

PROVISIONAL ANSWER KEY

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Question1:-1 N/mm² is equivalent to

- I. 1 Gpa
- II. 1 MPa
- III. 1 TPa
- IV. 1 kPa

A:-I only

B:-I and IV

C:-II and IV

D:-II only

Correct Answer:- Option-D

Question2:-A simply supported beam of span 8 m is subjected to concentrated load of 10 kN at midspan. The bending moment (in kNm) at 2 m from left support is equal to

A:-20

B:-8

C:-10

D:-80

Correct Answer:- Option-C

Question3:-A curve in which failure stress is plotted versus the number of cycles to failure is known as

A:-energy curve

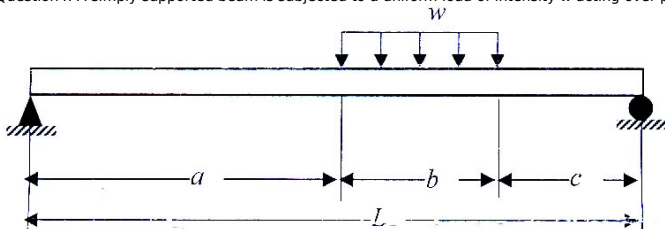
B:-endurance curve

C:-hysteric curve

D:-stress curve

Correct Answer:- Option-B

Question4:-A simply supported beam is subjected to a uniform load of intensity w acting over part of the span as shown in the figure :



The reaction at the left support is equal to

A:- $\frac{wb(b+2c)}{2L}$

B:- $\frac{wb(a+2b)}{2L}$

C:- $\frac{wa(b+2c)}{2L}$

D:- $\frac{wb}{2L}$

Correct Answer:- Option-A

Question5:-The shear stress on principal planes will be

A:-maximum

B:-minimum

C:-zero

D:-cannot be determined

Correct Answer:- Option-C

Question6:-A simply supported beam of span L, flexural rigidity EI is subjected to a suddenly applied load W at the centre of span. The maximum deflection at the centre of the beam is equal to

A:- $\frac{WL^3}{48EI}$

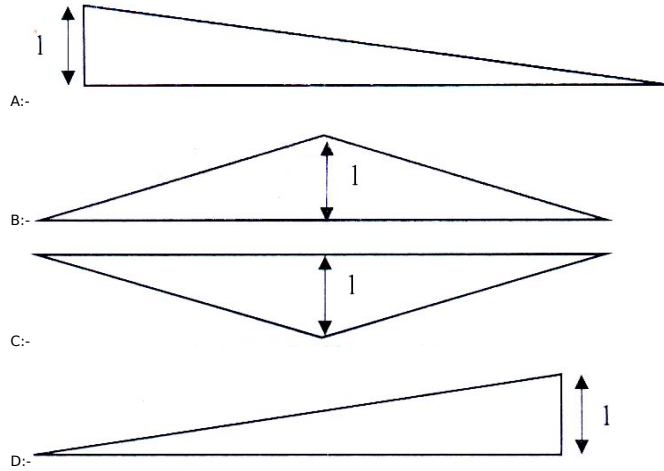
B:- $\frac{WL^3}{24EI}$

C:- $\frac{5WL^3}{384EI}$

D:- $\frac{WL^3}{16EI}$

Correct Answer:- Option-B

Question7:-A simply supported beam is having a span L is subjected to a uniform load of intensity w throughout the span. The influence line for reaction at the right support will be



Correct Answer:- Option-D

Question8:-The scale ratio L_r for spillway discharge per unit width q_r is

A:- $q_r = \sqrt{L_r}$

B:- $q_r = L_r^{3/2}$

C:- $q_r = L_r^{5/2}$

D:- $q_r = L_r^{7/2}$

Correct Answer:- Option-B

Question9:-If the Reynold's number of flow is in logarithmic range, the boundary layer thickness in turbulent flow varies as

A:- $x^{5/6}$

B:- $x^{1/6}$

C:- $x^{4/3}$

D:- $x^{-1/6}$

Correct Answer:- Option-A

Question10:-A vertical triangular plane area submerged in water with base in the free surface, vertex downward and altitude h. The position of centre of pressure below the free surface is

A:- $5h/6$

B:- $h/3$

C:- $2h/3$

D:- $h/2$

Correct Answer:- Option-D

Question11:-For the passage of maximum velocity through a circular channel section, the most economical central angle is

A:- 302°

B:- 308°

C:-257°

D:-180°

Correct Answer:- Option-C

Question12:-The equilibrium discharge for an S-curve derived from 4 hr unit hydrograph with a basin area of 400 km² is

A:-278 m³/ sec

B:-512 m³/ sec

C:-1112 m³/ sec

D:-1172 m³/ sec

Correct Answer:- Option-A

Question13:-For a flood control reservoir, the effective storage is equal to

A:-useful storage + surcharge storage

B:-useful storage + surcharge storage - valley storage

C:-useful storage + surcharge storage + valley storage

D:-surcharge storage - valley storage

Correct Answer:- Option-B

Question14:-In a certain irrigation project, in a given year, 72% and 56% of the culturable command area remains un-irrigated in Kharif and Rabi seasons, the intensity of irrigation for that project is

A:-36%

B:-64%

C:-72%

D:-128%

Correct Answer:- Option-C

Question15:-Select the permanent adjustments of Surveyor's compass from the following :

- i. Adjustment of levels
- ii. Adjustment of sight vanes
- iii. Adjustment of eye vanes
- iv. Adjustment of needle

A:-i and ii only

B:-ii and iv only

C:-i, ii and iii

D:-i, ii and iv

Correct Answer:- Option-D

Question16:-The telescope of a theodolite is mounted on

A:-Trunnion axis

B:-Clipping arm

C:-Index arm

D:-Vertical circle

Correct Answer:- Option-A

Question17:-Select the optical defects of a single lens from the following :

- i. Spherical aberration
- ii. Chromatic aberration
- iii. Coma
- iv. Astigmatism

A:-i, iii and iv

B:-ii, iii and iv

C:-iii and iv only

D:-all of the above (i, ii, iii and iv)

Correct Answer:- Option-D

Question18:-The process of taking levels on each side of a main line at right angles to that line, in order to determine a vertical cross-section of the surface of the ground is known as

A:-Profile levelling

B:-Cross-sectioning

C:-Reciprocal levelling

D:-Fly levelling

Correct Answer:- Option-B

Question19:- _____ is a Space Based Augmentation System jointly developed by ISRO and AAI to provide the best possible navigational services over Indian Flight Information Region.

A:-GAGAN

B:-BHUVAN

C:-NavIC

D:-IRNSS

Correct Answer:- Option-A

Question20:- _____ is the concurrence of the Government to the expenditure proposed and represents allotment of the money to meet the expenditure.

A:-Technical sanction

B:-Bill of quantities

C:-Expenditure sanction

D:-Administrative sanction

Correct Answer:- Option-C

Question21:- _____ is the value at the end of the utility period without being dismantled.

A:-Scrap value

B:-Salvage value

C:-Book value

D:-Rateable value

Correct Answer:- Option-B

Question22:-Emulsion paints contain

A:-Nitro cotton

B:-Zinc white

C:-White lead

D:-Polyvinyl acetate

Correct Answer:- Option-D

Question23:-How many Mangalore tiles are required to cover 1 square metre of roof ?

A:-16

B:-20

C:-10

D:-18

Correct Answer:- Option-A

Question24:-Speed of an escalator is usually

A:-10-20 m/min

B:-30-45 m/min

C:-25-30 m/min

D:-40-50 m/min

Correct Answer:- Option-C

Question25:-Polymer Cement Mortar (PCM) is used primarily for

A:-Repairing concrete structure

B:-Stone masonry

C:-Tile masonry

D:-Brick masonry

Correct Answer:- Option-A

Question26:-In the PERT chart, the activity time distribution is

A:-Normal

B:-Beta

C:-Poisson

D:-Binomial

Correct Answer:- Option-B

Question27:-The key functions of safety management system are,
I. Planning for safety

- II. Organizing for safety
- III. Scheduling for safety
- IV. Controlling for safety

- A:-I, III and IV are correct
- B:-II, III and IV are correct
- C:-I, II and IV are correct
- D:-I, II and III are correct

Correct Answer:- Option-C

Question28:-Determine the amount of cement per unit volume of concrete from

- A:-Slump value
- B:-The maximum size of aggregate
- C:-The amount of mixing water
- D:-The maximum size of aggregate and the amount of mixing water

Correct Answer:- Option-D

Question29:-A 12.5 mL of treated wastewater requires 187.5 mL of odour free distilled water to reduce the odour to a level that is just perceptible. What is the Threshold Odour Number (TON) for the wastewater sample ?

- A:-16
- B:-17
- C:-18
- D:-19

Correct Answer:- Option-A

Question30:-If L, B, H are the length, breadth (width) and depth of a rectangular sedimentation tank having total discharge Q, then the settling velocity of a particle (sediment) is given by

- A:-Q/BH
- B:-Q/BL
- C:-Q/LH
- D:-None of these

Correct Answer:- Option-B

Question31:-If a smoke chimney were to emit air pollutants into an unstable atmosphere we expect the plume to be

- A:-coning
- B:-fumigation
- C:-fanning
- D:-looping

Correct Answer:- Option-D

Question32:-Air Quality Index (AQI) category is poor (in India), if the AQI value is

- A:-101-200
- B:-201-300
- C:-301-400
- D:-401-500

Correct Answer:- Option-B

Question33:-The permissible limit of total hardness (as $CaCO_3$ in mg/L) in drinking water as per IS 10500:2012 is

- A:-200
- B:-250
- C:-400
- D:-600

Correct Answer:- Option-D

Question34:-The work done by the pump to lift $0.1 \text{ m}^3/\text{s}$ of water to a height of 10 m is (Neglect frictional loss and other losses and assume the value of unit weight of water as $10 \text{ kN}/\text{m}^3$)

- A:-0.1 kW
- B:-1 kW
- C:-10 kW
- D:-100 kW

Correct Answer:- Option-C

Question35:-The value pH = 3 when compared to pH = 5 will be more acidic by

- A:-2 times
- B:-20 times
- C:-100 times
- D:-200 times

Correct Answer:- Option-C

Question36:-The economic range of spacing of roof trusses is

- A:-1/2 to 1/3 of span
- B:-1/2 to 1/4 of span
- C:-1/4 to 1/6 of span
- D:-1/3 to 1/5 of span

Correct Answer:- Option-D

Question37:-The eccentric riveted connections if the rivet plane is perpendicular to the load plane the rivets are subjected to

- A:-axial stress only
- B:-shear stress only
- C:-axial and shear stresses
- D:-none

Correct Answer:- Option-C

Question38:-The slenderness ratio of a column which is supported throughout its length by masonry wall is

- A:-10
- B:-100
- C:-zero
- D:-infinity

Correct Answer:- Option-C

Question39:-The first crack load is determine from

- A:-Modulus of section
- B:-Modulus of rupture
- C:-Modular ratio
- D:-Modulus of failure

Correct Answer:- Option-B

Question40:-For a single unequal angle tie member the leg preferred for making connection is the

- A:-longer one
- B:-shorter one
- C:-any of the two
- D:-longer if riveted and shorter if welded

Correct Answer:- Option-A

Question41:-For liquid limit determination soil particles passing through which sieve size is required

- A:-425 mm
- B:-425 micron
- C:-75 micron
- D:-2 mm

Correct Answer:- Option-B

Question42:-The value of compression index for a remoulded soil sample whose liquid limit is 50% is

- A:-0.28
- B:-0.36
- C:-0.027
- D:-0.21

Correct Answer:- Option-A

Question43:-If the depth of water in a pond is 8m, the total and effective stress at a depth of 5m below water surface are respectively

- A:-78.4 kN/m² and zero
 - B:-49 kN/m² and zero
 - C:- 49 kN/m² and 49 kN/m²
 - D:-78.4 kN/m² and 49 kN/m²
- Correct Answer:- Option-B

Question44:-The shape factor S_c for a square footing as per IS method of bearing capacity calculation is

- A:-1.3
 - B:-0.6
 - C:-0.8
 - D:-0.4
- Correct Answer:- Option-C

Question45:-What is the critical height of a slope in a clay of bulk density 20 kN/m³ and cohesion = 20 kN/m² if the stability number is 0.05 ?

- A:-5m
 - B:-10m
 - C:-20m
 - D:-8m
- Correct Answer:- Option-C

Question46:-If P is the centrifugal force in kg, W is the weight of vehicle in kg, R is the radius of circular curve in meter, v is the speed of vehicle in m/s and g is the acceleration due to gravity in m/ sec², the impact factor can be expressed as

- A:- $\frac{0.278v^2}{gR}$
 - B:- $\frac{v^2}{225R}$
 - C:- $\frac{v^2}{127R}$
 - D:- $\frac{v^2}{gR}$
- Correct Answer:- Option-D

Question47:-Grade compensation is not necessary for gradients flatter than

- A:-6%
 - B:-8%
 - C:-4%
 - D:-7%
- Correct Answer:- Option-C

Question48:-Design period for structural design of pavements for National Highways is

- A:-30 years
 - B:-15 years
 - C:-20 years
 - D:-None of these
- Correct Answer:- Option-C

Question49:-Ratio of total hourly volume to the peak rate of flow during peak hour is known as

- A:-Approach flow rate
 - B:-Peak hour ratio
 - C:-Peak hour factor
 - D:-Service flow rate
- Correct Answer:- Option-C

Question50:-Design hourly volume is usually taken as

- A:-85th highest hourly volume
- B:-98th highest hourly volume
- C:-30th highest hourly volume
- D:-15th highest hourly volume

Correct Answer:- Option-C

Question51:-When a system of forces is acting on a body, a force that would balance one or more unbalanced forces is called

- A:-Resultant
- B:-Equilibrant
- C:-Couple
- D:-None of these

Correct Answer:- Option-B

Question52:-A 10 kg chandelier light is suspended from the ceiling of a building using four equal length chains. The top ends of the chains are secured equally spaced on the circumference of a circular plate which is screwed on the ceiling. The circular plate has a diameter of 1.2 meters and the maximum permissible force in any chain is limited to $25\sqrt{2}$ N. Then the minimum vertical distance between the ceiling and chandelier is (take $g = 10 \text{ m/s}^2$).

- A:-100 cm
- B:-50 cm
- C:-60 cm
- D:-None of these

Correct Answer:- Option-C

Question53:-The sufficient and necessary condition for equilibrium of a system of coplanar forces acting on a rigid body is

- A:- $\sum \vec{F} = 0, \sum \vec{M} = 0$
- B:- $\sum F_x = 0, \sum F_y = 0, \sum M_y = 0$
- C:-Both (1) and (2)
- D:-None of these

Correct Answer:- Option-B

Question54:-If two forces acting simultaneously at a point are represented in magnitude and direction by two adjacent sides of a parallelogram, their resultant is represented in magnitude and direction by

- A:-Longer of the other two sides
- B:-Shorter of the other two sides
- C:-Diagonal of the parallelogram that forms a triangle with the other two sides
- D:-None of these

Correct Answer:- Option-D

Question55:-Which of the following is a statically indeterminate problem ?

- A:-Resolution of a given force into two parallel components in one plane
- B:-Resolution of a given force into more than two parallel components in one plane
- C:-Both (1) and (2)
- D:-None of these

Correct Answer:- Option-B

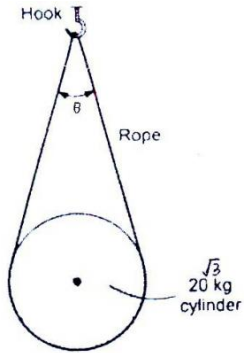
Question56:-Consider the following two statements :

Statement I : A couple in its plane can be transposed without changing its action on a body.
Statement II : Resolution of a force into a force and a couple is not possible of these statements.

- A:-I and II are true
- B:-I and II are false
- C:-I is only true
- D:-II is only true

Correct Answer:- Option-C

Question57:-A short cylinder weighing $20\sqrt{3}$ kg is held in equilibrium by means of a rope/belt passing over a hook on the ceiling and the cylinder as shown in the figure. The angle θ at hook is 60° . Find the tensile force in the rope/belt. (take $g = 10 \text{ m/s}^2$)



A:-200 N

B:-150 N

C:-140 N

D:-None of these

Correct Answer:- Option-A

Question58:-Hydrostatic stress causes change in

A:-Shape

B:-Volume

C:-Both volume and shape

D:-Neither volume nor shape

Correct Answer:- Option-B

Question59:-Bone is _____ in nature.

A:-Isotropic

B:-Orthotropic

C:-Anisotropic

D:-Homogeneous

Correct Answer:- Option-C

Question60:-For an isotropic material with Poisson's ratio of 0.5, the volumetric strain is

A:-0

B:-0.5

C:-1

D:-2

Correct Answer:- Option-A

Question61:-The same tensile force is exerted on two bars of equal size but of different materials. If the ratio of the elongations of the bars is 10 : 6, what will be the ratio of respective modulus of elasticity of the materials ?

A:-5 : 3

B:-3 : 5

C:-10 : 6

D:-6 : 10

Correct Answer:- Option-D

Question62:-The highest stress level for which Hooke's law is applicable for a certain material is referred to as

A:-Significant limit

B:-Stress limit

C:-Strain limit

D:-Proportional limit

Correct Answer:- Option-D

Question63:-If an element in a body of homogeneous isotropic material is subjected to plane stress, then consider μ to be the Poisson's ratio and ϵ_x , ϵ_y and ϵ_z to be the normal strains in x, y and z directions respectively, the magnitude of unit volume change of the element is given by

A:- $\frac{1}{\epsilon_x} + \frac{1}{\epsilon_y} + \frac{1}{\epsilon_z}$

B:- $\epsilon_x + \epsilon_y + \epsilon_z$

C:- $\mu (\epsilon_x + \epsilon_y + \epsilon_z)$

D:- $\epsilon_x - \mu (\epsilon_y + \epsilon_z)$

Correct Answer:- Option-B

Question64:-Poisson's ratio and modulus of elasticity of a material is given as 0.2 and 80 GPa respectively. What will be the value of bulk modulus and modulus of rigidity of the material ?

A:-50.28 GPa, 22.32 GPa

B:-70.25 GPa, 50.84 GPa

C:-44.44 GPa, 33.33 GPa

D:-60.25 GPa, 40.83 GPa

Correct Answer:- Option-C

Question65:-For an involute gear teeth

A:-Convex flank contact with a concave face

B:-Two convex surfaces are in contact

C:-Two concave surfaces are in contact

D:-None of the above

Correct Answer:- Option-B

Question66:-The number of teeth of a spur gear is 40 and it rotates at 100 rpm. What will be its pitch line velocity if it has a module of 2.5 mm ?

A:-3.14 m/min

B:-6.28 m/min

C:-31.4 m/min

D:-62.8 m/min

Correct Answer:- Option-C

Question67:-Which type of gear mostly used for the drive to the differential of an automobile ?

A:-Spiral bevel gear

B:-Epicyclic gear

C:-Zerol bevel gear

D:-Straight bevel gear

Correct Answer:- Option-A

Question68:-To reduce pressure on the bearings and to increase power transmission, the pressure angle of the gear must be kept ?

A:-Small

B:-Large

C:-Equal to angle of action

D:-Equal to angle of obliquity

Correct Answer:- Option-A

Question69:-Axial thrust is a disadvantage for

A:-Spur gear

B:-Herringbone gear

C:-Double-helical gear

D:-Helical gear

Correct Answer:- Option-D

Question70:-Method to reduce interference in gears

A:-Using more teeth on the gears

B:-Use larger pressure angle

C:-Use gears with shorter teeth

D:-All of the above

Correct Answer:- Option-D

Question71:-A string stretched between two supports has

A:-Single degree of freedom

B:-Infinite degrees of freedom

C:-Two degrees of freedom

D:-None of the above

Correct Answer:- Option-B

Question72:-A vibrating system consist of a mass of 50 kg, a spring with a stiffness of 30 kN/m and a damper. The damping provided is only 30% of the critical value. Determine the damping factor.

A:-0.3

B:-0.18

C:-0.77

D:-0.5

Correct Answer:- Option-A

Question73:-The natural frequency of a spring-mass system on earth is ω_n . The natural frequency of this system on the mars, if $g_{mars} = \frac{g_{earth}}{3}$ is

A:-1.73 ω_n

B:-0.33 ω_n

C:- ω_n

D:-0.57 ω_n

Correct Answer:- Option-C

Question74:-Which damping system preferred to design large guns ?

A:-Undamped system

B:-Underdamped system

C:-Critical damped system

D:-Overdamped system

Correct Answer:- Option-C

Question75:-Machines are usually mounted on springs or dampers to

A:-Increase transmissibility

B:-Reduce transmissibility

C:-Avoid resonance

D:-None of the above

Correct Answer:- Option-B

Question76:-For a system to vibrate, it must possess

A:-Inertial and restoring elements

B:-Inertial and damping elements

C:-Damping and restoring elements

D:-All of the above

Correct Answer:- Option-A

Question77:-The increase of temperature

i. Increase the viscosity of gas

ii. Increases the viscosity of liquid

iii. Decreases the viscosity of liquid

iv. Decreases the viscosity of gas

Which of these statements are correct ?

A:-i and iii only

B:-i and ii only

C:-ii and iv only

D:-iii and iv only

Correct Answer:- Option-A

Question78:-A fluid, which shows no deformation up to a certain point (yield stress) and beyond that shear stress is proportional to the rate of shear strain, is known as

A:-Dilatant fluid

B:-Newtonian fluid

C:-Pseudo plastic fluid

D:-Ideal plastic fluid

Correct Answer:- Option-D

Question79:-Poise is the unit of

- A:-Viscosity
 - B:-Surface tension
 - C:-Kinematic viscosity
 - D:-Mass density
- Correct Answer:- Option-A

Question80:-The fluid property associated with cavitation phenomenon is

- A:-Surface tension
 - B:-Vapour pressure
 - C:-Viscosity
 - D:-Bulk modulus of elasticity
- Correct Answer:- Option-B

Question81:-There will be no rise or fall of liquid inside a capillary tube, when the angle of contact between tube and liquid is

- A:- π
 - B:- 0°
 - C:- $\frac{\pi}{2}$
 - D:- $\frac{\pi}{4}$
- Correct Answer:- Option-C

Question82:-Consider the following statements :

- i. Absolute pressure is measured with reference to absolute vacuum pressure.
 - ii. Gauge pressure is measured with reference to atmospheric pressure.
- Which of the statements given above is/are correct ?

- A:-i only
 - B:-ii only
 - C:-both i and ii
 - D:-neither i nor ii
- Correct Answer:- Option-C

Question83:-The temperature difference across a 15 cm thick furnace wall is maintained at 30°C . Heat is conducted through the wall at the rate of 40 W/m^2 . What is the thermal conductivity of the wall ?

- A:-20 W/mK
 - B:-0.2 W/mK
 - C:-2 W/mK
 - D:-0.02 W/mK
- Correct Answer:- Option-B

Question84:-Which of the following has maximum value of thermal conductivity at 20°C ?

- A:-Gold
 - B:-Silver
 - C:-Copper
 - D:-Diamond
- Correct Answer:- Option-D

Question85:-The thermal diffusivity is given by

Where 'k', 'p' and 'c' denote the materials thermal conductivity, density and specific heat capacity respectively.

- A:- $\frac{k}{\rho c}$
 - B:- $\frac{kc}{\rho}$
 - C:- $\frac{\rho}{kc}$
 - D:- $\frac{\rho c}{k}$
- Correct Answer:- Option-A

Question86:-An electric cable, 6 mm in diameter is covered by plastic sheathing ($k = 0.18 \text{ W/m.K}$). The surface temperature of cable was observed as 50°C when it is exposed to air at 20°C with convective coefficient of $12 \text{ W/m}^2 \text{ K}$. What is the thickness of insulation, to keep the wire as cool as possible ?

- A:-15 mm
- B:-12 mm

C:-13 mm

D:-14 mm

Correct Answer:- Option-B

Question87:-The natural convection heat transfer is characterised by

A:-Reynolds number

B:-Peclet number

C:-Grashof number

D:-Prandtl number

Correct Answer:- Option-C

Question88:-A body whose absorptivity of a surface does not vary with temperature and wavelength of the incident radiation is called

A:-Black body

B:-White body

C:-Opaque body

D:-Gray body

Correct Answer:- Option-D

Question89:-Human resource management is

A:-A method which an organisation collects, maintains and reports information on people and jobs

B:-The process of integrating the employees, needs and aspirations with organizational needs

C:-The process of bringing people and organisation together so that the goals of each are achieved

D:-The efforts to make life worth living for workers

Correct Answer:- Option-C

Question90:-The process of the permanent reduction of a company's labour force through the elimination of unproductive workers or divisions is known as

A:-layoffs

B:-downsizing

C:-mergers

D:-acquisitions

Correct Answer:- Option-B

Question91:-What is meant by the phrase CSR ?

A:-Corporate Social Responsibility

B:-Company Social Responsibility

C:-Corporate Secrete Responsibility

D:-Company Secret Responsibility

Correct Answer:- Option-A

Question92:-The Code of Discipline was evolved at the Indian Labour Conference in

A:-1958

B:-1961

C:-1948

D:-1921

Correct Answer:- Option-A

Question93:-Discipline is necessary in all organizations for following factors except

A:-Encourage employees to behave sensibly at work

B:-Effectively realize or attain the objectives of the organization

C:-Help employees to learn the requirement of their job

D:-Wealth creation and expansion of plant

Correct Answer:- Option-D

Question94:-Which of the following is NOT a characteristic of an organization's culture ?

A:-Outcome orientation

B:-Assertiveness

C:-Innovation and risk taking

D:-Attention to detail

Correct Answer:- Option-B

Question95:-Proper moulding sand must possess six properties. Which of the following is not a property of any moulding sand ?

A:-Flowability

B:-Hardenability

C:-Green strength

D:-Dry strength

Correct Answer:- Option-B

Question96:-Wide varieties of materials are used for making patterns. But patterns cannot be constructed out of one of the following materials. Which one ?

A:-Wood

B:-Wax

C:-Oil

D:-Metal

Correct Answer:- Option-C

Question97:-Suggest the best suited for casting process for making of hollow pipes and tubes.

A:-Centrifugal casting

B:-Investment casting

C:-Die casting

D:-Permanent mould casting

Correct Answer:- Option-A

Question98:-In a hot chamber die casting process, which of the following parts is used for the pumping of liquid metal into the cavity ?

A:-Accumulator

B:-Slug

C:-Guide pin

D:-Gooseneck

Correct Answer:- Option-D

Question99:-The low permeability in moulding sand can cause which of the following defects in casting ?

A:-Rough surface

B:-Blow holes

C:-Hot tears

D:-Drop

Correct Answer:- Option-B

Question100:-Calculate the dimensions of a 90 mm cube after it cools down to room temperature. The solidification shrinkage for the cast metal is 5% and solid contraction is 7.5%. Assume uniform cooling in all directions.

A:-32.30 mm

B:-87.7 mm

C:-86.2 mm

D:-32.87 mm

Correct Answer:- Option-C