



Participant ID	
Participant Name	
Test Center Name	
Test Date	29/09/2024
Test Time	1:30 PM - 3:30 PM
Subject	Junior Engineering Assistant IV P and U O and M

Section : Subject Knowledge

Q.1 For compensation of the voltage drop in feeders, which of the following types of generator will be appropriate?

- Ans
- A. DC Flat compounded generators
 - B. DC differential compounded generators
 - C. DC over compounded generators
 - D. DC shunt generators

Question ID : 630680999294
 Option 1 ID : 6306803921111
 Option 2 ID : 6306803921113
 Option 3 ID : 6306803921112
 Option 4 ID : 6306803921110
 Status : Answered
 Chosen Option : C

Q.2 How can we add and delete a row in the spreadsheet of MS Excel?

- Ans
- A. Press Shift + Spacebar -> Ctrl + Shift and then press plus or minus key
 - B. Press Shift + Spacebar -> Fn + Shift and then press plus or minus key
 - C. Press Shift + Spacebar -> Esc + Shift and then press plus or minus key
 - D. Press Shift + Spacebar -> Alt + Shift and then press plus or minus key

Question ID : 630680775181
 Option 1 ID : 6306803038584
 Option 2 ID : 6306803038587
 Option 3 ID : 6306803038586
 Option 4 ID : 6306803038585
 Status : Answered
 Chosen Option : D

Q.3 Which of the following statements is INCORRECT with respect to a cylindrical rotor?

- Ans
- A. It has poles projecting out from the surface of rotor core.
 - B. It forms a smooth cylinder.
 - C. The DC winding is placed in slots on the rotor.
 - D. It is a non-salient pole machine.

Question ID : 630680617528
 Option 1 ID : 6306802416344
 Option 2 ID : 6306802416343
 Option 3 ID : 6306802416345
 Option 4 ID : 6306802416342
 Status : Answered
 Chosen Option : A

Q.4 Which of the following factors primarily contributes to the efficiency of an air-cooled condenser as a heat exchanger?

- Ans A. The use of high-pressure steam in the inlet header
 B. The high thermal conductivity of the finned tubes
 C. The use of finned tubes to increase surface area
 D. The replacement of ambient air with cooling water

Question ID : 6306801002307
Option 1 ID : 6306803933321
Option 2 ID : 6306803933324
Option 3 ID : 6306803933322
Option 4 ID : 6306803933323
Status : Answered
Chosen Option : B

Q.5 What is the implication of having a high diversity factor in a power system?

- Ans A. The sum of the individual maximum demands is equal to the total system demand.
 B. The system can be designed with smaller capacity since not all loads will require full power simultaneously.
 C. The maximum demands of individual consumers are likely to occur simultaneously.
 D. The system will require more power to meet the demand.

Question ID : 6306801029222
Option 1 ID : 6306804039517
Option 2 ID : 6306804039516
Option 3 ID : 6306804039515
Option 4 ID : 6306804039514
Status : Answered
Chosen Option : B

Q.6 In Excel, which button in the "Data" tab is used to sort data in ascending order?

- Ans A. Filter
 B. ZA↑
 C. Sort
 D. AZ↓

Question ID : 630680795401
Option 1 ID : 6306803116613
Option 2 ID : 6306803116612
Option 3 ID : 6306803116614
Option 4 ID : 6306803116611
Status : Answered
Chosen Option : B

Q.7 Which of the following boilers DOES NOT work on a forced circulation of water?

- Ans A. Loeffler boiler
 B. La-Mont boiler
 C. Benson boiler
 D. Babcock wilcox

Question ID : 6306801001546
Option 1 ID : 6306803930312
Option 2 ID : 6306803930309
Option 3 ID : 6306803930311
Option 4 ID : 6306803930310
Status : Answered
Chosen Option : D

Q.8 Which of the following is correct with reference to OC Test of Single-Phase Transformers?

- Ans A. Open circuit test is carried out on the high voltage side while the low voltage side is open circuited.
 B. Open circuit test is carried out on the primary side while the high secondary side is open circuited.
 C. Open circuit test is carried out on the secondary side while the primary side is open circuited.
 D. Open circuit test is carried out on the low voltage side while the high voltage side is open circuited.

Question ID : 630680380925
Option 1 ID : 6306801484688
Option 2 ID : 6306801484689
Option 3 ID : 6306801484690
Option 4 ID : 6306801484687
Status : Answered
Chosen Option : D

Q.9 भाप पाइप को खाली करते समय निकास वाल्व को धीरे-धीरे खोलना क्यों आवश्यक होता है?

- Ans A. भाप हास को रोकने के लिए
 B. जलपात (water hammer) से बचने के लिए
 C. निकासी की गति बढ़ाने के लिए
 D. वाल्व संचालन का परीक्षण करने के लिए

Question ID : 6306801009867
Option 1 ID : 6306803962953
Option 2 ID : 6306803962951
Option 3 ID : 6306803962952
Option 4 ID : 6306803962954
Status : Answered
Chosen Option : B

Q.10 Select the most appropriate method to turn on a thyristor.

- Ans A. Applying a short positive pulse at the cathode terminal of the thyristor
 B. Applying a light triggering source at the cathode terminal of the thyristor
 C. Applying a short positive pulse at the gate terminal of the thyristor
 D. Applying zero potential to anode terminal of a thyristor

Question ID : 6306801005212
Option 1 ID : 6306803944694
Option 2 ID : 6306803944693
Option 3 ID : 6306803944695
Option 4 ID : 6306803944692
Status : Answered
Chosen Option : C

Q.11 A Delta-Delta transformer connection is used in system with:

- Ans A. large current on high voltages
 B. low current on low voltages
 C. large current on low voltages
 D. low current on high voltages

Question ID : 6306801002313
Option 1 ID : 6306803933347
Option 2 ID : 6306803933345
Option 3 ID : 6306803933346
Option 4 ID : 6306803933348
Status : Answered
Chosen Option : C

Q.12 The values of ripple factor and transformer utility factor of a bridge rectifier, respectively, are _____.

- Ans A. 1.21 and 81.2 %
 B. 61.2% and 0.48
 C. 0.48 and 81.2%
 D. 0.48 and 0.69%

Question ID : 630680195578
Option 1 ID : 630680758784
Option 2 ID : 630680758781
Option 3 ID : 630680758782
Option 4 ID : 630680758783
Status : Answered
Chosen Option : C

Q.13 What safety measure should be implemented to avoid tube-bursting occurrence in the boiler system and stop additional damage?

- Ans A. Increase the fuel supply to maintain heat
 B. Gradually reduce operating temperatures and pressures
 C. Replace all safety valves
 D. Continue operating the boiler until repairs are completed

Question ID : 6306801009974
Option 1 ID : 6306803963378
Option 2 ID : 6306803963375
Option 3 ID : 6306803963377
Option 4 ID : 6306803963376
Status : Answered
Chosen Option : B

Q.14 Read the given statements carefully and select the most appropriate option regarding the working principle of IGBT.

Statement I : IGBT combines the advantage of BJT and MOSFET.
Statement II : IGBT is also known as metal oxide insulated gate transistor.

- Ans A. Both statements I and II are correct.
 B. Only statement I is correct.
 C. Only statement II is correct.
 D. Both statements I and II are wrong.

Question ID : 6306801005097
 Option 1 ID : 6306803944234
 Option 2 ID : 6306803944232
 Option 3 ID : 6306803944233
 Option 4 ID : 6306803944235
 Status : Answered
 Chosen Option : B

Q.15 Which of the following is NOT a correct precautionary step to avoid tube failure in the boiler?

- Ans A. Adjust flame to avoid flame impingement
 B. Improve combustion condition
 C. Do frequent start and stop of the boiler
 D. Maintain feedwater and boiler water quality

Question ID : 6306801008829
 Option 1 ID : 6306803958841
 Option 2 ID : 6306803958838
 Option 3 ID : 6306803958839
 Option 4 ID : 6306803958840
 Status : Answered
 Chosen Option : C

Q.16 In a boiler house, which of the following safety precautions specifically addresses the risk of over-pressurisation and prevents potential boiler explosions?

- Ans A. Conducting routine inspections to check for corrosion and leaks
 B. Ensuring proper ventilation to prevent gas accumulation
 C. Regularly testing and maintaining pressure relief valves
 D. Implementing lockout/tagout procedures during maintenance

Question ID : 6306801004350
 Option 1 ID : 6306803941308
 Option 2 ID : 6306803941307
 Option 3 ID : 6306803941306
 Option 4 ID : 6306803941305
 Status : Answered
 Chosen Option : C

Q.17 Which of the following is the correct extension for a PowerPoint presentation template?

- Ans A. .ppt
 B. .potx
 C. .pptx
 D. .xps

Question ID : 630680787677
 Option 1 ID : 6306803086515
 Option 2 ID : 6306803086512
 Option 3 ID : 6306803086513
 Option 4 ID : 6306803086514
 Status : Answered
 Chosen Option : C

Q.18 Which of the following is NOT suited for blending with or replacing liquid fuels from fossil origin?

- Ans A. Bio-jet kerosene
 B. Biogasoline
 C. Water
 D. Biodiesel

Question ID : 630680333475
 Option 1 ID : 6306801297173
 Option 2 ID : 6306801297174
 Option 3 ID : 6306801297176
 Option 4 ID : 6306801297175
 Status : Answered
 Chosen Option : C

Q.19 What is the primary function of a Programmable Logic Controller (PLC) in power plant automation?

- Ans
- A. To serve as a memory storage device similar to RAM and ROM
 - B. To replace the need for human operators in all power plant processes
 - C. To continuously measure process inputs and generate output signals
 - D. To store large amounts of data for processing

Question ID : 6306801004329
 Option 1 ID : 6306803941224
 Option 2 ID : 6306803941223
 Option 3 ID : 6306803941222
 Option 4 ID : 6306803941221
 Status : Answered
 Chosen Option : B

Q.20 Read the given statements carefully and select the most appropriate statement regarding the N-type and P-type semiconductor.

Statement I: In a semiconductor doped with donors, the concentration of holes is far greater than that of the electrons.
 Statement II: In a p-type semiconductor, the holes are the majority carrier and the electrons are the minority carrier.

- Ans
- A. Both statements I and II are wrong.
 - B. Both statements I and II are correct.
 - C. Only statement I is correct.
 - D. Only statement II is correct.

Question ID : 6306801004924
 Option 1 ID : 6306803943551
 Option 2 ID : 6306803943550
 Option 3 ID : 6306803943548
 Option 4 ID : 6306803943549
 Status : Answered
 Chosen Option : D

Q.21 Which boiler mountings protect the feedwater pump from damage by ensuring a specific flow direction?

- Ans
- A. Steam stop valve regulates steam output
 - B. Pressure gauge indicates pressure levels
 - C. Water level indicator shows water levels
 - D. Feed check valve controls feedwater flow

Question ID : 6306801004018
 Option 1 ID : 6306803940255
 Option 2 ID : 6306803940253
 Option 3 ID : 6306803940256
 Option 4 ID : 6306803940254
 Status : Answered
 Chosen Option : D

Q.22 Which of the following steps is NOT followed for the initial fill-up of a boiler?

- Ans
- A. When all water tubes are filled up, drum level gets lowered
 - B. When water comes out from the vent in pressure, then stop the vent valve
 - C. Keep economiser air vent and steam drum vent in open condition
 - D. Take sufficient feedwater into a deaerator storage tank

Question ID : 6306801008676
 Option 1 ID : 6306803958221
 Option 2 ID : 6306803958220
 Option 3 ID : 6306803958219
 Option 4 ID : 6306803958218
 Status : Answered
 Chosen Option : C

Q.23 What is the purpose of using a nozzle in an impulse turbine?

- Ans
- A. To cool the steam before it enters the turbine
 - B. To convert steam pressure into kinetic energy
 - C. To increase the steam pressure
 - D. To guide the steam onto the turbine blades

Question ID : 6306801006976
 Option 1 ID : 6306803951636
 Option 2 ID : 6306803951634
 Option 3 ID : 6306803951633
 Option 4 ID : 6306803951635
 Status : Answered
 Chosen Option : B

Q.24 Which of the following valves is a quick closing valve and stops the steam entry into the turbine immediately when it closes?

- Ans
- A. Governing valve
 - B. Pressure regulating valve
 - C. Safety valve
 - D. Emergency stop valve

Question ID : 6306801010340
 Option 1 ID : 6306803964869
 Option 2 ID : 6306803964867
 Option 3 ID : 6306803964866
 Option 4 ID : 6306803964868
 Status : Answered
 Chosen Option : A

Q.25 Determine the value of torque (in kg m) developed by the armature of a 6 pole wave wound motor having 500 conductor, 30 m web flux per pole when the total armature current is 50 Amp.

- Ans
- A. 36.45 kg m
 - B. 42.65 kg m
 - C. 28.5 kg m
 - D. 55.4 kg m

Question ID : 630680999640
 Option 1 ID : 6306803922631
 Option 2 ID : 6306803922632
 Option 3 ID : 6306803922630
 Option 4 ID : 6306803922633
 Status : Answered
 Chosen Option : A

Q.26 What is the recommended action when tube thickness reduces by 30% as compared to new tube thickness during regular measurement?

- Ans
- A. Replace the tube with a new one immediately
 - B. Clean the tube to restore its original thickness quickly
 - C. Monitor the tube closely without taking any action
 - D. Continue using the tube with reduced thickness temporarily

Question ID : 6306801003397
 Option 1 ID : 6306803937737
 Option 2 ID : 6306803937739
 Option 3 ID : 6306803937740
 Option 4 ID : 6306803937738
 Status : Answered
 Chosen Option : B

Q.27 Which of the following statements is/are correct about the reverse osmosis process in a boiler feedwater treatment system?

1. Reverse osmosis involves forcing water through a semi-permeable membrane from an area of high salt concentration to an area of low salt concentration using high pressure.
2. In reverse osmosis, dissolved salts are added to the water to increase its concentration before passing through a semi-permeable membrane.
3. The process of reverse osmosis relies on the natural movement of water without the application of pressure.

- Ans
- A. Statement 1 is correct.
 - B. Statement 3 is correct.
 - C. Statements 1 and 3 are correct.
 - D. Statement 2 is correct.

Question ID : 6306801003869
 Option 1 ID : 6306803939693
 Option 2 ID : 6306803939695
 Option 3 ID : 6306803939696
 Option 4 ID : 6306803939694
 Status : Answered
 Chosen Option : A

Q.28 What does BHP stand for, in the context of a DC motor?

- Ans A. Brushless Hub Power
 B. Brake Horsepower
 C. Base Harmonic Pulse
 D. Battery High Power

Question ID : 630680380899
 Option 1 ID : 6306801484585
 Option 2 ID : 6306801484584
 Option 3 ID : 6306801484586
 Option 4 ID : 6306801484583
 Status : Answered
 Chosen Option : B

Q.29 What type of rotor is used for steam turbine-driven alternators (turbo alternators)?

- Ans A. Smooth cylindrical type
 B. Squirrel cage type
 C. Salient pole type
 D. Laminated rotor type

Question ID : 6306801005945
 Option 1 ID : 6306803947609
 Option 2 ID : 6306803947611
 Option 3 ID : 6306803947608
 Option 4 ID : 6306803947610
 Status : Answered
 Chosen Option : A

Q.30 Which of the following DOES NOT describe a non-condensing economiser's characteristics?

- Ans A. It recovers sensible heat from the exhaust gases.
 B. It is designed to avoid condensation.
 C. It recovers latent heat from the exhaust gases.
 D. It operates above the dew point of the flue gases.

Question ID : 6306801004691
 Option 1 ID : 6306803942639
 Option 2 ID : 6306803942638
 Option 3 ID : 6306803942640
 Option 4 ID : 6306803942637
 Status : Answered
 Chosen Option : D

Q.31 Read the given statements carefully and select the most appropriate option regarding the current series feedback in amplifiers

Statement I: The input and the output impedance increases with use of current series feedback.

Statement II: The feedback signal is fed in parallel with respect to the input voltage source.

- Ans A. Both statements I and II are correct.
 B. Only statement I is correct.
 C. Only statement II is correct.
 D. Both statements I and II are wrong.

Question ID : 6306801004666
 Option 1 ID : 6306803942547
 Option 2 ID : 6306803942545
 Option 3 ID : 6306803942546
 Option 4 ID : 6306803942548
 Status : Answered
 Chosen Option : A

Q.32 The heat transfer rate in an economizer is 500 kW. If the economizer is put out of service and bypassed, how much additional fuel energy is required per hour, assuming a boiler efficiency of 90%?

- Ans A. 2200 MJ
 B. 2000 MJ
 C. 1800 MJ
 D. 2500 MJ

Question ID : 6306801006576
 Option 1 ID : 6306803950052
 Option 2 ID : 6306803950050
 Option 3 ID : 6306803950051
 Option 4 ID : 6306803950053
 Status : Answered
 Chosen Option : B

Q.33 The Scott connection is also called _____.

- Ans A. T-T connection
 B. V-V connection
 C. Y-Y connection
 D. Δ - Δ connection

Question ID : 630680227828
 Option 1 ID : 630680883989
 Option 2 ID : 630680883988
 Option 3 ID : 630680883990
 Option 4 ID : 630680883987
 Status : Answered
 Chosen Option : B

Q.34 Which kind of valve is utilised in the boiler system to stop steam or water from backflowing?

- Ans A. Globe Valve for flow regulation
 B. Diaphragm Valve for handling slurries
 C. Check Valve for preventing backflow
 D. Ball Valve for quick shut-off

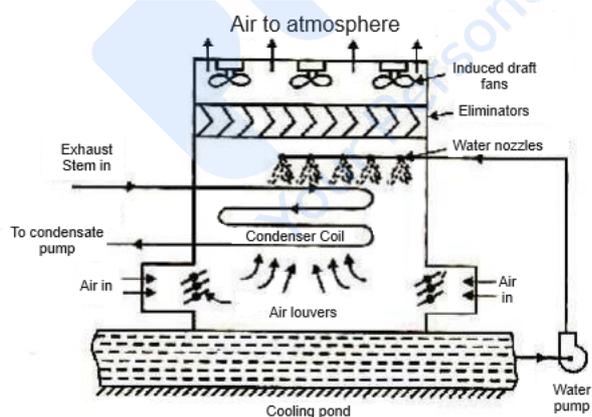
Question ID : 630680100994
 Option 1 ID : 6306803963456
 Option 2 ID : 6306803963458
 Option 3 ID : 6306803963455
 Option 4 ID : 6306803963457
 Status : Answered
 Chosen Option : B

Q.35 The device which is used in a boiler as an integral part and helps to run the boiler efficiently is:

- Ans A. pressure gauge
 B. economiser
 C. blowdown valve
 D. fusible plug

Question ID : 6306801008737
 Option 1 ID : 6306803958462
 Option 2 ID : 6306803958465
 Option 3 ID : 6306803958463
 Option 4 ID : 6306803958464
 Status : Answered
 Chosen Option : B

Q.36



Select the option in which the process shown in the above figure is carried out.

- Ans A. Surface condenser
 B. Spray condenser
 C. Cooler
 D. Cooling tower

Question ID : 6306801007058
 Option 1 ID : 6306803951959
 Option 2 ID : 6306803951957
 Option 3 ID : 6306803951958
 Option 4 ID : 6306803951956
 Status : Answered
 Chosen Option : D

Q.37 Back emf E_b induced in a DC motor is given by:

(where P is number of poles, Z is number of conductors, N is speed in RPM, A is number of parallel path, Φ is flux per pole, I_a is armature current)

- Ans
- A. $E_b = \frac{PNI_a Z}{60 * A}$
- B. $E_b = \frac{PN\Phi}{60 * A}$
- C. $E_b = \frac{PN\Phi Z}{60 * A}$
- D. $E_b = \frac{PN\Phi A}{60 * Z}$

Question ID : 630680999695
 Option 1 ID : 6306803922903
 Option 2 ID : 6306803922902
 Option 3 ID : 6306803922900
 Option 4 ID : 6306803922901
 Status : Answered
 Chosen Option : C

Q.38 Internal inspection of the boiler is done to find out corrosion and pitting. For this:

- Ans
- A. tube may be cleaned with the help of water
- B. steam drum manhole is opened
- C. drum internals are cleaned properly
- D. hand hole cap of water header may be opened

Question ID : 6306801008767
 Option 1 ID : 6306803958592
 Option 2 ID : 6306803958591
 Option 3 ID : 6306803958593
 Option 4 ID : 6306803958590
 Status : Answered
 Chosen Option : D

Q.39 Using a DC and AC voltmeter to measure the output signal from a filter circuit, we obtain readings of 25 V DC and 1.5 V RMS ripple voltage. Calculate the ripple factor in percentage.

- Ans
- A. 6.000%
- B. 15.000%
- C. 25.000%
- D. 16.667%

Question ID : 6306801004913
 Option 1 ID : 6306803943507
 Option 2 ID : 6306803943506
 Option 3 ID : 6306803943505
 Option 4 ID : 6306803943504
 Status : Answered
 Chosen Option : A

Q.40 Why is it crucial to keep an eye on the steam pipes' temperature during draining of a boiler?

- Ans
- A. To check for proper insulation
- B. To prevent thermal shock to the piping system
- C. To maintain high efficiency
- D. To ensure that the pipes are not overheating

Question ID : 6306801009953
 Option 1 ID : 6306803963297
 Option 2 ID : 6306803963298
 Option 3 ID : 6306803963296
 Option 4 ID : 6306803963295
 Status : Answered
 Chosen Option : B

Q.41 Which statement best describes the sealed bid opening method used in tender processes?

- Ans A. Tenders are opened randomly to maintain fairness among bidders.
- B. Tenders are displayed publicly for review before the opening time.
- C. Tenders are opened electronically upon submission to ensure efficiency.
- D. Tenders are submitted in sealed envelopes and opened at the designated time in the presence of officials.

Question ID : 630680812332
 Option 1 ID : 6306803182786
 Option 2 ID : 6306803182784
 Option 3 ID : 6306803182783
 Option 4 ID : 6306803182785
 Status : Answered
 Chosen Option : D

Q.42 Which kind of pump works best in a boiler system to handle high-viscosity fluids and slurries with suspended solids?

- Ans A. Diaphragm pump
- B. Peristaltic pump
- C. Vane pump
- D. Centrifugal pump

Question ID : 630680100989
 Option 1 ID : 6306803963437
 Option 2 ID : 6306803963438
 Option 3 ID : 6306803963436
 Option 4 ID : 6306803963435
 Status : Answered
 Chosen Option : B

Q.43 In a core type transformer, _____ voltage winding is placed near to the core and _____ voltage winding is placed away from the core.

- Ans A. low; high
- B. low; low
- C. high; high
- D. high; low

Question ID : 6306801001585
 Option 1 ID : 6306803930426
 Option 2 ID : 6306803930425
 Option 3 ID : 6306803930428
 Option 4 ID : 6306803930427
 Status : Answered
 Chosen Option : A

Q.44 Which of the following is NOT a correct reason for furnace explosion in a boiler?

- Ans A. Mixture of unburnt fuel with air in an explosive proportion
- B. Shutting off the fuel inlet valve when fire is extinguished
- C. Introduction of fuel without sufficient ignition energy
- D. Leakage in fuel oil inlet valve

Question ID : 6306801008818
 Option 1 ID : 6306803958797
 Option 2 ID : 6306803958796
 Option 3 ID : 6306803958795
 Option 4 ID : 6306803958794
 Status : Answered
 Chosen Option : B

Q.45 Which of the following properties of quartz glass makes it resistant to temperature fluctuations?

- Ans A. High compressive strength
- B. High dielectric constant
- C. Low coefficient of linear expansion
- D. High chemical resistance

Question ID : 6306801029981
 Option 1 ID : 6306804042621
 Option 2 ID : 6306804042622
 Option 3 ID : 6306804042620
 Option 4 ID : 6306804042619
 Status : Answered
 Chosen Option : C

Q.46 What is the main reason for grounding in the electrical system of a boiler?

- Ans A. To conserve energy
 B. To increase efficiency
 C. To prevent electrical shock
 D. To reduce voltage

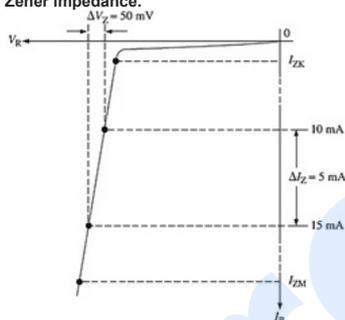
Question ID : 6306801010859
Option 1 ID : 6306803966900
Option 2 ID : 6306803966898
Option 3 ID : 6306803966899
Option 4 ID : 6306803966897
Status : Answered
Chosen Option : C

Q.47 Before starting an economizer, it is crucial to ensure that:

- Ans A. the bypass valve is open
 B. the feedwater pump is off
 C. the economizer is filled with water
 D. the steam pressure is maximum

Question ID : 6306801006535
Option 1 ID : 6306803949892
Option 2 ID : 6306803949890
Option 3 ID : 6306803949893
Option 4 ID : 6306803949891
Status : Answered
Chosen Option : B

Q.48 The characteristic curve of a Zener diode is shown below. Determine the value of Zener impedance.



- Ans A. 200 Ω
 B. 10 Ω
 C. 100 Ω
 D. 20 Ω

Question ID : 630680201337
Option 1 ID : 630680780696
Option 2 ID : 630680780697
Option 3 ID : 630680780695
Option 4 ID : 630680780698
Status : Answered
Chosen Option : B

Q.49 Read the statements carefully and select the most appropriate option regarding a battery charger using SCR.

Statement I: When the battery is fully charged, the open-circuit state of SCR will cut off the charging current.

Statement II: The regulator section of the circuit recharges the battery whenever the voltage drops, and the SCR operation prevents overcharging when the battery is fully charged.

- Ans A. Both statements I and II are wrong.
 B. Both statements I and II are correct.
 C. Only statement II is correct.
 D. Only statement I is correct.

Question ID : 6306801004975
Option 1 ID : 6306803943751
Option 2 ID : 6306803943750
Option 3 ID : 6306803943749
Option 4 ID : 6306803943748
Status : Answered
Chosen Option : B

Q.50 What kind of media is utilised to pressurise the boiler during a hydraulic test?

- Ans A. Compressed air
 B. Oil
 C. Water
 D. Steam

Question ID : 6306801006749
 Option 1 ID : 6306803950734
 Option 2 ID : 6306803950737
 Option 3 ID : 6306803950736
 Option 4 ID : 6306803950735
 Status : Answered
 Chosen Option : A

Q.51 What is the typical result of a boiler system, if it is not frequently cleaned?

- Ans A. Lower steam production temperature
 B. Improved thermal efficiency
 C. Decreased fuel consumption
 D. Overheating and potential tube failure

Question ID : 6306801006640
 Option 1 ID : 6306803950305
 Option 2 ID : 6306803950303
 Option 3 ID : 6306803950302
 Option 4 ID : 6306803950304
 Status : Answered
 Chosen Option : D

Q.52 What is the primary requirement for a smokeless furnace when burning coal?

- Ans A. Uniform coal supply in small amounts
 B. High coal feed with infrequent air supply
 C. Frequent air supply with low coal feed
 D. Excess air supply throughout the furnace

Question ID : 6306801003459
 Option 1 ID : 6306803938021
 Option 2 ID : 6306803938024
 Option 3 ID : 6306803938023
 Option 4 ID : 6306803938022
 Status : Answered
 Chosen Option : C

Q.53 What must be specified in the purchase order regarding taxes?

- Ans A. The tax identification number of the supplier
 B. Taxes, if any, to be specified in the order
 C. The tax rate of the buyer's country
 D. The tax laws of the supplier's country

Question ID : 6306801005268
 Option 1 ID : 6306803944917
 Option 2 ID : 6306803944918
 Option 3 ID : 6306803944919
 Option 4 ID : 6306803944916
 Status : Answered
 Chosen Option : A

Q.54 Average Demand is given as:

- Ans A. Load factor / Maximum Demand
 B. Maximum Demand / Load factor
 C. Maximum Demand × Load factor
 D. Maximum Demand × Demand factor

Question ID : 6306801016400
 Option 1 ID : 6306803989154
 Option 2 ID : 6306803989153
 Option 3 ID : 6306803989152
 Option 4 ID : 6306803989155
 Status : Answered
 Chosen Option : C

Q.55 How are revised and supplementary estimates combined during a project?

- Ans A. The supplementary estimate is added to the revised estimate, with amounts shown separately
- B. They are combined into one total without details
- C. Only the revised estimate is used
- D. They are kept separate

Question ID : 630680812835
 Option 1 ID : 6306803184760
 Option 2 ID : 6306803184762
 Option 3 ID : 6306803184761
 Option 4 ID : 6306803184759
 Status : Answered
 Chosen Option : A

Q.56 Which of the following statements regarding damper windings is correct?

- Ans A. Damper windings consist of short-circuited conductors embedded in the rotor poles.
- B. Damper windings help to increase the hunting effect in the synchronous motor.
- C. Damper windings are connected in series with the rotor winding.
- D. Damper windings are always placed on the stator of the synchronous motor.

Question ID : 630680629357
 Option 1 ID : 6306802463564
 Option 2 ID : 6306802463565
 Option 3 ID : 6306802463563
 Option 4 ID : 6306802463562
 Status : Answered
 Chosen Option : A

Q.57 When you open a PowerPoint presentation, what is the default mode you get?

- Ans A. Slide Sorter View
- B. Reading View
- C. Outline View
- D. Normal View

Question ID : 630680787464
 Option 1 ID : 6306803085688
 Option 2 ID : 6306803085691
 Option 3 ID : 6306803085690
 Option 4 ID : 6306803085689
 Status : Answered
 Chosen Option : A

Q.58 Which of the following blowdown methods is used to empty the boiler's bottom of accumulated sludge?

- Ans A. Intermittent blowdown
- B. Top blowdown
- C. Bottom blowdown
- D. Continuous blowdown

Question ID : 6306801006945
 Option 1 ID : 6306803951511
 Option 2 ID : 6306803951513
 Option 3 ID : 6306803951512
 Option 4 ID : 6306803951510
 Status : Answered
 Chosen Option : A

Q.59 In a scenario where an economiser is not functioning correctly, what is the immediate action to be taken?

- Ans A. Increase the water level in the boiler.
- B. Increase the firing rate of the boiler.
- C. Stop the feedwater pump.
- D. Open the economiser bypass valve.

Question ID : 6306801006549
 Option 1 ID : 6306803949949
 Option 2 ID : 6306803949946
 Option 3 ID : 6306803949948
 Option 4 ID : 6306803949947
 Status : Answered
 Chosen Option : D

Q.60 Which of the following fittings is required on a boiler for its safe operation?

- Ans A. Air heater
 B. Economiser
 C. Blowdown valve
 D. Desuperheater

Question ID : 6306801008732
Option 1 ID : 6306803958445
Option 2 ID : 6306803958444
Option 3 ID : 6306803958443
Option 4 ID : 6306803958442
Status : Answered
Chosen Option : C

Q.61 Which of the following Sections of ASME Boiler and Pressure Vessel Codes (BPVC) gives the rules for construction of Power Boilers?

- Ans A. Section IV
 B. Section I
 C. Section VI
 D. Section VII

Question ID : 6306801008747
Option 1 ID : 6306803958511
Option 2 ID : 6306803958510
Option 3 ID : 6306803958512
Option 4 ID : 6306803958513
Status : Answered
Chosen Option : A

Q.62 What is one of the objectives related to inventory in the purchase procedure?

- Ans A. To disregard inventory levels
 B. To minimise investment in inventory
 C. To ensure optimum investment in inventory
 D. To maximise investment in inventory

Question ID : 6306801029416
Option 1 ID : 6306804040291
Option 2 ID : 6306804040289
Option 3 ID : 6306804040290
Option 4 ID : 6306804040288
Status : Answered
Chosen Option : C

Q.63 Which kind of valve is usually used to precisely regulate the fluid flow rate in a boiler system?

- Ans A. Check valve
 B. Gate valve
 C. Globe valve
 D. Ball valve

Question ID : 6306801010002
Option 1 ID : 6306803963489
Option 2 ID : 6306803963487
Option 3 ID : 6306803963490
Option 4 ID : 6306803963488
Status : Answered
Chosen Option : B

Q.64 Which of the following cleaning aids is added to the acid for accelerating scale removal during acid cleaning of the boiler?

- Ans A. Emulsifier
 B. Surfactant
 C. Corrosion inhibitor
 D. Dissolution accelerator

Question ID : 6306801008761
Option 1 ID : 6306803958568
Option 2 ID : 6306803958567
Option 3 ID : 6306803958566
Option 4 ID : 6306803958569
Status : Answered
Chosen Option : D

Q.65 Select the most appropriate option to fill in the blank.

For a phase-controlled rectifier, the firing angle is measured from the angle that gives _____ output voltage.

- Ans A. the smallest RMS
 B. the largest average
 C. zero
 D. the smallest average

Question ID : 6306801005045
Option 1 ID : 6306803944025
Option 2 ID : 6306803944023
Option 3 ID : 6306803944024
Option 4 ID : 6306803944022
Status : Answered
Chosen Option : B

Q.66 How do you create a table in Microsoft Word?

- Ans A. Go to the "Insert" tab, then click on "Table" and choose the number of rows and columns.
 B. Click on the "Layout" tab, then choose "Table" and specify the number of rows and columns.
 C. Go to the "Format" tab, then click on "Table" and select "Create Table" from the drop-down menu.
 D. Right-click anywhere on the document, select "Table" from the context menu, and choose the number of rows and columns.

Question ID : 630680770591
Option 1 ID : 6306803020265
Option 2 ID : 6306803020268
Option 3 ID : 6306803020266
Option 4 ID : 6306803020267
Status : Answered
Chosen Option : A

Q.67 Which property of cordierite makes it ideal for use in applications where resistance to heat shock is important?

- Ans A. High dielectric constant
 B. Low thermal expansion
 C. High mechanical strength
 D. Good electrical properties

Question ID : 6306801029977
Option 1 ID : 6306804042605
Option 2 ID : 6306804042604
Option 3 ID : 6306804042603
Option 4 ID : 6306804042606
Status : Answered
Chosen Option : B

Q.68 A fusible plug is used in a boiler to:

- Ans A. trip on overload
 B. safeguard the fire tube
 C. sustain pressure
 D. serve as a junction switch

Question ID : 6306801009996
Option 1 ID : 6306803963464
Option 2 ID : 6306803963463
Option 3 ID : 6306803963466
Option 4 ID : 6306803963465
Status : Answered
Chosen Option : A

Q.69

Identify the valve shown below and its purpose during the steam test of a boiler.



- Ans
- A. Steam pressure gauge to measure the pressure inside the boiler during the test
 - B. Safety valve to ensure that the boiler pressure does not exceed safe limits
 - C. Pressure relief valve to release excess pressure to prevent overpressure conditions
 - D. Drain valve to remove residual water or contaminants after the test

Question ID : 6306801006819
 Option 1 ID : 6306803951011
 Option 2 ID : 6306803951013
 Option 3 ID : 6306803951010
 Option 4 ID : 6306803951012
 Status : Answered
 Chosen Option : C

Q.70 The magnetic field strength (H) at a point in a magnetic field is defined as:

- Ans
- A. the potential energy of a magnetic dipole in the field
 - B. the flux density at that point in the field
 - C. the force experienced by a unit positive charge moving in the field
 - D. the force experienced by a unit north pole placed at that point

Question ID : 6306801007174
 Option 1 ID : 6306803952419
 Option 2 ID : 6306803952418
 Option 3 ID : 6306803952416
 Option 4 ID : 6306803952417
 Status : Answered
 Chosen Option : C

Q.71 The pitch factor (K_c) for the fundamental frequency is given by $K_c = \cos \frac{\alpha}{2}$. What is the pitch factor for the 5th harmonic?

- Ans
- A. $\cos\left(\frac{5\alpha}{2}\right)$
 - B. $\cos\left(\frac{\alpha}{5}\right)$
 - C. $5\cos\left(\frac{\alpha}{2}\right)$
 - D. $\cos(5\alpha)$

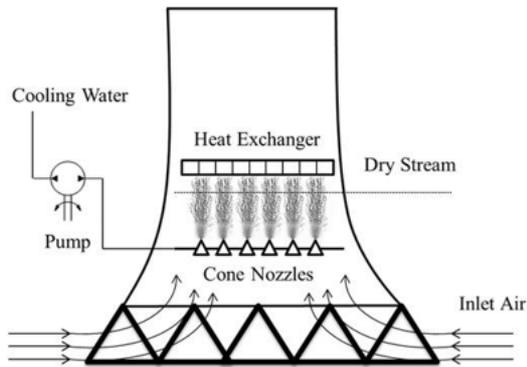
Question ID : 6306801007072
 Option 1 ID : 6306803952012
 Option 2 ID : 6306803952013
 Option 3 ID : 6306803952014
 Option 4 ID : 6306803952015
 Status : Answered
 Chosen Option : A

Q.72 Where are the receivers positioned in a parabolic trough system?

- Ans
- A. On top of the parabolic troughs
 - B. At the focal point of the reflectors
 - C. Along the length of the mirror strips
 - D. Above the solar radiation source

Question ID : 630680374467
 Option 1 ID : 6306801459048
 Option 2 ID : 6306801459047
 Option 3 ID : 6306801459049
 Option 4 ID : 6306801459050
 Status : Answered
 Chosen Option : C

Q.73

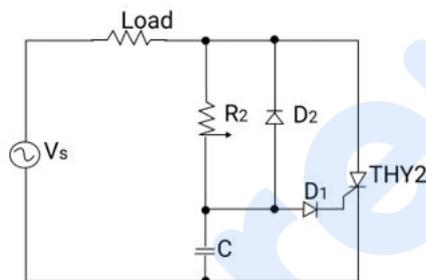


The process shown in the above figure is carried out in a _____.

- Ans
- A. cooler
 - B. surface condenser
 - C. cooling tower
 - D. spray condenser

Question ID : 6306801007074
 Option 1 ID : 6306803952023
 Option 2 ID : 6306803952021
 Option 3 ID : 6306803952022
 Option 4 ID : 6306803952020
 Status : Answered
 Chosen Option : C

Q.74 The given figure is that of an RC firing circuit. In case of negative cycle at V_s , the capacitor C:



- Ans
- A. charges through D1 with lower plate positive
 - B. charges through D2 with lower plate negative
 - C. charges through D2 with lower plate positive
 - D. charges through D1 with lower plate negative

Question ID : 630680352179
 Option 1 ID : 6306801370816
 Option 2 ID : 6306801370813
 Option 3 ID : 6306801370815
 Option 4 ID : 6306801370814
 Status : Answered
 Chosen Option : B

Q.75 Which type of fire is caused by flammable liquids, such as gasoline and oil, and should never be extinguished with water?

- Ans
- A. Class B
 - B. Class K
 - C. Class A
 - D. Class C

Question ID : 6306801004371
 Option 1 ID : 6306803941390
 Option 2 ID : 6306803941392
 Option 3 ID : 6306803941389
 Option 4 ID : 6306803941391
 Status : Answered
 Chosen Option : A

Section : Numerical Ability

Q.76 If $44.1 : x :: x : 6.4$, and $x > 0$, then find the value of x .

Ans A. 16.8

B. 16.6

C. 12.9

D. 19

Question ID : 630680802557
Option 1 ID : 6306803144384
Option 2 ID : 6306803144387
Option 3 ID : 6306803144386
Option 4 ID : 6306803144385
Status : Answered
Chosen Option : A

Q.77 एक नाव को धारा की विपरीत दिशा में 40 km और धारा की दिशा में 40 km की दूरी तय करने में 3 घंटे लगते हैं। यदि धारा की चाल 10 km/hr है, तो धारा की दिशा में नाव की चाल _____ km/hr है।

Ans A. 40

B. 20

C. 30

D. 35

Question ID : 630680570712
Option 1 ID : 6306802231839
Option 2 ID : 6306802231840
Option 3 ID : 6306802231837
Option 4 ID : 6306802231838
Status : Answered
Chosen Option : D

Q.78 If twenty-five people work 12 hours a day can complete 4 units of work in 5 days. How many days required by 15 persons to complete 18 units of work working 9 hours a day?

Ans A. 45

B. 50

C. 60

D. 35

Question ID : 6306801063166
Option 1 ID : 6306804175026
Option 2 ID : 6306804175023
Option 3 ID : 6306804175025
Option 4 ID : 6306804175024
Status : Answered
Chosen Option : B

Q.79 For a trip of 600 km, a truck travels the first 335 km at a speed of 40 km/h. At what speed (km/h) should it cover the remaining distance, so that the average speed is 64 km/h?

Ans A. 245

B. 280

C. 265

D. 240

Question ID : 6306801063186
Option 1 ID : 6306804175105
Option 2 ID : 6306804175106
Option 3 ID : 6306804175103
Option 4 ID : 6306804175104
Status : Answered
Chosen Option : C

Q.80

Find the value of $\sqrt{7\sqrt{7\sqrt{7\sqrt{7\sqrt{7}}}}}$.

- Ans
- A. $\frac{3}{7^4}$
 - B. $\frac{7}{7^8}$
 - C. $\frac{15}{7^{16}}$
 - D. $\frac{31}{7^{32}}$

Question ID : 630680135980
 Option 1 ID : 630680526629
 Option 2 ID : 630680526628
 Option 3 ID : 630680526627
 Option 4 ID : 630680526626
 Status : Answered
 Chosen Option : D

Q.81 . If 533 bananas were distributed among three monkeys in the ratio $\frac{1}{9} : \frac{1}{3} : \frac{1}{1}$, how many bananas did the first monkey get?

- Ans
- A. 21
 - B. 41
 - C. 31
 - D. 51

Question ID : 6306801063288
 Option 1 ID : 6306804175518
 Option 2 ID : 6306804175515
 Option 3 ID : 6306804175516
 Option 4 ID : 6306804175517
 Status : Answered
 Chosen Option : B

Q.82 Varun invests a sum of ₹5400 and Ashish invests a sum of ₹10200 at the same rate of simple interest per annum. If, at the end of 5 years, Ashish gets ₹840 more interest than Varun, then find the rate of interest per annum (in percentage).

- Ans
- A. 2.5
 - B. 1.5
 - C. 3.5
 - D. 5.5

Question ID : 630680613595
 Option 1 ID : 6306802401115
 Option 2 ID : 6306802401113
 Option 3 ID : 6306802401112
 Option 4 ID : 6306802401114
 Status : Answered
 Chosen Option : C

Q.83 एक फल-विक्रेता ने ₹800 प्रति kg की दर से 50 kg आम खरीदे। उसने कुल मात्रा का 60% भाग ₹1,050 प्रति kg की दर से बेचा। कुल मिलाकर 40% लाभ कमाने के लिए उसने शेष आमों को ₹P प्रति kg की दर से बेच दिया। P और प्रति kg मूल्य जिस पर उसने 60% आम बेचे थे, के बीच अंतर (₹ में) कितना है?

- Ans
- A. 225
 - B. 175
 - C. 256
 - D. 148

Question ID : 630680617724
 Option 1 ID : 6306802417230
 Option 2 ID : 6306802417232
 Option 3 ID : 6306802417229
 Option 4 ID : 6306802417231
 Status : Answered
 Chosen Option : B

Q.84 The monthly incomes of two friends Shivam and Rupesh, are in the ratio 5 : 7 respectively and each of them saves ₹9000 every month. If the ratio of their monthly expenditure is 1 : 3, find the monthly income of Shivam(in ₹).

- Ans A. 123750
 B. 124750
 C. 173250
 D. 122750

Question ID : 630680591845
 Option 1 ID : 6306802315847
 Option 2 ID : 6306802315848
 Option 3 ID : 6306802315850
 Option 4 ID : 6306802315849
 Status : Answered
 Chosen Option : A

Q.85 The list price of an article is ₹2700 and a discount of 70% is offered on the list price. What additional discount per cent on the already discounted price must be offered to a customer to bring the net selling price to ₹777.6?

- Ans A. 5
 B. 4
 C. 3
 D. 6

Question ID : 630680802613
 Option 1 ID : 6306803144610
 Option 2 ID : 6306803144608
 Option 3 ID : 6306803144609
 Option 4 ID : 6306803144611
 Status : Answered
 Chosen Option : B

Q.86 The average of 6.5, 10.6, 19.7 and a is 12. The value of a is:

- Ans A. 13.2
 B. 10.2
 C. 11.2
 D. 12.2

Question ID : 630680551971
 Option 1 ID : 6306802158112
 Option 2 ID : 6306802158110
 Option 3 ID : 6306802158109
 Option 4 ID : 6306802158111
 Status : Answered
 Chosen Option : A

Q.87 The areas of three adjacent faces of a solid cuboid are 216 cm^2 , 114 cm^2 and 19 cm^2 . What is the volume (in cm^3) of the cuboid?

- Ans A. 880
 B. 955
 C. 684
 D. 532

Question ID : 630680837035
 Option 1 ID : 6306803278868
 Option 2 ID : 6306803278869
 Option 3 ID : 6306803278867
 Option 4 ID : 6306803278870
 Status : Not Answered
 Chosen Option : --

Q.88 The number of prime numbers lying between 471 and 479 is:

- Ans A. 3
 B. 4
 C. 1
 D. 2

Question ID : 630680740969
 Option 1 ID : 6306802904465
 Option 2 ID : 6306802904466
 Option 3 ID : 6306802904464
 Option 4 ID : 6306802904467
 Status : Answered
 Chosen Option : C

Q.89 The price of potato increased by 35%. By what percentage must the consumption be reduced by Deepika such that her expen

8
9
A
n
s

- A. 21.34%
 B. 27.89%
 C. 26.52%
 D. 25.93%

Q.90 यदि ₹29700 की धनराशि को 2 वर्षों के लिए 3% वार्षिक ब्याज दर पर जमा किया जाता है तो चक्रवृद्धि ब्याज (जब ब्याज वार्षिक रूप से चक्रवृद्धि किया जाता है) और साधारण ब्याज के बीच का अंतर (एक दशमलव स्थान तक पूर्णांकित मान) ज्ञात कीजिए।

- Ans A. ₹25.8
 B. ₹24.3
 C. ₹26.7
 D. ₹31.9

Question ID : 630680809143
 Option 1 ID : 6306803170153
 Option 2 ID : 6306803170154
 Option 3 ID : 6306803170151
 Option 4 ID : 6306803170152
 Status : Answered
 Chosen Option : C

Section : General Awareness

Q.91 भारत में प्रत्येक बालिका और महिला को वित्तीय सुरक्षा प्रदान करने के लिए, वित्त मंत्रालय के आर्थिक कार्य विभाग द्वारा 'महिला सम्मान सेविंग सर्टिफिकेट' स्कीम शुरू की गई थी और यह 1 अप्रैल 2023 से _____ तक वैध है/थी।

- Ans A. 31 मार्च 2025
 B. 31 मार्च 2026
 C. 31 मार्च 2024
 D. 31 मार्च 2028

Question ID : 630680968685
 Option 1 ID : 6306803799249
 Option 2 ID : 6306803799250
 Option 3 ID : 6306803799248
 Option 4 ID : 6306803799251
 Status : Answered
 Chosen Option : D

Q.92 As per the Census of India 2011, what was the male literacy rate recorded in India?

- Ans A. Between 80 to 85%
 B. Between 70 to 75%
 C. Between 85 to 90%
 D. Between 75 to 80%

Question ID : 630680929741
 Option 1 ID : 6306803643779
 Option 2 ID : 6306803643782
 Option 3 ID : 6306803643780
 Option 4 ID : 6306803643781
 Status : Answered
 Chosen Option : D

Q.93 After winning the T20 Cricket World Cup 2024, what amount of prize was announced by the Board of Control for Cricket in India (BCCI) for the players?

- Ans
- A. ₹101 crore
 - B. ₹155 crore
 - C. ₹125 crore
 - D. ₹225 crore

Question ID : 630680943251
Option 1 ID : 6306803697401
Option 2 ID : 6306803697399
Option 3 ID : 6306803697400
Option 4 ID : 6306803697402
Status : Answered
Chosen Option : C

Q.94 The provisions related to citizenship in the Indian Constitution are detailed in which Part?

- Ans
- A. Part II
 - B. Part IV
 - C. Part I
 - D. Part III

Question ID : 630680942541
Option 1 ID : 6306803694607
Option 2 ID : 6306803694609
Option 3 ID : 6306803694606
Option 4 ID : 6306803694608
Status : Answered
Chosen Option : A

Q.95 Which of the following national parks is located in Assam?

- Ans
- A. Rajaji National Park
 - B. Kaziranga National Park
 - C. Dudhwa National Park
 - D. Kanha National Park

Question ID : 630680929710
Option 1 ID : 6306803643656
Option 2 ID : 6306803643655
Option 3 ID : 6306803643657
Option 4 ID : 6306803643658
Status : Answered
Chosen Option : B

Q.96 Consider the following statements regarding autotrophs/heterotrophs and select the correct option.

- A. Autotrophs are secondary consumers in the food chain.
B. Heterotrophs produce their own food using light energy.

- Ans
- A. Neither A nor B is correct
 - B. Only A is correct
 - C. Both A and B are correct
 - D. Only B is correct

Question ID : 630680942436
Option 1 ID : 6306803694238
Option 2 ID : 6306803694235
Option 3 ID : 6306803694237
Option 4 ID : 6306803694236
Status : Answered
Chosen Option : A

Q.97 Which of the following viceroys is associated with the Indian Councils Act, 1861?

- Ans
- A. Lord Curzon
 - B. Lord Canning
 - C. Lord Ripon
 - D. Lord Lytton

Question ID : 630680962190
Option 1 ID : 6306803772997
Option 2 ID : 6306803773000
Option 3 ID : 6306803772998
Option 4 ID : 6306803772999
Status : Answered
Chosen Option : C

Q.98 मई-जून 2024 में आयोजित, 16-दिवसीय बहु-राष्ट्र मेगा सैन्य अभ्यास का नाम क्या था, जिसमें भारतीय वायु सेना (IAF) संयुक्त राज्य अमेरिका के अलास्का में शामिल हुई तथा जिसे भाग लेने वाले बलों को कृत्रिम युद्ध परिवेश (simulated combat environment) में यथार्थवादी प्रशिक्षण (realistic training) प्रदान करने के लिए डिज़ाइन किया गया था?

- Ans
- A. व्हाइट फ्लैग 24
 - B. ग्रीन फ्लैग 24
 - C. येलो फ्लैग 24
 - D. रेड फ्लैग 24

Question ID : 630680967922
Option 1 ID : 6306803796206
Option 2 ID : 6306803796205
Option 3 ID : 6306803796203
Option 4 ID : 6306803796204
Status : Answered
Chosen Option : B

Q.99 Who is the ex-officio Chairman of the Rajya Sabha?

- Ans
- A. Chief Justice of India
 - B. Prime Minister of India
 - C. Vice President of India
 - D. President of India

Question ID : 630680942591
Option 1 ID : 6306803694804
Option 2 ID : 6306803694803
Option 3 ID : 6306803694805
Option 4 ID : 6306803694802
Status : Answered
Chosen Option : C

Q.100 Which Schedule of the Indian Constitution aims to promote the increased use of Hindi?

- Ans
- A. Tenth Schedule
 - B. Sixth Schedule
 - C. Third Schedule
 - D. Eighth Schedule

Question ID : 630680990563
Option 1 ID : 6306803886591
Option 2 ID : 6306803886589
Option 3 ID : 6306803886588
Option 4 ID : 6306803886590
Status : Answered
Chosen Option : D