

Railway Recruitment Cell

Post Name : 07-Electrical and allied Engineering

Exam Code : MASSXAEL

Exam Date : 21-06-2024

Exam Time : 9:30AM

Question No. 1

Which of the following is a possible cause of blackening at both ends of the fluorescent lamp?

- A) Too low voltage
- B) High voltage
- C) Improper ballast
- D) All of the options

Answer Key: D

Question No. 2

Joule's heating effect is undesirable on-

- A) Electric iron
- B) Electric toaster
- C) Electric Fan
- D) Transformers

Answer Key: D

Question No. 3

If an alternator winding has a fractional pitch of $\frac{5}{6}$, the coil span is _____ degrees.

- A) 300
- B) 180
- C) 150
- D) 60

Answer Key: C

Question No. 4

The fusing factor of protective devices for medium level load is-

- A) 6.95
- B) 1.45
- C) 4.38
- D) 3.45

Answer Key: B

Question No. 5

Which of the following is NOT an electrical quantity?

- A) Voltage
- B) Current
- C) Distance
- D) Power

Answer Key: C

Question No. 6

What is the primary function of a choke in a tube light circuit?

- A) Provide a very high current
- B) Stabilize the flow of current
- C) Heat up the filament
- D) Induce low voltage

Answer Key: B

Question No. 7

The material used for making optic-fibre cable in general is-

- A) Copper
- B) Aluminium
- C) Silica
- D) Steel

Answer Key: C

Question No. 8

Which of the following types of wiring are aesthetically appealing?

- A) Cleat wiring
- B) Batten wiring
- C) Conduit surface wiring
- D) Conduit concealed wiring

Answer Key: D

Question No. 9

The rotor of a motor runs at 1414 RPM and the synchronous speed is 1500 RPM. What is the motor's approximate percentage slip?

- A) 3.73%
- B) 4.73%
- C) 5.73%
- D) 7.73%

Answer Key: C

Question No. 10

Hopkinson's test on DC machine is conducted at-

- A) Full load
- B) Part load
- C) Low load
- D) No load

Answer Key: A

Question No. 11

Filament in an incandescent lamp is made of-

- A) Nichrome wire
- B) Tungsten wire
- C) Fuse wire
- D) Copper wire

Answer Key: B

Question No. 12

Before starting electroplating, what action is to be necessarily taken?

- A) Cleaning
- B) Polishing
- C) Buffing
- D) Soldering

Answer Key: A

Question No. 13

One watt is equal to-

- A) One joule per second
- B) One ohm per second

C) One volt per second

D) One ampere per second

Answer Key: A

Question No. 14

The armature current of a synchronous motor has large value for-

A) High excitation only

B) Low excitation only

C) Both low and high excitation

D) None of the options

Answer Key: C

Question No. 15

Neutral is a circuit conductor that normally carries _____ back to the source.

A) Voltage

B) Power

C) Current

D) Flux

Answer Key: C

Question No. 16

The effect of fringing _____ with the increase in the length of the air gap in magnetic circuits.

A) Remains constant

B) Becomes zero

C) Increases

D) Decreases

Answer Key: C

Question No. 17

Which of the following excitation systems has two exciters - the main exciter and a pilot exciter?

A) Stator

B) Rotor

C) DC

D) Static

Answer Key: C

Question No. 18

The armature reaction affects the _____ when the load on an alternator is increased.

A) Terminal voltage

B) Frequency of armature

C) Rotor speed

D) No load losses

Answer Key: A

Question No. 19

When one slot per pole or slots equal to the number of poles are employed, then the windings obtained are called-

A) Concentrated winding

B) Short pitch winding

C) Full pitch winding

D) Distributed winding

Answer Key: A

Question No. 20

Which of the following methods of electrical earthing system is similar to pipe earthing?

- A) Plate earthing
- C) Rod earthing

- B) Strip earthing
- D) Wire earthing

Answer Key: C

Question No. 21

The condition for maximum efficiency of single phase transformer is-

- A) Iron losses = copper losses
- B) Iron losses < copper losses
- C) Iron losses > copper losses
- D) None of the options

Answer Key: A

Question No. 22

_____ is an art of depositing a superior or a more noble metal on an inferior or a base metal by means of electrolysis of an aqueous solution of a suitable electrolyte.

- A) Electroplating
- B) Electro-facing
- C) Electro-forming
- D) Electro-typing

Answer Key: A

Question No. 23

Which of the following relays is used to detect and protect internal fault of a transformer?

- A) Mho relay
- B) Reactance relay
- C) Buchholz relay
- D) Distance relay

Answer Key: C

Question No. 24

Which of the following drives is called the line shaft drive?

- A) Multimotor drive
- B) Individual drive
- C) Group drive
- D) Both multimotor and individual drive

Answer Key: C

Question No. 25

The relay used for feeder protection is the-

- A) Under voltage relay
- B) Translay relay
- C) Thermal relay
- D) Buchholz relay

Answer Key: B

Question No. 26

If a power of 600 W is being supplied across a potential difference of 200 V, find the current flowing through the circuit.

- A) 3 A
- B) 1 A
- C) 2 A
- D) 20 A

Answer Key: A

Question No. 27

MCB stands for-

- A) Miniature Circuit Board
- B) Main Circuit Board
- C) Main Circuit Breaker
- D) Miniature Circuit Breaker

Answer Key: D

Question No. 28

A Merz-price protection is suitable for-

- A) Transformers only
- B) Alternators only
- C) Both transformers and alternators
- D) Feeders only

Answer Key: C

Question No. 29

By which of the following is the luminous intensity measured?

- A) Lumen
- B) Lux/metre
- C) Lumen/Steradian
- D) Lux/Steradian

Answer Key: C

Question No. 30

Voltage regulation of an alternator is likely to be negative in the case of a-

- A) High-speed alternator
- B) Low-speed alternator
- C) Lagging power factor of the load
- D) Leading power factor of the load

Answer Key: D

Question No. 31

What is the expansion of PVC in electrical?

- A) Polyversatile carbon
- B) Polyvinyl carbon
- C) Polyvinyl chloride
- D) Polyversatile chloride

Answer Key: C

Question No. 32

An auto-transformer has _____, which forms both the primary and the secondary.

- A) Concentrated winding
- B) Compensating winding
- C) None of the options
- D) Three windings

Answer Key: C

Question No. 33

The connected load of a consumer is 2 kW and his maximum demand is 1.5 kW. The demand factor of the consumer is-

- A) 3
- B) 1.33

C) 0.75

D) 0.375

Answer Key: C

Question No. 34

Which of the following effects is used in Wattmeter?

A) Electrodynamic effect

B) Electrostatic effect

C) Chemical effect

D) Thermal effect

Answer Key: A

Question No. 35

The number of depletion layers in a Bipolar Junction Transistor is-

A) Two

B) Three

C) Four

D) Five

Answer Key: A

Question No. 36

The rotor current frequency in a slip-ring induction motor depends on the-

A) Rotor conductor

B) Rotor inductor

C) Amount of slip

D) Inductive reactance

Answer Key: C

Question No. 37

If the number of poles is 4 and that of slots is 24, then the pole pitch will be-

A) 12 slots

B) 8 slots

C) 6 slots

D) 4 slots

Answer Key: C

Question No. 38

A voltmeter using a thermocouple measures the-

A) Mean value

B) RMS value

C) Average value

D) Peak-to-peak value

Answer Key: B

Question No. 39

Fusing factor is defined as the ratio between the-

A) Maximum fusing current and rated voltage

B) Maximum fusing current and rated current

C) Minimum fusing current and rated current

D) Minimum fusing current and rated voltage

Answer Key: C

Question No. 40

Which of the following diodes operates in the reverse breakdown region?

- A) LED
- C) Zener diode

- B) PN junction diode
- D) Both the PN junction and Zener diodes

Answer Key: C

Question No. 41

If one of the parallel resistors in any parallel circuit is removed from the circuit, then the total resistance-

- A) Decreases
- C) Remains the same
- B) Increases
- D) Is doubled

Answer Key: B

Question No. 42

Which of the following is an instrument used to measure the resistance of insulation?

- A) Megger
- C) Cyclotron
- B) Watt meter
- D) Galvanometer

Answer Key: A

Question No. 43

What is the unit of illumination?

- A) Decibel
- C) Coulomb
- B) Henry
- D) Lux

Answer Key: D

Question No. 44

_____ is the reciprocal of resistance.

- A) Elastance
- C) Inductance
- B) Conductance
- D) Impedance

Answer Key: B

Question No. 45

The phase voltage of a star-connected, three-phase circuit is 200 V. The line voltage will be-

- A) 173.2 V
- C) 230 V
- B) 220 V
- D) 346.4 V

Answer Key: D

Question No. 46

Filament lamps operate normally at a power factor of-

- A) 0.5 leading
- C) Unity
- B) 0.5 lagging
- D) 0.8 lagging

Answer Key: C

Question No. 47

Good earth continuity implies-

- A) High resistance
- B) Low resistance
- C) Open circuit
- D) Low conductivity

Answer Key: B

Question No. 48

Calculate the total DC resistance of a 100 metre roll of 2.5 mm² copper wire if the resistivity of copper at 20 °C is 1.72 x 10⁻⁸ Ω metre.

- A) 0.214 Ω
- B) 0.688 Ω
- C) 0.713 Ω
- D) 0.867 Ω

Answer Key: B

Question No. 49

The Buchholz relay is installed on the-

- A) Air-cooled transformer
- B) Oil-cooled transformer
- C) Welding transformer
- D) Furnace transformer

Answer Key: B

Question No. 50

In DC circuits, capacitance is NOT affected by-

- A) Plate area
- B) Distance between plates
- C) Dielectric material
- D) Frequency

Answer Key: D

Question No. 51

According to Kirchhoff's law, the sum of the currents entering a point in the circuit is equal to the-

- A) Sum of the impedances in the circuit
- B) Sum of the currents leaving that point
- C) Sum of applied voltages
- D) Sum of the voltages around the loop

Answer Key: B

Question No. 52

A megger is exclusively designed for measuring-

- A) Very high resistance
- B) Very low resistance
- C) Ground faults in power lines
- D) Overload on DC motors

Answer Key: A

Question No. 53

Find the equivalent resistance of the resistors 10 Ω, 20 Ω and 40 Ω connected in parallel.

- A) 2.53 Ω
- B) 3.82 Ω
- C) 5.71 Ω
- D) 7.50 Ω

Answer Key: C

Question No. 54

The fixed coil in a dynamometer wattmeter is the-

- A) Pressure coil
- B) Current coil
- C) Potential coil
- D) Dynamic coil

Answer Key: B

Question No. 55

Thermal overload relay is provided in a starter to protect the motor against-

- A) Transient
- B) Open circuit
- C) Excess current
- D) Low voltage

Answer Key: C

Question No. 56

The dissipation factor of a capacitor can be measured by using a-

- A) Potentiometer
- B) Campbell bridge
- C) Schering bridge
- D) Galvanometer

Answer Key: C

Question No. 57

Channel wiring material is made of _____.

- A) Rubber
- B) Metal
- C) Wood
- D) PVC

Answer Key: D

Question No. 58

A DC motor having full load speed of 750 RPM and speed regulation of 10% will have no-load speed of _____.

- A) 675 RPM
- B) 700 RPM
- C) 825 RPM
- D) 900 RPM

Answer Key: C

Question No. 59

A 5-kW, 150-Hz, 6-pole slip-ring induction motor runs at 2940 RPM. Calculate its synchronous speed and percentage slip.

- A) 750 RPM, 2%
- B) 900 RPM, 5%
- C) 1500 RPM, 4%
- D) 3000 RPM, 2%

Answer Key: D

Question No. 60

What is an oscillator?

- A) A generator
- C) An amplifier with positive feedback

- B) A rectifier
- D) An amplifier with negative feedback

Answer Key: C

Question No. 61

What is the purpose of shading coil in a shaded pole motor?

- A) Reduce rotational losses
- C) Reduce rough commutation
- B) Reduce friction loss
- D) Produce rotating magnetic field

Answer Key: D

Question No. 62

To induce maximum EMF in a conductor, the direction of motion of the conductor must be _____.

- A) Perpendicular to the magnetic lines of flux
- C) In line with the magnetic lines of flux
- B) Parallel to the magnetic lines of flux
- D) Tangential to the magnetic lines of flux

Answer Key: A

Question No. 63

Which of the following diodes is a signal diode?

- A) DR25
- C) OA79
- B) 1N4007
- D) BY127

Answer Key: C

Question No. 64

Two capacitors of capacitance 9 μF and 18 μF connected in series will have a total capacitance of-

- A) 6 μF
- C) 50 μF
- B) 27 μF
- D) 65 μF

Answer Key: A

Question No. 65

If a steam turbine is coupled to an alternator, then the alternator converts-

- A) AC to DC
- C) Electrical energy to mechanical energy
- B) DC to AC
- D) Mechanical energy to electrical energy

Answer Key: D

Question No. 66

A circuit breaker normally operates when-

- A) Power is to be supplied
- C) The switch is to be put on
- B) The line is to be tested
- D) A fault occurs in the line

Answer Key: D

Question No. 67

The RMS value of a pure cosine function is-

- A) 0.5 of the peak value
- B) 0.707 of the peak value
- C) The same as the peak value
- D) Zero

Answer Key: B

Question No. 68

In which of the following transmission lines is the capacitance effect negligible?

- A) Long transmission lines
- B) Short transmission lines
- C) Medium transmission lines
- D) Both long and short transmission lines

Answer Key: B

Question No. 69

Kirchhoff's loop rule is based on the conservation of-

- A) Flux
- B) Energy
- C) Momentum
- D) Impulse

Answer Key: B

Question No. 70

Write the full form of ACSR which is typically used in overhead power lines?

- A) All Copper Standard Reinforced
- B) Aluminium Conductor Steel Reinforced
- C) Aluminium Copper Steel Reinforced
- D) All Copper Steel Reinforced

Answer Key: B

Question No. 71

Power is transmitted over transmission lines on high voltage, because-

- A) Only conductor cost is reduced
- B) Only efficiency is reduced
- C) Only efficiency is increased
- D) Both conductor cost is reduced and efficiency is increased

Answer Key: D

Question No. 72

An ammeter should always have a-

- A) High resistance
- B) Low resistance
- C) Low voltage
- D) High voltage

Answer Key: B

Question No. 73

Crawling in an induction motor is caused by-

- A) High loads
- B) Improper design of the machine
- C) Harmonics developed in the motor
- D) Low voltage supply

Answer Key: C

Question No. 74

_____ theorem is applicable to both linear and nonlinear circuits.

- A) Thevenin's
- B) Norton's
- C) Superposition
- D) Substitution

Answer Key: D

Question No. 75

Relative permeability of a substance is less than the permeability of free space is known as-

- A) Diamagnetic
- B) Paramagnetic
- C) Ferromagnetic
- D) Non magnetic

Answer Key: A

Question No. 76

Which of the following statements are TRUE with Faraday's laws of electromagnetic induction?

- A) The EMF induced in a coil due to change of flux linked with it is called dynamic induced EMF
- B) The conductor is stationary and the magnetic field is moving or changing then the EMF will be induced and it is called static induced EMF
- C) The EMF induced in a coil due to change of flux linked with it is called leakage flux
- D) The EMF induced in a coil due to change of flux linked with it is called MMF

Answer Key: B

Question No. 77

Which of the following indicates black and green wires respectively in house wiring?

- A) Earth and neutral
- B) Phase and neutral
- C) Phase and earth
- D) Neutral and earth

Answer Key: D

Question No. 78

_____ extinguishers are ideal for places with a lot of electrical equipment such as offices or server rooms.

- A) CO₂
- B) N₂S
- C) SO₂
- D) Cl₂

Answer Key: A

Question No. 79

Which of the following value of a complex current wave is equal to the square root of the sum of the square of the RMS value of the individual components?

- A) RMS value
- B) Peak value
- C) Average value
- D) Mean value

Answer Key: A

Question No. 80

MOSFET can be used as a-

- A) Voltage controlled capacitor
- B) Current controlled capacitor
- C) Voltage controlled inductor
- D) Current controlled inductor

Answer Key: A

Question No. 81

A supply voltage of 230 V, 50 Hz is fed to a residential building. What is the equation for instantaneous value?

- A) $v=163.27 \sin 314.16 t$
- B) $v=230.27 \sin 315.16 t$
- C) $v=325.27 \sin 314.16 t$
- D) $v=361.27 \sin 314.16 t$

Answer Key: C

Question No. 82

Dielectric loss is proportional to _____.

- A) $[\text{Frequency}]^{1/2}$
- B) Frequency
- C) Frequency^2
- D) Frequency^3

Answer Key: B

Question No. 83

The AC bridge used for the measurement of the dielectric loss of a capacitor is the-

- A) Anderson bridge
- B) Schering bridge
- C) Wien bridge
- D) Hay's bridge

Answer Key: B

Question No. 84

Which of the following relays is/are operating when the vector difference of two electrical quantities exceeds a pre-determined value?

- A) Differential relay
- B) Frequency relay
- C) Sequential relay
- D) Both frequency and sequential relay

Answer Key: A

Question No. 85

The instrument usually used as a transfer instrument is _____ type.

- A) Moving iron
- B) Induction
- C) Electrodynamic
- D) Rectifier

Answer Key: C

Question No. 86

The switched reluctance motor is a _____ motor.

- A) Doubly-excited
- B) Singly-excited

C) Triply-excited

D) Multiply-excited

Answer Key: B

Question No. 87

An under excited synchronous motor operates at _____ power factor.

A) Unity

B) Zero

C) Lagging

D) Leading

Answer Key: C

Question No. 88

The resistance of a conductor is directly proportional to its-

A) Length

B) Area

C) Velocity

D) Pressure

Answer Key: A

Question No. 89

Which of the following is/are the main components of electrical earthing system?

A) Earth continuity conductor

B) Earthing lead

C) Earth electrode

D) All of the options

Answer Key: D

Question No. 90

Two electric lamps of 30 W each are connected in parallel. What is the total power consumed?

A) 15 W

B) 45 W

C) 60 W

D) 75 W

Answer Key: C

Question No. 91

Norton's equivalent circuit consists of a-

A) Voltage source in series with an equivalent resistor

B) Voltage source in parallel with an equivalent resistor

C) Current source in parallel with an equivalent resistor

D) Current source in series with an equivalent resistor

Answer Key: C

Question No. 92

Tellegen's theorem states that the sum of the products of instantaneous branch voltages and branch currents in a network is-

A) Maximum

B) Minimum

C) Zero

D) Unity

Answer Key: C

Question No. 93

A moving coil permanent magnet instrument can be used as voltmeter by-

- A) Eliminating the control spring
- B) Using high series resistance
- C) Using low series resistance
- D) Eliminating high shunt resistance

Answer Key: B

Question No. 94

Calculate the resistance of a conductor when there is a current of 2 A flowing through it due to the application of 30 V.

- A) 5 Ω
- B) 10 Ω
- C) 15 Ω
- D) 20 Ω

Answer Key: C

Question No. 95

The most common fault occurring in a power system is the-

- A) Single line-to-ground fault
- B) Three-phase short-circuited fault
- C) Double line-to-ground fault
- D) Line-to-line fault

Answer Key: A

Question No. 96

The conductors used to transfer power from the receiving station to the substation are called-

- A) Feeders
- B) Service mains
- C) Distributors
- D) Line conductors

Answer Key: A

Question No. 97

Which power loss is assessed by the open-circuit test on transformers?

- A) Hysteresis loss
- B) Eddy current loss
- C) Copper loss
- D) Core loss

Answer Key: D

Question No. 98

Which of the following types of wiring was famous in the past and now considered obsolete?

- A) Conduit wiring
- B) Casing capping wiring
- C) Lead sheathed wiring
- D) Cleat wiring

Answer Key: B

Question No. 99

Which of the following earthing is used for large installations such as transmission towers, all sub-stations and generating stations?

- A) Pipe earthing
- B) Plate earthing
- C) Rod earthing
- D) Strip earthing

Answer Key: B

Question No. 100

Which of the following earthing is used for domestic installation such as heaters, coolers and geysers?

- A) Pipe earthing
- B) Plate earthing
- C) Rod earthing
- D) Strip earthing

Answer Key: A

Question No. 101

Which was the first Indian Institute of Technology to be set up?

- A) IIT, Delhi
- B) IIT, Kanpur
- C) IIT, Kharagpur
- D) IIT, Madras

Answer Key: C

Question No. 102

_____ is India's first lunar mission launched in 2008 by Indian Space Research Organization and the first spacecraft to detect water on the moon.

- A) Chandrayaan-1
- B) PSLV C-45
- C) G-SAT 31
- D) PSLV C-44

Answer Key: A

Question No. 103

Which of the following is the largest unit of storage?

- A) Gigabyte (GB)
- B) Kilobyte (KB)
- C) Megabyte (MB)
- D) Terabyte (TB)

Answer Key: D

Question No. 104

Which of the following output devices is used for translating information from a computer into pictorial form on paper?

- A) Touch panel
- B) Keyboard
- C) Card punch
- D) Plotter

Answer Key: D

Question No. 105

Which of the following is an attack in which the user receives unwanted amount of e-mails?

- A) Spoofing
- B) Email bomb
- C) Smurfing
- D) Ping storm

Answer Key: B

Question No. 106

Which of the following is NOT a pair tag in HTML?

A)

<i>

B)

<title>

C)

D)

<p>

Answer Key: C

Question No. 107

Global Warming is caused due to the emission of-

A) Nitrogen

B) Carbon dioxide

C) Carbon monooxide

D) Hydrocarbon

Answer Key: B

Question No. 108

Identify the city in which the National Biodiversity Authority is headquartered.

A) Chennai

B) Trivandrum

C) Bengaluru

D) Kolkata

Answer Key: A

Question No. 109

$(56)_8$ is equivalent to which of the following hexadecimal numbers?

A) $(48)_{16}$

B) $(30)_{16}$

C) $(2E)_{16}$

D) $(1E)_{16}$

Answer Key: C

Question No. 110

How many states in India have Legislative Council?

A) Seven

B) Six

C) Eight

D) Nine

Answer Key: B

Question No. 111

What is the expansion of EOQ?

A) Enterprise Office Quality

B) Economic Occurring Quantity

C) Economic Order Quantity

D) Elegant Overseas Quality

Answer Key: C

Question No. 112

Which of the following is the most widely used protocol in the Metropolitan Area Network (MAN)?

- A) OC-3
- B) RS-232
- C) ADSL
- D) All of the options

Answer Key: D

Question No. 113

Microsoft Word, Microsoft Excel, and Google Docs are the examples of-

- A) Utility software
- B) Firmware
- C) Operating system software
- D) Application software

Answer Key: D

Question No. 114

Which of the following holds the address of the memory location of the next instruction?

- A) The program counter
- B) Data register
- C) Accumulator register
- D) Address register

Answer Key: A

Question No. 115

Which of the following methods is used for connecting expansion cards, including graphics cards, network cards, and sound cards?

- A) PCI bus
- B) SCSI bus
- C) Daisy-chain bus
- D) Double breaker bus

Answer Key: A

Question No. 116

Who won the gold medal in the women's long jump event at the Taiwan Athletics Open 2024?

- A) Aishwarya Babu
- B) Shaili Singh
- C) Nayana James
- D) Anju Bobby George

Answer Key: C

Question No. 117

The insurance watchdog in India, IRDAI, instituted a set of new guidelines in May 2024 to impact which type of insurance, aimed at boosting the claims process?

- A) Two-wheeler insurance
- B) Health insurance
- C) Tractor insurance
- D) Crop insurance

Answer Key: B

Question No. 118

_____ are organisms that obtain energy by the oxidation of electron donors in their environments.

- A) Heterotrophs
- B) Detrivores

C) Photoautotrophs

D) Chemotrophs

Answer Key: D

Question No. 119

Desertification is the _____ of land in arid, semi arid, dry sub-humid areas.

A) Amelioration

B) Enhancement

C) Improvement

D) Degradation

Answer Key: D

Question No. 120

Smoke contains gaseous pollutants such as-

A) Carbon monoxide

B) Hydrocarbons

C) Nitrogen oxides

D) All of the options

Answer Key: D

Question No. 121

Noise pollution regulations are always enforced by-

A) Environment Protection Agency(EPA)

B) Food and Drug Administration (FDA)

C) Federal Aviation Administration (FAA)

D) Federal Communications Commission(FCC)

Answer Key: A

Question No. 122

Which of the following is/are the main cause(s) of ozone holes and its depletion?

A) Foam-blowing agents

B) Halocarbon refrigerants

C) Propellants

D) All of the options

Answer Key: D

Question No. 123

_____ is/are the element(s), molecules and particles involved in pollution.

A) Vaccine

B) Adjuvants

C) Pollutants

D) Haptens

Answer Key: C

Question No. 124

Which of the following is the primary use of measuring BOD (biological oxygen demand)?

A) Determine the level of dissolved oxygen

B) Estimating the quantity of organic matter in sewage water

C) Determine the level of dissolved nitrogen

D) Estimating the types of microbes

Answer Key: B

Question No. 125

Acids in the rain combine with calcium compounds in the stones to form-

- A) Gypsum
- B) Magnesium chloride
- C) Calcium carbonate
- D) Calcium hydroxide

Answer Key: A

Question No. 126

Which of the following solid wastes best describes 'Municipal Solid Waste'?

- A) Hazardous
- B) Toxic
- C) Non-hazardous
- D) Non-Toxic

Answer Key: C

Question No. 127

Which of the following is NOT a Union Territory?

- A) Puducherry
- B) Daman and Diu
- C) Nagaland
- D) Lakshadweep

Answer Key: C

Question No. 128

The increase in oil seeds production is due to _____ revolution.

- A) White
- B) Green
- C) Yellow
- D) Brown

Answer Key: C

Question No. 129

In which year was the Indian Citizenship Act passed?

- A) 1940
- B) 1947
- C) 1950
- D) 1955

Answer Key: D

Question No. 130

Who among the following repealed the Vernacular Press Act in 1881?

- A) Lord Ripon
- B) Lord Cornwallis
- C) Lord Curzon
- D) Lord Dalhousie

Answer Key: A

Question No. 131

'Kalaripayattu' is the martial art of-

- A) Kerala
- B) Nagaland
- C) Telangana
- D) Madhya Pradesh

Answer Key: A

Question No. 132

At the foot of which of the following hills is Chandigarh located?

- A) Shimla Hills
- B) Shivalik Hills
- C) Morni Hills
- D) None of the options

Answer Key: B

Question No. 133

International Economic Research Annual (IERA) Award was instituted by-

- A) SEBI
- B) EXIM bank
- C) ECGC
- D) RBI

Answer Key: B

Question No. 134

With which of the following sports was Dhyan Chand, a gold medal winner in Olympics, associated?

- A) Table tennis
- B) Golf
- C) Cycling
- D) Hockey

Answer Key: D

Question No. 135

Who is sometimes referred to as 'Payoli Express'?

- A) Shiny Abraham
- B) P.T. Usha
- C) Jyotirmoyee Sikdar
- D) Anju Bobby George

Answer Key: B

Question No. 136

A magnetic field can exert force on-

- A) Moving charge
- B) Stationary line charge
- C) Both moving and stationary charge
- D) Stationary point charge

Answer Key: A

Question No. 137

In general, a neutralization reaction can be written as:

- A) Base + acid → salt + precipitate
- B) Base + acid → salt + gas
- C) Base + acid → salt + water
- D) Base + acid → water + gas

Answer Key: C

Question No. 138

Which of the following can neither be created nor destroyed?

- A) Force
- B) Momentum
- C) Energy
- D) Power

Answer Key: C

Question No. 139

The _____ across the ends of a resistor is directly proportional to the current through it, provided its temperature remains the same.

- A) Resistance
- B) Resistivity
- C) Potential difference
- D) Charge

Answer Key: C

Question No. 140

While releasing the arrow from a stretched bow, the potential energy of the bow is converted into-

- A) Heat energy
- B) Kinetic energy
- C) Chemical energy
- D) Sound energy

Answer Key: B

Question No. 141

Except Helium, all noble gases have how many electrons in the outermost shell?

- A) 4
- B) 6
- C) 8
- D) 10

Answer Key: C

Question No. 142

Which of the following inner transition elements acts as an excellent source of nuclear energy?

- A) Selenium
- B) Uranium
- C) Krypton
- D) Xenon

Answer Key: B

Question No. 143

Materials having resistivity in between insulators and conductors are called-

- A) Superconductors
- B) Semiconductors
- C) Nobel gases
- D) Non-conductors

Answer Key: B

Question No. 144

The susceptibility of paramagnetic material is-

- A) Positive
- B) Negative
- C) Zero
- D) Unity

Answer Key: A

Question No. 145

The work done to raise a mass of 7 kg through a height of 2 m is-

(Take $g = 10 \text{ m/s}^2$)

- A) 110 J
- C) 240 J

- B) 140 J
- D) 310 J

Answer Key: B

Question No. 146

As the pH value increases from 7 to 14, it represents a/an-

- A) Basic solution
- C) Neutral solution
- B) Acidic solution
- D) Both acidic and neutral solutions

Answer Key: A

Question No. 147

A chemical reaction in which a substance reacts rapidly with oxygen, often producing heat and light is known as a/an-

- A) Combustion reaction
- C) Displacement reaction
- B) Decomposition reaction
- D) Endothermic reaction

Answer Key: A

Question No. 148

Which of the following is a lustrous non-metal?

- A) Fluorine
- C) Chlorine
- B) Iodine
- D) Bromine

Answer Key: B

Question No. 149

An unbalanced chemical equation is called a-

- A) Rough chemical equation
- C) Complex chemical equation
- B) Skeletal chemical equation
- D) Natural chemical equation

Answer Key: B

Question No. 150

Which of the following is a ferrous metal?

- A) Copper
- C) Cast iron
- B) Nickel
- D) Lead

Answer Key: C