ID :	**441009155617**
Status :	**Answered**
Chosen Option :	**4**

Q.10	Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. All numbers are single-digit numbers. (Left) 2 # ! 3 4 @ * $ 5 1 = + > 8 9 & $ (Right) How many such symbols are there, each of which is immediately preceded by a number and immediately followed by another symbol?
Ans	✗ 1. Three
	✗ 2. Two
	✗ 3. One
	✓ 4. Four

Question ID :	**44100938963**
Option 1 ID :	**441009155402**
Option 2 ID :	**441009155401**
Option 3 ID :	**441009155400**
Option 4 ID :	**441009155399**
Status :	**Answered**
Chosen Option :	**4**

Q.11	What should come in place of the question mark (?) in the given series based on the English alphabetical order? BDF EFI HHL KJO ?
Ans	✗ 1. FKJ
	✗ 2. RNJ
	✗ 3. NHY
	✓ 4. NLR

Question ID :	**44100938990**
Option 1 ID :	**441009155510**
Option 2 ID :	**441009155508**
Option 3 ID :	**441009155509**
Option 4 ID :	**441009155507**
Status :	**Answered**
Chosen Option :	**4**

Q.12	What will come in the place of the question mark (?) in the following equation, if '+' and '−' are interchanged, and '×' and '÷' are interchanged? 47 ÷ 48 × 2,256 + 513 − 518 = ?
Ans	✓ 1. 6
	✗ 2. −4
	✗ 3. 4
	✗ 4. 5

Question ID :	**44100940282**
Option 1 ID :	**441009160646**
Option 2 ID :	**441009160645**
Option 3 ID :	**441009160644**
Option 4 ID :	**441009160647**
Status :	**Answered**
Chosen Option :	**1**

Q.13	Seven boxes E, F, G, H, I, J and K are kept one over the other but not necessarily in the same order. K is kept immediately below E and immediately above F. G is kept immediately below F and immediately above I. J is kept immediately below I. H is kept immediately above E. Which box is kept at the bottommost position of the pile?
Ans	✗ 1. H
	✗ 2. K
	✗ 3. G
	✓ 4. J

Question ID :	**44100938932**
Option 1 ID :	**441009155275**
Option 2 ID :	**441009155278**
Option 3 ID :	**441009155277**
Option 4 ID :	**441009155276**
Status :	**Answered**
Chosen Option :	**4**

Q.14	Select the pair which follows the same pattern as that followed by the two pairs given below. Both pairs follow the same pattern. JDC:PJI MHE:SNK
Ans	✗ 1. FBD:JFH
	✓ 2. RSO:XYU
	✗ 3. GKN:HLO
	✗ 4. JFH:PNN

Question ID :	**44100939814**
Option 1 ID :	**441009158785**
Option 2 ID :	**441009158786**
Option 3 ID :	**441009158788**
Option 4 ID :	**441009158787**
Status :	**Answered**
Chosen Option :	**2**

Q.15	Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. (LEFT) 1 # 2 4 & 8 ! 3 = > 6 + 5 / $ 7 - 9 (RIGHT) If all the numbers are dropped from the series, which of the following will be 4th from the left?
Ans	✗ 1. !
	✗ 2. $
	✓ 3. =
	✗ 4. +

Question ID :	**44100938964**
Option 1 ID :	**441009155406**
Option 2 ID :	**441009155405**
Option 3 ID :	**441009155403**
Option 4 ID :	**441009155404**
Status :	**Answered**
Chosen Option :	**3**

Section : **Part A General Aptitude**

Q.1	Find the third proportional of 48 and 120.
Ans	✗ 1. 350
	✗ 2. 200
	✗ 3. 250
	✓ 4. 300

Question ID :	**44100956866**
Option 1 ID :	**441009226292**
Option 2 ID :	**441009226289**
Option 3 ID :	**441009226290**
Option 4 ID :	**441009226291**
Status :	**Answered**
Chosen Option :	**4**

Q.2	A train covered first 640 km at a speed of 160 km/hr and then covered the remaining 960 km at a speed of 120 km/hr. Find its average speed (in km/hr).
Ans	✗ 1. $131\frac{1}{3}$
	✓ 2. $133\frac{1}{3}$
	✗ 3. $130\frac{1}{3}$
	✗ 4. $132\frac{1}{3}$

Question ID :	**44100955057**
Option 1 ID :	**441009219189**
Option 2 ID :	**441009219191**
Option 3 ID :	**441009219188**
Option 4 ID :	**441009219190**
Status :	**Answered**
Chosen Option :	**2**

Q.3	A sum of ₹6,00,000 becomes ₹6,84,699.68 in n years at an annual compound interest rate of 4.5%, compounded annually. What is the value of n? (Rounded to the nearest integer.)
Ans	✓ 1. 3
	✗ 2. 6
	✗ 3. 7
	✗ 4. 5

Question ID :	**44100949534**
Option 1 ID :	**441009197408**
Option 2 ID :	**441009197410**
Option 3 ID :	**441009197411**
Option 4 ID :	**441009197409**
Status :	**Answered**
Chosen Option :	**1**

Q.4	**Water in a rectangular reservoir with a base measuring 54 metres by 40 metres and a depth of 3.5 metres needs to be emptied. If the water flows out through a pipe with a square cross-section of side 10 cm at a rate of 7.2 km/hr, how long will it take to empty the reservoir?**
Ans	✔ 1. 105 hours
	✘ 2. 90 hours
	✘ 3. 98 hours
	✘ 4. 100 hours

Question ID :	**44100952317**
Option 1 ID :	**441009208386**
Option 2 ID :	**441009208383**
Option 3 ID :	**441009208384**
Option 4 ID :	**441009208385**
Status :	**Answered**
Chosen Option :	**1**

Q.5	**A person purchased 15 litres of petrol in a container at ₹110 per litre but forgot to close the container with a lid. As a result, 20% of the petrol evaporated. At what price should he sell the remaining petrol to earn a 10% profit?**
Ans	✘ 1. ₹163.23
	✔ 2. ₹151.25
	✘ 3. ₹130.33
	✘ 4. ₹140.59

Question ID :	**44100951703**
Option 1 ID :	**441009205967**
Option 2 ID :	**441009205966**
Option 3 ID :	**441009205964**
Option 4 ID :	**441009205965**
Status :	**Answered**
Chosen Option :	**2**

Q.6	**A group of 20 workers is assigned to complete a project in 30 days. However, after 10 days, 10 workers leave the team permanently. In how long will the remaining project be completed?**
Ans	✘ 1. 10 days
	✘ 2. 30 days
	✔ 3. 40 days
	✘ 4. 20 days

Question ID :	**44100952123**
Option 1 ID :	**441009207611**
Option 2 ID :	**441009207613**
Option 3 ID :	**441009207614**
Option 4 ID :	**441009207612**
Status :	**Answered**
Chosen Option :	**3**

Q.7	**Find the simple interest for a period of 5 years at the rate of 8% per annum for a principal of ₹65,000.**
Ans	✔ 1. ₹26,000
	✘ 2. ₹25,000
	✘ 3. ₹28,000
	✘ 4. ₹29,000

Question ID :	**44100953444**
Option 1 ID :	**441009212767**
Option 2 ID :	**441009212766**
Option 3 ID :	**441009212768**
Option 4 ID :	**441009212769**
Status :	**Answered**
Chosen Option :	**1**

Q.8	**A company increases the salaries of its employees by 10% in the first year, 15% in the second year, and 5% in the third year. If an employee's salary after three years is ₹1,59,390, then what was his initial salary?**
Ans	✘ 1. ₹1,15,600
	✔ 2. ₹1,20,000
	✘ 3. ₹1,12,750
	✘ 4. ₹1,05,310

Question ID :	**44100951685**
Option 1 ID :	**441009205894**
Option 2 ID :	**441009205895**
Option 3 ID :	**441009205893**
Option 4 ID :	**441009205892**
Status :	**Answered**
Chosen Option :	**2**

Q.9	What is the mean proportional between $(9+3\sqrt{3})$ and $(18-6\sqrt{3})$?
Ans	✘ 1. $5\sqrt{3}$
	✘ 2. $4\sqrt{3}$
	✔ 3. $6\sqrt{3}$
	✘ 4. $2\sqrt{3}$

Question ID :	**44100956857**
Option 1 ID :	**441009226255**
Option 2 ID :	**441009226254**
Option 3 ID :	**441009226256**
Option 4 ID :	**441009226253**
Status :	**Answered**
Chosen Option :	**3**

Q.10	What is the equivalent common fraction form of $0.\overline{2} + 0.125$?
Ans	✔ 1. $\frac{25}{72}$
	✘ 2. $\frac{24}{61}$
	✘ 3. $\frac{13}{18}$
	✘ 4. $\frac{19}{43}$

Question ID :	**44100951573**
Option 1 ID :	**441009205443**
Option 2 ID :	**441009205442**
Option 3 ID :	**441009205440**
Option 4 ID :	**441009205441**
Status :	**Answered**
Chosen Option :	**1**

Q.11	A shopkeeper makes a net profit of 71% on selling an article at succes Find the net profit percentage, if the shopkeeper sells the same article
Ans	✔ 1. 85%
	✘ 2. 75%
	✘ 3. 80%
	✘ 4. 70%

Question ID :	**441009188294**
Option 1 ID :	**441009743067**
Option 2 ID :	**441009743065**
Option 3 ID :	**441009743066**
Option 4 ID :	**441009743064**
Status :	**Answered**
Chosen Option :	**2**

Q.12	The average of 5, 6, 4, 12, 8, 10, 16, 14, 9, 20, 18, 22, 15, and K is 16. Find K's value.
Ans	✔ 1. 65
	✘ 2. 62
	✘ 3. 58
	✘ 4. 54

Question ID :	**44100953367**
Option 1 ID :	**441009212463**
Option 2 ID :	**441009212462**
Option 3 ID :	**441009212461**
Option 4 ID :	**441009212460**
Status :	**Answered**
Chosen Option :	**1**

Q.13	Find the value of x, when $22^{-17} \times 22^{(3x+14)} = 22^{16} \div 22^{10}$.
Ans	✗ 1. 4
	✗ 2. 5
	✓ 3. 3
	✗ 4. 2

Question ID :	**44100949404**
Option 1 ID :	**441009196898**
Option 2 ID :	**441009196899**
Option 3 ID :	**441009196897**
Option 4 ID :	**441009196896**
Status :	**Answered**
Chosen Option :	**3**

Q.14	**Two spheres made of the same metal weigh 1 kg and 3.5 kg. The smaller sphere has a radius of 1.5 cm. Both spheres are melted and reshaped into a single larger sphere. What is the cube of the radius of the newly formed sphere? (Use Mass = Density × Volume, rounded off to the nearest integer.)**
Ans	✓ 1. 15
	✗ 2. 13
	✗ 3. 11
	✗ 4. 18

Question ID :	**44100952350**
Option 1 ID :	**441009208498**
Option 2 ID :	**441009208497**
Option 3 ID :	**441009208496**
Option 4 ID :	**441009208499**
Status :	**Answered**
Chosen Option :	**3**

Q.15	**Kuldeep can swim with a speed of 10 km/hr in still water. If the speed of the stream is 4 km/hr, what will be the time taken by Kuldeep to go 98 km downstream?**
Ans	✗ 1. 6 hours
	✗ 2. 5 hours
	✓ 3. 7 hours
	✗ 4. 8 hours

Question ID :	**44100954996**
Option 1 ID :	**441009218954**
Option 2 ID :	**441009218953**
Option 3 ID :	**441009218955**
Option 4 ID :	**441009218956**
Status :	**Answered**
Chosen Option :	**3**

Section : **Part A General English**

Q.1	Select the INCORRECTLY spelt word.
Ans	✗ 1. Cacophony
	✗ 2. Unnecessary
	✗ 3. Embarrassment
	✓ 4. Bougeoise

Question ID :	**44100965297**
Option 1 ID :	**441009260211**
Option 2 ID :	**441009260209**
Option 3 ID :	**441009260212**
Option 4 ID :	**441009260210**
Status :	**Answered**
Chosen Option :	**4**

Q.2	Select the most appropriate meaning of the given word. Nefarious
Ans	✗ 1. Scrupulous
	✓ 2. Pernicious
	✗ 3. Sublime
	✗ 4. Virtuous

Question ID :	**44100965379**
Option 1 ID :	**441009260518**
Option 2 ID :	**441009260517**
Option 3 ID :	**441009260520**
Option 4 ID :	**441009260519**
Status :	**Answered**
Chosen Option :	**2**

Q.3	Select the most appropriate verb to fill in the blank. Can you ____ me where he lives?
Ans	✗ 1. suggest
	✗ 2. write
	✗ 3. ask
	✓ 4. tell

Question ID :	**44100951362**
Option 1 ID :	**441009204593**
Option 2 ID :	**441009204594**
Option 3 ID :	**441009204592**
Option 4 ID :	**441009204591**
Status :	**Answered**
Chosen Option :	**4**

Q.4	**Select the most appropriate meaning of the given idiom.** **Bite the bullet**
Ans	✗ 1. Doing something in an easier and least expensive manner
	✓ 2. Finish something no matter how unsatisfying or unpleasant it is
	✗ 3. Stuck in a difficult circumstance with no escape
	✗ 4. Doing something that has never been done before

Question ID :	**44100951357**
Option 1 ID :	**441009204574**
Option 2 ID :	**441009204572**
Option 3 ID :	**441009204571**
Option 4 ID :	**441009204573**
Status :	**Answered**
Chosen Option :	**2**

Q.5	**Select the most appropriate form of the past tense that can substitute the underlined segment to rectify the given sentence.** **By the time I reached the station, the train <u>already left</u>.**
Ans	✓ 1. had already left
	✗ 2. was already leaving
	✗ 3. have already left
	✗ 4. has already left

Question ID :	**44100964739**
Option 1 ID :	**441009257904**
Option 2 ID :	**441009257906**
Option 3 ID :	**441009257905**
Option 4 ID :	**441009257903**
Status :	**Answered**
Chosen Option :	**1**

Q.6	**Select the most appropriate meaning of the given idiom.** **Cold feet**
Ans	✓ 1. Becoming nervous
	✗ 2. To have patience
	✗ 3. Not feeling good
	✗ 4. Going to sleep

Question ID :	**44100951347**
Option 1 ID :	**441009204531**
Option 2 ID :	**441009204534**
Option 3 ID :	**441009204532**
Option 4 ID :	**441009204533**
Status :	**Answered**
Chosen Option :	**1**

Q.7	**Select the option that can be used as a one-word substitute for the given group of words.** **A study of election trends**
Ans	✗ 1. Acoustics
	✗ 2. Philology
	✗ 3. Theology
	✓ 4. Psephology

Question ID :	**44100946570**
Option 1 ID :	**441009185433**
Option 2 ID :	**441009185434**
Option 3 ID :	**441009185431**
Option 4 ID :	**441009185432**
Status :	**Answered**
Chosen Option :	**4**

Q.8	**Select the most appropriate option to fill in the blanks.** **Although Jane had practised the dance routine for weeks, she still felt _____ than her teammates, who seemed to move with _____ grace.**
Ans	✗ 1. clumsy; more effortless
	✓ 2. clumsier; effortless
	✗ 3. clumsy; effortless
	✗ 4. clumsiest; more effortless

Question ID :	**44100965055**
Option 1 ID :	**441009259252**
Option 2 ID :	**441009259249**
Option 3 ID :	**441009259251**
Option 4 ID :	**441009259250**
Status :	**Answered**
Chosen Option :	**2**

Q.9	**Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.** **A. For centuries, humans have tried to master the art of flight.** **B. It was not until the early 20th century that the dream was realised with the invention of the airplane.** **C. Despite numerous attempts, many of these efforts ended in failure.** **D. Today, aviation is one of the most important modes of transportation.**
Ans	✗ 1. BCAD
	✓ 2. DABC
	✗ 3. CBAD
	✗ 4. BACD

Question ID :	**44100957313**
Option 1 ID :	**441009228120**
Option 2 ID :	**441009228121**
Option 3 ID :	**441009228119**
Option 4 ID :	**441009228122**
Status :	**Answered**
Chosen Option :	**4**

Q.10	Select the INCORRECTLY spelt word.
Ans	✗ 1. Referred
	✗ 2. Occurrence
	✗ 3. Acknowledgment
	✓ 4. Supercede

Question ID :	**44100965287**
Option 1 ID :	**441009260168**
Option 2 ID :	**441009260167**
Option 3 ID :	**441009260166**
Option 4 ID :	**441009260165**
Status :	**Answered**
Chosen Option :	**4**

Q.11	Select the option that can be used as a one-word substitute for the given group of words. One who demands strict conformity to rules
Ans	✓ 1. Martinet
	✗ 2. Opthalmologist
	✗ 3. Endodontist
	✗ 4. Omnipotent

Question ID :	**44100946576**
Option 1 ID :	**441009185457**
Option 2 ID :	**441009185456**
Option 3 ID :	**441009185455**
Option 4 ID :	**441009185458**
Status :	**Answered**
Chosen Option :	**1**

Q.12	Identify the option that rectifies the given sentence to make it grammatically correct. He never come here again.
Ans	✓ 1. comes
	✗ 2. would come
	✗ 3. coming
	✗ 4. came

Question ID :	**44100947055**
Option 1 ID :	**441009187339**
Option 2 ID :	**441009187341**
Option 3 ID :	**441009187342**
Option 4 ID :	**441009187340**
Status :	**Answered**
Chosen Option :	**4**

Q.13	**Select the most appropriate article to fill in the blank. If no article is needed, select 'No article required'.** **The dictator's reign was characterised by a totalitarian form of government, where he controlled every aspect of life in _____ country.**
Ans	✗ 1. an
	✗ 2. a
	✓ 3. the
	✗ 4. No article required

Question ID :	**44100960481**
Option 1 ID :	**441009240884**
Option 2 ID :	**441009240883**
Option 3 ID :	**441009240885**
Option 4 ID :	**441009240886**
Status :	**Answered**
Chosen Option :	**3**

Q.14	**Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.** **A. Despite the significant benefits of globalisation, it has also exacerbated inequality, with wealth becoming concentrated in fewer hands.** **B. On the other hand, critics of globalisation argue that it has led to the erosion of local cultures and industries.** **C. Globalisation has led to unprecedented economic growth, connecting markets and fostering innovation on a global scale.** **D. Furthermore, it has had an uneven impact on different regions, leaving some countries struggling to adapt to rapidly changing global dynamics.**
Ans	✗ 1. CDBA
	✓ 2. CDAB
	✗ 3. DBCA
	✗ 4. ABCD

Question ID :	**44100957340**
Option 1 ID :	**441009228187**
Option 2 ID :	**441009228189**
Option 3 ID :	**441009228190**
Option 4 ID :	**441009228188**
Status :	**Answered**
Chosen Option :	**1**

Q.15	**Select the most appropriate ANTONYM of the given word.** **Trivial**
Ans	✗ 1. Obvious
	✗ 2. Unimportant
	✗ 3. Insignificant
	✓ 4. Important

Question ID :	**44100965325**
Option 1 ID :	**441009260319**
Option 2 ID :	**441009260318**
Option 3 ID :	**441009260320**
Option 4 ID :	**441009260317**
Status :	**Answered**
Chosen Option :	**4**

	Comprehension:
	Read the given passage and answer the questions that follow. The First Wave of Feminism, emerging in the late 19th and early 20th centuries, was a pioneering movement advocating for women's legal and political rights. Rooted in Enlightenment ideals of equality and justice, this wave primarily focused on suffrage, property rights and access to education. Leaders like Susan B. Anthony, Elizabeth Cady Stanton and Emmeline Pankhurst played pivotal roles in mobilising women through writings, speeches and organised protests. The Seneca Falls Convention of 1848, often seen as the catalyst for the movement, produced the Declaration of Sentiments, demanding equal rights. Women's relentless activism culminated in landmark victories, such as the passage of the Nineteenth Amendment in the United States and the Representation of the People Act in Britain. Despite its successes, the movement was criticised for primarily addressing the concerns of white, middle-class women, often neglecting the experiences of women of colour and the working class. However, the First Wave laid the foundation for subsequent feminist movements, shaping future struggles for gender equality. Its achievements inspired later waves of feminism, which sought to address broader issues such as workplace rights, reproductive freedom and intersectionality. The First Wave remains a crucial chapter in the ongoing fight for women's empowerment.
	SubQuestion No : 16
Q.16	**Which word is the ANTONYM of 'pioneering' as used in the passage?**
Ans	✗ 1. Revolutionary
	✗ 2. Progressive
	✗ 3. Innovative
	✓ 4. Traditional

Question ID :	**44100934586**
Option 1 ID :	**441009137740**
Option 2 ID :	**441009137741**
Option 3 ID :	**441009137739**
Option 4 ID :	**441009137738**
Status :	**Answered**
Chosen Option :	**4**

	Comprehension:
	Read the given passage and answer the questions that follow. The First Wave of Feminism, emerging in the late 19th and early 20th centuries, was a pioneering movement advocating for women's legal and political rights. Rooted in Enlightenment ideals of equality and justice, this wave primarily focused on suffrage, property rights and access to education. Leaders like Susan B. Anthony, Elizabeth Cady Stanton and Emmeline Pankhurst played pivotal roles in mobilising women through writings, speeches and organised protests. The Seneca Falls Convention of 1848, often seen as the catalyst for the movement, produced the Declaration of Sentiments, demanding equal rights. Women's relentless activism culminated in landmark victories, such as the passage of the Nineteenth Amendment in the United States and the Representation of the People Act in Britain. Despite its successes, the movement was criticised for primarily addressing the concerns of white, middle-class women, often neglecting the experiences of women of colour and the working class. However, the First Wave laid the foundation for subsequent feminist movements, shaping future struggles for gender equality. Its achievements inspired later waves of feminism, which sought to address broader issues such as workplace rights, reproductive freedom and intersectionality. The First Wave remains a crucial chapter in the ongoing fight for women's empowerment.
	SubQuestion No : 17
Q.17	**Which of the following was NOT a major focus of the First Wave of Feminism?**
Ans	✗ 1. Equal access to education
	✗ 2. Property rights
	✗ 3. Women's suffrage
	✓ 4. Workplace discrimination laws

Question ID :	**44100934584**
Option 1 ID :	**441009137731**
Option 2 ID :	**441009137733**
Option 3 ID :	**441009137730**
Option 4 ID :	**441009137732**
Status :	**Answered**
Chosen Option :	**4**

	Comprehension:
	Read the given passage and answer the questions that follow. The First Wave of Feminism, emerging in the late 19th and early 20th centuries, was a pioneering movement advocating for women's legal and political rights. Rooted in Enlightenment ideals of equality and justice, this wave primarily focused on suffrage, property rights and access to education. Leaders like Susan B. Anthony, Elizabeth Cady Stanton and Emmeline Pankhurst played pivotal roles in mobilising women through writings, speeches and organised protests. The Seneca Falls Convention of 1848, often seen as the catalyst for the movement, produced the Declaration of Sentiments, demanding equal rights. Women's relentless activism culminated in landmark victories, such as the passage of the Nineteenth Amendment in the United States and the Representation of the People Act in Britain. Despite its successes, the movement was criticised for primarily addressing the concerns of white, middle-class women, often neglecting the experiences of women of colour and the working class. However, the First Wave laid the foundation for subsequent feminist movements, shaping future struggles for gender equality. Its achievements inspired later waves of feminism, which sought to address broader issues such as workplace rights, reproductive freedom and intersectionality. The First Wave remains a crucial chapter in the ongoing fight for women's empowerment.
	SubQuestion No : 18
Q.18	**What is the tone of the passage?**
Ans	✗ 1. Sarcastic and dismissive
	✗ 2. Romanticised and exaggerated
	✗ 3. Passionate and biased
	✓ 4. Neutral and historical

Question ID :	**44100934583**
Option 1 ID :	**441009137727**
Option 2 ID :	**441009137729**
Option 3 ID :	**441009137728**
Option 4 ID :	**441009137726**
Status :	**Answered**
Chosen Option :	**4**

	Comprehension:
	Read the given passage and answer the questions that follow. The First Wave of Feminism, emerging in the late 19th and early 20th centuries, was a pioneering movement advocating for women's legal and political rights. Rooted in Enlightenment ideals of equality and justice, this wave primarily focused on suffrage, property rights and access to education. Leaders like Susan B. Anthony, Elizabeth Cady Stanton and Emmeline Pankhurst played pivotal roles in mobilising women through writings, speeches and organised protests. The Seneca Falls Convention of 1848, often seen as the catalyst for the movement, produced the Declaration of Sentiments, demanding equal rights. Women's relentless activism culminated in landmark victories, such as the passage of the Nineteenth Amendment in the United States and the Representation of the People Act in Britain. Despite its successes, the movement was criticised for primarily addressing the concerns of white, middle-class women, often neglecting the experiences of women of colour and the working class. However, the First Wave laid the foundation for subsequent feminist movements, shaping future struggles for gender equality. Its achievements inspired later waves of feminism, which sought to address broader issues such as workplace rights, reproductive freedom and intersectionality. The First Wave remains a crucial chapter in the ongoing fight for women's empowerment.

	SubQuestion No : 19
Q.19	**Which title best captures the essence of the passage?**
Ans	✗ 1. Women's Struggles in the 21st Century
	✗ 2. The Political Impact of the Nineteenth Amendment
	✓ 3. The First Wave of Feminism: A Fight for Equality
	✗ 4. The Evolution of Modern Feminism

Question ID :	**44100934582**
Option 1 ID :	**441009137725**
Option 2 ID :	**441009137722**
Option 3 ID :	**441009137724**
Option 4 ID :	**441009137723**
Status :	**Answered**
Chosen Option :	**3**

	Comprehension:
	Read the given passage and answer the questions that follow. The First Wave of Feminism, emerging in the late 19th and early 20th centuries, was a pioneering movement advocating for women's legal and political rights. Rooted in Enlightenment ideals of equality and justice, this wave primarily focused on suffrage, property rights and access to education. Leaders like Susan B. Anthony, Elizabeth Cady Stanton and Emmeline Pankhurst played pivotal roles in mobilising women through writings, speeches and organised protests. The Seneca Falls Convention of 1848, often seen as the catalyst for the movement, produced the Declaration of Sentiments, demanding equal rights. Women's relentless activism culminated in landmark victories, such as the passage of the Nineteenth Amendment in the United States and the Representation of the People Act in Britain. Despite its successes, the movement was criticised for primarily addressing the concerns of white, middle-class women, often neglecting the experiences of women of colour and the working class. However, the First Wave laid the foundation for subsequent feminist movements, shaping future struggles for gender equality. Its achievements inspired later waves of feminism, which sought to address broader issues such as workplace rights, reproductive freedom and intersectionality. The First Wave remains a crucial chapter in the ongoing fight for women's empowerment.

	SubQuestion No : 20
Q.20	**What can be inferred about the limitations of the First Wave of Feminism?**
Ans	✗ 1. It was largely ineffective and failed to achieve its goals.
	✗ 2. It successfully addressed all issues of gender inequality.
	✗ 3. It did not influence later feminist movements.
	✓ 4. It only benefited elite women and ignored other marginalised groups.

Question ID :	**44100934585**
Option 1 ID :	**441009137736**
Option 2 ID :	**441009137735**
Option 3 ID :	**441009137737**
Option 4 ID :	**441009137734**
Status :	**Not Answered**
Chosen Option :	**--**

Section : **Part B Discipline related**

Q.1	**According to the kinetic interpretation of temperature, what happens to an ideal gas at absolute zero temperature i.e. 0 K?**
Ans	✓ 1. The motion of gas molecules completely stops.
	✗ 2. The average kinetic energy of gas molecules is maximum.
	✗ 3. The intermolecular collisions become more frequent.
	✗ 4. The potential energy of gas molecules is at its peak.

Question ID :	**441009130334**
Option 1 ID :	**441009517728**
Option 2 ID :	**441009517727**
Option 3 ID :	**441009517730**
Option 4 ID :	**441009517729**
Status :	**Answered**
Chosen Option :	**1**

Q.2	Which of the following materials is commonly used as a pentavalent impurity in n-type semiconductors?
Ans	✗ 1. Gallium
	✗ 2. Boron
	✗ 3. Indium
	✓ 4. Phosphorus

Question ID :	**44100992518**
Option 1 ID :	**441009367792**
Option 2 ID :	**441009367789**
Option 3 ID :	**441009367790**
Option 4 ID :	**441009367791**
Status :	**Answered**
Chosen Option :	**4**

Q.3	The frequency of X-rays is less than the frequency of:
Ans	✗ 1. microwaves
	✓ 2. gamma rays
	✗ 3. ultraviolet rays
	✗ 4. radio waves

Question ID :	**441009135075**
Option 1 ID :	**441009536926**
Option 2 ID :	**441009536924**
Option 3 ID :	**441009536925**
Option 4 ID :	**441009536927**
Status :	**Answered**
Chosen Option :	**2**

Q.4	If $\cot(x) = -\frac{5}{12}$, x lies in the second quadrant , then which of the follo
Ans	✓ 1. $\sec(x) = -\frac{13}{5}$
	✗ 2. $\sec(x) = \frac{13}{5}$
	✗ 3. $\cos(x) = -\frac{12}{5}$
	✗ 4. $\cos(x) = -\frac{13}{5}$

Question ID :	**441009143426**
Option 1 ID :	**441009569723**
Option 2 ID :	**441009569724**
Option 3 ID :	**441009569725**
Option 4 ID :	**441009569726**
Status :	**Answered**
Chosen Option :	**1**

Q.5	A battery with an EMF of 25 V and an internal resistance of 2 Ω is connected to a 4 Ω and 12 Ω resistor in parallel. What will be the total current drawn from the battery?
Ans	✔ 1. 5 A
	✘ 2. 3 A
	✘ 3. 1.5 A
	✘ 4. 10 A

Question ID :	**441009130446**
Option 1 ID :	**441009518198**
Option 2 ID :	**441009518197**
Option 3 ID :	**441009518195**
Option 4 ID :	**441009518196**
Status :	**Answered**
Chosen Option :	**1**

Q.6	The gravitational force between two bodies of the same mass m kept at a distance ‘d’ apart is X. If the mass of both the bodies is doubled, then what should be the new distance (d') between the two bodies so that the gravitational force between the bodies remains X?
Ans	✔ 1. d' = 2d
	✘ 2. d' = d/2
	✘ 3. d' = 4d
	✘ 4. d' = d/4

Question ID :	**441009110012**
Option 1 ID :	**441009438520**
Option 2 ID :	**441009438522**
Option 3 ID :	**441009438521**
Option 4 ID :	**441009438523**
Status :	**Answered**
Chosen Option :	**1**

Q.7	A light ray is incident on a smooth plane mirror at an angle (90° − θ) with the mirror's surface. If the same ray were to strike the mirror at an angle 2θ with the normal instead, how much would the angle of reflection change?
Ans	✘ 1. Depends on the wavelength of light
	✔ 2. θ
	✘ 3. 2θ
	✘ 4. No change

Question ID :	**441009116339**
Option 1 ID :	**441009462791**
Option 2 ID :	**441009462788**
Option 3 ID :	**441009462789**
Option 4 ID :	**441009462790**
Status :	**Answered**
Chosen Option :	**2**

Q.8	Which of the following is a non-empty finite set?
Ans	✔ 1. $C = \{x: x \in \mathbb{N} \text{ and } x^2 = 4\}$
	✘ 2. $D = \{x: x^2 - 2 = 0 \text{ and } x \text{ is a rational number}\}$
	✘ 3. $A = \{x \in \mathbb{N} \text{ and } 2x - 1 = 0\}$
	✘ 4. $B = \{x: x \text{ is an even prime number greater than } 2\}$

Question ID :	**441009118600**
Option 1 ID :	**441009471556**
Option 2 ID :	**441009471557**
Option 3 ID :	**441009471554**
Option 4 ID :	**441009471555**
Status :	**Answered**
Chosen Option :	**1**

Q.9	For an isothermal process, the work done 'W' in case of an ideal gas is given by: (Symbols have their usual meanings)
Ans	✘ 1. $W = \frac{PV}{T_2 - T_1}$
	✘ 2. $W = nRTlnP1P_2$
	✔ 3. $W = nRTln\frac{V_2}{V_1}$
	✘ 4. $W = PV(T_2 - T_1)$

Question ID :	**441009149457**
Option 1 ID :	**441009593582**
Option 2 ID :	**441009593581**
Option 3 ID :	**441009593580**
Option 4 ID :	**441009593583**
Status :	**Answered**
Chosen Option :	**3**

Q.10	Which of the following expressions is true for the effective focal length f for the combination of two thin lenses having focal length f_1 and f_2?
Ans	✔ 1. $f = \frac{f_1 f_2}{f_1 + f_2}$
	✘ 2. $f = \frac{f_1 - f_2}{f_1 f_2}$
	✘ 3. $f = \frac{f_1 f_2}{f_1 - f_2}$
	✘ 4. $f = \frac{f_1 + f_2}{f_1 f_2}$

Question ID :	**441009145760**
Option 1 ID :	**441009578943**
Option 2 ID :	**441009578946**
Option 3 ID :	**441009578944**
Option 4 ID :	**441009578945**
Status :	**Answered**
Chosen Option :	**1**

Q.11	A new unit of length is defined such that the speed of light in vacuum is numerically equal to 1 in this unit system. If the SI value of the speed of light is 3×10^8 m/s, what would be the unit conversion factor from metres to this new unit?
Ans	✗ 1. 3.0×10^8
	✗ 2. 9.0×10^{16}
	✗ 3. 0
	✓ 4. $\frac{1}{3.0\times10^8}$

Question ID :	**441009136959**
Option 1 ID :	**441009544069**
Option 2 ID :	**441009544072**
Option 3 ID :	**441009544071**
Option 4 ID :	**441009544070**
Status :	**Answered**
Chosen Option :	**4**

Q.12	Which of the following is a solution for 'r' if $5\cdot{}^4P_r = 6\cdot{}^5P_{r-1}$?
Ans	✗ 1. 4
	✓ 2. 3
	✗ 3. 6
	✗ 4. 5

Question ID :	**441009118792**
Option 1 ID :	**441009472297**
Option 2 ID :	**441009472296**
Option 3 ID :	**441009472295**
Option 4 ID :	**441009472294**
Status :	**Answered**
Chosen Option :	**2**

Q.13	$\lim\limits_{x\to0}\sin\left(\frac{e^x-x-1-\frac{x^2}{2}}{x^2}\right)$ is:
Ans	✗ 1. 1
	✓ 2. 0
	✗ 3. does not exist
	✗ 4. $\frac{1}{2}$

Question ID :	**441009106364**
Option 1 ID :	**441009423479**
Option 2 ID :	**441009423480**
Option 3 ID :	**441009423482**
Option 4 ID :	**441009423481**
Status :	**Answered**
Chosen Option :	**2**

Q.14	The rectangle with length of non − parallel sides a and b, respectively, fixed circle. The area of rectangle is maximum if:
Ans	✗ 1. $a = 2b$ or $b = 2a$
	✗ 2. $a \neq b$
	✓ 3. $a = b$
	✗ 4. $a = b^2$ or $b = a^2$

Question ID :	**441009159295**
Option 1 ID :	**441009632054**
Option 2 ID :	**441009632051**
Option 3 ID :	**441009632052**
Option 4 ID :	**441009632053**
Status :	**Answered**
Chosen Option :	**2**

Q.15	A person moves 5 m north, then 4 m east, and then 8 m south. What is the total path length and displacement?
Ans	✗ 1. Path length = 7 m; Displacement = 5 m
	✓ 2. Path length = 17 m; Displacement = 5 m
	✗ 3. Path length = 7 m; Displacement = 3 m
	✗ 4. Path length = 17 m; Displacement = 4 m

Question ID :	**441009137005**
Option 1 ID :	**441009544260**
Option 2 ID :	**441009544257**
Option 3 ID :	**441009544258**
Option 4 ID :	**441009544259**
Status :	**Answered**
Chosen Option :	**2**

Q.16	What is the angle θ between the pair of lines given by $\vec{r} = 3\hat{i} + 2\hat{j} - 4\hat{k} + \lambda(\hat{i} + 2\hat{j} + 2\hat{k})$ and $\vec{r} = 5\hat{i} - 2\hat{j} + \mu(3\hat{i} + 2\hat{j} + 6\hat{k})$?
Ans	✗ 1. $\theta = \cos^{-1}\left(\frac{11}{29}\right)$
	✓ 2. $\theta = \cos^{-1}\left(\frac{19}{21}\right)$
	✗ 3. $\theta = \cos^{-1}\left(\frac{19}{29}\right)$
	✗ 4. $\theta = \cos^{-1}\left(\frac{11}{21}\right)$

Question ID :	**441009143639**
Option 1 ID :	**441009570542**
Option 2 ID :	**441009570544**
Option 3 ID :	**441009570541**
Option 4 ID :	**441009570543**
Status :	**Answered**
Chosen Option :	**2**

Q.17	Find the equation of lines, which make intercepts on the axes whose p and sum are -8 and 2, respectively.
Ans	✗ 1. $x+2y=4$, $2x+y=4$
	✗ 2. $x+2y=-4$, $2x+y=-4$
	✓ 3. $x-2y=4$, $-2x+y=4$
	✗ 4. $-x+2y=4$, $2x-y=4$

Question ID :	**441009157194**
Option 1 ID :	**441009623955**
Option 2 ID :	**441009623958**
Option 3 ID :	**441009623957**
Option 4 ID :	**441009623956**
Status :	**Answered**
Chosen Option :	**4**

Q.18	**A concave lens has a focal length of (−12 cm). An object is placed 18 cm from the lens. What is the image distance and the magnification?**
Ans	✗ 1. Image distance = +7.2 cm; Magnification = −0.4
	✗ 2. Image distance = −7.2 cm; Magnification = −0.4
	✓ 3. Image distance = −7.2 cm; Magnification = 0.4
	✗ 4. Image distance = +7.2 cm; Magnification = 0.4

Question ID :	**441009116305**
Option 1 ID :	**441009462659**
Option 2 ID :	**441009462657**
Option 3 ID :	**441009462656**
Option 4 ID :	**441009462658**
Status :	**Answered**
Chosen Option :	**3**

Q.19	**Two wires of equal length and having radius 1 cm and 4 cm, respectively, are made up of same material. The ratio of the resistance of the wires is given by:**
Ans	✗ 1. 1 : 4
	✗ 2. 4 : 1
	✗ 3. 1 : 16
	✓ 4. 16 : 1

Question ID :	**441009135011**
Option 1 ID :	**441009536673**
Option 2 ID :	**441009536674**
Option 3 ID :	**441009536675**
Option 4 ID :	**441009536672**
Status :	**Answered**
Chosen Option :	**4**

Q.20	If the matrix $A=\begin{bmatrix} x & y \\ z & w \end{bmatrix}$ is skew symmetric, then which of the follow
Ans	✔ 1. $x+w=0$
	✘ 2. $x+z=0$
	✘ 3. $x-y=0$
	✘ 4. $y-z=0$

Question ID :	**441009116763**
Option 1 ID :	**441009464174**
Option 2 ID :	**441009464173**
Option 3 ID :	**441009464171**
Option 4 ID :	**441009464172**
Status :	**Answered**
Chosen Option :	**2**

Q.21	Which of the following is true?
Ans	✔ 1. Vectors having same magnitude and directions are colinear.
	✘ 2. Two vectors having same magnitude are colinear.
	✘ 3. Two colinear vectors are always equal in magnitude.
	✘ 4. Colinear vectors having same magnitude are equal.

Question ID :	**441009118122**
Option 1 ID :	**441009469655**
Option 2 ID :	**441009469653**
Option 3 ID :	**441009469652**
Option 4 ID :	**441009469654**
Status :	**Answered**
Chosen Option :	**4**

Q.22	If $(a_n)_{n=1}^{\infty}$ is a Fibonacci sequence, then find $\sum_{n=1}^{6} a_n$.
Ans	✘ 1. 19
	✔ 2. 20
	✘ 3. 31
	✘ 4. 33

Question ID :	**441009154414**
Option 1 ID :	**441009612827**
Option 2 ID :	**441009612826**
Option 3 ID :	**441009612829**
Option 4 ID :	**441009612828**
Status :	**Answered**
Chosen Option :	**4**

Q.23	If the lines $\frac{x-1}{-3}=\frac{y-2}{2k}=\frac{z-3}{2}$ and $\frac{x-1}{3k}=\frac{y-1}{1}=\frac{z-6}{-5}$ are perpendicular, what is the value of k?
Ans	✗ 1. $k=-\frac{10}{11}$
	✓ 2. $k=-\frac{10}{7}$
	✗ 3. $k=-\frac{7}{10}$
	✗ 4. $k=-\frac{5}{7}$

Question ID :	**441009143636**
Option 1 ID :	**441009570531**
Option 2 ID :	**441009570530**
Option 3 ID :	**441009570532**
Option 4 ID :	**441009570529**
Status :	**Answered**
Chosen Option :	**2**

Q.24	A body of mass 4 kg is moved up a rough inclined plane of height 20m. If the total work done in sliding the body up the inclined plane is 1600 J, then how much is the work done against friction? (Take g = 10m/s^2)
Ans	✓ 1. 800 J
	✗ 2. 2400 J
	✗ 3. 1600 J
	✗ 4. 0 J

Question ID :	**441009116443**
Option 1 ID :	**441009463193**
Option 2 ID :	**441009463192**
Option 3 ID :	**441009463194**
Option 4 ID :	**441009463191**
Status :	**Answered**
Chosen Option :	**1**

Q.25	The capacitance of a parallel plate capacitor with air between the plates of the capacitor is C. Let the area of the plates be A and the distance between the plates be d. If the distance between the plates is reduced to d/4, the capacitance of this capacitor becomes C'. What will be the ratio of C:C'? (Keep the rest of the parameters the same)
Ans	✗ 1. 4:1
	✗ 2. 1:2
	✓ 3. 1:4
	✗ 4. 2:1

Question ID :	**441009109747**
Option 1 ID :	**441009436713**
Option 2 ID :	**441009436715**
Option 3 ID :	**441009436716**
Option 4 ID :	**441009436714**
Status :	**Answered**
Chosen Option :	**3**

Q.26	Which of the following is an infinite set?
Ans	✔ 1. The set of all rational numbers between 0 and 1
	✘ 2. The set of all leaves on all the trees on earth
	✘ 3. The set of prime numbers less than 99
	✘ 4. The set of all insects on earth

Question ID :	**441009118625**
Option 1 ID :	**441009471653**
Option 2 ID :	**441009471650**
Option 3 ID :	**441009471651**
Option 4 ID :	**441009471652**
Status :	**Answered**
Chosen Option :	**1**

Q.27	According to Hooke's law:
Ans	✔ 1. stress is directly proportional to strain
	✘ 2. stress is inversely proportional to strain
	✘ 3. stress is directly proportional to the square of strain
	✘ 4. stress is inversely proportional to the square of strain

Question ID :	**441009146079**
Option 1 ID :	**441009580186**
Option 2 ID :	**441009580188**
Option 3 ID :	**441009580187**
Option 4 ID :	**441009580189**
Status :	**Answered**
Chosen Option :	**1**

Q.28	Which of the following binary operations defined on the set of integers is associative?
Ans	✔ 1. $a*b=\max\{a,b\}$
	✘ 2. $a*b=a^b$
	✘ 3. $a*b=2a+b$
	✘ 4. $a*b=a-b$

Question ID :	**441009143485**
Option 1 ID :	**441009569960**
Option 2 ID :	**441009569959**
Option 3 ID :	**441009569958**
Option 4 ID :	**441009569957**
Status :	**Answered**
Chosen Option :	**2**

Q.29	When steam at 100°C is passed into 60 g of water at 10°C, the temperature of water rises to 40°C. What will be the total mass of water (in g) at 40°C?
Ans	✗ 1. 57
	✗ 2. 67
	✗ 3. 4
	✓ 4. 63

Question ID :	**441009116289**
Option 1 ID :	**441009462593**
Option 2 ID :	**441009462595**
Option 3 ID :	**441009462592**
Option 4 ID :	**441009462594**
Status :	**Answered**
Chosen Option :	**4**

Q.30	Which of the following is the correct unit for the tensile stress acting on a metal wire?
Ans	✗ 1. Nm^2
	✓ 2. N/m^2
	✗ 3. Nm
	✗ 4. N/m

Question ID :	**441009114641**
Option 1 ID :	**441009455995**
Option 2 ID :	**441009455994**
Option 3 ID :	**441009455996**
Option 4 ID :	**441009455997**
Status :	**Answered**
Chosen Option :	**2**

Q.31	The distance between the parallel lines L_1 and L_2 whose equations are given by $\vec{r} = \vec{a_1} + \lambda\vec{b}$ $\vec{r} = \vec{a_2} + \mu\vec{b}$ where $\vec{a_1}$ and $\vec{a_2}$ are the positive vectors on L_1 and L_2 is:
Ans	✗ 1. $\frac{\lvert\vec{b} \times (\vec{a_2} + \vec{a_1})\rvert}{\lvert\vec{a_2} \times \vec{a_1}\rvert}$
	✗ 2. $\lvert\vec{b} \times (\vec{a_2} - \vec{a_1})\rvert$
	✓ 3. $\frac{\lvert\vec{b} \times (\vec{a_2} - \vec{a_1})\rvert}{\lvert\vec{b}\rvert}$
	✗ 4. $\frac{\lvert\vec{b} \times (\vec{a_2} + \vec{a_1})\rvert}{\lvert\vec{b}\rvert}$

Question ID :	**441009143580**
Option 1 ID :	**441009570323**
Option 2 ID :	**441009570324**
Option 3 ID :	**441009570321**
Option 4 ID :	**441009570322**
Status :	**Answered**
Chosen Option :	**3**

Q.32	What will be the maximum speed with which a car can take a turn around a curve of 20 m radius on a level road if the coefficient of friction between the tyres and the road is 0.4? (Take g = 10 m/s^2)
Ans	✔ 1. 4√5 m/s
	✘ 2. 80 m/s
	✘ 3. 2√5 m/s
	✘ 4. 20 m/s

Question ID :	**441009110479**
Option 1 ID :	**441009439493**
Option 2 ID :	**441009439492**
Option 3 ID :	**441009439494**
Option 4 ID :	**441009439495**
Status :	**Answered**
Chosen Option :	**1**

Q.33	Two capacitors of capacitance 3 μF and 6 μF are connected in series combination. The equivalent capacitance of the system is equal to:
Ans	✘ 1. 9 μF
	✔ 2. 2 μF
	✘ 3. 6 μF
	✘ 4. 3 μF

Question ID :	**441009138325**
Option 1 ID :	**441009549530**
Option 2 ID :	**441009549527**
Option 3 ID :	**441009549529**
Option 4 ID :	**441009549528**
Status :	**Answered**
Chosen Option :	**2**

Q.34	A conductor is having n number of free electrons. If the charge on each electron is e, mass of each electron is m and τ is the average time between two successive collisions between the electrons, then which of the following is the correct relation for the conductivity σ of the conductor?
Ans	✘ 1. $\sigma = \frac{ne\tau^2}{m}$
	✘ 2. $\sigma = \frac{ne\tau}{m}$
	✔ 3. $\sigma = \frac{ne^2\tau}{m}$
	✘ 4. $\sigma = \frac{n^2e\tau}{m}$

Question ID :	**441009108447**
Option 1 ID :	**441009431730**
Option 2 ID :	**441009431728**
Option 3 ID :	**441009431731**
Option 4 ID :	**441009431729**
Status :	**Answered**
Chosen Option :	**2**

Q.35	In how many ways the letters of the word 'ARRAY' can be arranged without altering the relative position of vowels and consonants?
Ans	✗ 1. 30
	✓ 2. 3
	✗ 3. 6
	✗ 4. 15

Question ID :	**441009118479**
Option 1 ID :	**441009471076**
Option 2 ID :	**441009471078**
Option 3 ID :	**441009471079**
Option 4 ID :	**441009471077**
Status :	**Answered**
Chosen Option :	**2**

Q.36	If the dimensional formula of force is $[MLT^{-2}]$ and that of energy is $[ML^2T^{-2}]$, what is the ratio of the dimensions of force and energy when expressed as $[M^aL^bT^c]$?
Ans	✗ 1. $[M^0L^1T^0]$
	✓ 2. $[M^0L^{-1}T^0]$
	✗ 3. $[M^1L^1T^1]$
	✗ 4. $[M^{-1}L^{-1}T^{-1}]$

Question ID :	**441009136938**
Option 1 ID :	**441009543986**
Option 2 ID :	**441009543985**
Option 3 ID :	**441009543987**
Option 4 ID :	**441009543988**
Status :	**Answered**
Chosen Option :	**2**

Q.37	What is the distance of the point $(3, -5)$ from the line $3x - 4y - 26 = 0$?
Ans	✗ 1. $\frac{2}{5}$
	✗ 2. $\frac{12}{5}$
	✓ 3. $\frac{3}{5}$
	✗ 4. $-\frac{27}{5}$

Question ID :	**441009143562**
Option 1 ID :	**441009570262**
Option 2 ID :	**441009570261**
Option 3 ID :	**441009570263**
Option 4 ID :	**441009570264**
Status :	**Answered**
Chosen Option :	**2**

Q.38	If $\hat{i}$ and $\hat{j}$ are the unit vectors along the x and y directions respectively, then what will be the magnitude of $\hat{i} - \hat{j}$?
Ans	✔ 1. $\sqrt{2}$
	✘ 2. $\frac{1}{\sqrt{2}}$
	✘ 3. 2
	✘ 4. $\frac{1}{2}$

Question ID :	**441009110252**
Option 1 ID :	**441009438581**
Option 2 ID :	**441009438580**
Option 3 ID :	**441009438582**
Option 4 ID :	**441009438583**
Status :	**Answered**
Chosen Option :	**1**

Q.39	Express the complex number $i^5(i^{20} + i^{10})$ in the form $c + id$.
Ans	✔ 1. 0
	✘ 2. 2
	✘ 3. −2
	✘ 4. −i

Question ID :	**441009152663**
Option 1 ID :	**441009605808**
Option 2 ID :	**441009605809**
Option 3 ID :	**441009605810**
Option 4 ID :	**441009605807**
Status :	**Answered**
Chosen Option :	**4**

Q.40	The value of $\frac{2}{1!} + \frac{4}{3!} + \frac{6}{5!} + \ldots + \infty$ is:
Ans	✔ 1. e
	✘ 2. e + 1
	✘ 3. $e^{-1} + 1$
	✘ 4. e^{-1}

Question ID :	**44100998082**
Option 1 ID :	**441009390438**
Option 2 ID :	**441009390439**
Option 3 ID :	**441009390440**
Option 4 ID :	**441009390437**
Status :	**Answered**
Chosen Option :	**3**

Q.41	If $\int \frac{x^2 \sin(\tan^{-1} x^3)}{1+x^6} dx = f(x) + c$, then $f(1) =$ _____.
Ans	✗ 1. $\frac{1}{3\sqrt{2}}$
	✗ 2. $\frac{1}{\sqrt{2}}$
	✓ 3. $-\frac{1}{3\sqrt{2}}$
	✗ 4. $-\frac{1}{\sqrt{2}}$

Question ID :	**441009118418**
Option 1 ID :	**441009470835**
Option 2 ID :	**441009470832**
Option 3 ID :	**441009470834**
Option 4 ID :	**441009470833**
Status :	**Answered**
Chosen Option :	**2**

Q.42	If $D_r = \begin{vmatrix} 2r & 1 & n \\ 1 & -2 & 3 \\ 3 & 2 & 1 \end{vmatrix}$, then $\sum_{r=1}^{n} D_r =$ _____.
Ans	✗ 1. n
	✓ 2. 0
	✗ 3. -1
	✗ 4. n^2

Question ID :	**441009107750**
Option 1 ID :	**441009429011**
Option 2 ID :	**441009429013**
Option 3 ID :	**441009429012**
Option 4 ID :	**441009429014**
Status :	**Answered**
Chosen Option :	**3**

Q.43	If arcs of the same length in two circles subtend angles 70° and 120° then the ratio of their radii is:
Ans	✗ 1. 10 : 7
	✓ 2. 12 : 7
	✗ 3. 7 : 11
	✗ 4. 7 : 9

Question ID :	**441009188399**
Option 1 ID :	**441009743472**
Option 2 ID :	**441009743471**
Option 3 ID :	**441009743470**
Option 4 ID :	**441009743473**
Status :	**Answered**
Chosen Option :	**2**

Q.44	Two capacitors, 6 μF and 12 μF, are connected in series across a potential difference of 30 V. What is the voltage across the 12 μF capacitor?
Ans	✗ 1. 15 V
	✗ 2. 25 V
	✓ 3. 10 V
	✗ 4. 20 V

Question ID :	**441009130394**
Option 1 ID :	**441009517968**
Option 2 ID :	**441009517970**
Option 3 ID :	**441009517967**
Option 4 ID :	**441009517969**
Status :	**Answered**
Chosen Option :	**3**

Q.45	If sum of an infinite gemetric progression is 6 and its first term is 3, th
Ans	✗ 1. $9/16$
	✗ 2. $3/8$
	✗ 3. $9/8$
	✓ 4. $3/4$

Question ID :	**441009107672**
Option 1 ID :	**441009428690**
Option 2 ID :	**441009428689**
Option 3 ID :	**441009428687**
Option 4 ID :	**441009428688**
Status :	**Answered**
Chosen Option :	**2**

Q.46	What is the value of $\cos(-1755^\circ) - \sin(45^\circ)$?
Ans	✗ 1. 1
	✓ 2. 0
	✗ 3. 2
	✗ 4. 1/2

Question ID :	**441009188385**
Option 1 ID :	**441009743416**
Option 2 ID :	**441009743415**
Option 3 ID :	**441009743417**
Option 4 ID :	**441009743414**
Status :	**Answered**
Chosen Option :	**2**

Q.47	Find the determinant of the matrix $\begin{pmatrix} \sin^3\theta & \cos^3\theta & \tan^3\theta - \cot^2\theta \\ 2\sin\theta & 3\cos\theta\sin\theta & \sec^2\theta + 2 \\ 8\sin\theta & 6\sin(2\theta) & 4\sec^2\theta + 8 \end{pmatrix}$.
Ans	✗ 1. 1
	✓ 2. 0
	✗ 3. $\sin^3\theta + \cos^3\theta$
	✗ 4. $\sin(2\theta)$

Question ID :	**441009154829**
Option 1 ID :	**441009614466**
Option 2 ID :	**441009614467**
Option 3 ID :	**441009614469**
Option 4 ID :	**441009614468**
Status :	**Answered**
Chosen Option :	**2**

Q.48	Evaluate $\sin\left(-\frac{5\pi}{2}\right) + \sin\left(\frac{3\pi}{2}\right)$.
Ans	✓ 1. -2
	✗ 2. 0
	✗ 3. 2
	✗ 4. 1

Question ID :	**441009152414**
Option 1 ID :	**441009604813**
Option 2 ID :	**441009604811**
Option 3 ID :	**441009604812**
Option 4 ID :	**441009604814**
Status :	**Answered**
Chosen Option :	**1**

Q.49	$\lim_{x \to 0} \frac{x \ln(1 + 2\tan x)}{1 - \cos x} =$ _____.
Ans	✓ 1. 4
	✗ 2. 1
	✗ 3. does not exist
	✗ 4. 2

Question ID :	**441009118259**
Option 1 ID :	**441009470198**
Option 2 ID :	**441009470196**
Option 3 ID :	**441009470199**
Option 4 ID :	**441009470197**
Status :	**Answered**
Chosen Option :	**3**

Q.50	The property by virtue of which a body regains its shape and size when external force is removed is known as:
Ans	✗ 1. plasticity
	✓ 2. elasticity
	✗ 3. ductile
	✗ 4. harmonicity

Question ID :	**441009146049**
Option 1 ID :	**441009580067**
Option 2 ID :	**441009580066**
Option 3 ID :	**441009580069**
Option 4 ID :	**441009580068**
Status :	**Answered**
Chosen Option :	**2**

Q.51	Consider an infinitely long straight wire with uniform linear charge density λ. The electric field E at a distance r, perpendicular to the length of the wire, is:
Ans	✗ 1. $E = \frac{\lambda}{\pi\varepsilon_0 r}$
	✗ 2. $E = \frac{\lambda}{4\pi\varepsilon_0 r}$
	✗ 3. $E = \frac{\lambda}{8\pi\varepsilon_0 r}$
	✓ 4. $E = \frac{\lambda}{2\pi\varepsilon_0 r}$

Question ID :	**441009138439**
Option 1 ID :	**441009549991**
Option 2 ID :	**441009549993**
Option 3 ID :	**441009549994**
Option 4 ID :	**441009549992**
Status :	**Answered**
Chosen Option :	**4**

Q.52	Which of the following materials exhibit behaviour that violates Ohm's law under specific conditions?
Ans	✗ 1. A wire made of copper at room temperature, where the current increases in direct proportion to the applied voltage.
	✓ 2. A semiconductor at low temperatures, where the current does not increase linearly with applied voltage.
	✗ 3. A resistor in a simple circuit with a constant voltage source, where the voltage is proportional to the current.
	✗ 4. A metallic wire at constant temperature, where current increases linearly with applied voltage.

Question ID :	**441009130459**
Option 1 ID :	**441009518274**
Option 2 ID :	**441009518272**
Option 3 ID :	**441009518273**
Option 4 ID :	**441009518271**
Status :	**Answered**
Chosen Option :	**2**

Q.53	If ${}^{n}P_4 = 30\ {}^{n}P_2$, then n = _____.
Ans	✗ 1. 9
	✓ 2. 8
	✗ 3. 6
	✗ 4. 12

Question ID :	**44100998835**
Option 1 ID :	**441009393437**
Option 2 ID :	**441009393436**
Option 3 ID :	**441009393435**
Option 4 ID :	**441009393438**
Status :	**Answered**
Chosen Option :	**2**

Q.54	**Which of the following statements about power is NOT correct?**
Ans	✗ 1. Power is the rate of doing work.
	✗ 2. Power can be measured in horsepower.
	✓ 3. Power is directly proportional to both work done and time taken.
	✗ 4. Power depends on both force and velocity.

Question ID :	**441009116362**
Option 1 ID :	**441009462872**
Option 2 ID :	**441009462874**
Option 3 ID :	**441009462875**
Option 4 ID :	**441009462873**
Status :	**Answered**
Chosen Option :	**3**

Q.55	Which of the following conditions is correct for the constructive interfe (ΔX represents path difference, Δ Ø represents phase difference, n =
Ans	✗ 1. $\Delta X=(2n+1)\lambda/2$ & $\Delta \varnothing=(2n+1)\pi$
	✗ 2. $\Delta X=n\lambda$ & $\Delta \varnothing=(2n+1)\pi$
	✓ 3. $\Delta X=n\lambda$ & $\Delta \varnothing=2n\pi$
	✗ 4. $\Delta X=(2n+1)\lambda/2$ & $\Delta \varnothing=2n\pi$

Question ID :	**441009145661**
Option 1 ID :	**441009578553**
Option 2 ID :	**441009578554**
Option 3 ID :	**441009578551**
Option 4 ID :	**441009578552**
Status :	**Answered**
Chosen Option :	**3**

Q.56	The set $\{ x \in \mathbb{R} : x \neq 1 \}$ is a/an _____.
Ans	✔ 1. union of three disjoint open intervals
	✘ 2. union of four disjoint open intervals
	✘ 3. interval
	✘ 4. union of two disjoint open intervals

Question ID :	**44100998428**
Option 1 ID :	**441009391823**
Option 2 ID :	**441009391824**
Option 3 ID :	**441009391821**
Option 4 ID :	**441009391822**
Status :	**Answered**
Chosen Option :	**2**

Q.57	The variance of the following data is _____. 6, 12, 8, 13, 4, 11
Ans	✘ 1. 11.27
	✔ 2. 10.66
	✘ 3. 9.38
	✘ 4. 8.73

Question ID :	**441009118182**
Option 1 ID :	**441009469891**
Option 2 ID :	**441009469890**
Option 3 ID :	**441009469888**
Option 4 ID :	**441009469889**
Status :	**Answered**
Chosen Option :	**2**

Q.58	Suppose l_1 and l_2 are perpendicular lines such that they intersect at $(3,$ to $y-$ axis, then find the equation of the line l_2.
Ans	✔ 1. y = 4
	✘ 2. x = 3
	✘ 3. y = −4
	✘ 4. x = −3

Question ID :	**441009156728**
Option 1 ID :	**441009622075**
Option 2 ID :	**441009622076**
Option 3 ID :	**441009622077**
Option 4 ID :	**441009622078**
Status :	**Answered**
Chosen Option :	**1**

Q.59	A body executing simple harmonic motion with an angular velocity of 2 rad/s has a maximum acceleration of 0.8 m/s^2. What will be the amplitude of the oscillations of the body?
Ans	✗ 1. 5 m
	✗ 2. 2 m
	✓ 3. 0.2 m
	✗ 4. 0.5 m

Question ID :	**441009114574**
Option 1 ID :	**441009455735**
Option 2 ID :	**441009455734**
Option 3 ID :	**441009455736**
Option 4 ID :	**441009455737**
Status :	**Answered**
Chosen Option :	**3**

Q.60	The law of static friction can be written as: (where f_s is the static friction, μ_s is coefficient of static friction and N
Ans	✗ 1. $f_s \geq \mu_s N$
	✗ 2. $f_s < \mu_s N$
	✗ 3. $f_s > \mu_s N$
	✓ 4. $f_s \leq \mu_s N$

Question ID :	**441009145418**
Option 1 ID :	**441009577618**
Option 2 ID :	**441009577615**
Option 3 ID :	**441009577616**
Option 4 ID :	**441009577617**
Status :	**Answered**
Chosen Option :	**1**