

**MPPGCL
JE**

**Previous Year Paper
(Plant Mechanical)
01 Jun, 2024 Shift 1**

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MPPGCL 1st June 2024

Participant ID	
Participant Name	
Test Center Name	
Test Date	01/06/2024
Test Time	8:30 AM - 10:30 AM
Subject	Junior Engineer Plant Mechanical

Section : Section 1

Q.1 Which of the following scopes of work is covered in the Deendagyal Upadhyaya Gram Jyoti Yojana-DDUGJY scheme?

- Ans
- ☒ 1. Service lines to consumer
 - ☒ 2. Installation of pillar box for relocation of meters
 - ☒ 3. Civil works other than substations
 - ☒ 4. Underground cable works

Question ID : 630680787762
Option 1 ID : 6306803086853
Option 2 ID : 6306803086852
Option 3 ID : 6306803086855
Option 4 ID : 6306803086854
Status : Answered
Chosen Option : 2

Q.2 According to Lami's theorem, 'If a body is in equilibrium under the action of three forces, then each force is proportional to the _____ of the angle between the other two forces'.

- Ans
- ☒ 1. sin
 - ☒ 2. cot
 - ☒ 3. tan
 - ☒ 4. cos

Question ID : 630680394578
Option 1 ID : 6306801538600
Option 2 ID : 6306801538601
Option 3 ID : 6306801538598
Option 4 ID : 6306801538599
Status : Answered
Chosen Option : 1

Q.3 Which of the following is NOT required for representing a force?

- Ans
- ☒ 1. Magnitude
 - ☒ 2. Direction
 - ☒ 3. Amount of moment produced
 - ☒ 4. Line of action

Question ID : 630680394564
Option 1 ID : 6306801538542
Option 2 ID : 6306801538545
Option 3 ID : 6306801538544
Option 4 ID : 6306801538543
Status : Answered
Chosen Option : 3

Q.4 What will be the force exerted by a jet of water against a stationary flat plate perpendicular to the axis of the jet if the diameter and the velocity of the jet are 4 cm and 25 m/s, respectively?

- Ans
- ☐ 1. 25,000 N
 - ☒ 2. 785 N
 - ☐ 3. 314 N
 - ☐ 4. 0 N

Question ID : 630680193050
Option 1 ID : 630680748739
Option 2 ID : 630680748738
Option 3 ID : 630680748737
Option 4 ID : 630680748740
Status : Answered
Chosen Option : 2

Q.5 In which of the following jet condensers is water sprayed through jets, following which it mixes with steam and the air is removed at the top with an air pump? @Truly_Engineers

- Ans
- ☐ 1. Ejector condenser
 - ☐ 2. Barometric condenser
 - ☐ 3. Low level counter flow jet condensers
 - ☒ 4. Low level parallel flow jet condensers

Question ID : 630680426804
Option 1 ID : 6306801665296
Option 2 ID : 6306801665294
Option 3 ID : 6306801665293
Option 4 ID : 6306801665295
Status : Answered
Chosen Option : 1

Q.6 Select the most appropriate ANTONYM of the given word.

Agitated

- Ans
- ☐ 1. Tragic
 - ☒ 2. Tranquil
 - ☐ 3. Active
 - ☐ 4. Authentic

Question ID : 630680565695
Option 1 ID : 6306802211718
Option 2 ID : 6306802211719
Option 3 ID : 6306802211716
Option 4 ID : 6306802211717
Status : Answered
Chosen Option : 2

Q.7 First law of thermodynamics for a cycle states that net work transfer is always proportional to the net heat transfer. Here constant of proportionality is called:

- Ans
- ☐ 1. specific entropy
 - ☐ 2. heat capacity
 - ☐ 3. specific heat
 - ☒ 4. mechanical equivalent of heat

Question ID : 630680403970
Option 1 ID : 6306801575369
Option 2 ID : 6306801575367
Option 3 ID : 6306801575366
Option 4 ID : 6306801575368
Status : Answered
Chosen Option : 4

Q.8 According to Carnot's theorem, the efficiency of a reversible engine is independent of the:

Ans

- ☐ 1. temperature of source
- ☐ 2. temperature limit
- ☒ 3. nature of working substance
- ☐ 4. temperature of sink

Question ID : 630680403972
Option 1 ID : 6306801575374
Option 2 ID : 6306801575377
Option 3 ID : 6306801575376
Option 4 ID : 6306801575375
Status : Answered
Chosen Option : 3

Q.9 Moment of force is:

Ans

- ☐ 1. difference of force and perpendicular distance of line of action of force
- ☒ 2. product of force and perpendicular distance of line of action of force
- ☐ 3. sum of force and perpendicular distance of line of action of force
- ☐ 4. ratio of force and perpendicular distance of line of action of force

Question ID : 630680412889
Option 1 ID : 6306801610382
Option 2 ID : 6306801610380
Option 3 ID : 6306801610379
Option 4 ID : 6306801610381
Status : Answered
Chosen Option : 2

Q.10 Which of the following statements is INCORRECT regarding the function of the draft tube?

Ans

- ☒ 1. Cavitation can be prevented.
- ☐ 2. Draft tube permits the installation of turbine above the tailrace level.
- ☐ 3. Using the draft tube the working head in the turbine can be increased.
- ☐ 4. Without draft tube the kinetic energy rejected at the outlet of the runner will go waste.

Question ID : 630680198981
Option 1 ID : 630680771654
Option 2 ID : 630680771652
Option 3 ID : 630680771653
Option 4 ID : 630680771651
Status : Answered
Chosen Option : 2

Q.11 Which of the following is the DISADVANTAGE common to all two stroke engines?

Ans

- ☐ 1. More uniform torque on crankshaft
- ☐ 2. More compact
- ☒ 3. Greater cooling and lubricating oil requirements
- ☐ 4. Less exhaust gas dilation

Question ID : 630680403966
Option 1 ID : 6306801575350
Option 2 ID : 6306801575352
Option 3 ID : 6306801575353
Option 4 ID : 6306801575351
Status : Answered
Chosen Option : 4

Q.12 Which of the following boilers is the type of fire tube boilers?

- Ans
- ☐ 1. Babcock and Wilcox boiler
 - ☒ 2. Lancashire boiler
 - ☐ 3. Stirling boiler
 - ☐ 4. Yarrow boiler

Question ID : 630680403941
Option 1 ID : 6306801575250
Option 2 ID : 6306801575252
Option 3 ID : 6306801575251
Option 4 ID : 6306801575253
Status : Answered
Chosen Option : 2

Q.13 Amarjeet is 5 years younger than Raju. Four years later, Raju will be twice as old as Amarjeet. Find the present age of

- Ans
- ☐ 1. 4 years
 - ☒ 2. 1 year
 - ☐ 3. 2 years
 - ☐ 4. 3 years

Question ID : 630680637016
Option 1 ID : 6306802493791
Option 2 ID : 6306802493788
Option 3 ID : 6306802493789
Option 4 ID : 6306802493790
Status : Answered
Chosen Option : 2

Q.14 A sample of nitrogen collected in the laboratory occupies a volume of 720 ml at a pressure of 1 atm. What volume will the gas occupy at a pressure of 2 atm, assuming the temperature remains constant?

- Ans
- ☒ 1. 360 ml
 - ☐ 2. 480 ml
 - ☐ 3. 240 ml
 - ☐ 4. 420 ml

Question ID : 630680403996
Option 1 ID : 6306801575473
Option 2 ID : 6306801575472
Option 3 ID : 6306801575471
Option 4 ID : 6306801575470
Status : Answered
Chosen Option : 1

Q.15 When the temperature of an ideal gas remains constant, then with increasing pressure:

- Ans
- ☐ 1. volume increases
 - ☐ 2. volume is not affected
 - ☐ 3. volume may increase or decrease
 - ☒ 4. volume decreases

Question ID : 630680405879
Option 1 ID : 6306801582644
Option 2 ID : 6306801582646
Option 3 ID : 6306801582647
Option 4 ID : 6306801582645
Status : Answered
Chosen Option : 4

Q.16 A, B, C, D, E, F and G are sitting around a circular table facing the centre. D sits to the immediate right of B. Only three people sit between D and E when counted from the left of D. Only three people sit between B and C. A sits to the immediate right of F. How many people sit between G and F when counted from the left of F?

- Ans
- ☐ 1. One
 - ☐ 2. Four
 - ☐ 3. Three
 - ☒ 4. Two

Question ID : 630680532577
Option 1 ID : 6306802081964
Option 2 ID : 6306802081967
Option 3 ID : 6306802081966
Option 4 ID : 6306802081965
Status : Answered
Chosen Option : 4

Q.17 The cycle in which the condensate, after leaving the pump circulates around the turbine casing, counterflow to the direction of vapor flow in the turbine is called:

- Ans
- ☐ 1. Carnot cycle
 - ☐ 2. simple Rankine cycle
 - ☒ 3. ideal regenerative cycle
 - ☐ 4. reheat cycle

Question ID : 630680403993
Option 1 ID : 6306801575461
Option 2 ID : 6306801575460
Option 3 ID : 6306801575459
Option 4 ID : 6306801575458
Status : Answered
Chosen Option : 3

Q.18 Which of the following claims concerning the enthalpy of a closed system is true, as demonstrated by the available options?

- Ans
- ☒ 1. Enthalpy is a state function that depends on the initial and final states of the system
 - ☐ 2. Enthalpy is a path function that depends on the process used to transfer energy to or from the system
 - ☐ 3. Enthalpy is always positive
 - ☐ 4. Enthalpy is always negative

Question ID : 630680503180
Option 1 ID : 6306801966305
Option 2 ID : 6306801966306
Option 3 ID : 6306801966307
Option 4 ID : 6306801966308
Status : Answered
Chosen Option : 1

Q.19 The situation when a body acted upon by some external forces does not start moving and also does not start rotating about any point is called:

- Ans
- ☐ 1. constant acceleration
 - ☒ 2. equilibrium
 - ☐ 3. constant velocity motion
 - ☐ 4. no force condition

Question ID : 630680394576
Option 1 ID : 6306801538592
Option 2 ID : 6306801538591
Option 3 ID : 6306801538590
Option 4 ID : 6306801538593
Status : Answered
Chosen Option : 2

Q.20 With reference to the River Ganga, which of the following statements are correct?

- A. The River Bhagirathi is fed by the Gangotri Glacier.
B. The River Bhagirathi is joined by the River Alaknanda at Devapragag.
C. At Haridwar, the Ganga emerges from the mountains onto the plains.

Ans ☒ 1. All, A, B and C are correct.

☐ 2. Only B and C are correct.

☐ 3. Only A and C are correct.

☐ 4. Only A and B are correct.

Question ID : 630680535139
Option 1 ID : 6306802091932
Option 2 ID : 6306802091935
Option 3 ID : 6306802091934
Option 4 ID : 6306802091933
Status : Answered
Chosen Option : 1

Section : Section 2

Q.1 Which of the following types of flow is also known as viscous flow?

Ans ☐ 1. Compressible flow

☐ 2. Turbulent flow

☒ 3. Laminar flow

☐ 4. Ideal fluid flow

Question ID : 630680193047
Option 1 ID : 630680748728
Option 2 ID : 630680748727
Option 3 ID : 630680748726
Option 4 ID : 630680748725
Status : Answered
Chosen Option : 3

Q.2 The population of a town decreased by 12% in 2018 and then increased by 8% in 2019. The population of the town at the beginning of 2018 was _____, as at the end of 2019 its population was 3,05,316.

Ans ☐ 1. 3,51,250

☒ 2. 3,21,250

☐ 3. 4,21,150

☐ 4. 4,31,350

Question ID : 630680506060
Option 1 ID : 6306801977764
Option 2 ID : 6306801977763
Option 3 ID : 6306801977761
Option 4 ID : 6306801977762
Status : Answered
Chosen Option : 2

Q.3 The number of training institutes affiliated with the National Power Training Institute is _____.

Ans ☒ 1. 11

☐ 2. 4

☐ 3. 10

☐ 4. 15

Question ID : 630680787723
Option 1 ID : 6306803086698
Option 2 ID : 6306803086696
Option 3 ID : 6306803086697
Option 4 ID : 6306803086699
Status : Answered
Chosen Option : 1

Q.4 Which of the following type of draft tubes has minimum efficiency?

Ans

- ☒ 1. Elbow draft tube with varying cross-section shape
- ☒ 2. Simple elbow draft tube
- ☒ 3. Conical draft tube
- ☒ 4. Moody spreading draft tube

Question ID : 630680198979
Option 1 ID : 630680771646
Option 2 ID : 630680771645
Option 3 ID : 630680771643
Option 4 ID : 630680771644
Status : Answered
Chosen Option : 2

Q.5 Which of following statements about hydroelectric power plant is correct?

Ans

- ☒ 1. The draft tube carries the water from the reservoir to the turbine.
- ☒ 2. Penstock carries the water from the reservoir to the turbine.
- ☒ 3. The draft tube carries the water from the tail race to the reservoir.
- ☒ 4. Penstock carries the water from the tail race to the reservoir.

Question ID : 630680508611
Option 1 ID : 6306801987744
Option 2 ID : 6306801987746
Option 3 ID : 6306801987745
Option 4 ID : 6306801987747
Status : Answered
Chosen Option : 2

Q.6 Which of the following statements is INCORRECT about double acting reciprocating pump?

Ans

- ☒ 1. There are two cylinders.
- ☒ 2. Discharge of a double acting reciprocating pump is more than that of a single acting pump.
- ☒ 3. There are two suction and two delivery pipes.
- ☒ 4. In one revolution of crank, there are four strokes.

Question ID : 630680199015
Option 1 ID : 630680771790
Option 2 ID : 630680771787
Option 3 ID : 630680771788
Option 4 ID : 630680771789
Status : Answered
Chosen Option : 1

Q.7 Which of the following statements holds true for the use of a lubricant in a machining process?

Ans

- ☒ 1. Lubricant is used to produce a workpiece of higher accuracy.
- ☒ 2. Lubricant is used to increase the friction between the tool and the workpiece.
- ☒ 3. Lubricant is used to reduce heat between the tool and chip interface.
- ☒ 4. Lubricant is not used to obtain high surface finish on the workpiece.

Question ID : 630680219887
Option 1 ID : 630680853428
Option 2 ID : 630680853429
Option 3 ID : 630680853427
Option 4 ID : 630680853430
Status : Answered
Chosen Option : 3

Q.8 Which of the following statements is correct about negative slip in a reciprocating pump?

- Ans
- ☐ 1. Coefficient of discharge of a reciprocating pump is always less than 1 in case of negative slip.
 - ☐ 2. Negative slip cannot occur in a reciprocating pump.
 - ☒ 3. Negative slip occurs with a long suction pipe and a short delivery pipe in a pump running at a high speed.
 - ☐ 4. Negative slip occurs at a low speed.

Question ID : 630680193072
Option 1 ID : 630680748827
Option 2 ID : 630680748828
Option 3 ID : 630680748825
Option 4 ID : 630680748826
Status : Answered
Chosen Option : 3

Q.9 A horizontal Venturi meter is used to measure the flow of water. The reading of the differential manometer connected to the inlet and the throat is 20 cm of Hg. What will be the difference between pressure heads of water?

- Ans
- ☒ 1. 252 cm
 - ☐ 2. 20 cm
 - ☐ 3. 272 cm
 - ☐ 4. 126 cm

Question ID : 630680199988
Option 1 ID : 630680775398
Option 2 ID : 630680775399
Option 3 ID : 630680775397
Option 4 ID : 630680775400
Status : Answered
Chosen Option : 1

Q.10 Maximum speed of a reciprocating pump is restricted by which of the following phenomenon?

- Ans
- ☐ 1. Neither by cavitation nor by flow separation
 - ☒ 2. By both cavitation and flow separation
 - ☐ 3. By cavitation only
 - ☐ 4. By flow separation only

Question ID : 630680199013
Option 1 ID : 630680771780
Option 2 ID : 630680771782
Option 3 ID : 630680771779
Option 4 ID : 630680771781
Status : Answered
Chosen Option : 3

Q.11 Unit power of a hydraulic turbine is given by which of the following expressions? (Symbols have their usual meanings.)

- Ans
- ☐ 1. $P_u = \frac{P}{H^{5/4}}$
 - ☒ 2. $P_u = \frac{P}{H^{3/2}}$
 - ☐ 3. $P_u = \frac{P}{\sqrt{H}}$
 - ☐ 4. $P_u = \frac{P}{H}$

Question ID : 630680199009
Option 1 ID : 630680771766
Option 2 ID : 630680771763
Option 3 ID : 630680771765
Option 4 ID : 630680771764
Status : Answered
Chosen Option : 3

Q.12 In which of the following gear making operations do we obtain accurate gears?

- Ans
- ☐ 1. Gear form milling
 - ☐ 2. Gear punching
 - ☒ 3. Gear shaping
 - ☐ 4. Gear casting

Question ID : 630680205059
Option 1 ID : 630680795100
Option 2 ID : 630680795102
Option 3 ID : 630680795099
Option 4 ID : 630680795101
Status : Answered
Chosen Option : 1

Q.13 In a plain milling cutter, the back of the tooth that is adjacent to the cutting edge which is relieved to avoid interference between the surface being machined and the cutter is represented as _____.

- Ans
- ☒ 1. land
 - ☐ 2. gash
 - ☐ 3. lead
 - ☐ 4. face

Question ID : 630680219900
Option 1 ID : 630680853480
Option 2 ID : 630680853479
Option 3 ID : 630680853482
Option 4 ID : 630680853481
Status : Answered
Chosen Option : 1

Q.14 How is the flux supplied in the submerged arc welding process?

- Ans
- ☒ 1. Using flux feed tube
 - ☐ 2. Through an electrode holder
 - ☐ 3. Applied on the workpiece at the beginning of welding
 - ☐ 4. Coated on the electrode

Question ID : 630680219891
Option 1 ID : 630680853443
Option 2 ID : 630680853444
Option 3 ID : 630680853446
Option 4 ID : 630680853445
Status : Answered
Chosen Option : 1

Q.15 Each letter in the word DENSITY is changed to the letter immediately succeeding it in the English alphabetical order, and then the letter-cluster thus formed is arranged in the English alphabetical order. Which of the following letters will be second from the left in the new letter-cluster thus formed?

- Ans
- ☒ 1. F
 - ☐ 2. U
 - ☐ 3. O
 - ☐ 4. J

Question ID : 630680532606
Option 1 ID : 6306802082076
Option 2 ID : 6306802082078
Option 3 ID : 6306802082079
Option 4 ID : 6306802082077
Status : Answered
Chosen Option : 1

Q.16 Which of the following is NOT a part of a reciprocating pump?

Ans

- ☒ 1. Impeller
- ☐ 2. Cylinder
- ☐ 3. Piston
- ☐ 4. Connecting rod

Question ID : 630680193071
Option 1 ID : 630680748824
Option 2 ID : 630680748822
Option 3 ID : 630680748821
Option 4 ID : 630680748823
Status : Answered
Chosen Option : 1

Q.17 A sentence has been divided into segments and given below. While the first and the last segments (O and T) are in the correct order, the segments in between (P, Q, R, S) are in random order. Select the option that arranges the segments in the correct order to form a meaningful and coherent sentence.

O: The man who
P: he will do
Q: which of the two things
R: is perpetually hesitating
S: first
T: will do neither.

Ans

- ☐ 1. R, P, S, Q
- ☐ 2. S, R, Q, P
- ☒ 3. R, Q, P, S
- ☐ 4. S, Q, P, R

Question ID : 630680328422
Option 1 ID : 6306801277660
Option 2 ID : 6306801277659
Option 3 ID : 6306801277657
Option 4 ID : 6306801277658
Status : Answered
Chosen Option : 3

Q.18 Lapping allowance for cast iron work material is _____.

Ans

- ☐ 1. 0.3 mm
- ☐ 2. 0.4 mm
- ☐ 3. 0.1 mm
- ☒ 4. 0.2 mm

Question ID : 630680211313
Option 1 ID : 630680819400
Option 2 ID : 630680819401
Option 3 ID : 630680819399
Option 4 ID : 630680819402
Status : Answered
Chosen Option : 3

Q.19 Which official language ranks fourth with 6.7% speakers as per the 2011 census?

Ans

- ☒ 1. Telugu
- ☐ 2. Marathi
- ☐ 3. Bengali
- ☐ 4. Tamil

Question ID : 630680755460
Option 1 ID : 6306802960979
Option 2 ID : 6306802960981
Option 3 ID : 6306802960980
Option 4 ID : 6306802960982
Status : Answered
Chosen Option : 1

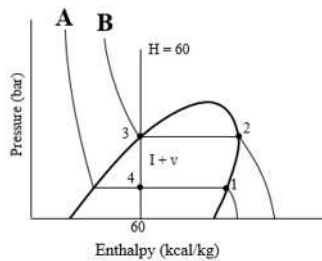
Q.20 The pitch of the lead screw of a centre lathe is 6 mm. If a metric thread of 1.5 mm pitch is to be cut on a workpiece, which is rotating at the speed of 120 rpm, calculate the speed of rotation of the lead screw (in rpm).

- Ans
- ☒ 1. 60
 - ☒ 2. 10
 - ☒ 3. 30
 - ☒ 4. 90

Question ID : 630680504597
Option 1 ID : 6306801971951
Option 2 ID : 6306801971949
Option 3 ID : 6306801971950
Option 4 ID : 6306801971952
Status : Answered
Chosen Option : 3

Section : Section 3

Q.1 In the given figure, the lines A and B represent which of the following?



- Ans
- ☒ 1. Constant volume line
 - ☒ 2. Relative humidity line
 - ☒ 3. Constant temperature line
 - ☒ 4. Constant entropy line

Question ID : 630680506470
Option 1 ID : 6306801979393
Option 2 ID : 6306801979395
Option 3 ID : 6306801979396
Option 4 ID : 6306801979394
Status : Answered
Chosen Option : 3

Q.2 Determine the square of the internal diameter of the column, if the external diameter of the column is 220 mm. The ultimate stress for the hollow steel column which carries an axial load of 2.4 MN is 500 N/mm^2 . Consider the factor of safety = 5 and the value of constant $\pi = 3.14$

- Ans
- ☒ 1. 17826.75 mm^2
 - ☒ 2. 30986.54 mm^2
 - ☒ 3. 10257.36 mm^2
 - ☒ 4. 23245.25 mm^2

Question ID : 630680327988
Option 1 ID : 6306801275922
Option 2 ID : 6306801275924
Option 3 ID : 6306801275923
Option 4 ID : 6306801275921
Status : Answered
Chosen Option : 1

Q.3 In dairy refrigeration, the sequence of operations is _____.

Ans

- ☐ 1. cooling, pasteurisation and storage
- ☐ 2. pasteurisation, storage and cooling
- ☐ 3. cooling and storage
- ☒ 4. pasteurisation, cooling and storage

Question ID : 630680212599
Option 1 ID : 630680824536
Option 2 ID : 630680824537
Option 3 ID : 630680824538
Option 4 ID : 630680824535
Status : Answered
Chosen Option : 4

Q.4

Which of the following is NOT true about neutral axis (NA) in a beam subjected to bending?

Ans

- ☒ 1. Moment of the area about NA is not equal to zero.
- ☐ 2. It makes neutral axis plane.
- ☐ 3. NA passes through centroid of the section.
- ☐ 4. Fibers in NA is not subjected to any stress.

Question ID : 630680327974
Option 1 ID : 6306801275867
Option 2 ID : 6306801275865
Option 3 ID : 6306801275868
Option 4 ID : 6306801275866
Status : Answered
Chosen Option : 1

Q.5 In an ordinary cut broach tool, identify the region that centres the broach in the hole before the teeth begin to cut.

Ans

- ☒ 1. Front pilot
- ☐ 2. Rear pilot
- ☐ 3. Land
- ☐ 4. Pull end

Question ID : 630680205081
Option 1 ID : 630680795187
Option 2 ID : 630680795188
Option 3 ID : 630680795190
Option 4 ID : 630680795189
Status : Answered
Chosen Option : 1

Q.6 The National Anthem of India was originally written in which language?

Ans

- ☒ 1. Bangla
- ☐ 2. Sanskrit
- ☐ 3. Hindi
- ☐ 4. Urdu

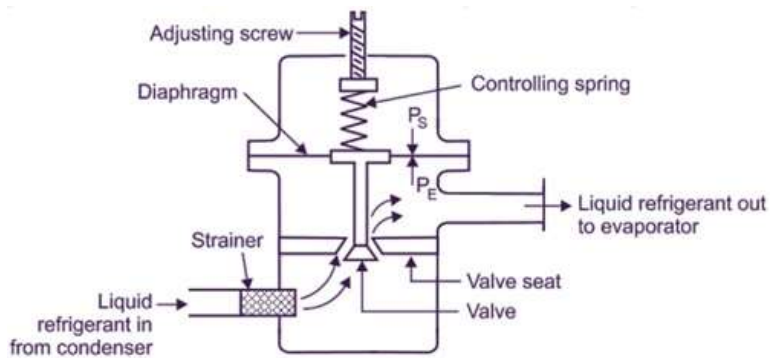
Question ID : 630680749074
Option 1 ID : 6306802935829
Option 2 ID : 6306802935828
Option 3 ID : 6306802935830
Option 4 ID : 6306802935831
Status : Answered
Chosen Option : 1

Q.7 In winter air-conditioning systems, air is _____.

- Ans
- ☒ 1. heated and dehumidified, generally
 - ☒ 2. heated and humidified, generally
 - ☒ 3. heated
 - ☒ 4. humidified

Question ID : 630680212578
Option 1 ID : 630680824452
Option 2 ID : 630680824451
Option 3 ID : 630680824453
Option 4 ID : 630680824454
Status : Answered
Chosen Option : 2

Q.8 Which of the following valves is represented in the given figure?



- Ans
- ☒ 1. Low side float valve
 - ☒ 2. High side float valve
 - ☒ 3. Thermostatic expansion valve
 - ☒ 4. Automatic expansion valve

Question ID : 630680332160
Option 1 ID : 6306801292087
Option 2 ID : 6306801292088
Option 3 ID : 6306801292085
Option 4 ID : 6306801292086
Status : Answered
Chosen Option : 3

Q.9 The National Electricity Fund (Interest Subsidy) Scheme covered under towns and cities having Aggregate Technical and Commercial (AT&C) Losses is _____.

- Ans
- ☒ 1. >15%
 - ☒ 2. <15%
 - ☒ 3. =10%
 - ☒ 4. =15%

Question ID : 630680787735
Option 1 ID : 6306803086745
Option 2 ID : 6306803086744
Option 3 ID : 6306803086747
Option 4 ID : 6306803086746
Status : Answered
Chosen Option : 4

Q.10 In a hobbing machine, which of the following gear geometries CANNOT be generated?

- Ans
- ☐ 1. Spur gear
 - ☐ 2. Spline
 - ☒ 3. Unsymmetrical gear
 - ☐ 4. Helical gear

Question ID : 630680205061
Option 1 ID : 630680795107
Option 2 ID : 630680795109
Option 3 ID : 630680795110
Option 4 ID : 630680795108
Status : Answered
Chosen Option : 4

Q.11 During throttling process, the amount of temperature drop depends upon:

- Ans
- ☒ 1. only pressure drop
 - ☐ 2. only JouleThomson coefficient
 - ☐ 3. only the original state of gas
 - ☐ 4. Joule Thomson coefficient, pressure drop and the original state of gas

Question ID : 630680359307
Option 1 ID : 6306801399194
Option 2 ID : 6306801399193
Option 3 ID : 6306801399195
Option 4 ID : 6306801399196
Status : Answered
Chosen Option : 4

Q.12 The chemical formula of R-134a, an environment-friendly refrigerant, is:

- Ans
- ☐ 1. $C_2Cl_3F_3$
 - ☐ 2. $CHClF_2$
 - ☒ 3. $C_2H_2F_4$
 - ☐ 4. $C_2Cl_2F_4$

Question ID : 630680219907
Option 1 ID : 630680853507
Option 2 ID : 630680853510
Option 3 ID : 630680853509
Option 4 ID : 630680853508
Status : Answered
Chosen Option : 3

Q.13 If 'M' is added to the beginning of each word given below, which of the following will form a meaningful English word?
ACE, END, NOT, HAD, ICE

- Ans
- ☒ 1. Only ACE, END and ICE
 - ☐ 2. Only END, NOT and HAD
 - ☐ 3. Only END and ICE
 - ☐ 4. Only ICE

Question ID : 630680120509
Option 1 ID : 630680467068
Option 2 ID : 630680467069
Option 3 ID : 630680467066
Option 4 ID : 630680467067
Status : Answered
Chosen Option : 3

Q.14 Malki and Shivansh together can complete a piece of work in 20 days, Shivansh and Rosy together can complete the same work in 12 days, and Rosy and Malki together can complete the same work in 15 days. In how many days will the three of them complete it together?

- Ans
- ☐ 1. 5
 - ☐ 2. 12
 - ☒ 3. 10
 - ☐ 4. 15

Question ID : 630680239316
Option 1 ID : 630680928272
Option 2 ID : 630680928274
Option 3 ID : 630680928273
Option 4 ID : 630680928275
Status : Answered
Chosen Option : 3

Q.15 Which of the following lubricants is NOT used in refrigeration?

- Ans
- ☐ 1. Mineral oil
 - ☒ 2. Graphite
 - ☐ 3. Polgester
 - ☐ 4. Alkylbenzene

Question ID : 630680212595
Option 1 ID : 630680824521
Option 2 ID : 630680824519
Option 3 ID : 630680824522
Option 4 ID : 630680824520
Status : Answered
Chosen Option : 2

Q.16 What is the cause of high head pressure in the refrigeration system?

- Ans
- ☒ 1. Not enough refrigerant
 - ☐ 2. Faulty suction valve
 - ☐ 3. Air in the system
 - ☐ 4. Oversized compressor

Question ID : 630680332143
Option 1 ID : 6306801292018
Option 2 ID : 6306801292020
Option 3 ID : 6306801292017
Option 4 ID : 6306801292019
Status : Answered
Chosen Option : 4

Q.17 In a semi-hermetically sealed compressor, the compressor is _____.

- Ans
- ☐ 1. separate from the motor and the casing is welded
 - ☒ 2. housed with a motor and the casing is bolted type
 - ☐ 3. separate from the motor and the casing is bolted type
 - ☐ 4. housed with a motor and the casing is welded

Question ID : 630680332152
Option 1 ID : 6306801292055
Option 2 ID : 6306801292053
Option 3 ID : 6306801292056
Option 4 ID : 6306801292054
Status : Answered
Chosen Option : 2

Q.18 Select the option that expresses the given sentence in active voice.
The picture has been drawn by me.

- Ans
- ☐ 1. The picture is being drawn by me.
 - ☒ 2. I have drawn the picture.
 - ☐ 3. The picture drew me.
 - ☐ 4. I drew the picture.

Question ID : 630680514264
Option 1 ID : 6306802009684
Option 2 ID : 6306802009682
Option 3 ID : 6306802009681
Option 4 ID : 6306802009683
Status : Answered
Chosen Option : 2

Q.19 Which of the following cutting fluids is used in light machining operations?

- Ans
- ☒ 1. Straight oils
 - ☐ 2. Soluble oils
 - ☐ 3. Mixed oils
 - ☐ 4. Water

Question ID : 630680205048
Option 1 ID : 630680795058
Option 2 ID : 630680795057
Option 3 ID : 630680795055
Option 4 ID : 630680795056
Status : Answered
Chosen Option : 1

Q.20 Removal of moisture from the air without change in its dry-bulb temperature is known as _____.

- Ans
- ☐ 1. humidification
 - ☐ 2. sensible cooling
 - ☒ 3. dehumidification
 - ☐ 4. sensible heating

Question ID : 630680212579
Option 1 ID : 630680824457
Option 2 ID : 630680824455
Option 3 ID : 630680824458
Option 4 ID : 630680824456
Status : Answered
Chosen Option : 3

Section : Section 4

Q.1 In refrigeration systems, the term 'specific heat' is used to determine _____.

- Ans
- ☒ 1. heat removed
 - ☐ 2. work input
 - ☐ 3. heat added
 - ☐ 4. work output

Question ID : 630680332146
Option 1 ID : 6306801292030
Option 2 ID : 6306801292031
Option 3 ID : 6306801292029
Option 4 ID : 6306801292032
Status : Answered
Chosen Option : 1

Q.2 In a certain code language, 'WORK' is coded as '4287' and 'KNOW' is coded as '2873'. What is the code for 'R' in that language?

- Ans
- ☐ 1. 2
 - ☐ 2. 7
 - ☐ 3. 3
 - ☒ 4. 4

Question ID : 630680532829
Option 1 ID : 6306802082968
Option 2 ID : 6306802082971
Option 3 ID : 6306802082969
Option 4 ID : 6306802082970
Status : Answered
Chosen Option : 4

Q.3 If the marked price of a watch is ₹2,800, then the difference between a discount of 25% on ₹2,800 and two successive discounts of 20% and 5% on the same amount (in ₹) is:

- Ans
- ☒ 1. 28
 - ☐ 2. 26
 - ☐ 3. 38
 - ☐ 4. 34

Question ID : 630680227088
Option 1 ID : 630680881043
Option 2 ID : 630680881045
Option 3 ID : 630680881044
Option 4 ID : 630680881046
Status : Answered
Chosen Option : 1

Q.4 The total renewable sources power generation in India as of March 2024 in Million Units (MU), is _____.

- Ans
- ☐ 1. 468.22 MU
 - ☐ 2. 12225.83 MU
 - ☒ 3. 19284.4 MU
 - ☐ 4. 4578.06 MU

Question ID : 630680787676
Option 1 ID : 6306803086510
Option 2 ID : 6306803086509
Option 3 ID : 6306803086511
Option 4 ID : 6306803086508
Status : Answered
Chosen Option : 1

Q.5 Which of the following is NOT the component of a turbojet engine?

- Ans
- ☒ 1. Pump
 - ☐ 2. Turbine
 - ☐ 3. Diffuser
 - ☐ 4. Compressor

Question ID : 630680181655
Option 1 ID : 630680703865
Option 2 ID : 630680703864
Option 3 ID : 630680703862
Option 4 ID : 630680703863
Status : Answered
Chosen Option : 1

Q.6 What is the condition for self-locking of an internal expanding shoe brake?
Where, M_N = total moment of normal force, M_f = total moment of frictional force

- Ans
- ☒ 1. $M_f > M_N$
 - ☐ 2. $M_f = M_N$
 - ☐ 3. $M_f < M_N$
 - ☐ 4. $M_f \leq M_N$

Question ID : 630680227838
Option 1 ID : 630680884027
Option 2 ID : 630680884028
Option 3 ID : 630680884029
Option 4 ID : 630680884030
Status : Answered
Chosen Option : 4

Q.7 Determine the shear force and bending moment at the fixed end, of a cantilever beam AB of span length 4 m subjected to a uniformly distributed load of 4 kN/m throughout the span of the beam.

- Ans
- ☐ 1. -12 kN, -24 kN-m
 - ☐ 2. -18 kN, -36 kN-m
 - ☒ 3. -16 kN, -32 kN-m
 - ☐ 4. -14 kN, -32 kN-m

Question ID : 630680205959
Option 1 ID : 630680798642
Option 2 ID : 630680798639
Option 3 ID : 630680798640
Option 4 ID : 630680798641
Status : Answered
Chosen Option : 3

Q.8 Which of the following is a merit of gas turbines over IC engines?

- Ans
- ☐ 1. Due to the higher operating speed of the turbine, it is imperative to have a speed-reduction device.
 - ☐ 2. The thermal efficiency of a simple turbine cycle is lower as compared to that of an IC engine.
 - ☒ 3. A gas turbine does not require any flywheel, as the torque on the shaft is continuous and uniform.
 - ☐ 4. It is more difficult to start a gas turbine as compared to an IC engine.

Question ID : 630680159751
Option 1 ID : 630680618466
Option 2 ID : 630680618464
Option 3 ID : 630680618465
Option 4 ID : 630680618467
Status : Answered
Chosen Option : 3

Q.9 For a single plate clutch, considering uniform wear, as the intensity of pressure varies inversely with the distance, i.e. $p.r = C$ (a constant), what is the expression for this constant 'C'?

- Ans
- ☐ 1. $W/(r_1 - r_2)$
 - ☒ 2. $W/2\pi(r_1 - r_2)$
 - ☐ 3. $W/\pi(r_1 - r_2)$
 - ☐ 4. $W(r_1 - r_2)$

Question ID : 630680227846
Option 1 ID : 630680884062
Option 2 ID : 630680884059
Option 3 ID : 630680884061
Option 4 ID : 630680884060
Status : Answered
Chosen Option : 2

Q.10

If the diameter of a thin spherical shell is 'd' and thickness 't', subjected to an internal pressure 'p', then the tensile stress in the spherical shell is given by, _____.

Ans

☐ 1. $\frac{pt}{4d}$

☒ 2. $\frac{pd}{4t}$

☐ 3. $\frac{pt}{2d}$

☐ 4. $\frac{pd}{2t}$

Question ID : 630680327978
Option 1 ID : 6306801275881
Option 2 ID : 6306801275882
Option 3 ID : 6306801275883
Option 4 ID : 6306801275884
Status : Answered
Chosen Option : 2

Q.11 Select the most appropriate question tag to fill in the blank.
I think Parul makes this mistake, _____

Ans

☒ 1. doesn't she?

☐ 2. wasn't she?

☐ 3. haven't she?

☐ 4. can't she?

Question ID : 630680316359
Option 1 ID : 6306801231061
Option 2 ID : 6306801231062
Option 3 ID : 6306801231063
Option 4 ID : 6306801231064
Status : Answered
Chosen Option : 1

Q.12 In which of the following cases does the shear force diagram consist of several rectangles?

Ans

☐ 1. Point load at the end of a cantilever

☐ 2. Uniformly distributed load on part span of cantilever

☐ 3. Uniformly distributed load over the whole length of cantilever

☒ 4. Several point loads on cantilever

Question ID : 630680504365
Option 1 ID : 6306801971021
Option 2 ID : 6306801971024
Option 3 ID : 6306801971023
Option 4 ID : 6306801971022
Status : Answered
Chosen Option : 4

Q.13 Isentropic efficiency of an axial flow compressor lies within the range of:

Ans

☐ 1. 70% - 80%

☐ 2. 60% - 70%

☐ 3. 50% - 60%

☒ 4. 85% - 90%

Question ID : 630680183606
Option 1 ID : 630680711435
Option 2 ID : 630680711434
Option 3 ID : 630680711433
Option 4 ID : 630680711436
Status : Answered
Chosen Option : 4

Q.14 What will be the product of balancing mass (m) and given radius of rotation (r) in the graphical method for balancing four masses in a single plane?

Ans

- ☐ 1. Sum of $m_1.r_1, m_2.r_2$
- ☐ 2. Sum of $m_3.r_3$ and $m_4.r_4$
- ☒ 3. Resultant of $m_1.r_1, m_2.r_2, m_3.r_3$ and $m_4.r_4$
- ☐ 4. Sum of $m_1.r_1, m_2.r_2, m_3.r_3$ and $m_4.r_4$

Question ID : 630680227852
Option 1 ID : 630680884085
Option 2 ID : 630680884086
Option 3 ID : 630680884084
Option 4 ID : 630680884083
Status : Answered
Chosen Option : 3

Q.15 What does B stand for in SIDBI?

Ans

- ☐ 1. Board
- ☐ 2. Banker
- ☐ 3. Bond
- ☒ 4. Bank

Question ID : 630680512416
Option 1 ID : 6306802002637
Option 2 ID : 6306802002634
Option 3 ID : 6306802002635
Option 4 ID : 6306802002636
Status : Answered
Chosen Option : 1

Q.16 A uniformly distributed load of 8 kN/m is applied to the entire span of the rectangular cross sectional beam of length 4 m. The beam is simply supported with dimensions of 150 mm width and 250 mm height. Determine the maximum deflection and consider $E = 2 \times 10^4 \text{ N/mm}^2$.

Ans

- ☐ 1. 7.96 mm
- ☐ 2. 8.57 mm
- ☐ 3. 10.94 mm
- ☒ 4. 6.83 mm

Question ID : 630680205951
Option 1 ID : 630680798607
Option 2 ID : 630680798609
Option 3 ID : 630680798610
Option 4 ID : 630680798608
Status : Answered
Chosen Option : 1

Q.17 What is the limitation of open-cycle gas turbines?

Ans

- ☒ 1. The part-load efficiency of the open-cycle plant decreases rapidly as a considerable percentage of the power developed by the turbine is used to drive the compressor.
- ☐ 2. The weight (in kg per kW) developed is low.
- ☐ 3. Open-cycle plants occupy comparatively smaller space.
- ☐ 4. Almost any hydrocarbon fuel from high-octane gasoline to heavy diesel oil can be used in the combustion chamber.

Question ID : 630680181668
Option 1 ID : 630680703917
Option 2 ID : 630680703916
Option 3 ID : 630680703914
Option 4 ID : 630680703915
Status : Answered
Chosen Option : 1

Q.18 In a laboratory experiment, the following data were recorded with rope brake: Diameter of the flywheel 1.2 m, diameter of the rope 12.5 mm, speed of the engine 200 r.p.m., dead load on the brake 600 N, spring balance reading 150 N. Calculate the brake power of the engine.

- Ans
- ☐ 1. 57.15 W
 - ☒ 2. 5.715 kW
 - ☐ 3. 57.15 kW
 - ☐ 4. 5.715 W

Question ID : 630680227849
Option 1 ID : 630680884074
Option 2 ID : 630680884071
Option 3 ID : 630680884072
Option 4 ID : 630680884073
Status : Answered
Chosen Option : 3

Q.19 When a composite bar consisting of two different materials is subjected to temperature change, which type of stresses will be set up in the composite bar?

- Ans
- ☒ 1. Opposite kind of stresses will be developed in two materials of the composite bar.
 - ☐ 2. The same kind of stresses will be developed in two materials of the composite bar.
 - ☐ 3. Only tensile stress will be developed in the bar.
 - ☐ 4. No stress will be developed in the bar.

Question ID : 630680504392
Option 1 ID : 6306801971130
Option 2 ID : 6306801971131
Option 3 ID : 6306801971132
Option 4 ID : 6306801971129
Status : Answered
Chosen Option : 1

Q.20 Calculate the load in a closely coiled helical spring, if the maximum shear stress in the material is 100 N/mm². The mean coil diameter is 100 mm or 10 cm and the wire diameter is 12 mm.

- Ans
- ☐ 1. 852.652 N
 - ☐ 2. 562.868 N
 - ☒ 3. 678.584 N
 - ☐ 4. 752.956 N

Question ID : 630680205978
Option 1 ID : 630680798716
Option 2 ID : 630680798715
Option 3 ID : 630680798717
Option 4 ID : 630680798718
Status : Answered
Chosen Option : 1

Section : Section 5

Q.1 Which of the following dynamometers attempts to stop the engine by means of a mechanical brake on the flywheel?

- Ans
- ☐ 1. Hydraulic dynamometer
 - ☐ 2. Eddy current dynamometer
 - ☐ 3. Rope brake dynamometer
 - ☒ 4. Prong brake dynamometer

Question ID : 630680382394
Option 1 ID : 6306801490492
Option 2 ID : 6306801490493
Option 3 ID : 6306801490494
Option 4 ID : 6306801490491
Status : Answered
Chosen Option : 4

Q.2 Which of the following varieties of the lubricating system is used in light-duty engines?

- Ans
- ☐ 1. Splash and pressure lubricating system
 - ☐ 2. Dry sump lubricating system
 - ☒ 3. Splash wet sump lubricating system
 - ☐ 4. Pressure feed wet sump lubricating system

Question ID : 630680386534
Option 1 ID : 6306801506847
Option 2 ID : 6306801506849
Option 3 ID : 6306801506846
Option 4 ID : 6306801506848
Status : Answered
Chosen Option : 2

Q.3 If the steam whose dryness fraction is to be determined is very wet, then to dry the steam partially before throttling, which of the following calorimeters is used?

- Ans
- ☐ 1. Tank or bucket calorimeter
 - ☐ 2. Throttling calorimeter
 - ☐ 3. Separating and throttling calorimeter
 - ☒ 4. Separating calorimeter

Question ID : 630680382402
Option 1 ID : 6306801490523
Option 2 ID : 6306801490524
Option 3 ID : 6306801490525
Option 4 ID : 6306801490526
Status : Answered
Chosen Option : 4

Q.4 The slope of the isobaric process on a Mollier diagram in superheated region _____.

- Ans
- ☐ 1. is constant
 - ☐ 2. decreases
 - ☐ 3. increases
 - ☒ 4. increases at a faster rate when compared to other expansion processes

Question ID : 630680395927
Option 1 ID : 6306801543844
Option 2 ID : 6306801543845
Option 3 ID : 6306801543846
Option 4 ID : 6306801543847
Status : Answered
Chosen Option : 3

Q.5 Which of the following is a type of air-conditioning systems when classified according to the arrangement of equipment?

- Ans
- ☒ 1. Unitary air-conditioning system
 - ☐ 2. Industrial air-conditioning system
 - ☐ 3. Year-round air-conditioning system
 - ☐ 4. Comfort air-conditioning system

Question ID : 630680348149
Option 1 ID : 6306801354887
Option 2 ID : 6306801354885
Option 3 ID : 6306801354888
Option 4 ID : 6306801354886
Status : Answered
Chosen Option : 1

Q.6 Who among the following personalities is NOT associated with the Revolt of 1857?

- Ans
- ☐ 1. Babadar Shah Zafar
 - ☐ 2. Bakht Khan
 - ☒ 3. Senapati Bapat
 - ☐ 4. Begam Hazrat Mahal

Question ID : 63068070585
Option 1 ID : 630680272963
Option 2 ID : 630680272962
Option 3 ID : 630680272965
Option 4 ID : 630680272964
Status : Answered
Chosen Option : 3

Q.7 The intake charge in a four-stroke diesel engine consists of _____.

- Ans
- ☒ 1. air alone
 - ☐ 2. air + lubricating oil
 - ☐ 3. air + fuel
 - ☐ 4. air + fuel + lubricating oil

Question ID : 630680348124
Option 1 ID : 6306801354788
Option 2 ID : 6306801354786
Option 3 ID : 6306801354785
Option 4 ID : 6306801354787
Status : Answered
Chosen Option : 1

Q.8 Select the most appropriate verb to fill in the blank.
I _____ continuously since yesterday evening.

- Ans
- ☒ 1. have been working
 - ☐ 2. am working
 - ☐ 3. was working
 - ☐ 4. have working

Question ID : 630680156645
Option 1 ID : 630680606239
Option 2 ID : 630680606238
Option 3 ID : 630680606236
Option 4 ID : 630680606237
Status : Answered
Chosen Option : 1

Q.9 If the steam is dry and saturated, then its dryness fraction (x) will be:

- Ans
- ☒ 1. 1
 - ☐ 2. 0
 - ☐ 3. 0.8
 - ☐ 4. 0.5

Question ID : 630680348138
Option 1 ID : 6306801354843
Option 2 ID : 6306801354841
Option 3 ID : 6306801354844
Option 4 ID : 6306801354842
Status : Answered
Chosen Option : 1

Q.10 Which of the following combinations is NOT used as a propellant in engines of liquid-propellant rockets?

- Ans
- ☐ 1. Liquid oxygen + Liquid hydrogen
 - ☒ 2. Nitric acid + Aniline
 - ☐ 3. Hydroxyl-terminated polybutadiene
 - ☐ 4. Liquid oxygen + Ethyl alcohol

Question ID : 630680183611
Option 1 ID : 630680711456
Option 2 ID : 630680711453
Option 3 ID : 630680711455
Option 4 ID : 630680711454
Status : Answered
Chosen Option : 2

Q.11 In a class, the ratio of the number of students who have failed to those who have passed is 9 : 36. What percentage of the class has failed?

- Ans
- ☐ 1. 30 Percent
 - ☒ 2. 20 Percent
 - ☐ 3. 40 Percent
 - ☐ 4. 10 Percent

Question ID : 63068086781
Option 1 ID : 630680336518
Option 2 ID : 630680336519
Option 3 ID : 630680336517
Option 4 ID : 630680336520
Status : Answered
Chosen Option : 2

Q.12 In case of comfort air-conditioning, if sufficient data of the required condition is not given, then dry-bulb temperature and relative humidity should be assumed, respectively, as:

- Ans
- ☐ 1. 40°C and 75%
 - ☐ 2. 25°C and 80%
 - ☒ 3. 21°C and 50%
 - ☐ 4. 30°C and 70%

Question ID : 630680348150
Option 1 ID : 6306801354892
Option 2 ID : 6306801354891
Option 3 ID : 6306801354890
Option 4 ID : 6306801354889
Status : Answered
Chosen Option : 2

Q.13 Select the pair which follows the same pattern as that followed by the two sets of pairs given below. Both pairs follow the same pattern.

WLK : SOG
SJE : OMA

- Ans
- ☐ 1. TMK : QPG
 - ☒ 2. KMZ : GPV
 - ☐ 3. LPJ : HSH
 - ☐ 4. MRF : IUC

Question ID : 630680567842
Option 1 ID : 6306802220355
Option 2 ID : 6306802220354
Option 3 ID : 6306802220352
Option 4 ID : 6306802220353
Status : Answered
Chosen Option : 2

Q.14 For achieving the maximum thermal efficiency of a Carnot cycle, the upper temperature is required to be maintained _____

- Ans
- ☐ 1. at a moderate level
 - ☒ 2. as high as possible
 - ☐ 3. as low as possible
 - ☐ 4. at a constant level

Question ID : 630680348114
Option 1 ID : 6306801354747
Option 2 ID : 6306801354746
Option 3 ID : 6306801354745
Option 4 ID : 6306801354748
Status : Answered
Chosen Option : 2

Q.15 Which of the following is NOT a limitation of air-cooling systems?

- Ans
- ☐ 1. Employed in places where ambient temperatures are low
 - ☐ 2. Higher working temperature compared to water cooling systems
 - ☐ 3. Can be applied only to small and medium sized engines
 - ☒ 4. Cooling is uniform

Question ID : 630680395925
Option 1 ID : 6306801543838
Option 2 ID : 6306801543837
Option 3 ID : 6306801543836
Option 4 ID : 6306801543839
Status : Answered
Chosen Option : 4

Q.16 Which of the following is NOT a type of geothermal source of energy?

- Ans
- ☐ 1. Hydrothermal
 - ☐ 2. Petrothermal
 - ☐ 3. Geopressurised
 - ☒ 4. Hypothermal

Question ID : 630680382404
Option 1 ID : 6306801490531
Option 2 ID : 6306801490533
Option 3 ID : 6306801490532
Option 4 ID : 6306801490534
Status : Answered
Chosen Option : 4

Q.17 निम्नलिखित में से किस श्रेणी के गैर-विद्युतीकृत घर सौभाग्य योजना के तहत मुफ्त बिजली कनेक्शन के लिए पात्र हैं?

- Ans
- ☐ 1. पक्की दीवारों और छत वाले तीन या अधिक कमरे
 - ☐ 2. ₹50,000 से अधिक की क्रेडिट लिमिट वाला किसान क्रेडिट कार्ड
 - ☒ 3. निराश्रित
 - ☐ 4. सरकार के पास पंजीकृत गैर-कृषि उद्यम वाले परिवार

Question ID : 630680787746
Option 1 ID : 6306803086789
Option 2 ID : 6306803086790
Option 3 ID : 6306803086788
Option 4 ID : 6306803086791
Status : Answered
Chosen Option : 4

Q.18 In which type of magneto ignition system do both the magnet and the windings remain stationary?

- Ans
- ☐ 1. Coil ignition system
 - ☐ 2. Rotating magnet type ignition system
 - ☐ 3. Armature type magneto ignition system
 - ☒ 4. Polar inductor type ignition system

Question ID : 630680348107
Option 1 ID : 6306801354720
Option 2 ID : 6306801354718
Option 3 ID : 6306801354717
Option 4 ID : 6306801354719
Status : Answered
Chosen Option : 4

Q.19 Identify the INCORRECT option about the Brayton cycle.

- Ans
- ☐ 1. Reversible adiabatic compression, involving (negative) work ' W_c ' in the compressor
 - ☒ 2. Constant-volume heat addition, involving heat ' Q_{add} ' in the combustion chamber or the heat exchanger
 - ☐ 3. Reversible adiabatic expansion, involving (positive) work ' W_t ' in the turbine
 - ☐ 4. Constant-pressure heat rejection, involving heat ' $Q_{rejected}$ ' in the atmosphere or the heat exchanger

Question ID : 630680181657
Option 1 ID : 630680703870
Option 2 ID : 630680703871
Option 3 ID : 630680703872
Option 4 ID : 630680703873
Status : Answered
Chosen Option : 2

Q.20 In SI engine, at constant speed and constant air-fuel ratio ____ (Where bsfc = brake specific fuel consumption).

- Ans
- ☒ 1. bsfc is minimum at full load
 - ☐ 2. bsfc is maximum at full load
 - ☐ 3. bsfc does not depend on load
 - ☐ 4. bsfc is minimum at no load

Question ID : 630680382398
Option 1 ID : 6306801490509
Option 2 ID : 6306801490510
Option 3 ID : 6306801490507
Option 4 ID : 6306801490508
Status : Answered
Chosen Option : 2