

PROVISIONAL ANSWER KEY

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Question1:-Who described the 'Directive Principles' as the 'Novel Features of the Indian Constitution'?

- A:-Dr. Rajendra Prasad
 - B:-Jawaharlal Nehru
 - C:-Sardar Vallabhai Patel
 - D:-Dr. B.R. Ambedkar
- Correct Answer:- Option-D

Question2:-When the Right to Education Act (RTE) did come into force?

- A:-On 1 April 2010
 - B:-On 4 August 2009
 - C:-On 15 April 2014
 - D:-On 1 January 2011
- Correct Answer:- Option-A

Question3:-What was the name of Ship used by Vasco-da-Gama?

- A:-H.M.S. Beagle
 - B:-Savo Gabriel
 - C:-Voyager
 - D:-Savo Plow
- Correct Answer:- Option-B

Question4:-List out the odd one

- A:-Malayala Rajyam
 - B:-Mathavicharana
 - C:-Keralolpathi
 - D:-Indian Antiquery
- Correct Answer:- Option-D

Question5:-When did the Parliament pass the Right to Information Act?

- A:-On 12 October 2005
 - B:-On 15 August 2005
 - C:-On 15 June 2005
 - D:-On 2 October 2005
- Correct Answer:- Option-C

Question6:-Who is considered as the 'Political Father' of the Ezhavas?

- A:-Kumaran Asan
 - B:-Dr. Palpu
 - C:-Sree Narayana Guru
 - D:-S. Shankar
- Correct Answer:- Option-B

Question7:-The founder of 'Vavoottu Yogam'

- A:-Sree Narayana Guru
 - B:-Ayyankali
 - C:-Chattampi Swamikal
 - D:-Swami Vagbhatananda
- Correct Answer:- Option-A

Question8:-At which place Brahmananda Sivayogi founded the Sidhasramam?

- A:-Aluva
 - B:-Sivagiri
 - C:-Alathur
 - D:-Alappuzha
- Correct Answer:- Option-C

Question9:-What was the name of the system introduced by Chavara Achan for making free education available for everyone?

- A:-Padikkirikkal
- B:-Pallikudam
- C:-Kadannirikkal
- D:-Thripadithanam

Correct Answer:- Option-B

Question10:-In which year Vakkom Abdul Khader Moulavi started his New Paper 'Swadeshabhimani'?

- A:-1904
- B:-1903
- C:-1906
- D:-1905

Correct Answer:- Option-D

Question11:-What was the name of the News Paper started by Sahodaran Ayyappan?

- A:-Velakkaran
- B:-Bhojanam
- C:-Sangabhodam
- D:-Yachana

Correct Answer:- Option-A

Question12:-Who was the author of 'Paalazhimadhanam'?

- A:-Sree Narayana Guru
- B:-Ayyankali
- C:-Kunchan Nambiyar
- D:-Ezhuthachan

Correct Answer:- Option-C

Question13:-Who wrote the work 'Jathikummi'?

- A:-Kumaranasan
- B:-Chavara Achan
- C:-Poikayil Yohannan
- D:-Pandit Karuppan

Correct Answer:- Option-D

Question14:-What was the name of the first Arakkal Bibi?

- A:-Arakkal Bibi Fathima
- B:-Ali Raja Bibi Harrabichi Kadavul
- C:-Arakkal Bibi Ayisha
- D:-Ali Raja Bibi Khadeeja

Correct Answer:- Option-B

Question15:-Who authored the pamphlet 'Thiruvithamkoor for Tiruvithamkorian'?

- A:-T.K. Madhavan
- B:-G.P. Pillai
- C:-P. Ranga Rao
- D:-N. Raman Pillai

Correct Answer:- Option-B

Question16:-Who led the 'Pattini Jatha' from Kannur to Madras in 1936?

- A:-E.M.S. Namboothirippad
- B:-K. Kelappan
- C:-A.K. Gopalan
- D:-C. Kesavan

Correct Answer:- Option-C

Question17:-The Kerala Kalamandalam was founded by whom?

- A:-Vallathol Narayana Menon
- B:-G. Sankara Kurup
- C:-S.K. Pottakkad
- D:-Ulloor S. Parameswara Iyyer

Correct Answer:- Option-A

Question18:-Who was known as the 'Jhansi Rani of Travancore'?

- A:-Anna Chandi
- B:-Arya Pallam
- C:-A.V. Kuttimalu Amma
- D:-Akkamma Cheriyan

Correct Answer:- Option-D

Question19:-The Nobel Prize in Physics in 2015 was awarded to whom?

- A:-Isamu Akasaki and Shuji Nakamura
 - B:-Eric Betzig and William E. Moerner
 - C:-Takaaki Kajita and Arthur B. MacDonald
 - D:-Stephen W. Hell and Hiroshi Amano
- Correct Answer:- Option-C

Question20:-What is the name of the mission which aims to achieve full immunisation coverage for all children in the country by 2020?

- A:-Mission Indradhanush
 - B:-Make India
 - C:-Bal Swachata Mission
 - D:-AYUSH Mission
- Correct Answer:- Option-A

Question21:-Gas turbine works on

- A:-Brayton cycle
 - B:-Rankine cycle
 - C:-Carnot cycle
 - D:-None of these
- Correct Answer:- Option-A

Question22:-The melting point of mild steel is about

- A:-1250°C
 - B:-1500°C
 - C:-850°C
 - D:-1750°C
- Correct Answer:- Option-B

Question23:-The angle between the flanks of British Standard Whitworth (BSW) thread is

- A:-1250°C
 - B:-47.5°C
 - C:-55°C
 - D:-60°C
- Correct Answer:- Option-C

Question24:-Thermal efficiency of a simple gas turbine for a given turbine inlet temperature

- A:-increases
 - B:-decreases
 - C:-first increases and then decreases
 - D:-remains the same
- Correct Answer:- Option-D

Question25:-Which of the following parameters remains constant during adiabatic saturation process on unsaturated air?

- A:-Dew point temperature
 - B:-Dry bulb temperature
 - C:-Wet bulb temperature
 - D:-Relative humidity
- Correct Answer:- Option-C

Question26:-Queuing theory deals with problems of

- A:-effective use of machines
 - B:-reducing the waiting time
 - C:-material handling
 - D:-none of these
- Correct Answer:- Option-B

Question27:-Job evaluation is the method of determining the

- A:-Contribution of a job
 - B:-Contribution of a worker
 - C:-Relative worth of jobs
 - D:-Skills required by a worker
- Correct Answer:- Option-C

Question28:-Knocking tendency in an SI engine reduces with increasing

- A:-Supercharging
- B:-Wall temperature
- C:-Compression ratio

D:-Engine speed

Correct Answer:- Option-D

Question29:-Which is not a part of magneto-ignition system?

A:-Condenser

B:-Battery

C:-Circuit breaker

D:-Induction coil

Correct Answer:- Option-B

Question30:-Superheating in a refrigeration cycle

A:-Decreases COP

B:-Increases COP

C:-COP remains unchanged

D:-Unpredictable

Correct Answer:- Option-A

Question31:-Change of resistance with intensity of light takes place in

A:-Photo-voltaic cell

B:-Photo-emissive cell

C:-Photo-conductive cell

D:-None of these

Correct Answer:- Option-C

Question32:-The diameter of a round bar with close tolerance is quickly measured by

A:-External micro meter

B:-Slip gauge

C:-Vernier caliper

D:-Snap gauge

Correct Answer:- Option-D

Question33:-In Electrolux refrigerator

A:-Ammonia evaporates in hydrogen

B:-Hydrogen evaporates in ammonia

C:-Hydrogen is absorbed in ammonia

D:-Hydrogen is absorbed in water

Correct Answer:- Option-A

Question34:-Free convection heat flow depends on all of the following except

A:-Coefficient of viscosity

B:-Velocity

C:-Density

D:-Gravitational force

Correct Answer:- Option-B

Question35:-Major constituents of satellite are

A:-Nickel, copper and zinc

B:-Zinc, lead and tin

C:-Cobalt, vanadium and nickel

D:-Cobalt, chromium and tungsten

Correct Answer:- Option-D

Question36:-Typewriter constitutes

A:-Structure

B:-Machine

C:-Inversion

D:-Mechanism

Correct Answer:- Option-D

Question37:-The equation $PV=mRT$ is essentially valid for

A:-Perfect gas

B:-Real gas

C:-Monoatomic gas

D:-Mixture of gases

Correct Answer:- Option-A

Question38:-Cavitation in centrifugal pumps can be reduced by

A:-Throttling the discharge

B:-Increasing the flow velocity

- C:-Reducing the discharge
 - D:-Reducing the suction head
- Correct Answer:- Option-D

Question39:-In low carbon steels, the presence of small quantities of sulphur improves

- A:-Formability
- B:-Machinability
- C:-Weldability
- D:-Hardenability

Correct Answer:- Option-B

Question40:-Moment of inertia of a body does not depend on

- A:-Axis of rotation of the body
- B:-Mass of the body
- C:-Angular velocity of the body
- D:-Distribution of mass in the body

Correct Answer:- Option-C

Question41:-Which of the following does not pertain to inventory management?

- A:-Production schedule
- B:-State of merchandise
- C:-Control of stock
- D:-Effective running of stores

Correct Answer:- Option-A

Question42:-In value engineering, the term value refers to

- A:-relation between productivity and cost
- B:-market value
- C:-relation between cost and efficiency
- D:-relation between function and cost

Correct Answer:- Option-D

Question43:-The throttling operation in a refrigeration cycle is carried out in

- A:-evaporator
- B:-capillary tube
- C:-discharge valve
- D:-expansion valve

Correct Answer:- Option-B

Question44:-The amount of moisture in air can be measured by

- A:-Sling psychrometer
- B:-Mass spectrometer
- C:-Photometer
- D:-Thermistor

Correct Answer:- Option-A

Question45:-Which of the following is not a correct statement?

- A:-The balls in a ball bearing remain in position due to centrifugal force
- B:-Cage is made hardest of all parts in ball bearings
- C:-Spherical roller bearings have the capacity for self-alignment
- D:-Roller bearings have higher load capacity than that of ball bearings for a given overall size

Correct Answer:- Option-A

Question46:-Which of the following thermocouples can measure temperature in a comparatively higher range?

- A:-Chromel-alumel
- B:-Iron-constantan
- C:-Iridium-rhodium
- D:-Platinum-rhodium

Correct Answer:- Option-C

Question47:-Gears produced by die casting are generally used for

- A:-high torque transmission
- B:-light duty
- C:-low temperature application
- D:-high axial thrust transmission

Correct Answer:- Option-B

Question48:-The difference between the maximum material limits of mating parts is known as

- A:-Deviation

B:-Clearance

C:-Allowance

D:-Tolerance

Correct Answer:- Option-C

Question49:-Trimming is the process associated with

A:-Forging

B:-Press work

C:-Polishing of metals

D:-Electroplating

Correct Answer:- Option-B

Question50:-A dead weight tester is used for

A:-accurate measurement of load

B:-producing high pressure

C:-testing the magnitude of given weight

D:-calibrating pressure measuring instruments

Correct Answer:- Option-D

Question51:-With the percentage increase of carbon in steel

A:-Brittleness of steel decreases

B:-Strength of steel decreases

C:-Ductility of steel decreases

D:-Hardness of steel decreases

Correct Answer:- Option-C

Question52:-The refrigerant used in commercial ice plant is

A:-Air

B:-Carbon dioxide

C:-Ammonia

D:-Freon-12

Correct Answer:- Option-C

Question53:-The process of discovering and identifying the pertinent information relative to the nature of a specific job is known as

A:-Job analysis

B:-Job description

C:-Job classification

D:-Job identification

Correct Answer:- Option-A

Question54:-Plug rolling is used to

A:-produce seamless tube

B:-reduce wall thickness and increase diameter of tubes

C:-produce collapsible tubes

D:-increase wall thickness of tubes

Correct Answer:- Option-B

Question55:-A circular shaft can transmit a torque of 5 kNm. If the torque is reduced to 4 kNm, then the maximum value of bending moment that can be applied to the shaft is

A:-1 kNm

B:-2 kNm

C:-3 kNm

D:-4 kNm

Correct Answer:- Option-C

Question56:-Which of the following is not a scalar quantity?

A:-Mass

B:-Volume

C:-Time

D:-Acceleration

Correct Answer:- Option-D

Question57:-Kinematic viscosity is equal to

A:-Density/dynamic viscosity

B:-Dynamic viscosity/density

C:-Dynamic viscosity \times density

D:-None of these

Correct Answer:- Option-B

Question58:-A boiler shell 200 cm diameter and plate thickness 1.5 cm is subjected to internal pressure of 1.5 MN/m^2 . Then the hoop stress will be

- A:- 50 MN/m^2
- B:- 30 MN/m^2
- C:- 100 MN/m^2
- D:- 200 MN/m^2

Correct Answer:- Option-C

Question59:-The cutting tool in a milling machine is mounted on

- A:-Tool holder
- B:-Arbor
- C:-Column
- D:-Spindle

Correct Answer:- Option-B

Question60:-Fusible plug is fitted in a boiler to

- A:-extinguish fire in case of low water level
- B:-prevent leakage of steam from boiler
- C:-allow passage of only super heated steam from the boiler
- D:-keep the boiler pressure within the prescribed limits

Correct Answer:- Option-A

Question61:-Which of the following is an amorphous material?

- A:-Lead
- B:-Rubber
- C:-Mica
- D:-Glass

Correct Answer:- Option-D

Question62:-Which of the following is used for bearing liner?

- A:-Bronze
- B:-Babbit metal
- C:-Gun metal
- D:-Brass

Correct Answer:- Option-B

Question63:-The weight of oxygen in atmospheric air is

- A:-21%
- B:-19%
- C:-23%
- D:-31%

Correct Answer:- Option-C

Question64:-A Pelton wheel turbine is ideally suited for

- A:-High head and low discharge
- B:-High head and high discharge
- C:-Low head and low discharge
- D:-Medium head and medium discharge

Correct Answer:- Option-A

Question65:-Which of the following is not the part of a shaper?

- A:-Ram
- B:-Table
- C:-Cross slide
- D:-Clapper box

Correct Answer:- Option-C

Question66:-Which of the following materials require the largest size of riser for the same size of casting?

- A:-Cast iron
- B:-Aluminium
- C:-Steel
- D:-Copper

Correct Answer:- Option-A

Question67:-On a psychrometric chart, the relative humidity lines are represented by

- A:-uniformly spaced inclined lines
- B:-uniformly spaced horizontal lines

C:-non-uniformly spaced inclined lines

D:-curved lines

Correct Answer:- Option-D

Question68:-The mathematical technique for finding the best use of limited resources in an optimum manner is known as

A:-Queuing theory

B:-Linear programming

C:-Operation research

D:-Network analysis

Correct Answer:- Option-B

Question69:-Rate of change of momentum takes place in the direction

A:-of applied force

B:-of motion

C:-opposite to the direction of applied force

D:-perpendicular to the direction of motion

Correct Answer:- Option-A

Question70:-Lean air-fuel mixture is required for

A:-acceleration

B:-idling

C:-starting

D:-cruising

Correct Answer:- Option-D

Question71:-A 100 cc engine has the following parameter as 100 cc

A:-cylinder volume

B:-clearance volume

C:-swept volume

D:-full tank capacity

Correct Answer:- Option-C

Question72:-Which of the following has maximum malleability?

A:-Lead

B:-Brass

C:-Wrought iron

D:-Aluminium

Correct Answer:- Option-A

Question73:-The ratio of actual damping coefficient to the critical damping coefficient is called as

A:-Magnification factor

B:-Damping factor

C:-Critical damping ratio

D:-Logarithmic decrement

Correct Answer:- Option-B

Question74:-Dehumidification is the process of removing moisture from air with dry bulb temperature

A:-decreasing

B:-increasing

C:-changing in any direction

D:-Remaining constant

Correct Answer:- Option-D

Question75:-Centrifugal pump is started with its delivery valve

A:-Kept fully closed

B:-Kept fully open

C:-Kept 50% open

D:-None of these

Correct Answer:- Option-A

Question76:-Bending operation should be performed

A:-At 30° to the grain direction

B:-Parallel to the grain direction

C:-There is no such criteria

D:-At right angle to the grain direction

Correct Answer:- Option-D

Question77:-De Laval turbine is a

A:-simple impulse turbine

- B:-multistage turbine
 - C:-simple reaction turbine
 - D:-velocity compounded impulse turbine
- Correct Answer:- Option-A

Question78:-The refrigerant R-744 is

- A:-ammonia
- B:-freon-12
- C:-carbon dioxide
- D:-sulphur dioxide

Correct Answer:- Option-C

Question79:-The most flexible criteria for analysing an economic investmet is

- A:-rate of return criteria
- B:-salvage value
- C:-present value method
- D:-future value method

Correct Answer:- Option-B

Question80:-Which of the following represents a group incentive plan?

- A:-Rowan plan
- B:-Bedaux plan
- C:-Halsey premium plan
- D:-Scanlon plan

Correct Answer:- Option-D

Question81:-Indicated results are most accurate when the pointer in the analogue read out system lies

- A:-around the mid-third of the scale
- B:-in the first quarter of the scale
- C:-in the second quarter of the scale
- D:-around the full capacity of the scale

Correct Answer:- Option-A

Question82:-In a gas turbine cycle, the turbine output is 600 kJ/kg, the compressor work is 400 kJ/kg and the heat supplied is 1000 kJ/kg. The thermal efficiency of the cycle is

- A:-60%
- B:-40%
- C:-20%
- D:-80%

Correct Answer:- Option-C

Question83:-Collapsible toothpaste tubes are manufactured by

- A:-Cupping
- B:-Extrusion
- C:-Cold rolling
- D:-Deep drawing

Correct Answer:- Option-B

Question84:-A large clearance volume in a reciprocating compressor results in

- A:-lower suction pressure
- B:-increased volume flow rate
- C:-reduced volume flow rate
- D:-lower delivery pressure

Correct Answer:- Option-D

Question85:-The speed variation of the engine caused by the fluctuations of engine turning moment is controlled by

- A:-Flywheel
- B:-Throttle valve
- C:-Governor
- D:-D-slide valve

Correct Answer:- Option-A

Question86:-If the tearing efficiency of a riveted joint is 60%, then the ratio of pitch of diameter of rivet is

- A:-0.20
- B:-0.33
- C:-0.40
- D:-0.50

Correct Answer:- Option-C

Question87:-A bench vice has the following type of thread

- A:-metric thread
- B:-acme thread
- C:-buttress thread
- D:-square thread

Correct Answer:- Option-B

Question88:-All the thread characteristics can be measured precisely with

- A:-Thread gauge
- B:-Screw pitch gauge
- C:-Micrometer with anvil
- D:-Tool room microscope

Correct Answer:- Option-D

Question89:-A body cooling from 80°C to 70°C takes 10 minutes when left exposed to environmental conditions. If the body is to cool further from 70°C to 60°C under the same external conditions, it will take

- A:-more than 10 minutes
- B:-same time of 10 minutes
- C:-less than 10 minutes
- D:-none of these

Correct Answer:- Option-A

Question90:-Which of the following is considered as comfort condition in air-conditioning?

- A:-15°C DBT and 40% RH
- B:-20°C DBT and 60% RH
- C:-25°C DBT and 70% RH
- D:-None of these

Correct Answer:- Option-B

Question91:-Mechanical strain gauges can measure

- A:-static and dynamic strains
- B:-dynamic strains only
- C:-static strains only
- D:-static and quasi-static strains

Correct Answer:- Option-D

Question92:-Efficiency of chimney draught is of the order of

- A:-less than 1%
- B:-2-3%
- C:-5-6%
- D:-8-10%

Correct Answer:- Option-A

Question93:-A step cone pulley is provided on a lathe to

- A:-reverse the direction of spindle rotation
- B:-change the spindle speed
- C:-drive the lead screw
- D:-give desired direction of movement of lathe carriage

Correct Answer:- Option-B

Question94:-Loam sand comprises of

- A:-40% of clay and 10% moisture
- B:-50% of clay and 10% moisture
- C:-80% of clay and 20% moisture
- D:-50% of clay and 18% moisture

Correct Answer:- Option-D

Question95:-In tool signature, nose radius is indicated

- A:-in the middle
- B:-in the beginning
- C:-not indicated
- D:-at the end

Correct Answer:- Option-D

Question96:-The primary tool force used in calculating the total power consumption in machining is

- A:-radial force
- B:-frictional force
- C:-tangential force

D:-axial force

Correct Answer:- Option-C

Question97:-The brazing process is carried out in the temperature range

A:-60-150°C

B:-350-500°C

C:-180-250°C

D:-600-750°C

Correct Answer:- Option-B

Question98:-Steel balls are manufactured by

A:-casting

B:-sintering

C:-cold heading

D:-machining

Correct Answer:- Option-C

Question99:-Process of austempering results in the formation of

A:-Bainite structure

B:-Martensitic structure

C:-Carburized structure

D:-None of these

Correct Answer:- Option-A

Question100:-Which of the following has no unit?

A:-Surface tension

B:-Kinematic viscosity

C:-Strain

D:-Bulk modulus

Correct Answer:- Option-C