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Recruitment Exam of Class III and Class IV Posts on Regular Baiss in Successor Companies of ERSTWHILE MPSEB

Participant ID	
Participant Name	
Test Center Name	
Test Date	30/03/2025
Test Time	9:00 AM - 11:00 AM
Subject	Junior Engineer or Assistant Manager Distribution or Transmission or Plant Trainee
Marks Obtained	

Section : **World History and Geography and Indian History and Geography Historical events up to 10th level**

Q.1 Who among the following was the leader of the African National Congress (ANC) and played a key role in ending apartheid in South Africa?

Ans
✗ 1. Kwame Nkrumah
✗ 2. Jomo Kenyatta
✗ 3. Julius Nyerere
✓ 4. Nelson Mandela

Question Type : **MCQ**
Question ID : **6306801388729**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.2 How was the post-Gupta period viewed in colonial historiography?

Ans
✓ 1. As a ‘Dark Age’
✗ 2. As a ‘Golden Age’
✗ 3. As a time of prosperity
✗ 4. As a period of military expansion

Question Type : **MCQ**
Question ID : **6306801391412**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

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Q.3 Which of the following irrigation projects is located on the Krishna River?

Ans
✗ 1. Tehri Dam
✓ 2. Nagarjuna Sagar Dam
✗ 3. Sardar Sarovar Project
✗ 4. Hirakud Dam

Question Type : **MCQ**
Question ID : **6306801391368**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.4 Which of the following climate types is characterised by hot, dry summers and mild, wet winters?

Ans
✓ 1. Mediterranean Climate (Cs)
✗ 2. Tundra Climate (ET)
✗ 3. Humid Continental Climate (Df)
✗ 4. Subtropical Desert Climate (BWh)

Question Type : **MCQ**
Question ID : **6306801390306**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.5 Which of the following leaders was NOT associated with the Revolt of 1857?

Ans
✗ 1. Kunwar Singh
✗ 2. Rani Lakshmibai of Jhansi
✓ 3. Tipu Sultan
✗ 4. Bahadur Shah Zafar

Question Type : **MCQ**
Question ID : **6306801388421**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

Q.6 Which type of climate is characterised by high temperatures throughout the year and no dry season?

Ans
✗ 1. Subtropical Steppe (BSh)
✓ 2. Tropical Wet Climate (Af)
✗ 3. Tundra Climate (ET)
✗ 4. Mediterranean Climate (Cs)

Question Type : **MCQ**
Question ID : **6306801390305**
Status : **Answered**
Chosen Option : **4**
Marks : **0**

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Q.7 Which type of agriculture is most commonly associated with the Amazon Basin, Congo Basin and Southeast Asia?

Ans
- ✔ 1. Shifting cultivation
- ✘ 2. Dairy farming
- ✘ 3. Mediterranean agriculture
- ✘ 4. Mixed farming

Question Type : **MCQ**
Question ID : **6306801390550**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

Q.8 What was the Cartaz system introduced by the Portuguese in the Indian Ocean trade?

Ans
- ✘ 1. A religious conversion policy
- ✘ 2. A system of land taxation
- ✔ 3. A permit system for merchant ships
- ✘ 4. A naval warfare strategy

Question Type : **MCQ**
Question ID : **6306801391421**
Status : **Answered**
Chosen Option : **4**
Marks : **0**

Q.9 The seasonal winds that bring heavy rains to South Asia are called:

Ans
- ✘ 1. trade winds
- ✘ 2. westerlies
- ✘ 3. polar winds
- ✔ 4. monsoons

Question Type : **MCQ**
Question ID : **6306801390580**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.10 Which event followed the London Conference from July to October 1946?

Ans
- ✘ 1. The establishment of the United Nations
- ✘ 2. The signing of a military alliance
- ✔ 3. The Paris Conference
- ✘ 4. The creation of NATO

Question Type : **MCQ**
Question ID : **6306801390297**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Section : **Constitution and Civic Rules and Information technology and Environment up to 10th level**

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Q.1 What is the purpose of creating folders in Windows operating system?

Ans
✗ 1. To increase storage capacity
✗ 2. To improve system performance
✗ 3. To secure files with passwords
✓ 4. To organise files and make them easier to find

Question Type : **MCQ**
Question ID : **6306801392365**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.2 Who is the head of the Union Council of Ministers in India, according to Article 74(1) of the Indian Constitution?

Ans
✗ 1. Speaker of Lok Sabha
✗ 2. Vice President
✓ 3. Prime Minister
✗ 4. President of India

Question Type : **MCQ**
Question ID : **6306801390780**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.3 What is the function of Ctrl + Tab in Microsoft applications?

Ans
✗ 1. It opens the File menu.
✓ 2. It switches to the next tab.
✗ 3. It opens the Font dialog box.
✗ 4. It opens the Find dialog box.

Question Type : **MCQ**
Question ID : **6306801391798**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.4 Which of the following non-constitutional bodies was established under the Protection of Human Rights Act, 1993?

Ans
✗ 1. National Human Rights Forum
✗ 2. National Human Rights Foundation
✗ 3. National Human Rights Committee
✓ 4. National Human Rights Commission

Question Type : **MCQ**
Question ID : **6306801388273**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

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Q.5 Which of the following is NOT a constitutional body?

Ans
✗ 1. Election Commission
✗ 2. Comptroller and Auditor General (CAG)
✗ 3. Finance Commission
✓ 4. National Commission for Women (NCW)

Question Type : **MCQ**
Question ID : **6306801390130**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.6 Which policy specifically targets energy-intensive sectors in India to reduce emissions and improve energy efficiency?

Ans
✗ 1. National Rural Employment Guarantee Act
✗ 2. National Clean Air Programme
✓ 3. National Mission for Enhanced Energy Efficiency
✗ 4. National Urban Sanitation Policy

Question Type : **MCQ**
Question ID : **6306801390703**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.7 Which of the following is a major challenge in implementing sustainable development policies in India?

Ans
✗ 1. Abundance of natural resources
✗ 2. Low levels of industrialisation
✓ 3. High population density and resource constraints
✗ 4. To focus solely on economic gains

Question Type : **MCQ**
Question ID : **6306801390705**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.8 How to insert a new slide in a Microsoft PowerPoint 2019 presentation?

Ans
✓ 1. Go to the Home tab and click on the New Slide button.
✗ 2. Press the Ctrl + Shift + N keys simultaneously.
✗ 3. Go to the Insert tab and select Picture.
✗ 4. Right-click on an existing slide and select Delete Slide.

Question Type : **MCQ**
Question ID : **6306801392395**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

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Q.9 The Directive Principles of State Policy aim to promote international peace and security. Which Article encapsulates this objective?

Ans
✗ 1. Article 48
✗ 2. Article 50
✓ 3. Article 51
✗ 4. Article 49

Question Type : **MCQ**
Question ID : **6306801390857**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

Q.10 The Wildlife (Protection) Act, 1972, in India, primarily aims to:

Ans
✗ 1. promote sustainable hunting practices
✗ 2. facilitate the trade of wildlife products
✗ 3. encourage the domestication of wild animals
✓ 4. protect and conserve wildlife and their habitats

Question Type : **MCQ**
Question ID : **6306801390032**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Section : **Current affairs and Madhya Pradesh General Knowledge up to 10th level**

Q.1 Which of the following policies was approved by the Madhya Pradesh cabinet in February 2025 to attract investment and generate employment in the state?

Ans
✗ 1. Madhya Pradesh Education Enhancement Policy 2025
✓ 2. Madhya Pradesh Industrial Promotion Policy 2025
✗ 3. Madhya Pradesh Tourism Development Policy 2025
✗ 4. Madhya Pradesh Renewable Energy Policy 2025

Question Type : **MCQ**
Question ID : **6306801390687**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.2 Which of the following was a significant socio-economic change brought about by the British in Madhya Pradesh?

Ans
✗ 1. Establishment of zamindari system
✗ 2. Revival of indigenous industries
✗ 3. Promotion of tribal self-governance
✓ 4. Introduction of railways for resource extraction

Question Type : **MCQ**
Question ID : **6306801390755**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

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Q.3 Which Indian artist was awarded the prestigious 'Padma Vibhushan' in 2025 for his contributions to traditional music?

Ans
✗ 1. AR Rahman
✓ 2. L Subramaniam
✗ 3. Zakir Hussain
✗ 4. Pandit Jasraj

Question Type : **MCQ**
Question ID : **6306801390656**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.4 What was the long-term impact of the British commercial policies?

Ans
✗ 1. Industrial revolution in India
✓ 2. Widespread economic distress and famines
✗ 3. Strengthening of the Indian economy
✗ 4. Growth of Indian textile industries

Question Type : **MCQ**
Question ID : **6306801387580**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.5 Which of the following sectors is the primary source of livelihood for the people of Madhya Pradesh?

Ans
✓ 1. Agriculture
✗ 2. Tourism
✗ 3. Mining
✗ 4. Industry

Question Type : **MCQ**
Question ID : **6306801390530**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.6 In December 2024, the Government of Madhya Pradesh launched the 'Mukhya Mantri Jan Kalyan Abhiyan' to connect citizens to welfare schemes. What was the duration of this campaign?

Ans
✓ 1. 11 December 2024 to 26 January 2025
✗ 2. 15 December to 31 December 2024
✗ 3. 20 December 2024 to 5 January 2025
✗ 4. 1 December to 15 December 2024

Question Type : **MCQ**
Question ID : **6306801390684**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

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Q.7 Who is the author of the book 'Sam and His Two Birds', published in October 2024?

Ans
✗ 1. Uma Swaminathan
✓ 2. Neha Lohia
✗ 3. Ashok Bansal
✗ 4. SK Ghosh

Question Type : **MCQ**
Question ID : **6306801390662**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Q.8 In September 2024, which country hosted the 19th edition of the Asian Games?

Ans
✗ 1. Japan
✓ 2. China
✗ 3. Indonesia
✗ 4. India

Question Type : **MCQ**
Question ID : **6306801389068**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Q.9 How are the drainage basins of India categorised based on the size of the watershed?

Ans
✗ 1. Oceanic, River, and Coastal basins
✗ 2. Primary, Secondary, and Tertiary river basins
✓ 3. Major, Medium, and Minor river basins
✗ 4. Small, Medium, and Large river basins

Question Type : **MCQ**
Question ID : **6306801390863**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

Q.10 Which plateau in Madhya Pradesh acts as a water divide between the Ganga and Narmada basins?

Ans
✗ 1. Central India Plateau
✓ 2. Malwa Plateau
✗ 3. Rewa-Panna Plateau
✗ 4. Bundelkhand Plateau

Question Type : **MCQ**
Question ID : **6306801390408**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Section : **Logical Reasoning and Mathematics up to 10th level**

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Q.1 **ECGP is related to TRVE in a certain way based on the English alphabetical order. In the same way, MKOX is related to BZDM. To which of the given options is FDHQ related, following the same logic?**

Ans

✗ 1. USFW

✓ 2. USWF

✗ 3. UFEW

✗ 4. UFWE

Question Type : **MCQ**
Question ID : **630680686932**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.2 **A man sold an article for ₹456 by first giving a d% discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹2850, then what is the value of d?**

Ans

✓ 1. 42

✗ 2. 45

✗ 3. 37

✗ 4. 47

Question Type : **MCQ**
Question ID : **6306801196162**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.3 **What should come in place of ? in the given series based on the English alphabetical order?**
KGI JFH IEG HDF ?

Ans

✗ 1. GCF

✗ 2. HDF

✗ 3. HDE

✓ 4. GCE

Question Type : **MCQ**
Question ID : **630680352760**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

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Q.4 ₹5100 were divided among P, Q and R, such that 7 times of P = 2 times of Q = 4 times of R. Find the share of R.

Ans

✗ 1. ₹1439

✗ 2. ₹1331

✗ 3. ₹1357

✓ 4. ₹1428

Question Type : **MCQ**
Question ID : **6306801071693**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.5 The fraction equivalent to 3.36363... is:

Ans

✓ 1. $\frac{37}{11}$

✗ 2. $\frac{31}{6}$

✗ 3. $\frac{41}{12}$

✗ 4. $\frac{39}{16}$

Question Type : **MCQ**
Question ID : **6306801180909**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.6 In a certain code language, ‘open the book’ is coded as 'mc ok hp' and ‘read book regularly’ is coded as ‘ok dq pl’. How is ‘book’ coded in the given language?

Ans

✗ 1. mc

✓ 2. ok

✗ 3. hp

✗ 4. dq

Question Type : **MCQ**
Question ID : **630680814190**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

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Q.7 **Each letter in the word WHISKEY is changed to the letter immediately following it in the English alphabetical order and then all the letters in the letter-cluster thus formed are arranged in alphabetical order. Which of the following letters will be fourth from the right in the new group of letters thus formed?**

Ans

✗ 1. J

✗ 2. I

✗ 3. F

✓ 4. L

Question Type : **MCQ**
Question ID : **630680798249**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.8 For a trip of 800 km, a truck travels the first 300 km at a speed of 50 km/h. At what speed should it cover the remaining distance, so that the average speed is 60 km/h?

Ans

✗ 1. 72 km/h

✗ 2. 52 km/h

✓ 3. $\frac{750}{11}$ km/h

✗ 4. $\frac{600}{13}$ km/h

Question Type : **MCQ**
Question ID : **6306801216940**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.9 **Each of E, X, A, C, T, L and Y has a flight on a different day of a week starting from Monday and ending on Sunday of the same week. Only three people have a flight after L. E has a flight on one of the days after X and on one of the days before T. Y has a flight on one of the days after A but on one of the days before C. A has a flight on one of the days after L. How many people have a flight between C and E?**

Ans

✗ 1. Two

✗ 2. One

✗ 3. Three

✓ 4. Four

Question Type : **MCQ**
Question ID : **630680681953**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

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Q.10 Ashish bought 51 books for Rs 1135 from one shop and 48 books for Rs 915 from another. What is the average price (rounded off to two decimals, in Rs) he paid per book ?

Ans
✗ 1. 19.86
✗ 2. 21.12
✗ 3. 22.74
✓ 4. 20.66

Question Type : **MCQ**
Question ID : **630680573042**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Section : **Subject related questions**

Q.1 Which of the following is/are true with respect to Permanent Magnet Synchronous Motors?
a. They need a precision control circuit.
b. They need both AC and DC supply.
c. They can operate only at very low speeds below 500 rpm.
d. The magnetic material used in them should have high retentivity and coercivity.

Ans
✓ 1. a and d
✗ 2. a, b and c
✗ 3. a and c
✗ 4. a, b, c and d

Question Type : **MCQ**
Question ID : **630680628284**
Status : **Answered**
Chosen Option : **4**
Marks : **0**

Q.2 The snubber circuit for dv/dt protection of a thyristor consists of:

Ans
✗ 1. resistance R, capacitance C and the thyristor in parallel
✗ 2. capacitance C in parallel with a series combination of resistance R and the thyristor
✓ 3. a series combination of resistance R and capacitance C in parallel with the thyristor
✗ 4. a series combination of resistance R and capacitance C in series with the thyristor

Question Type : **MCQ**
Question ID : **6306801391795**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

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Q.3 What is the advantage of using a thermochemical-based power plant for municipal waste conversion?

Ans
✗ 1. Generates electricity without any emissions
✗ 2. Converts waste into solid fuels only
✗ 3. Produces high-calorific value fuels
✓ 4. Reduces waste volume by 90%

Question Type : **MCQ**
Question ID : **630680374448**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Q.4 The rating of a distribution transformer is typically expressed in _____.

Ans
✗ 1. Ohms
✗ 2. Amperes
✗ 3. Farads
✓ 4. Kilovolt-amperes (kVA)

Question Type : **MCQ**
Question ID : **6306801392599**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.5 In a symmetrical fault, the short circuit current can be calculated using:

Ans
✗ 1. only the system impedance
✓ 2. the voltage and the total fault impedance of the system
✗ 3. only the line-to-line voltage
✗ 4. only the transformer impedance of the system

Question Type : **MCQ**
Question ID : **6306801393551**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.6 How many types of artificial magnets are there?

Ans
✗ 1. 3
✗ 2. 5
✗ 3. 4
✓ 4. 2

Question Type : **MCQ**
Question ID : **630680340688**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

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Q.7 Anisha bought 5 new light bulbs of 20 W each. Calculate her electricity bill if she keeps the three bulbs in ON position for 5 hours and the rest two bulbs ON for 4 hours. Given the cost of one unit of electricity is ₹200.

Ans
✗ 1. ₹92,000
✓ 2. ₹92
✗ 3. ₹9,200
✗ 4. ₹100

Question Type : **MCQ**
Question ID : **630680504154**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.8 Which of the following properties changes due to the magnetostriction phenomenon?

Ans
✗ 1. Relative permeability only
✓ 2. Relative permeability, physical dimensions and magnetic susceptibility
✗ 3. Physical dimensions only
✗ 4. Magnetic susceptibility only

Question Type : **MCQ**
Question ID : **630680503993**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

Q.9 In an electric cooker, if the supply voltage is kept constant and the resistance of the heating element is doubled, the power dissipated by the element will be _____.

Ans
✗ 1. quadrupled
✗ 2. doubled
✗ 3. unchanged
✓ 4. halved

Question Type : **MCQ**
Question ID : **6306801393793**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

Q.10 _____ current flows due to the concentration gradient of the majority charge carriers in a semiconductor.

Ans
✗ 1. Drift
✓ 2. Diffusion
✗ 3. Leakage
✗ 4. Thermal

Question Type : **MCQ**
Question ID : **6306801395365**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

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Q.11 For a pulse transformer used in a firing circuit, the turn ratio from primary to two secondary is _____.

Ans
✗ 1. 1 : 2 : 2
✓ 2. 1 : 1 : 1
✗ 3. 1 : 2 : 1
✗ 4. 1 : 2 : 3

Question Type : **MCQ**
Question ID : **6306801392682**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.12 Which of the following is the main characteristic of a high-speed Pelton turbine?

Ans
✗ 1. It uses a Francis runner design.
✓ 2. It is designed to operate at high head.
✗ 3. It operates with a large number of nozzles.
✗ 4. It is designed to operate at low head.

Question Type : **MCQ**
Question ID : **6306801393536**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.13 Which of the following causes the major cost in a distribution system?

Ans
✗ 1. Insulators
✓ 2. Distribution transformer
✗ 3. Earthing systems
✗ 4. Conductors

Question Type : **MCQ**
Question ID : **630680401923**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.14 What is the phase angle between the inductor current and applied voltage in a parallel RL circuit?

Ans
✗ 1. 30°
✗ 2. 45°
✓ 3. 90°
✗ 4. 0°

Question Type : **MCQ**
Question ID : **6306801394713**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

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Q.15 Which of the following statements about the working principle of a BLDC motor are correct?

I. The rotor position is detected using optical encoders or hall-effect sensors.
II. The stator windings are energised in pairs to create a rotating magnetic field.
III. The commutation in a BLDC motor is achieved mechanically using brushes.
IV. The electronic controller switches the current in the stator windings based on rotor position feedback.

Ans
✗ 1. Statement I, III and IV
✗ 2. Statement II, III and IV
✗ 3. Statement I, II and III
✓ 4. Statement I, II and IV

Question Type : **MCQ**
Question ID : **6306801395416**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.16 What is the primary purpose of grounding or earthing in electrical installations?

Ans
✗ 1. To increase the efficiency of the electrical system
✓ 2. To protect people from electrical shock
✗ 3. To provide a return path for current
✗ 4. To prevent electrical fires

Question Type : **MCQ**
Question ID : **6306801392604**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.17 Where is the Quiescent-point located on the DC load line of Bipolar Junction Transistor (BJT)?

Ans
✗ 1. At the bottom of the load line
✗ 2. At the top of the load line
✗ 3. Outside the load line
✓ 4. At the intersection of the load line and the transistor's characteristic curve

Question Type : **MCQ**
Question ID : **6306801395999**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

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Q.18 What is the main transformer in a Scott connection?

Ans
✔ 1. A transformer with a centre tap on the primary winding only
✘ 2. A transformer with a centre tap on the secondary winding only
✘ 3. A transformer with no centre tap on the primary or secondary winding
✘ 4. A transformer with centre taps on both primary and secondary windings

Question Type : **MCQ**
Question ID : **630680503309**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.19 Which of the following statements are correct for pulse transformer?
I. Primary and secondary windings have few number of turns compared to the ordinary transformer.
II. The off-period (interval between successive pulse) is usually quite large as compared with the on-period.
III. Core is made of ferrites or high permeability alloys.
IV. The on-period is usually quite large as compared with the off-period (interval between successive pulse).

Ans
✘ 1. Statements III and IV are correct
✔ 2. Statements I, II and III are correct
✘ 3. Statements I and II are correct
✘ 4. Statements I, III and IV are correct

Question Type : **MCQ**
Question ID : **630680227817**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.20 The _____ insulator is used in power distribution for the voltage up to 33kV

Ans
✘ 1. Shackle
✘ 2. Suspension
✔ 3. Pin
✘ 4. Stay

Question Type : **MCQ**
Question ID : **630680338670**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

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Q.21 A relay with pickup current of 2 A is used to protect 70% of the winding against an earth fault. The ratio of the neutral CT is 200/4. What will be the value of neutral resistance for a 3-phase, 11 kV alternator if the EMF induced in 30% of the faulty winding is 2000 V?

Ans

✗ 1. 2 Ω

✗ 2. 200 Ω

✓ 3. 20 Ω

✗ 4. 0 Ω

Question Type : **MCQ**
Question ID : **630680326193**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Q.22 What is the Z-parameter matrix for the two-port network having Y-parameter matrix?

$$Y = \begin{bmatrix} -13 & 9 \\ -4 & 2 \end{bmatrix}$$

Ans

✗ 1. $Z = \begin{bmatrix} -0.2 & -0.9 \\ 0.4 & -1.3 \end{bmatrix}$

✗ 2. $Z = \begin{bmatrix} -1.3 & 0.9 \\ -0.4 & 0.2 \end{bmatrix}$

✗ 3. $Z = \begin{bmatrix} 0.2 & -0.9 \\ -0.4 & -1.3 \end{bmatrix}$

✓ 4. $Z = \begin{bmatrix} 0.2 & -0.9 \\ 0.4 & -1.3 \end{bmatrix}$

Question Type : **MCQ**
Question ID : **630680387021**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.23 Which of the following phenomena is mainly used in radio work?

Ans

✗ 1. An acceptor circuitcharacteristic

✗ 2. Voltage resonance

✗ 3. Voltage magnification

✓ 4. Parallel resonance

Question Type : **MCQ**
Question ID : **630680334694**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

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Q.24 HVDC transmission needs _____.

Ans

✗ 1. DC filters

✓ 2. AC filters

✗ 3. DC generators

✗ 4. AC generator

Question Type : **MCQ**
Question ID : **630680344286**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Q.25 A two-port network is represented with the following equations.

$V_1 = -2I_1 + 5V_2$
$I_2 = -0.5V_1 - 10V_2$

What are the values of h–parameters?

Ans

✗ 1. $h_{11} = -12.5, h_{12} = 5, h_{21} = 1, h_{22} = -2$

✓ 2. $h_{11} = -2, h_{12} = 5, h_{21} = 1, h_{22} = -12.5$

✗ 3. $h_{11} = 2, h_{12} = 5, h_{21} = 1, h_{22} = 12.5$

✗ 4. $h_{11} = -2, h_{12} = 1, h_{21} = 5, h_{22} = -12.5$

Question Type : **MCQ**
Question ID : **630680383142**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.26 Which of the following is a major disadvantage of a gravity control system?

Ans

✓ 1. It is affected by the orientation of the instrument

✗ 2. It is difficult to calibrate

✗ 3. It is highly sensitive to temperature variations

✗ 4. It requires high power consumption

Question Type : **MCQ**
Question ID : **6306801392700**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

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Q.27 The speed-time curve of a train movement is the graph plotted between _____.

Ans
✗ 1. velocity on Y axis and time on X axis
✗ 2. speed on X axis and time on Y axis
✓ 3. speed on Y axis and time on X axis
✗ 4. velocity on X axis and time on Y axis

Question Type : **MCQ**
Question ID : **630680401392**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.28 Which of the following statements is correct for forced response in the circuit?

Ans
✗ 1. Forced response can be zero.
✓ 2. Forced response is dependent of applied voltage or current.
✗ 3. Forced response is independent of applied voltage or current.
✗ 4. Forced response is dependent of initial voltage or current.

Question Type : **MCQ**
Question ID : **630680383134**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.29 Which of the following is NOT typically included in a wiring diagram for an industrial building?

Ans
✗ 1. Wiring for machinery and equipment
✗ 2. Lighting fixtures and their connections
✗ 3. Electrical distribution panels
✓ 4. Building's HVAC system components

Question Type : **MCQ**
Question ID : **6306801392622**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

Q.30 Which of the following inductor cores has maximum inductance?

Ans
✓ 1. Iron
✗ 2. Copper
✗ 3. Wood
✗ 4. Air

Question Type : **MCQ**
Question ID : **630680377038**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

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Q.31 What is the primary function of a Zener diode?

Ans
✗ 1. Signal generator
✗ 2. Switch
✓ 3. Voltage regulator
✗ 4. Amplifier

Question Type : **MCQ**
Question ID : **6306801395965**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.32 For a thyristor, the magnitude of reverse breakdown voltage is:

Ans
✗ 1. very high than forward breakover voltage
✓ 2. slightly more than forward breakover voltage
✗ 3. less than forward breakover voltage
✗ 4. zero

Question Type : **MCQ**
Question ID : **6306801391808**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.33 Which of the following statements defines the term 'Dielectric permittivity'?

Ans
✗ 1. It symbolises the degree of electrical polarisation of a material.
✗ 2. It is the ability of a material to dissipate an electrical charge.
✗ 3. It symbolises the degree of electrical polarisation of a material and the ability of the material to dissipate an electrical charge.
✓ 4. It is the ability of a material to hold an electrical charge.

Question Type : **MCQ**
Question ID : **630680503974**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

Q.34 In percussion welding process, the weld is formed between the pieces by _____.

Ans
✗ 1. bare metal electrode and flux
✓ 2. intense arcing and heavy pressure between them
✗ 3. coated metal electrode and flux
✗ 4. intense arcing and sudden cooling

Question Type : **MCQ**
Question ID : **630680389659**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

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Q.35 What type of transformer is typically used for areas with limited space in an indoor 11kV substation?

Ans
✗ 1. Oil-immersed transformer
✗ 2. Gas-insulated transformer
✗ 3. Submersible transformer
✓ 4. Dry-type transformer

Question Type : **MCQ**
Question ID : **6306801392600**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

Q.36 If a 3-phase induction machine has 720 stator slots, then, to avoid vibrations in the machine caused by crawling, the maximum number of rotor slots should be equal to _____.

Ans
✗ 1. 532
✗ 2. 232
✓ 3. 432
✗ 4. 632

Question Type : **MCQ**
Question ID : **630680339346**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

Q.37 Three identical inductive coils each are having an impedance of 12 Ω are connected in star. The circuit is fed form a 3 phase, 415 V, 50 Hz supply. The line current drawn from the circuit is equal to:

Ans
✗ 1. 60 A
✗ 2. 34.5 A
✗ 3. 36 A
✓ 4. 20 A

Question Type : **MCQ**
Question ID : **630680334746**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.38 If P is the number of poles in an armature of a DC generator, then the number of parallel paths in the armature of a duplex lap winding will be _____.

Ans
✓ 1. 2P
✗ 2. P
✗ 3. 2
✗ 4. 4

Question Type : **MCQ**
Question ID : **630680227759**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

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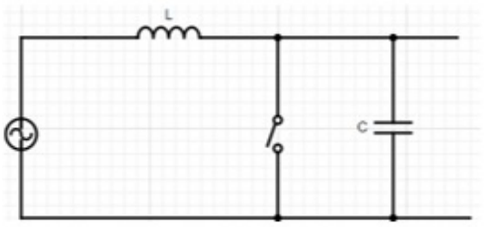
Q.39 If the instantaneous value of the arc current when current chopping occurs is i_a = 5 A in the circuit shown below, what is the prospective value of the voltage at which the capacitor will be charged if the series inductance 'L' = 25 H and the shunt capacitance 'C' = 0.01 μF?



Ans

✗ 1. 25 kV

✗ 2. 0 kV

✗ 3. 100 kV

✓ 4. 250 kV

Question Type : **MCQ**
Question ID : **630680311154**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.40 What is the voltage regulation of a 11 kV, 3-phase system if the sending end voltage is 6600 Volt/Phase and the receiving end voltage is 6300 Volt/Phase?

Ans

✗ 1. 47.65%

✗ 2. 0.47%

✓ 3. 4.76%

✗ 4. 0%

Question Type : **MCQ**
Question ID : **630680390405**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.41 The purpose of turns compensation in a potential transformer is to:

Ans

✗ 1. increase the primary voltage rating

✗ 2. improve insulation resistance

✗ 3. reduce core saturation effects

✓ 4. correct for voltage drops in the winding resistance and reactance

Question Type : **MCQ**
Question ID : **6306801393582**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

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Q.42 The current transformer draws a magnetising current because of the flux produced by:

Ans
✗ 1. magnetic force
✗ 2. magnetic flux density
✓ 3. primary winding
✗ 4. secondary winding

Question Type : **MCQ**
Question ID : **630680217919**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.43 In order to optimise energy efficiency, which lighting technology is often paired with electronic regulators?

Ans
✗ 1. Halogen lamps
✓ 2. Compact fluorescent lamps
✗ 3. Candle wax lamps
✗ 4. Incandescent lamps

Question Type : **MCQ**
Question ID : **630680373438**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.44 In an N-type semiconductor, what type of impurity is added to create free electrons?

Ans
✗ 1. Indium (In)
✗ 2. Gallium (Ga)
✓ 3. Phosphorus (P)
✗ 4. Boron (B)

Question Type : **MCQ**
Question ID : **6306801395359**
Status : **Answered**
Chosen Option : **3**
Marks : **1**

Q.45 Consider the following statements for the hunting phenomenon in synchronous motors.
Assertion (A): Hunting is also called as phase swinging.
Reason (R): During rotor oscillation, the orientation of the phasor excitation voltage (Ef) changes about the phasor terminal voltage (V).
Based on the above proposition, which of the following options is correct?

Ans
✗ 1. A is false, but R is true.
✗ 2. Both A and R are true, and R is not the correct explanation of A.
✓ 3. Both A and R are true, and R is the correct explanation of A.
✗ 4. A is true, but R is false.

Question Type : **MCQ**
Question ID : **630680337189**
Status : **Answered**
Chosen Option : **4**
Marks : **0**

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Q.46 Which of the following sources of energy constitutes the largest share of India's primary energy consumption?

Ans
✗ 1. Nuclear power
✓ 2. Coal
✗ 3. Natural gas
✗ 4. Renewable energy

Question Type : **MCQ**
Question ID : **630680373424**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.47 The application of capacitors using mineral oil as dielectric is _____.

Ans
✗ 1. large capacitance requirement
✗ 2. high precision requirement
✓ 3. power factor improvement
✗ 4. power factor correction

Question Type : **MCQ**
Question ID : **630680376438**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Q.48 Which of the following conditions is true regarding the phase displacement between primary and secondary voltages in case of 3-phase transformers connected in parallel?

Ans
✓ 1. The phase displacement must be the same for all the transformers.
✗ 2. The phase displacement can be of any value.
✗ 3. The phase displacement must be different for each transformer.
✗ 4. The phase displacement of the lowest-rating transformer should be exactly half of the highest-rating transformer.

Question Type : **MCQ**
Question ID : **630680503308**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.49 Which of the following operations utilises the hysteresis loss practically?

Ans
✗ 1. Detection of surface cracks
✗ 2. Magnetic recording
✗ 3. Induction heating of steel
✓ 4. Both induction heating of steel and magnetic recording

Question Type : **MCQ**
Question ID : **630680504052**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

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Q.50 What is the relation between line voltage (V_L) and phase voltage (V_P) in a delta-connected load?

Ans

✔ 1. $V_L = V_P$

✗ 2. $V_L = \sqrt{V_P}$

✗ 3. $V_L = \frac{V_P}{\sqrt{3}}$

✗ 4. $V_L = \sqrt{3} V_P$

Question Type : **MCQ**
Question ID : **6306801394739**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.51 Which of the following statements is true for Squirrel Cage Induction Generators used in wind power plants?

Ans

✗ 1. Slow transient response

✗ 2. Least wind energy utilisation

✗ 3. Complex construction and lack of robustness

✔ 4. Rectifier can produce excitation current

Question Type : **MCQ**
Question ID : **630680509446**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

Q.52 Calculate the daily bill of a consumer whose maximum demand is 100 kW, pf = 1 and load factor = 50%, if the tariff is ₹10 per kVA of maximum demand plus 10 paisa per kWh consumed.

Ans

✔ 1. ₹1,120

✗ 2. ₹1,020

✗ 3. ₹1,220

✗ 4. ₹2,000

Question Type : **MCQ**
Question ID : **630680509639**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

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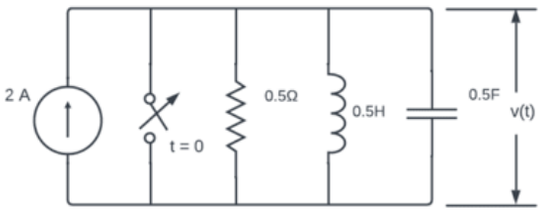
Q.53 The switch is opened at t = 0 in the given circuit. What is the voltage v(t) for t > 0?



Ans

✗ 1. $2te^{-4t}$

✓ 2. $4te^{-2t}$

✗ 3. $4e^{-2t}$

✗ 4. $4te^{2t}$

Question Type : **MCQ**
Question ID : **630680386998**
Status : **Answered**
Chosen Option : **3**
Marks : **0**

Q.54 The improved power factor is contributed by energy efficient motor by _____.

Ans

✗ 1. increasing harmonic distortion

✓ 2. reducing reactive power demand

✗ 3. generating excessive heat

✗ 4. lowering overall system efficiency

Question Type : **MCQ**
Question ID : **630680373451**
Status : **Answered**
Chosen Option : **2**
Marks : **1**

Q.55 High frequency dielectric heating is most commonly used for:

Ans

✗ 1. softening of thermo plastic sheets

✓ 2. gluing of wood

✗ 3. arc welding

✗ 4. forging of bolt heads

Question Type : **MCQ**
Question ID : **6306801394206**
Status : **Answered**
Chosen Option : **1**
Marks : **0**

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Q.56 Which of the following is NOT a processing of nanotechnology?

Ans
✔ 1. Deformation
✘ 2. Formation
✘ 3. Consolidation
✘ 4. Separation

Question Type : **MCQ**
Question ID : **630680352155**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.57 What is the purpose of the concentric glass cover around the absorber tube in a solar concentrator system?

Ans
✔ 1. To reduce convective and radiative losses to the surroundings
✘ 2. To reduce the efficiency of energy transfer
✘ 3. To focus sunlight onto the absorber tube
✘ 4. To increase convective and radiative losses

Question Type : **MCQ**
Question ID : **630680374466**
Status : **Answered**
Chosen Option : **1**
Marks : **1**

Q.58 In potential transformers, the actual ratio of transformation varies with operating conditions and the error in secondary voltage is defined as _____.

Ans
✘ 1. probable error
✘ 2. absolute error
✘ 3. phase angle error
✔ 4. ratio error

Question Type : **MCQ**
Question ID : **630680217920**
Status : **Answered**
Chosen Option : **4**
Marks : **1**

Q.59 The Kando system is a _____.

Ans
✘ 1. single phase to single phase system
✔ 2. single phase to three phase system
✘ 3. single phase to DC system
✘ 4. DC system to single system

Question Type : **MCQ**
Question ID : **6306801392696**
Status : **Answered**
Chosen Option : **4**
Marks : **0**

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Q.60 Which of the following statements is true regarding the principle of operation of an induction type directional power relay?

Ans ✗ 1. The torque in the relay is derived only from the interaction of magnetic fields obtained from the current in the circuit through CT.

✗ 2. The torque in the relay is developed only when the V/I ratio falls below the pre-determined value.

✗ 3. The torque in the relay is derived only from the interaction of magnetic fields obtained from the voltage in the circuit through PT.

✓ 4. The torque in the relay is derived only from the interaction of the fields produced from both voltage and current sources of the circuit it protects.

Question Type : **MCQ**
Question ID : **630680218631**
Status : **Answered**
Chosen Option : **2**
Marks : **0**

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