

Railway Recruitment Cell

Post Name : 09-Civil and allied Engineering

Exam Code : MASSGNV

Exam Date : 12-06-2024

Exam Time : 9:30AM

Question No. 1

Longitudinal stress in a thin cylinder is \_\_\_\_\_ the hoop stress.

- A) Equal to  
B) Twice  
C) Half  
D) One-fourth

Answer Key: C

Question No. 2

According to the Indian Standard Soil Classification System, the soil with particle size between 80 mm and 4.75 mm is-

- A) Gravel  
B) Boulder  
C) Cobble  
D) Clay

Answer Key: A

Question No. 3

Which of the following losses is NOT a minor loss for fluid flow through a pipe?

- A) Loss due to sudden contraction  
B) Loss due to sudden enlargement  
C) Loss due to obstruction in flow  
D) Loss due to friction

Answer Key: D

Question No. 4

As per IS code, the minimum time for initial setting of ordinary Portland cement is-

- A) 30 minutes  
B) 100 minutes  
C) 200 minutes  
D) 600 minutes

Answer Key: A

Question No. 5

What is the permissible bearing stress in steel?

- A) 1500 kg/cm<sup>2</sup>  
B) 1890 kg/cm<sup>2</sup>  
C) 2125 kg/cm<sup>2</sup>  
D) 2340 kg/cm<sup>2</sup>

Answer Key: B

Question No. 6

Which of the following turbines is an example of reaction turbines?

- A) Francis turbine only  
B) Kaplan turbine only  
C) Both Francis and Kaplan turbine  
D) Pelton wheel turbine

Answer Key: C

#### Question No. 7

For M20 grade concrete, the value of modular ratio 'm' is-

- A) 10.98
- B) 13.3
- C) 17.5
- D) 18.7

Answer Key: B

#### Question No. 8

In RCC, Modular ratio is the ratio between the modulus of elasticity of-

- A) Sand and steel
- B) Steel and concrete
- C) Steel and cement
- D) Concrete and cement

Answer Key: B

#### Question No. 9

If Reynolds number is \_\_\_\_\_, then the flow of fluid through a pipe is laminar.

- A) < 2000
- B) > 2000
- C) < 4000
- D) > 4000

Answer Key: A

#### Question No. 10

Which of the following is the process of filling hollow spaces of walls before plastering?

- A) Hacking
- B) Dubbing coat
- C) Blistering
- D) Peeling

Answer Key: B

#### Question No. 11

What is the commercial term for 'Colocrete'?

- A) High alumina cement
- B) Coloured cement
- C) Low heat cement
- D) Rapid hardening cement

Answer Key: B

#### Question No. 12

The toughness index is defined as the ratio of the-

- A) Plasticity index to consistency index
- B) Plasticity index to flow index
- C) Liquidity index to flow index
- D) Consistency index to liquidity index

Answer Key: B

#### Question No. 13

Which of the following is represented by widely separated contours?

- A) Steep surface
- B) Gentle slope

C) Irregular surface

D) Curved surface

Answer Key: B

#### Question No. 14

Theodolite is used for the very accurate measurement of-

A) Vertical angles only

B) Horizontal angles only

C) Linear dimensions

D) Both vertical and horizontal angles

Answer Key: D

#### Question No. 15

The highest point on a carriage way is known as the-

A) Crown

B) Kerb

C) Super-elevation

D) Gradient

Answer Key: A

#### Question No. 16

The reduced bearing of a line is N 87° W. Its whole circle bearing is-

A) 87°

B) 273°

C) 93°

D) 3°

Answer Key: B

#### Question No. 17

Which of the following refers to the angle between longitudinal axis of a freely suspended magnetic needle and horizontal line at its pivot?

A) Bearing

B) Declination

C) Azimuth

D) Dip

Answer Key: D

#### Question No. 18

Which of the following decreases with an increase in percentage of carbon in steel?

A) Strength

B) Hardness

C) Brittleness

D) Ductility

Answer Key: D

#### Question No. 19

The part of the bridge above bearing and pier is known as-

A) Roofing

B) Substructure

C) Superstructure

D) Voussoir

Answer Key: C

#### Question No. 20

A/an \_\_\_\_\_ is used to mark the positions of the stations or terminal points of a survey line.

- A) Peg
- B) Rod
- C) Arrow
- D) Pole

Answer Key: A

#### Question No. 21

The Law of Triangle of Forces states that, if three forces that act at a point are represented in magnitude and direction by the three sides of a triangle, in that order, then they will be-

- A) In equilibrium
- B) The resultant force
- C) Collinear
- D) None of the options

Answer Key: A

#### Question No. 22

The maximum strain energy stored in a body without permanent deformation is known as-

- A) Impact loading
- B) Proof resilience
- C) Ductility
- D) Shear resilience

Answer Key: B

#### Question No. 23

Which of these is the most unsuitable pig iron for light and ornamental casting?

- A) Bessemer pig
- B) Grey or foundry pig
- C) White or forge pig
- D) Mottled pig

Answer Key: D

#### Question No. 24

Linseed oil is used in paints as-

- A) Thinner
- B) Vehicle
- C) Base
- D) Additive

Answer Key: B

#### Question No. 25

Annuities involve-

- A) A series of payments
- B) All payments of equal amount
- C) Payment at equal time intervals
- D) All of the options

Answer Key: D

#### Question No. 26

Glazing is measured in-

- A) Kilometer
- B) Square meter
- C) Centimeter
- D) Millimeter

Answer Key: B

Question No. 27

Penetration to know bitumen grade is measured in-

- A) One-hundredth of mm
- B) One-tenth of mm
- C) One-tenth of an inch
- D) One-tenth of cm

Answer Key: B

Question No. 28

What is the minimum number of longitudinal bars provided in a reinforced concrete column of circular cross section?

- A) 4
- B) 5
- C) 6
- D) 8

Answer Key: C

Question No. 29

The moment of inertia of a solid cylinder of mass 'm', radius 'r' and length 'l' about the longitudinal axis or polar axis is-

- A)  $mr^2/2$
- B)  $mr^2/4$
- C)  $mr^2/6$
- D)  $mr^2/8$

Answer Key: A

Question No. 30

According to Varignon's principle, the moment of a force about any point is equal to-

- A) The algebraic sum of the moments of its components about that point
- B) The difference of the moments of all the forces about that point
- C) The product of the moments of its components about that point
- D) The product of the moments of all the forces about that point

Answer Key: A

Question No. 31

The product of area and square of distance of centre of gravity of the area from that axis is known as-

- A) Second moment of area
- B) First moment of area
- C) Second moment of mass
- D) Mass moment of inertia

Answer Key: A

Question No. 32

When the quantities of the work items are difficult to be quantified and the rate analysis is also a complex issue, but still the contractor is willing to undertake a work, then the type of Contract best suited is-

- A) Labour Contract
- B) Turn Key Contract
- C) Item Rate Contract
- D) Lump Sum Contract

Answer Key: D

### Question No. 33

In a simply supported beam of span 'L' subjected to central concentrated load, the central deflection is 24 mm. The slope at supports is-

- A)  $(24/L)$  radians  
B)  $(36/L)$  radians  
C)  $(48/L)$  radians  
D)  $(72/L)$  radians

Answer Key: D

### Question No. 34

Superplasticizer increases slump of concrete due to which phenomenon?

- A) Dispersion and deflocculation of cement particles  
B) Densification of cement particles  
C) Drying of cement particles  
D) Deterioration of cement particles

Answer Key: A

### Question No. 35

A method in which mortar conveyed through a hose and pneumatically projected at a high velocity onto a surface is called-

- A) Ferrocement  
B) Gunite  
C) Varnishing  
D) Concreting

Answer Key: B

### Question No. 36

In a theodolite, when the image formed by the object glass does NOT fall in the plane of the diaphragm, it is said to be-

- A) Adjustment  
B) Parallax  
C) Datum  
D) Flaw

Answer Key: B

### Question No. 37

The command which is used to make a regional geometry in AutoCAD is-

- A) Array  
B) REG  
C) CO  
D) Trim

Answer Key: B

### Question No. 38

While representing the diameter in dimensioning, it is represented as-

- A) D  
B)  $\emptyset$   
C) Dia  
D) d

Answer Key: B

### Question No. 39

Line up to which the plinth of a building adjoining a street may be lawfully extended is called-

- A) Building line
- C) Building extent

- B) Building carpet
- D) Building plan

Answer Key: A

#### Question No. 40

\_\_\_\_\_ are lines drawn on a map to locate, in the plan view, points of equal ground elevation.

- A) Contours
- C) Profiles
- B) Elevations
- D) Hatches

Answer Key: A

#### Question No. 41

The area of side face reinforcement shall NOT be less than-

- A) 0.10 percent of the web area
- C) 0.15 percent of the web area
- B) 0.05 percent of the web area
- D) 0.20 percent of the web area

Answer Key: A

#### Question No. 42

The working stress method is also known as-

- A) Elastic method
- C) Critical method
- B) Load factor method
- D) Plastic method

Answer Key: A

#### Question No. 43

According to IS:456-2000, the maximum allowable crack width (in mm) for mild type of environmental condition is-

- A) 0.10
- C) 0.25
- B) 0.20
- D) 0.30

Answer Key: D

#### Question No. 44

A cantilever beam of size 230 × 400 mm has a clear span of 2.5 m and is supported on a 400 × 400 mm column. The effective span of the cantilever is-

- A) 3.3 m
- C) 2.7 m
- B) 2.9 m
- D) 4.5 m

Answer Key: C

#### Question No. 45

The double lacing shall be designed to resist transverse shear  $V_t$  equal to- (where P is total load acting on the column)

- A) 5.0 % of P
- C) 2.5 % of P
- B) 3.75% of P
- D) 1.25% of P

Answer Key: C

Question No. 46

Under what situation will a gusseted base be provided in a column?

- A) Column carries higher load
- B) Column carries lesser load
- C) Column size is smaller
- D) None of the options

Answer Key: A

Question No. 47

In fibre reinforced concrete, if the fibres are NOT dispersed properly, then the resulting problem is called as-

- A) Congestion
- B) Balling
- C) Spalling
- D) Segregation

Answer Key: B

Question No. 48

A combined footing may be rectangular in shape if-

- A) Both the columns carry equal loads
- B) Both the columns carry unequal loads
- C) One column is loaded and the other column is a tension column
- D) Rectangular shape of combined footing depends not on column loads but on soil type

Answer Key: A

Question No. 49

A divide wall is provided-

- A) At right angle to the axis of weir
- B) Parallel to the axis of weir and upstream of it
- C) Parallel to the axis of weir and downstream of it
- D) At an inclination to the axis of weir

Answer Key: A

Question No. 50

Percolation tanks are used for-

- A) Holding the surface water for recharging the ground water storage
- B) Increasing the water carrying capacity of the stream
- C) Storage of water to be used for irrigation and domestic purposes
- D) Flood control

Answer Key: A

Question No. 51

What is the first step in the construction process?

- A) Preparing the construction site
- B) Constructing a wall
- C) Providing the roof
- D) Providing the staircase

Answer Key: A

Question No. 52

Number of bricks needed for 1 cubic metre of brick masonry is-



A) 500

B) 400

C) 600

D) 450

Answer Key: A

#### Question No. 53

The top of a weir or spillway is called-

A) Peak

B) Crest

C) Ridge

D) Head

Answer Key: B

#### Question No. 54

According to defects of bituminous surfacing, streaking is an example of-

A) Surface defects

B) Deformations

C) Disintegration

D) Cracks

Answer Key: A

#### Question No. 55

If a system of prestressing where the tendons are stretched before the concrete is placed, then the system is said to be-

A) Hoyer system

B) Freyssinet system

C) Magnel-Blaton system

D) CGL Standard system

Answer Key: A

#### Question No. 56

Crazing is the network of-

A) Continuous crack

B) Fine random crack

C) Structural crack

D) Shear crack

Answer Key: B

#### Question No. 57

Bonding agents should be used on repairs that are-

A) Less than 2 inches thick

B) Less than 2 mm thick

C) Less than 4 inches thick

D) Less than 6 inches thick

Answer Key: A

#### Question No. 58

The residual factor is important in the investigation of slopes. If peak residual and in situ shear strength of a clay are  $1.0 \text{ kg/cm}^2$  and  $0.6 \text{ kg/cm}^2$  respectively, then the residual factor of the clay will be-

A) 0.67

B) 0.54

C) 0.22

D) 0.30

Answer Key: A

Question No. 59

In raking shoring, inclined members (rakers) may be kept at an angle-

- A) Greater than  $77^\circ$
- B) Greater than  $80^\circ$
- C) Greater than  $95^\circ$
- D) Between  $45^\circ$  to  $75^\circ$

Answer Key: D

Question No. 60

\_\_\_\_\_ type of aggregates provides better bonding and high strength.

- A) Flaky
- B) Rough and angular
- C) Rough and flaky
- D) Flaky and angular

Answer Key: B

Question No. 61

The maximum rate at which a soil in any given condition can absorb water is called the-

- A) Infiltration index
- B) Infiltration capacity
- C) Infiltration
- D) Interception process

Answer Key: B

Question No. 62

Maximum value of effective slenderness ratio (L/r) for members always in tension (other than pre-tensioned members) is-

- A) 350
- B) 400
- C) 250
- D) 180

Answer Key: B

Question No. 63

If the contour plan shows some of the features like roads, then it is preferable to use \_\_\_\_\_ colour for contour so as to distinguish it clearly from rest of features.

- A) Red ink
- B) Brown ink
- C) Blue ink
- D) Green ink

Answer Key: B

Question No. 64

Recently BIS has increased the fly ash content in PPC from 10%–25% to-

- A) 45%–50%
- B) 15%–35%
- C) 55%–65%
- D) 70%–80%

Answer Key: B

Question No. 65

High earth dams should be compacted at a placement water content \_\_\_\_\_ percent less than the optimum in order to achieve high strength and resistance to deformation and low volume compressibility.

A) 0.5 to 0.7

B) 2.5 to 3

C) 1 to 2.5

D) 3 to 3.5

Answer Key: C

#### Question No. 66

In continuous beams (All the support ends are simply supported) carrying UDL, there will be hogging moments (negative moments), over the-

A) Quarter of the span

B) Mid of the span

C) Intermediate supports

D) None of the options

Answer Key: C

#### Question No. 67

Recommended vertical height of platform for B.G (Broad Gauge) lines is-

A) 84 cm

B) 54 cm

C) 34 cm

D) 44 cm

Answer Key: A

#### Question No. 68

Which type of pile hammer can be used as a light weight hammer to impart 300 blows per minute?

A) Double acting pile hammer

B) Diesel pile hammer

C) Compressed air hammer

D) Drop hammer

Answer Key: A

#### Question No. 69

A beam is hinged at a point A and fixed at a point B. A moment  $M/2$  is applied at the point A, then the moment developed at the point B is-

A)  $-M/2$

B)  $M$

C)  $M/4$

D)  $M/2$

Answer Key: C

#### Question No. 70

In dewatering methods, \_\_\_\_\_ method becomes economically competitive at depth in soils of low permeability.

A) Sump pumping

B) Electro osmosis

C) Eductor well

D) Drainage galleries

Answer Key: C

#### Question No. 71

The correction of refraction  $C_r$  in levelling is-

A)  $0.01222 D^2$  metres

B)  $0.01322 D^2$  metres

C)  $0.01122 D^2$  metres

D)  $0.01422 D^2$  metres

Answer Key: C

Question No. 72

\_\_\_\_\_ is/are given by suppliers or subcontractors as an incentive for prompt payment.

- A) Cash discounts
- B) Trade discounts
- C) Lump-sum payment
- D) Contractual provisions

Answer Key: A

Question No. 73

A combined hybrid system for unidirectional tunnel is approximately-

- A) 800 m long
- B) 700 m long
- C) 600 m long
- D) 400 m long

Answer Key: D

Question No. 74

Semi transverse ventilation systems used in tunnels are approximately-

- A) 5750 m long
- B) 2750 m long
- C) 4750 m long
- D) 3750 m long

Answer Key: B

Question No. 75

Jet fans are usually mounted as groups of two or more, and spaced longitudinally in the tunnel at about-

- A) 61 m intervals
- B) 31 m intervals
- C) 91 m intervals
- D) 122 m intervals

Answer Key: C

Question No. 76

In fractured rock, \_\_\_\_\_ Tunnel Boring Machine (TBM) can be used.

- A) Open-type
- B) Double shield
- C) Single shield
- D) Both double shield and single shield

Answer Key: D

Question No. 77

\_\_\_\_\_ is a manual method of packing of track that can only be satisfactorily used with flat bottomed sleepers.

- A) Beater packing
- B) Through packing
- C) Measured shovel packing
- D) All of the options

Answer Key: C

Question No. 78

\_\_\_\_\_ is defined as a graph showing a variation of stream discharge with respect to time at any stream section.

A) A unit hydrograph

B) Coefficient of permeability

C) Hydrograph

D) Specific yield

Answer Key: C

#### Question No. 79

If three collinear horizontal forces of magnitude 200 N, 100 N and 300 N are acting on a rigid body, then the resultant of all the forces acting in the same direction is-

A) 200 N

B) 300 N

C) 400 N

D) 600 N

Answer Key: D

#### Question No. 80

Based on the asphalt pavement performance, \_\_\_\_\_ may occur in interchange and intersection areas where horizontal forces from vehicular traffic is increased.

A) Rutting

B) Ravelling

C) Shoving

D) Bleeding

Answer Key: C

#### Question No. 81

According to hydraulic fluid types, water in oil emulsion contains about \_\_\_\_\_ and the rest of the constituents are oil, emulsifiers and additives.

A) 40% of water

B) 50% of water

C) 30% of water

D) 20% of water

Answer Key: A

#### Question No. 82

According to physical characteristics of waste water, the term \_\_\_\_\_ includes colour due to suspended matter.

A) True colour

B) Both true colour and apparent colour

C) Apparent colour

D) None of the options

Answer Key: C

#### Question No. 83

According to solid waste management, typically recommended Carbon : Nitrogen (C : N) ratio for composting Municipal Solid Waste (MSW) are-

A) 60 : 1 to 80 : 1 by weight

B) 25 : 1 to 40 : 1 by weight

C) 5 : 1 to 10 : 1 by weight

D) 2 : 1 to 4 : 1 by weight

Answer Key: B

#### Question No. 84

A \_\_\_\_\_ is made by driving straight web steel sheet piles arranged to form a series of interconnected cells.

A) Cellular cofferdam

B) Braced cofferdam

C) Cantilever sheet pile

D) Double-wall cofferdam

Answer Key: A

#### Question No. 85

According to the methods of underwater concreting, the \_\_\_\_\_ is a quicker method for concreting in areas that are difficult to access such as under piers.

A) Bagged concrete method

B) Pumping technique

C) Skip method

D) Toggle-bags method

Answer Key: B

#### Question No. 86

The compressive strength of semi-hydraulic lime (for 1:3 proportions) at 28 days is about-

A) 2.8 Mpa

B) 1.25 Mpa

C) 1.75 Mpa

D) 1.05 Mpa

Answer Key: C

#### Question No. 87

What is the Mohs hardness number for quartz?

A) 2

B) 4

C) 7

D) 10

Answer Key: C

#### Question No. 88

What is the function of fishplates?

A) Provide full expansion and contraction

B) Bear vertical and lateral stress

C) Provide easy renewal and replacement

D) All of the options

Answer Key: D

#### Question No. 89

Centre line method is suitable for walls with-

A) Different cross section

B) Similar cross section

C) Same material

D) Same density

Answer Key: B

#### Question No. 90

Which of the following type of ranging is done if both ends of surveying lines are visible?

A) Indirect

B) Reciprocal

C) Transverse

D) Direct

Answer Key: D

#### Question No. 91

Which of the following belongs to the static characteristics of the vehicles affecting the road design?

- A) Dimensions
- B) Speed of the vehicle
- C) Braking system
- D) Acceleration

Answer Key: A

Question No. 92

\_\_\_\_\_ is a granular material which is placed and packed below and around the railway sleepers.

- A) Rail pads
- B) Fastenings
- C) Ballast
- D) Rail joints

Answer Key: C

Question No. 93

\_\_\_\_\_ is the amount by which one rail is raised above the other rail.

- A) Cant
- B) Gauge
- C) Curve
- D) Speed

Answer Key: A

Question No. 94

The longitudinal movement of the rails in the track in the direction of motion of locomotives is known as-

- A) Defects in rails
- B) Tilting of rails
- C) Creep of rail
- D) Rail fittings

Answer Key: C

Question No. 95

The centre of gravity of the volume of the liquid displaced by an immersed body is called the-

- A) Meta centre
- B) Centre of pressure
- C) Centre of buoyancy
- D) Centre of gravity

Answer Key: C

Question No. 96

A moulding provided under nosing to beautify the elevation of the step is known as-

- A) Pitch
- B) Scotia
- C) Soffit
- D) Riser

Answer Key: B

Question No. 97

Which of the following finds the shear strength of very plastic cohesive soils?

- A) Vane-shear test
- B) Cone test
- C) Penetration test
- D) Ring-shear test

Answer Key: A





C) President

D) Chief Justice

Answer Key: C

Question No. 105

In which of the following states is the festival of Hornbill celebrated?

A) Tamil Nadu

B) Karnataka

C) Nagaland

D) Arunachal Pradesh

Answer Key: C

Question No. 106

Which of the following is NOT a computer virus?

A) Trojan horse

B) Logic bomb

C) McAfee

D) Redlof

Answer Key: C

Question No. 107

'INS Vikramaditya' is a/an-

A) Submarine

B) Aircraft carrier

C) Main battle tank

D) Jet fighter

Answer Key: B

Question No. 108

Ozone is a gas composed of \_\_\_\_\_ atoms.

A) Two

B) Three

C) Four

D) Five

Answer Key: B

Question No. 109

Who is the present RBI Governor?

A) Shaktikanta Das

B) NK Singh

C) Arvind Subrmanian

D) None of the options

Answer Key: A

Question No. 110

\_\_\_\_\_ loses its data when the power is turned off.

A) Antivirus

B) Hard drive

C) RAM

D) Flash memory

Answer Key: C

Question No. 111

Minerals and oil are -

- A) Renewable resources
- C) Water resources

- B) Non-renewable resources
- D) Artificial resources

Answer Key: B

#### Question No. 112

Which of the following devices is suitable for the removal of gaseous pollutants?

- A) Cyclone separator
- C) Electrostatic precipitator
- B) Fabric filter
- D) Wet collector (scrubber)

Answer Key: D

#### Question No. 113

Which of the following is likely a characteristic of hazardous waste?

- A) Ignitability
- C) Reactivity
- B) Corrosivity
- D) All of the options

Answer Key: D

#### Question No. 114

Which of the following is a control device that can be used to minimize the effects of air pollution?

- A) Cyclone separator
- C) Sand filter
- B) Aerial water tanks
- D) Trickling filter

Answer Key: A

#### Question No. 115

Which of the following is NOT a function in the Microsoft 365 version of MS-Excel?

- A) SUM
- C) MAX
- B) AVG
- D) MIN

Answer Key: B

#### Question No. 116

From which state was Chandrayaan-2 launched?

- A) Andhra Pradesh
- C) Karnataka
- B) Kerala
- D) Tamilnadu

Answer Key: A

#### Question No. 117

The 'India Standard Meridian' passes through the States of Uttar Pradesh, Madhya Pradesh, Chhattisgarh-

- A) Andhra Pradesh and Karnataka
- C) Karnataka and Tamil Nadu
- B) Andhra Pradesh and Tamil Nadu
- D) Odisha and Andhra Pradesh

Answer Key: D

#### Question No. 118

When did Indira Gandhi serve as the Prime Minister of India for the first time?

- A) 1961
- B) 1964
- C) 1966
- D) 1980

Answer Key: C

Question No. 119

What does WSDL stand for?

- A) Web Software Definition Language
- B) Web Services Description Language
- C) World Server Definition Language
- D) Web Page Distribution Language

Answer Key: B

Question No. 120

Acid rains are caused by-

- A) Sulphur dioxide and ozone
- B) Sulphur dioxide and Nitrogen oxides
- C) Nitrogen oxide and ozone
- D) Carbon monoxide and Sulphur dioxide

Answer Key: B

Question No. 121

The noise level of soft whisper will be around-

- A) 20 dB
- B) 10 dB
- C) 30 dB
- D) 40 dB

Answer Key: C

Question No. 122

What is the full form of GWP?

- A) Global Wind Potential
- B) Global Warming Potential
- C) Global Warming Precedence
- D) Global Wind Precedence

Answer Key: B

Question No. 123

What is the full form of GLOBE?

- A) Global Leading Occupations to Benefit the Environment
- B) Global Learning and Observations to Benefit the Environment
- C) General Learning and Occupations to Benefit the Environment
- D) Global Leaders and their Observations to Benefit the Environment

Answer Key: B

Question No. 124

According to air pollution, the meteorological variable(s) affecting the severity of pollution is/are-

- A) Wind speed
- B) Precipitation
- C) Atmospheric diffusion
- D) All of the options

Answer Key: D

Question No. 125

What is the former name for the Badminton World Federation (BWF)?

- A) International Badminton Association
- B) International Badminton Federation
- C) Association of World Badminton
- D) Federation of International Badminton

Answer Key: B

Question No. 126

Soil erosion can be prevented by-

- A) Afforestation
- B) Deforestation
- C) Overgrazing
- D) Removal of vegetation

Answer Key: A

Question No. 127

The number of pixels displayed on the computer screen is called-

- A) Aspect ratio
- B) Refresh rate
- C) Resolution
- D) Contrast ratio

Answer Key: C

Question No. 128

Which of the following sources of energy has the largest share in power generation in India?

- A) Thermal energy
- B) Wind energy
- C) Nuclear energy
- D) Hydro energy

Answer Key: A

Question No. 129

What is the 1's complement of the binary number  $(1011001)_2$ ?

- A)  $(0110110)_2$
- B)  $(0100110)_2$
- C)  $(0100111)_2$
- D)  $(0101100)_2$

Answer Key: B

Question No. 130

Which of the following search engines originated from Russia?

- A) Baidu
- B) Yahoo
- C) Naver
- D) Yandex

Answer Key: D

Question No. 131

In a mesh topology, every device has a dedicated \_\_\_\_\_ link to every other device.

- A) Point-to-point
- B) Duplex

C) Multipoint

D) None of the options

Answer Key: A

Question No. 132

Which of the following data transfer modes allows bidirectional transfer of data between drives and memory without the intervention of the processor?

A) DMA

B) Interrupt initiated I/O

C) Programmed I/O

D) None of the options

Answer Key: A

Question No. 133

How many pipes can be used to create a two-way data channel between two processes in IPC?

A) 1

B) 2

C) 3

D) 4

Answer Key: B

Question No. 134

Who among these clinched the Best Actress Award at the 77th Cannes Film Festival held in May 2024 for her scintillating performance in 'The Shameless'?

A) Anasuya Sengupta

B) Elizabeth Olsen

C) Oprah Winfrey

D) Zoe Saldana

Answer Key: A

Question No. 135

The Gol extended the tenure of Dr. Sameer V Kamat in May 2024 for one more year as the Chairman of-

A) ISRO

B) AIIMS

C) IISc

D) DRDO

Answer Key: D

Question No. 136

What is equal to the measurement of  $1\mu\text{A}$ ?

A)  $10^6\text{A}$

B)  $10^{-3}\text{A}$

C)  $10^{-6}\text{A}$

D)  $10^3\text{A}$

Answer Key: C

Question No. 137

In universal indicators, a pH of 4 to 5 indicates-

A) Strong acids

B) Weak acids

C) Weak alkalis

D) Strong alkalis

Answer Key: B

Question No. 138

The ability of metals to be drawn into thin wires is known as-

- A) Ductility
- B) Malleability
- C) Sonority
- D) Conductivity

Answer Key: A

Question No. 139

$\text{Fe(s)} + \text{CuSO}_4\text{(aq)} \rightarrow \text{FeSO}_4\text{(aq)} + \text{Cu(s)}$  is an example of-

- A) Double Displacement Reaction
- B) Combination Reaction
- C) Decomposition Reaction
- D) Displacement Reaction

Answer Key: D

Question No. 140

\_\_\_\_\_ is defined as the time rate at which work is done or energy is transferred.

- A) Power
- B) Force
- C) Distance
- D) Displacement

Answer Key: A

Question No. 141

What are transition elements?

- A) Elements which possess properties of both metals and non-metals
- B) Elements which have eight electrons in the outermost shell
- C) Elements whose two outermost shells are incomplete
- D) Elements which belong to group 17

Answer Key: C

Question No. 142

Which of the following is the atomic number of Manganese?

- A) 25
- B) 26
- C) 27
- D) 28

Answer Key: A

Question No. 143

What is the work that needs to be done to increase the speed of a 1 kg ball from 3 m/s to 6 m/s?

- A) 13.5 J
- B) 36 J
- C) 27.5 J
- D) 18 J

Answer Key: A

Question No. 144

Which of the following metal oxides has both acidic and basic properties?

- A) Aluminium oxide
- B) Magnesium oxide

C) Silicon oxide

D) Sulphur oxide

Answer Key: A

#### Question No. 145

The magnetic lines of force-

A) Are closed curves

B) Intersect far away from the poles

C) Always intersect

D) Do not mutually repel each other

Answer Key: A

#### Question No. 146

Find the work done when a force of 50 N moves an object through a distance of 2 m.

A) 100 J

B) 200 J

C) 300 J

D) 500 J

Answer Key: A

#### Question No. 147

Which of the following is a ferromagnetic material?

A) Iron

B) Calcium

C) Sodium

D) Magnesium

Answer Key: A

#### Question No. 148

A current of 0.6 A is drawn by a filament of an electric bulb for 11 minutes. Find the amount of electric charge that flows through the circuit.

A) 300 C

B) 396 C

C) 214 C

D) 297 C

Answer Key: B

#### Question No. 149

The word aqueous (aq) is written if the reactant or product is present as a/an-

A) Solution in kerosene

B) Solution in water

C) Concentrated solution

D) Isotonic solution

Answer Key: B

#### Question No. 150

What is the chemical name of  $\text{KHCO}_3$ ?

A) Potassium hydroxide

B) Potassium carbonate

C) Potassium bicarbonate

D) Potassium carboxylate

Answer Key: C