

FINAL ANSWER KEY

Question 169/2023/OL

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Code:

Exam: Assistant Engineer (Agriculture)

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Department Agriculture Development and Farmers Welfare

Question1:-The name of attachment to the MB plough bottom used to cut trash, avoid clogging and to obtain a neat furrow wall is

A:-Jointer

B:-Coulter

C:-Trash shield

D:-Gauge wheel

Correct Answer:- Option-B

Question2:-Which of the following statements are correct with respect to the draft requirement of disc ploughs?

- i. Draft is influenced by the speed of operation.
- ii. Cross sectional area of the furrow does not influence the draft requirement
- iii. Diameter of the disc and concavity have considerable effect on draft.
- iv. Increasing the tilt angle decreases the draft.

A:-i, ii and iii are correct

B:-ii and iv are correct

C:-i and iii are correct

D:-all are correct

Correct Answer:- Option-C

Question3:-Which of the following methods are used to change the seed rate in a fluted roller type metering mechanism?

- i. Shifting the rollers sideways to change the length of grooves exposed to the seed
- ii. Change the adjustable gate opening at the discharge side
- iii. Changing the speed of driving square shaft of the fluted roller

A:-i, ii and iii

B:-only i

C:-ii and iii

D:-i and iii

Correct Answer:- Option-D

Question4:-_____ type plough bottoms are favoured in dry areas where the soil is rough and stony.

A:-Rolling bottom

B:-Sliding bottom

C:-Chisel type bottom

D:-Lister bottoms

Correct Answer:- Option-A

Question5:-A virtual point on tractor, midway between the rear wheels and in line with axle is named as

A:-Center of pull

B:-Center of load

C:-Drawbar point

D:-Hinge point

Correct Answer:- Option-A

Question6:-A 2-bottom tractor mounted MB plough of 30 cm width is ploughing at a depth of 10 cm. If the tractor speed is 5 kmph and field efficiency is 70%, what is the effective field capacity of ploughing operation.

A:-3.0 ha/hr^{-1}

B:-2.1 ha/hr^{-1}

C:-0.3 ha/hr^{-1}

D:-0.21 ha/hr^{-1}

Correct Answer:- Option-D

Question7:-In MB ploughs, the angle normally provided at the cutting edge of share to the direction of travel in order to obtain turning and immediate inversion is

A:-20° to 25°

B:-30° to 35°

C:-35° to 40°

D:-40° to 45°

Correct Answer:- Option-D

Question8:-Ratio of the net pull produced to the dynamic normal load of the traction device is

A:-Tractive efficiency

B:-Net Traction coefficient

C:-Motion resistance ratio

D:-None of these

Correct Answer:- Option-B

Question9:-Ratio of seat vibration intensity to chassis vibration intensity in a tractor is known as

A:-Transfer function

B:-Transmissibility

C:-Frequency response

D:-Vibration coefficient

Correct Answer:- Option-B

Question10:-The appropriate approach for calculating depreciation when a tractor is purchased for its entire operational lifespan and not intended for resale is the

A:-Straight line method

B:-Compound interest method

C:-Constant percentage method

D:-Estimated method

Correct Answer:- Option-A

Question11:-In the equation ($S = C + N \tan \phi$) to determine the shear stress at the soil failure surface when a tillage tool moves in soil, which factor is represented by the letter ϕ

A:-Angle of soil cohesion

B:-Angle of cutting edge

C:-Angle of internal friction

D:-Angle of attack

Correct Answer:- Option-C

Question12:-Which of the following statements are true regarding the fluid properties affecting droplet size in agricultural spraying?

- i. increased surface tension decreases the size of droplets
- ii. increased surface tension increases the size of droplets
- iii. increased viscosity increases droplet sizes
- iv. increased viscosity decreases droplet sizes

A:-i and iii are correct

B:-ii and iv are correct

C:-ii and iii are correct

D:-only ii is correct

Correct Answer:- Option-C

Question13:-The rate at which energy is received from the sun on a unit area perpendicular to the rays of the sun, at mean distance of the earth from the sun will be

A:-1.353 kilowatts per square meter

B:-1353 W/ m^2

C:-11.65 Langley's

D:-42.92 Btu per sq.ft

Correct Answer:-**Question Cancelled**

Question14:-The instrument employed for measurement of the total hemispherical solar radiation is

A:-pyrheliometer

B:-sunshine recorder

C:-eppley pyr heliometer

D:-pyranometer

Correct Answer:- Option-D

Question15:-The area of the wind streams swept by the wind turbine is maximum, when blades face into the wind. This is achieved by

A:-Yaw control

B:-Pitch control

C:-Turbine tower system

D:-Wind stream variation

Correct Answer:- Option-A

Question16:-The C:N ratio for best biogas production is 25 to 30 because

A:-Thermophilic bacteria are active only at C:N ratio of 25 to 30

B:-C:N ratio of 25 to 30 will avoid scum formation

C:-The fermentative bacteria use carbon 25 to 30 times as fast as nitrogen

D:-C:N ratio of 25 to 30 will maintain pH

Correct Answer:- Option-C

Question17:-The intensity, duration and frequency of rainfall are interrelated as

A:- $i = (K + T^a) / (t + b)^d$

B:- $i = (K + T^d) / (t - b)^a$

C:- $i = (K^a + T) / (t + b)^d$

D:- $i = (KT^d) / (t \times b)^a$

Correct Answer:- **Question Cancelled**

Question18:-The contour bunds in heavy and medium rainfall areas, the grades of the bunds may be _____ towards the outlet.

A:-0.02 to 0.08%

B:-0.2 to 0.3%

C:-2 to 3%

D:-0.6 to 0.8%

Correct Answer:- Option-B

Question19:-Which of the following is NOT the characteristics of the land capability of different land areas for sustainable crops

A:-The Slope

B:-Erosion condition

C:-The soil depth and soil type

D:-Rainfall

Correct Answer:- Option-D

Question20:-Which of the following software will not be used for GIS application software?

A:-GRASS

B:-IDRISI

C:-ILWIS

D:-BETILGI

Correct Answer:- Option-D

Question21:-In a Geographical data models, forest, desert, floodplain can be represented by

A:-Points

B:-Polygons

C:-Lines

D:-All the above

Correct Answer:- Option-B

Question22:-The Gunter's chain is _____ long and divided into _____ links.

A:-33 ft, 100

B:-33 ft, 16

C:-66 ft, 100

D:-30 ft, 25

Correct Answer:- Option-C

Question23:-Which of the following is / are bench marks

i. GTS bench marks

ii. Permanent and temporary bench mark

iii. Arbitrary bench mark

iv. Point benchmark

A:-i and ii only

B:-i, ii and iii

C:-iii and iv only

D:-all the above

Correct Answer:- Option-B

Question24:-The velocity of flow at the toe in Chute Spilway design is given by

A:- $V_1 = 2g(H-h_f)$

B:- $V_1 = \text{Sq.root of } (2g(H+h_f))$

C:- $V_1 = 2g(H+h_f)$

D:- $V_1 = \text{Sq.root of } (2g(H-h_f))$

Correct Answer:- Option-D

Question25:-If the gully depth is between 1m to 5m, then Gullies are classified as

A:-Small gullies

B:-Large gullies

C:-Medium gullies

D:-Gullies depth are more than 5 m

Correct Answer:-**Question Cancelled**

Question26:-Recommended maximum velocities in low pressure underground pipelines are in the range of _____

A:-2.5 to 3.5 m/s

B:-2.3 to 2.5 m/s

C:-1.3 to 1.5 m/s

D:-0.1 to 0.4 m/s

Correct Answer:- Option-C

Question27:-The actual velocity at which water is moving through an aquifer is related to the Apparent / Seepage velocity given by Darcys law, by the expression

A:- $v_a = v/n$

B:- $v_a = v \times n$

C:- $v_a = n/V$

D:- $v_a = v/e$

Correct Answer:- Option-A

Question28:-The Delta for a crop when its duty is 864 hectares/cumec and base period is 120 days is

A:-864 cm

B:-120 cm

C:-100 cm

D:-86.4 cm

Correct Answer:- Option-B

Question29:-In the silt theories for design of Alluvial channels by Kennedy which of the following statements are true :

- i. Silt is kept in suspension by the vertical component of eddies
- ii. Eddies generated from the sides of Trapezoidal channel was neglected
- iii. Critical velocity formula depends only on the depth of flow
- iv. Two regime conditions exist : initial and final regime

A:-i, ii and iii

B:-all the above

C:-ii, iii and iv

D:-iii and iv

Correct Answer:- Option-A

Question30:-The drilling method best adapted for drilling deep holes in unconsolidated Alluvial formations is

A:-cable tool percussion drilling

B:-Rotary drilling

C:-Air rotary drilling

D:-Down the hole drilling

Correct Answer:- Option-B

Question31:-Which of the following statements are true regarding performance of centrifugal pumps

- i. The capacity of the pump varies directly as the speed
 - ii. The capacity of pump varies directly as the diameter
 - iii. The head varies directly as the square of the speed
 - iv. The head varies directly as the cube of the diameter
- ii, iii and iv

A:-ii, iii and iv

B:-All of the above

C:-i, ii and iii

D:-none of the above

Correct Answer:- Option-C

Question32:-The filter used in Drip irrigation systems to remove suspended substances with specific gravity greater than 1.2 is

A:-Media filter

B:-Screen filter

C:-Disc filter

D:-Hydro cyclone filter

Correct Answer:- Option-D

Question33:-In a centrifugal pump, the volute casing helps to convert

A:-Pressure head to velocity head

B:-Gravity head to velocity head

C:-Gravity head to pressure head

D:-Velocity head to pressure head

Correct Answer:- Option-D

Question34:-The accessory used to relieve pressure in the tile drain line is

A:-Junction box

B:-French drains

C:-Relief wells and Breathers

D:-Blind inlets

Correct Answer:- Option-C

Question35:-In case of grain, the ratio of the diameter of the largest inscribing circle to the diameter of the smallest circumscribing circle is known as

A:-Shape factor

B:-Roundness

C:-Sphericity

D:-None of the above

Correct Answer:- Option-C

Question36:-The drag and lift properties of food material are important in designing

A:-Screw conveyors

B:-Belt conveyors

C:-Bucket elevator

D:-Pneumatic conveyors

Correct Answer:- Option-D

Question37:-In _____ separator, the grain shape and the frictional difference between the grains and belt material are used for separation

A:-Specific gravity

B:-Cyclone

C:-Centrifugal

D:-Inclined belt

Correct Answer:- Option-D

Question38:-The transport property of material that affects heat conduction is

A:-Thermal conductivity

B:-Velocity

C:-Viscosity

D:-Porosity

Correct Answer:- Option-A

Question39:-The overall heat transfer coefficient in a heat exchanger takes into effect

A:-Conduction between solid and liquids involved

B:-Thermal radiation from the liquid and solid surfaces

C:-Convection in each fluid involved and conduction through the walls separating the fluids

D:-Steady state conduction heat transfer and radiation effects only

Correct Answer:- Option-C

Question40:-During drying process, the air moving through the grain for removing moisture is subjected to this thermodynamic process

A:-Heating and humidifying

B:-Cooling and humidifying

C:-Heating and dehumidifying

D:-Cooling and dehumidifying

Correct Answer:- Option-B

Question41:-In multiple effect evaporators, the pressure in the 2nd stage will be _____ that of the first stage

- A:-Greater than
- B:-Less than
- C:-Same as
- D:-Slightly greater

Correct Answer:- Option-B

Question42:-In falling film evaporators, the milk is introduced at the _____ of the heating unit

- A:-Side
- B:-Bottom
- C:-Top
- D:-Front

Correct Answer:- Option-C

Question43:-In a filtration equipment, resistance to filtration arises from two sources namely the filtering screen and

- A:-liquid
- B:-frame
- C:-air
- D:-filter cake

Correct Answer:- Option-D

Question44:-Suitable moisture content for the safe storage of paddy is in the range of

- A:-10-12%
- B:-16-22%
- C:-22-28%
- D:-4-6%

Correct Answer:- Option-A

Question45:- F_0 value in thermal processing indicates the sum of lethality rate to ensure

- A:-Complete sterilization
- B:-Sterilization
- C:-Commercial sterilization
- D:-Pasteurization

Correct Answer:- Option-C

Question46:-The free moisture available in the grain will be removed first in this phase of drying

- A:-falling rate drying
 - B:-constant rate drying
 - C:-rising rate drying
 - D:-exponential rate drying
- Correct Answer:- Option-B

Question47:-One of the effects of the deposition of fouling matter in heat exchanger tubes in milk processing is that the

- A:-heat transfer rate will be increased
 - B:-taste and smell of the milk will become more desirable
 - C:-overall heat transfer coefficient will be reduced
 - D:-convective heat transfer coefficient will be increased
- Correct Answer:- Option-C

Question48:-Kick has assumed that the energy required for size reduction is proportional to the

- A:-size reduction ratio (dL/L)
 - B:-rate of area reduction
 - C:-rate of volume reduction
 - D:-shape
- Correct Answer:- Option-A

Question49:-A quotient indicating how much more rapidly the reaction proceeds at a temperature T_2 than at a lower temperature T_1 is called as

- A:-D value
 - B:-TDT value
 - C:-Z value
 - D:-Q value
- Correct Answer:- Option-D

Question50:-If bulk density of a material is given as 700 kg/m^3 and true density as 1000 kg/m^3 , its porosity will be

- A:-30%
 - B:-70%
 - C:-40%
 - D:-20%
- Correct Answer:- Option-A

Question51:-When the annual demand of a product is 24,000 units the economic order quantity (EOQ) is 2000 units. If the annual demand is 48,000 units the most appropriate EOQ will be

- A:-1400 units
- B:-2000 units

C:-2800 units

D:-4000 units

Correct Answer:- Option-C

Question52:-In simple exponential smoothing forecasting to give higher weightage to recent demand information, the smoothing constant must be equal to

A:-1

B:-zero

C:-0.5

D:-1.0

Correct Answer:- Option-D

Question53:-Six jobs arrived in a sequence as given below :

Job	I	II	III	IV	V	VI
Completion time	4	9	5	10	6	8

Average flow time (in days) for the above jobs using shortest processing time rule is

A:-20.83

B:-20.03

C:-125

D:-126.5

Correct Answer:- Option-A

Question54:-In PERT analysis, a critical activity has

A:-Maximum float

B:-Zero float

C:-Maximum cost

D:-Minimum cost

Correct Answer:- Option-B

Question55:-The word Kanban is most appropriate associated with

A:-Economic order quantity

B:-Just-in-time production

C:-Capacity planning

D:-product design

Correct Answer:- Option-B

Question56:-If there are 'm' sources and 'n' destinations in a transportation matrix, the total number of basic variables in the basic feasible solution is

A:-m + n

B:-m - n - 1

C:-m + n - 1

D:-m

Correct Answer:- Option-C

Question57:-Which one of the following is not a decision taken during the aggregate production planning stage?

A:-Scheduling of machines

B:-Amount of labor to be committed

C:-Rate at which production should happen

D:-Inventory to be carried forward

Correct Answer:- Option-A

Question58:-Determination of standard time in complex job system is best done through

A:-Stop watch time study

B:-Analysis of micro motions

C:-Group timing techniques

D:-Analysis of standard date systems

Correct Answer:- Option-D

Question59:-Which of the following are the principles of material handling?

A:-keep all handling to the minimum

B:-move as few pieces as possible in one unit

C:-move the heaviest weight to the least distance

D:-select only efficient handling equipment

Correct Answer:- Option-B

Question60:-The routing function in a production system design is concerned with

A:-man power utilization

B:-machine utilization

C:-quality assurance of a product

D:-optimizing material flow through the plant

Correct Answer:- Option-D

Question61:-Number of nearest neighboring atoms on FCC crystal is

A:-6

B:-8

C:-12

D:-None of the above

Correct Answer:- Option-C

Question62:-Choose the correct statements for normalizing

i. Normalizing improves strength

ii. Normalizing increase hardness

- iii. Normalizing removes internal stresses
- iv. Normalizing improve toughness.

A:-i and ii are correct

B:-iii and iv are correct

C:-i and iv are correct

D:-all statements are correct

Correct Answer:- Option-B

Question63:-Which of the following defect is not detected by Dye penetrant test

A:-Nonmetallic inclusions

B:-Leaks

C:-Cracks

D:-Forging defects

Correct Answer:- Option-A

Question64:-Which of the following instrument is appropriate for inspection during mass production of identical cylindrical specimens with $\pm 0.5\text{mm}$

A:-Vernier calipers

B:-Micrometers

C:-GO and NO-GO gauges

D:-None of these

Correct Answer:- Option-C

Question65:-Which is preferred for welding Aluminium sheets?

A:-Carbon Arc Welding

B:-Oxy-Acetylene Gas welding

C:-TIG welding

D:-None of these

Correct Answer:- Option-C

Question66:-What happens to the permeability of moulding sand as the sand grain size increases?

A:-Decreases

B:-Increases

C:-Remains same

D:-Depends on type of sand

Correct Answer:- Option-B

Question67:-In case of simple turning operation in a Lathe, for the same spindle speed, if the diameter of workpiece is increased, how will the cutting speed vary?

A:-Increase

B:-Decrease

C:-Will not change

D:-Varies depending on tool material

Correct Answer:- Option-A

Question68:-Continuous chips with BUE are formed during the machining of

A:-Brittle material at low cutting speed

B:-Ductile material at low cutting speed

C:-Brittle material at high cutting speed

D:-Ductile material at high cutting speed

Correct Answer:- Option-B

Question69:-Process of changing the shape of grinding wheels when it becomes worn from original shape due to breaking away of abrasive is called

A:-Dressing

B:-Truing

C:-Glazing

D:-Buffing

Correct Answer:- Option-B

Question70:-In which of the following milling method, the cutter rotates in the direction opposite to the direction in which work is fed

A:-Up Milling

B:-Climb Milling

C:-Down milling

D:-None of these

Correct Answer:- Option-A

Question71:-A pitot-static tube, with a coefficient of 0.98 is used to measure the velocity of water in a pipe. The stagnation pressure head is 6 m and static pressure head is 5 m. What is the velocity of flow?

A:-5.32 m/s

B:-3.14 m/s

C:-2.14 m/s

D:-4.34 m/s

Correct Answer:- Option-D

Question72:-Euler equation for water turbine is derived on the basis of

A:-Rate of change of angular momentum

B:-Rate of change of linear momentum

C:-Conservation of mass

D:-Rate of change of velocity

Correct Answer:- Option-A

Question73:-Stream lines, streak lines and path lines are identical for a

A:-Steady flow

B:-Unsteady flow

C:-Incompressible flow

D:-Never identical

Correct Answer:- Option-A

Question74:-The material acceleration is always zero for a/an

A:-Steady and uniform flow

B:-Steady and non-uniform flow

C:-Unsteady and uniform flow

D:-Unsteady and non-uniform flow

Correct Answer:- Option-A

Question75:-The separation of the boundary layer takes place when the pressure gradient is

A:-Negative

B:-Constant

C:-Positive

D:-Zero

Correct Answer:- Option-C

Question76:-When an air vessel is fitted to a single acting reciprocating pump the % of saving in work done against friction is

A:-84.8%

B:-39.2%

C:-50%

D:-100%

Correct Answer:- Option-A

Question77:-Two pumps can operate independently at heads H_1, H_2 and discharges Q_1, Q_2 respectively. If the pumps are connected in parallel, then what are the resulting discharge (Q) and head (H)

A:- $H = H_1 = H_2; Q = Q_1 + Q_2$

B:- $H = H_1 + H_2; Q = Q_1 + Q_2$

C:- $H = H_1 + H_2; Q = Q_1 - Q_2$

D:- $H = H_1 = H_2; Q = Q_1 = Q_2$

Correct Answer:- Option-A

Question78:-The overall efficiency of a centrifugal pump when head is 25 m, discharge is $0.004 \text{ m}^3/\text{s}$ and output power P is 16 kW ($g = 10 \text{ m/s}^2, \rho = 1000 \text{ kg/m}^3$)

A:-65%

B:-55%

C:-52.5%

D:-62.5%

Correct Answer:-**Question Cancelled**

Question79:-Match List-I (Turbine) with List-II (Specific speeds) and select the correct answer using the codes given below the lists

List-I	List-II
A. Francis	1. 10-35
B. Kaplan	2. 35-60
C. Pelton (one jet)	3. 60-300
D. Pelton (two jets)	4. 300-1000

A:-A-3, B-4, C-1, D-2

B:-A-2, B-3, C-4, D-1

C:-A-1, B-2, C-3, D-4

D:-A-4, B-1, C-3, D-2

Correct Answer:- Option-A

Question80:-For maximum efficiency of a series of curved vanes, the vane speed is

A:-Quarter of the jet speed

B:-One third of the jet speed

C:-Equal to jet speed

D:-Half of the jet speed

Correct Answer:- Option-D

Question81:-The centroid of an equilateral triangle is located at

A:-One-third the distance from each vertex along each median

B:-Two-third the distance from each vertex along each median

C:-Half the distance from each vertex along each median

D:-Various distance from each vertex along the median

Correct Answer:- Option-B

Question82:-A steel cylindrical closed container having inner diameter **D** and wall thickness **t**, where **D > 20t**, is holding gas at pressure **P**. If the container is positioned horizontally, the hoop stress experienced by the cylinder could be

A:-2 P/t

B:-4 P/t

C:-PD/2t

D:-PD/4t

Correct Answer:- Option-C

Question83:-Which among the following screw thread profile is suggested in higher axial load applications

- A:-Acme thread
- B:-Buttress thread
- C:-Square thread
- D:-V-thread

Correct Answer:- Option-B

Question84:-A design engineer designated a fit as **25H6k7**, to mount a gear on a shaft. What kind of fit is it?

- A:-Clearance fit
- B:-Interference fit
- C:-Transition fit
- D:-Data insufficient

Correct Answer:- Option-C

Question85:-An orthopedic implant pin of titanium alloy having length **50 mm** and diameter **20 ± 0.02 mm** is to be plated with nickel with coating thickness **$50 \pm 5 \mu\text{m}$** . What would be the dimension of the GO ring gauge to check the diameter of the plated pin, if gauge tolerance is neglected?

- A:-20.075 mm
- B:-20.130 mm
- C:-20.020 mm
- D:-20.070 mm

Correct Answer:- Option-B

Question86:-'A screw advances linearly when the screw is rotated inside a stationary nut'. How many degrees of freedom for such a screw joint?

- A:-1
- B:-2
- C:-zero
- D:-cannot be defined

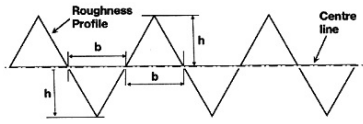
Correct Answer:- Option-A

Question87:-Stress-strain curve of a material is observed to be linear throughout the strain limit. The material could be

- A:-Titanium
- B:-Mild steel
- C:-Glass
- D:-Any of the above

Correct Answer:- Option-C

Question88:-A surface roughness profile of a turned surface is appeared to be a triangular profile having base **b** and height **h**, as shown below. The **CLA** roughness value for the given profile would be



A: $-h/2$

B: $-h$

C: $-2h$

D: $-bh$

Correct Answer:- Option-A

Question89:-Pick the odd-one-out from the given power transmission drives:

A:-Gear drive

B:-Belt drive

C:-Chain drive

D:-Clutch drive

Correct Answer:- Option-D

Question90:-Which among the given metal joining terminology is commonly used, when two pieces of metal are joined by melting its edges and adding a filler material, if necessary?

A:-Ultrasonic welding

B:-Friction welding

C:-Resistance welding

D:-Fusion welding

Correct Answer:- Option-D

Question91:-For a heat exchanger, $-\Delta T_{\max}$ is the maximum temperature difference and ΔT_{\min} is the minimum temperature difference between the two fluids. LMTD is the log mean temperature difference. C_{\min} and C_{\max} are the minimum and the maximum heat capacity rates. The maximum possible heat transfer between the two fluids is

A: $-C_{\max}$ LMTD

B: $-C_{\min}$ LMTD

C: $-C_{\max} \Delta T_{\max}$

D: $-C_{\min} \Delta T_{\max}$

Correct Answer:- Option-D

Question92:-A hollow cylinder has length L , inner radius r_1 , outer radius r_2 , and thermal conductivity k . The thermal resistance of the cylinder for radial conduction is

A: $-\frac{\ln\left(\frac{r_1}{r_2}\right)}{2\pi kL}$

B: $-\frac{\ln\left(\frac{r_2}{r_1}\right)}{2\pi kL}$

C: $-\frac{2\pi kL}{\left(\frac{r_1}{r_2}\right)}$

D:-None of the above

Correct Answer:- Option-B

Question93:-The ratio of momentum diffusivity (ν) to thermal diffusivity (α) is called

A:-Prandtl number

B:-Reynolds number

C:-Grashoff number

D:-Nusselt number

Correct Answer:- Option-A

Question94:-For a glass plate transitivity and reflectivity are specified as 0.85 and 0.09 respectively, the absorptivity of the glass plate is

A:-0.05

B:-0.005

C:-0.06

D:-0.94

Correct Answer:- Option-C

Question95:-Before entering the expansion or the throttle valve, a refrigerant's condition in any vapor compression system is

A:-Dry vapor

B:-High pressure saturated liquid

C:-Low pressure saturated liquid

D:-High pressure vapor

Correct Answer:- Option-B

Question96:-Which of the following process is used in winter air conditioning?

A:-Heating and Humidification

B:-Cooling and Dehumidification

C:-Dehumidification

D:-All of the above

Correct Answer:- Option-A

Question97:-The highest temperature of a refrigerant in a refrigeration system operating on a reversed

Carnot cycle is 27°C and the lower temperature is -23°C . The coefficient of performance?

A:-5.5

B:-0.2

C:-1.5

D:-5.0

Correct Answer:- Option-D

Question98:-The theoretically correct air-fuel ratio for petrol engine is approximately

A:-7:1

B:-4:1

C:-25:1

D:-15:1

Correct Answer:- Option-D

Question99:-The thermal efficiency of a diesel engine is of the order of

A:-90%

B:-15%

C:-35%

D:-70%

Correct Answer:- Option-C

Question100:-Diesel Engine fuels are rated by

A:-Cetane number

B:-Octane number

C:-HUCR

D:-CFR number

Correct Answer:- Option-A