

Railway Recruitment Cell

Post Name : 06-Mechanical and allied Engineering

Exam Code : MASSZPMH

Exam Date : 18-06-2024

Exam Time : 9:30AM

Question No. 1

Bernoulli's theorem deals with the principle of conservation of-

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

Answer Key: C

Question No. 2

The term 'alternate depth' in open channel flow refers to:

- A) Depth having the same specific energy
- B) Depth before and after surge
- C) Depth that has the same kinetic energy for a given discharge
- D) Depth on either side of hydraulic jump

Answer Key: A

Question No. 3

Mean effective pressure is obtained if the work done per cycle is divided by the-

- A) Total volume
- B) Swept volume
- C) Clearance volume
- D) Sum of total volume and clearance volume

Answer Key: B

Question No. 4

Aluminium oxide is one of the abrasives obtained by the fusion of-

- A) Bauxite, ground coke and iron chips
- B) Iron chips, quartz sand and salt
- C) Quartz sand and powdered coke
- D) Emery and corundum

Answer Key: A

Question No. 5

Reynold's number is defined as the-

- A) Ratio of inertial force to gravitational force
- B) Ratio of viscous force to gravitational force
- C) Ratio of viscous force to elastic force
- D) Ratio of inertial force to viscous force

Answer Key: D

Question No. 6

The forces, which do NOT meet at one point, but their lines of action lie on the same plane, are known as-

- A) Non-coplanar concurrent forces
- B) Coplanar concurrent forces
- C) Coplanar non-concurrent forces
- D) Non-coplanar non-concurrent forces

Answer Key: C

#### Question No. 7

Which of the following is considered as 'Allowance'?

- A) Maximum clearance between the shaft and hole      B) Minimum clearance between the shaft and hole  
C) Difference between maximum and minimum size of the hole      D) Difference between maximum and minimum size of the shaft

Answer Key: B

#### Question No. 8

The joint in which the parts lie in the same plane and are joined at their edges is known as the-

- A) Butt joint      B) Corner joint  
C) Lap joint      D) Tee joint

Answer Key: A

#### Question No. 9

The little hole produced at the leading edge of the crater right under the tip of the electrode is called a-

- A) Blow hole      B) Key hole  
C) Pin hole      D) Root gap

Answer Key: B

#### Question No. 10

The length of the slot weld is found from the ratio of-

- A) Load to allowable stress      B) Allowable stress to load  
C) Allowable stress to weld area      D) Weld area to allowable stress

Answer Key: A

#### Question No. 11

The arc formed when the distance between the tip of the electrode and the base metal is less than the diameter of the core wire is called a-

- A) Medium arc      B) Normal arc  
C) Long arc      D) Short arc

Answer Key: D

#### Question No. 12

Which of the following makes loose fit?

- A) Clearance fit      B) Interference fit  
C) Transition fit      D) Wringing fit

Answer Key: A

#### Question No. 13

The ratio of two specific heats( $C_p/C_v$ ) of air is equal to-

A) 0.17

B) 0.24

C) 1.41

D) 2.47

Answer Key: C

#### Question No. 14

Which of the following indicates the amount of super-abrasive grit in a grinding wheel?

A) Grade

B) Structure

C) Bond

D) Concentration

Answer Key: D

#### Question No. 15

Positive slack on a PERT indicates that the project is-

A) Ahead of schedule

B) Beyond the schedule

C) As per schedule

D) On the critical path

Answer Key: A

#### Question No. 16

The distance between the crest and root, measured normal to the axis, is called-

A) Depth of thread

B) Pitch of thread

C) Lead of thread

D) Slope of thread

Answer Key: A

#### Question No. 17

In the Vernier bevel protractor, the ends of the blade are bevelled at angles of-

A) 30° and 45°

B) 45° and 60°

C) 30° and 60°

D) 60° and 90°

Answer Key: B

#### Question No. 18

The point, through which the whole weight of the body acts, irrespective of its position, is known as the-

A) Area moment of inertia

B) Centre of gravity

C) Mass moment of inertia

D) Centre of mass

Answer Key: B

#### Question No. 19

According to the principle of moments-

A) If a system of coplanar forces is in equilibrium, then their algebraic sum is zero

B) If a system of coplanar forces is in equilibrium, then the algebraic sum of their moments about any point in their plane is zero

C) The algebraic sum of the moments of any two forces about any point is equal to the moment of the resultant

D) Positive and negative couples can be balanced

about the same point

Answer Key: B

#### Question No. 20

"If no external torque acts on a rigid body, then the product of its moment of inertia and the angular velocity about the axis of rotation must remain constant " is the statement of-

- A) Law of triangular forces
- B) Law of parallelogram forces
- C) Law of polygon of forces
- D) Law of conservation of Angular momentum

Answer Key: D

#### Question No. 21

The moment of inertia of a circular area of diameter 'd' about its diameter axis is-

- A)  $\pi d^2/36$
- B)  $\pi d^4/64$
- C)  $\pi d^3/36$
- D)  $\pi d^2/64$

Answer Key: B

#### Question No. 22

Corundum is primarily composed of-

- A) Aluminium oxide
- B) Iron oxide
- C) Silicon
- D) Steel

Answer Key: A

#### Question No. 23

In a vernier calliper, the main scale reads in millimetres with a least count of 0.1 mm. Ten divisions on the vernier correspond to nine divisions of the main scale. Determine the least count of the calliper.

- A) 0.1 mm
- B) 1 mm
- C) 0.01 mm
- D) 0.001 mm

Answer Key: C

#### Question No. 24

The width of the grinding contact in a horizontal surface grinding machine is 15 mm, the real depth of cut is 10  $\mu\text{m}$  and the work speed is 300 mm/seconds. The material removal rate is-

- A) 45  $\text{mm}^3/\text{seconds}$
- B) 35  $\text{mm}^3/\text{seconds}$
- C) 25  $\text{mm}^3/\text{seconds}$
- D) 15  $\text{mm}^3/\text{seconds}$

Answer Key: A

#### Question No. 25

A cantilever beam 8 m long carries a uniformly distributed load of 'w' in N/m, running throughout its entire length. If the maximum bending moment is 3200 N-m, then the rate of loading 'w' is-

- A) 25 N/m
- B) 50 N/m
- C) 75 N/m
- D) 100 N/m

Answer Key: D

Question No. 26

For the same operating temperature limits, the coefficient of performance (COP) of a heat pump equals-

- A) COP of refrigerator
- B)  $1 + (\text{COP of refrigerator})$
- C)  $(\text{COP of refrigerator}) - 1$
- D)  $1 / (\text{COP of refrigerator})$

Answer Key: B

Question No. 27

Which of the following values is the maximum percentage of carbon that can be alloyed with iron?

- A) 0.2%
- B) 2%
- C) 4.30%
- D) 6.67%

Answer Key: D

Question No. 28

The ratio between compressive stress and compressive strain is called-

- A) Modulus of rigidity
- B) Modulus of elasticity
- C) Bulk modulus
- D) Poisson's ratio

Answer Key: B

Question No. 29

A concentrated load is a load which-

- A) Acts at a point on a beam
- B) Spreads non uniformly over the whole length of the beam
- C) Spreads uniformly over the whole length of the beam
- D) Varies uniformly over the half of the length of the beam

Answer Key: A

Question No. 30

$ML^2T^{-2}$  could be the dimension of all of the following EXCEPT-

- A) Work
- B) Energy
- C) Torque
- D) Power

Answer Key: D

Question No. 31

The efficiency of an Otto cycle is 50% and  $\gamma$  is 1.50. What is the compression ratio?

- A) 2
- B) 3
- C) 4
- D) 5

Answer Key: C

Question No. 32

The abrasive grinding wheel specified as 51 A 36 L 5 V 23 indicates the \_\_\_\_\_ grain size.

- A) Coarse
- C) Fine

- B) Medium
- D) Very fine

Answer Key: B

#### Question No. 33

The shaft designated as 40 H8/f7 means that the tolerance grade for the hole is-

- A) IT 4
- C) IT 8
- B) IT 7
- D) IT 0

Answer Key: C

#### Question No. 34

Which of the following statements is TRUE about slip gauges?

- A) They are also called Johanssen gauges
- C) They are also called gauge block
- B) They are cuboidal-shaped blocks of high-grade steel
- D) All of the options

Answer Key: D

#### Question No. 35

In the relation  $VT^n = C$ , the value of n for HSS tools is-

- A) 0.1 to 0.15
- C) 0.32 to 0.40
- B) 0.22 to 0.30
- D) 0.40 to 0.55

Answer Key: A

#### Question No. 36

Which of the following is the correct relation between Young's modulus(E), Bulk modulus(K) and Rigidity modulus(G)?

- A)  $E = 6KG/(3K+G)$
- C)  $E = 3KG/(3K+G)$
- B)  $E = 9KG/(3K+G)$
- D)  $E = 5KG/(K+4G)$

Answer Key: B

#### Question No. 37

Profilometer is an instrument used to measure-

- A) Surface roughness
- C) Taper
- B) Thread profile
- D) Gear involute

Answer Key: A

#### Question No. 38

The surface of the grinding wheel develops a smooth and shining appearance called-

- A) Dressing
- C) Truing
- B) Loading
- D) Glazing

Answer Key: D

Question No. 39

A fluid which possesses viscosity is called-

- A) Ideal fluid
- B) Real fluid
- C) Perfect fluid
- D) Either perfect fluid or ideal fluid

Answer Key: B

Question No. 40

If pressure at a point is equal to 1 mm of mercury column (specific gravity = 13.6), then its value in pascals is ( $g = 10 \text{ m/s}^2$ )-

- A) 1.36 Pa
- B) 13.6 Pa
- C) 136 Pa
- D) 1360 Pa

Answer Key: C

Question No. 41

If the surface tension of water is 0.075 N/m, the gauge pressure inside a soap bubble of 2 mm diameter is-

- A) 600 Pa
- B) 300 Pa
- C) 150 Pa
- D) 75 Pa

Answer Key: B

Question No. 42

Poise is the unit of-

- A) Surface tension
- B) Capillarity
- C) Viscosity
- D) Shear stress in fluids

Answer Key: C

Question No. 43

Merit Rating is a method of determining the worth of a/an-

- A) Job
- B) Individual employee
- C) Particular division in a workshop
- D) Machine

Answer Key: B

Question No. 44

The purpose of providing relief holes in sine bars is to-

- A) Improve accuracy
- B) Improve precision
- C) Reduce weight
- D) Reduce wear

Answer Key: C

Question No. 45

Hard-grade grinding wheels are denoted by the letters-

- A) A to F
- B) L to P

C) Q to Z

D) G to K

Answer Key: C

Question No. 46

The artificial abrasive recommended for grinding material of high tensile strength is-

A) Silicon carbide

B) Aluminium oxide

C) Sandstone

D) Diamond

Answer Key: B

Question No. 47

An eutectoid reaction for the iron-carbon system occurs at-

A) 640° C

B) 723° C

C) 1147° C

D) 1493° C

Answer Key: B

Question No. 48

Which of the following defects is NOT classified as welding discontinuity?

A) Cold shut

B) Slag inclusion

C) Porosity

D) Lack of penetration

Answer Key: A

Question No. 49

A couple (of forces) can be balanced only by a-

A) Single force in the same direction

B) Single force in the opposite direction

C) Couple of different magnitude and same direction

D) Couple of equal magnitude and opposite direction

Answer Key: D

Question No. 50

When a body returns to its original position, after it is slightly displaced from its position of rest, it is known as-

A) Stable equilibrium

B) Unstable equilibrium

C) Neutral equilibrium

D) None of the options

Answer Key: A

Question No. 51

Which of the following is a type of fusion welding?

A) Thermit welding

B) Gas welding

C) Electric arc welding

D) All of the options

Answer Key: D

Question No. 52

Thermite is a mixture of iron oxide and-



- A) Aluminium
- C) Bronze

- B) Copper
- D) Silver

Answer Key: A

#### Question No. 53

A/An \_\_\_\_\_ is one which is spread over a beam in such a manner that the rate of loading is uniform along the length.

- A) Uniformly varying load
- C) Concentrated or point load
- B) Uniformly distributed load
- D) None of the options

Answer Key: B

#### Question No. 54

For a simply supported beam of length 'L' and point load 'W' at its middle, what will be the value of the bending moment at the middle?

- A) 0
- C)  $WL/2$
- B)  $W/2$
- D)  $WL/4$

Answer Key: D

#### Question No. 55

Which of the following grinding wheels specified in ISO designation will represent vitrified bond?

- A) Z 46 K 5 E 17
- C) C 8 K 5 R 17
- B) C 600 K 8 B 17
- D) A 80 K 5 V 17

Answer Key: D

#### Question No. 56

The temperature at which the new grains are formed in the metal is called-

- A) Lower critical temperature
- C) Eutectic temperature
- B) Upper critical temperature
- D) Recrystallization temperature

Answer Key: D

#### Question No. 57

The type of electrode used in seam welding is the-

- A) Rod electrode
- C) Powdered electrode
- B) Roller electrode
- D) Bar electrode

Answer Key: B

#### Question No. 58

The eyes of the welding operator must be protected against-

- A) Ultraviolet radiation only
- C) Both ultraviolet radiation and infrared radiation
- B) Infrared radiation only
- D) Solar radiation only

Answer Key: C



A) Forward stroke

B) Return stroke

C) Both the forward and return strokes

D) Neither the forward nor the return stroke

Answer Key: A

#### Question No. 66

Young's modulus of elasticity for a perfectly rigid body is-

A) Zero

B) Unity

C) Infinity

D) Some finite non-zero constant

Answer Key: C

#### Question No. 67

Which of the following is a dimensionless quantity?

A) Shear stress

B) Bulk modulus

C) Both shear stress and bulk modulus

D) Strain

Answer Key: D

#### Question No. 68

The internal energy of an ideal gas is only a function of its-

A) Pressure

B) Volume

C) Temperature

D) Entropy

Answer Key: C

#### Question No. 69

The process involving the heating of steel above upper critical temperature and then cooling it in the furnace is known as-

A) Annealing

B) Normalizing

C) Tempering

D) Hardening

Answer Key: A

#### Question No. 70

The sum of the internal energy and the product of pressure and volume of a system is called-

A) Entropy

B) Enthalpy

C) Heat supplied

D) Internal energy

Answer Key: B

#### Question No. 71

Gauge pressure at a point is equal to \_\_\_\_\_.

A) Absolute pressure + atmospheric pressure

B) Absolute pressure - atmospheric pressure

C) Vacuum pressure + absolute pressure

D) Vacuum pressure - atmospheric pressure

Answer Key: B

Question No. 72

If there is no melting of the edges of the base metal at the root face or on the side face or between the weld runs, then it is called-

- A) Lack of penetration
- B) Lack of fusion
- C) Burn through
- D) Excessive penetration

Answer Key: B

Question No. 73

Which of the following operations can be made in drilling?

- A) Turning
- B) Facing
- C) Reaming
- D) Milling

Answer Key: C

Question No. 74

Parkerising is otherwise known as-

- A) Anodizing
- B) Galvanizing
- C) Phosphating
- D) Dipping

Answer Key: C

Question No. 75

Which of the following terms is associated with the push production system?

- A) Kanban card
- B) Materials Requirement Planning
- C) Lean manufacturing
- D) Just-in-time

Answer Key: B

Question No. 76

Which of the following is also known by the names "activity sampling" and "ratio delay study?"

- A) Analytical estimating
- B) Work sampling
- C) Pre-determined motion time system
- D) Method time measurement system

Answer Key: B

Question No. 77

Which of the following is NOT the function of cutting fluid?

- A) Cool the tool and workpiece
- B) Reduce friction
- C) Increase cutting friction
- D) Improve surface finish

Answer Key: C

Question No. 78

Which of the following materials has the maximum ductility?

- A) Tungsten
- B) Iron

C) Nickel

D) Aluminium

Answer Key: D

Question No. 79

If the resultant of two equal forces has the same magnitude as either of the forces, then the angle between the two forces is-

A) 30°

B) 60°

C) 90°

D) 120°

Answer Key: D

Question No. 80

Austempering is also known as-

A) Isothermal annealing

B) Isothermal quenching

C) Stepped quenching

D) Interrupted quenching

Answer Key: B

Question No. 81

\_\_\_\_\_ is the intersection of the flank and the base of the tool.

A) Heel

B) Face

C) Shank

D) Nose

Answer Key: A

Question No. 82

\_\_\_\_\_ is the process of making flat surfaces on a lathe.

A) Facing

B) Boring

C) Drilling

D) Reaming

Answer Key: A

Question No. 83

Which of the following operations does NOT use a multiple-point cutting tool?

A) Broaching

B) Milling

C) Turning

D) Drilling

Answer Key: C

Question No. 84

Which of the following parts of a lathe serves as the housing for the driving pulleys and back gears?

A) Head stock

B) Tail stock

C) Bed

D) Carriage

Answer Key: A

Question No. 85



C) 300 m<sup>2</sup>

D) 200 m<sup>2</sup>

Answer Key: B

Question No. 92

The blast furnace uses \_\_\_\_\_ as fuel.

A) Furnace oil

B) Coke

C) Blast furnace gas

D) Hydrogen gas

Answer Key: B

Question No. 93

Which of the following laws states that "When a system is at zero absolute temperature, the entropy of system is zero"?

A) Zeroth law of thermodynamics

B) First law of thermodynamics

C) Second law of thermodynamics

D) Third law of thermodynamics

Answer Key: D

Question No. 94

Impulse can be obtained from the-

A) Velocity-time diagram

B) Force-displacement diagram

C) Velocity-displacement diagram

D) Force-time diagram

Answer Key: D

Question No. 95

\_\_\_\_\_ is the friction force that acts on the body, which is just about to move.

A) The coefficient of friction

B) Rolling friction

C) Internal friction

D) Limiting friction

Answer Key: D

Question No. 96

Always Better Control analysis is based on the \_\_\_\_\_ principle.

A) Pareto

B) Ishikawa

C) Shewhart

D) Histogram

Answer Key: A

Question No. 97

SIMO charts are used in-

A) Method study

B) Micro motion study

C) Process analysis

D) Layout analysis

Answer Key: B

Question No. 98

A Carnot engine working between 600 K and 300 K, produces 150 kJ of work. What is its thermal efficiency?

- A) 45%
- B) 50%
- C) 60%
- D) 70%

Answer Key: B

Question No. 99

Which of the following is NOT a microstructure of iron and steel?

- A) Pearlite
- B) Cementite
- C) Silumin
- D) Bainite

Answer Key: C

Question No. 100

Which of the following statements is TRUE about the stub arbor?

- A) It is a short arbor
- B) It is used for holding shell end mills
- C) It is used for holding T- slot cutters
- D) All of the options

Answer Key: D

Question No. 101

Which of the following cricketers set a record for most runs in an ODI single game?

- A) Rohit Sharma
- B) Sachin Tendulkar
- C) Shahid Afridi
- D) Virat Kohli

Answer Key: A

Question No. 102

Who is the present Minister of Defence in India?

- A) Piyush Goyal
- B) Rajnath Singh
- C) Prakash Javadekar
- D) None of the options

Answer Key: B

Note: Translation error in Hindi. Hence answer key is option 4 only in hindi language.

Question No. 103

Which is the smallest Union Territory in India in terms of area?

- A) Chandigarh
- B) Puducherry
- C) Andaman and Nicobar Islands
- D) Lakshadweep

Answer Key: D

Note: Translation error in Hindi language. Hence answer key is option 3 only in hindi language.

Question No. 104

Which of the following CORRECTLY describes about AGNI developed by the Defence Research and Development Organisation (DRDO) of India?



A) A long-range gun

B) A long-range missile

C) A versatile tank

D) A fighter plane

Answer Key: B

#### Question No. 105

The thickness of Stratospheric Ozone layer is measured in-

A) Sieverts

B) Dobson units

C) Melson units

D) Beaufort Scale

Answer Key: B

#### Question No. 106

When is 'World Water Day' observed?

A) March 20

B) March 21

C) March 22

D) March 23

Answer Key: C

#### Question No. 107

A \_\_\_\_\_ is an encoding of numbers so that adjacent numbers have a single digit differing by one.

A) Weighted code

B) BCD code

C) Binary code

D) Gray code

Answer Key: D

#### Question No. 108

Which of the following is a temporary primary memory?

A) EPROM

B) PROM

C) ROM

D) RAM

Answer Key: D

#### Question No. 109

Which of the following is a malicious software?

A) Illegalware

B) Badware

C) Malware

D) Diskware

Answer Key: C

#### Question No. 110

The \_\_\_\_\_ protocol is used by the web server to allow web pages to be shown in a web browser.

A) SMTP

B) IMAP

C) POP3

D) HTTP

Answer Key: D

#### Question No. 111

In the Microsoft 365 version of MS-Word, which of the following tabs is used to insert watermark "DO NOT COPY"?

- A) Insert
- B) Design
- C) Reference
- D) Draw

Answer Key: B

Question No. 112

Which of the following is NOT an input device?

- A) OMR reader
- B) OCR reader
- C) ROC reader
- D) MICR reader

Answer Key: C

Question No. 113

In water pollution, ammonia concentration in highly saline water ranges up to-

- A) 0.075 ppm
- B) 1.25 ppm
- C) 2.10 ppm
- D) 0.095 ppm

Answer Key: A

Question No. 114

The Twelfth Five-Year Plan was implemented during the years-

- A) 2009–2014
- B) 2007–2012
- C) 2012–2017
- D) 2008–2013

Answer Key: C

Question No. 115

Which Indian has become the first ever tennis player to appear in 7 Olympic Games?

- A) Mahesh Bhupathi
- B) Sania mirza
- C) Leander Paes
- D) Somdev Dev Varman

Answer Key: C

Question No. 116

The damage caused by acid rain is due to the \_\_\_\_\_ nature of acid rain.

- A) Balancing
- B) Protecting
- C) Withstanding
- D) Corrosive

Answer Key: D

Question No. 117

Which layer of the atmosphere is also called the ozonosphere?

- A) Troposphere
- B) Stratosphere
- C) Mesosphere
- D) Exosphere

Answer Key: B

**Question No. 118**

Which was the first country to launch 3G?

- A) India
- B) Japan
- C) US
- D) UK

Answer Key: B

**Question No. 119**

Which Article of the Indian Constitution specifies that the executive power of the State shall be vested in the Governor?

- A) Article 140
- B) Article 14
- C) Article 15
- D) Article 154

Answer Key: D

**Question No. 120**

Which of the following can contribute in controlling Global Warming?

- A) Volcanoes
- B) Afforestation
- C) Deforestation
- D) Chlorofluorocarbon

Answer Key: B

**Question No. 121**

Minamata disease is caused by the pollution of water by-

- A) Methylmercury
- B) Lead
- C) Tin
- D) Methyl isocyanate

Answer Key: A

**Question No. 122**

Who was involved in the Green Revolution in India?

- A) Rakesh Mohan
- B) K. V. Kamath
- C) C. Rangarajan
- D) M. S. Swaminathan

Answer Key: D

**Question No. 123**

Which of the following is a free email provider?

- A) AOL
- B) ProtonMail
- C) Gmail
- D) All of the options

Answer Key: D

**Question No. 124**

Who was the first research scientist to bring the idea of the Personal Area Network?

- A) Alessandro Vespignani
- B) Mark Newman



Which of the following is a method of wastewater treatment?

- A) Incineration
- B) Composting
- C) Biological treatment
- D) Landfill disposal

Answer Key: C

Question No. 132

What is the process called when materials are recovered from waste for reuse?

- A) Incineration
- B) Landfilling
- C) Recycling
- D) Composting

Answer Key: C

Question No. 133

The festival called 'Chapchar Kut' is celebrated in the state of \_\_\_\_\_ each March.

- A) Assam
- B) Mizoram
- C) Karnataka
- D) Sikkim

Answer Key: B

Question No. 134

Who was the first lady to unfurl the Indian tricolour outside India?

- A) Bhikaiji Cama
- B) Nellie Sengupta
- C) Vijayalakshmi Pandit
- D) Rani Gaidinliu

Answer Key: A

Question No. 135

Which of these Indian states has a coastline on the Arabian sea?

- A) Gujarat
- B) Andhra Pradesh
- C) Odisha
- D) West Bengal

Answer Key: A

Question No. 136

What is the nature of bleaching powder?

- A) Sulphonating agent
- B) Reducing agent
- C) Oxidizing agent
- D) Blistering agent

Answer Key: C

Question No. 137

Which element has 10 electrons?

- A) He
- B) Ne
- C) Ar
- D) Na

Answer Key: B

Question No. 138

Which of the following is/are alkali metal(s)?

- A) Lithium
- B) Sodium
- C) Potassium
- D) All of the options

Answer Key: D

Question No. 139

Which element has the highest metallic character?

- A) Francium
- B) Cesium
- C) Sodium
- D) Copper

Answer Key: A

Question No. 140

The elements in group 16 of the periodic table are also known as-

- A) Pnictogens
- B) Halogens
- C) Chalcogens
- D) Noble gases

Answer Key: C

Question No. 141

A man pushes a wall but fails to displace it. What work has he done?

- A) Negative work
- B) Positive but small work
- C) Positive and maximum work
- D) No work at all

Answer Key: D

Question No. 142

Which of the following is used to detect the presence of current in a circuit?

- A) Meter bridge
- B) Sonometer
- C) Galvanometer
- D) Electric motor

Answer Key: C

Question No. 143

The reciprocal of resistance is-

- A) Admittance
- B) Elastance
- C) Conductance
- D) Reluctance

Answer Key: C

Question No. 144

What type of energy results due to the position of an object?

- A) Motion energy
- B) Potential energy
- C) Kinetic energy
- D) Thermal energy

Answer Key: B

Question No. 145

Find the work done when a force of 6 N moves an object through a distance of 3 km.

- A) 3 kJ  
B) 9 kJ  
C) 18 kJ  
D) 14 kJ

Answer Key: C

Question No. 146

A/An \_\_\_\_\_ is a rotating device that converts electrical energy to mechanical energy.

- A) Motor  
B) Generator  
C) Transformer  
D) Transistor

Answer Key: A

Question No. 147

Which of the following materials has/have a very high positive susceptibility?

- A) Diamagnetic material  
B) Ferromagnetic material  
C) Paramagnetic material  
D) Anti-ferromagnetic material

Answer Key: B

Question No. 148

Substances whose odour changes in acidic or basic media are called-

- A) Acidic indicators  
B) Basic indicators  
C) Olfactory indicators  
D) Both acidic and basic indicators

Answer Key: C

Question No. 149

Reactions in which heat is released along with the formation of products are called-

- A) Displacement reaction  
B) Decomposition reaction  
C) Exothermic reactions  
D) Endothermic reactions

Answer Key: C

Question No. 150

Oxidation is a process which involves-

- A) Removal of nitrogen  
B) Removal of oxygen  
C) Addition of oxygen  
D) Addition of hydrogen

Answer Key: C