

# APOne Limited

## Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

<b>Question Paper Name :</b>	PaperIIAutoMobileEngineering 6th Oct 2023 Shift 2
<b>Subject Name :</b>	Paper II Auto Mobile Engineering
<b>Actual Answer Key :</b>	Yes
<b>Calculator :</b>	None
<b>Magnifying Glass Required? :</b>	No
<b>Ruler Required? :</b>	No
<b>Eraser Required? :</b>	No
<b>Scratch Pad Required? :</b>	No
<b>Rough Sketch/Notepad Required? :</b>	No
<b>Protractor Required? :</b>	No
<b>Show Watermark on Console? :</b>	Yes
<b>Highlighter :</b>	No
<b>Auto Save on Console?</b>	Yes
<b>Change Font Color :</b>	No
<b>Change Background Color :</b>	No
<b>Change Theme :</b>	No
<b>Help Button :</b>	No
<b>Show Reports :</b>	No
<b>Show Progress Bar :</b>	No
<b>Is this Group for Examiner? :</b>	No
<b>Examiner permission :</b>	Cant View

Show Progress Bar? :

No

## Paper II Auto Mobile Engineering

Section type :

Online

Section Negative Marks :

0.33

Enable Mark as Answered Mark for Review and  
Clear Response :

Yes

Maximum Instruction Time :

0

Is Section Default? :

null

Question Number : 1 Question Id : 630680402733 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Which of the following is NOT a part of the air conditioning system used in cars?

Options :

1. ✘ Compressor

2. ✘ Refrigerant

3. ✔ Turbo charger

4. ✘ Condenser

Question Number : 2 Question Id : 630680402734 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Select the option that is true regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): The COP of an air-conditioning plant is lower than that of an ice plant.

Reason (R): The temperatures required in the ice plant are lower than those required for an air-conditioning plant.

**Options :**

1. ✘ Both A and R are individually true, and R is the correct explanation of A.
2. ✘ Both A and R are individually true, but R is not the correct explanation of A.
3. ✘ A is true, but R is false.
4. ✔ A is false, but R is true.

**Question Number : 3 Question Id : 630680402735 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the following points with their definitions.

(A) Flash point	(i) The lowest temperature at which the vapours of volatile materials ignite when an ignition source is provided
(B) Fire point	(ii) The lowest temperature at which the vapour of fuel can continue to burn for at least five seconds after the ignition has started
(C) Flash point value	(iii) Always lower than the fire point
(D) Fire point value	(iv) Always higher than the flash point

**Options :**

1. ✘ (A)-(ii), (B)-(iv), (C)-(iii) and (D)-(i)
2. ✔ (A)-(i), (B)-(ii), (C)-(iii) and (D)-(iv)

3. ✘ (A)-(ii), (B)-(iv), (C)-(i) and (D)-(iii)

4. ✘ (A)-(iii), (B)-(i), (C)-(iv) and (D)-(ii)

**Question Number : 4 Question Id : 630680402736 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Read the given statement and conclusions carefully and select the correct option.

Statement:

Self-locking screw jack means when the rotational force on the screw is removed, it will remain motionless and will not rotate backwards.

Conclusions:

I. Self-locking screw jacks are safer compared to hydraulic jack which is not self-locking.

II. Single start trapezoidal type screws are typically self-locking.

III. All screw jacks with double start lifting screws are also considered self-locking.

**Options :**

1. ✘ Statement and all the conclusions I, II and III are true.

2. ✘ Statement is incorrect, but conclusions I and II are true.

3. ✘ Statement is true, but conclusions I, II and III are false.

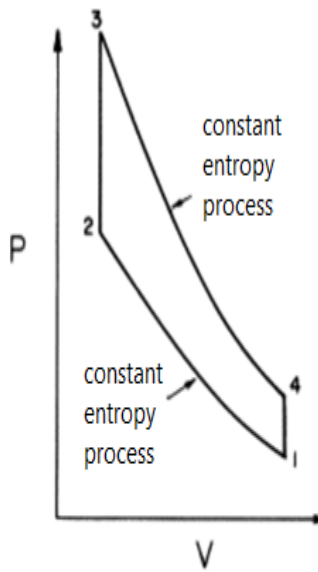
4. ✔ Only statement and conclusions I and II are true.

**Question Number : 5 Question Id : 630680402737 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the following four internally reversible processes used in a four-stroke Otto cycle as shown in figure.



(A) Isentropic compression	(i) 2-3
(B) Constant-volume heat addition	(ii) 1-2
(C) Isentropic expansion	(iii) 4-1
(D) Constant-volume heat rejection	(iv) 3-4

**Options :**

1. ✘ (A)-(i), (B)-(ii), (C)-(iii) and (D)-(iv)
2. ✘ (A)-(iv), (B)-(iii), (C)-(ii) and (D)-(i)
3. ✔ (A)-(ii), (B)-(i), (C)-(iv) and (D)-(iii)
4. ✘ (A)-(ii), (B)-(iv), (C)-(i) and (D)-(iii)

**Question Number : 6 Question Id : 630680402738 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Read the given statement and conclusions carefully and select the correct option.

Statement:

Diesel is used as fuel in this cycle as it can be compressed at higher compression ratios and it is also known as constant pressure cycle.

Conclusions:

- I. It is also known as constant pressure cycle because heat is added in it at constant pressure.
- II. It has high thermal efficiency and compression ratio (8 : 1 to 12 : 1).
- III. When heat is added at constant pressure, the piston rests for a moment at BDC, pressure and volume remains constant, and temperature decreases from  $T_3$  to  $T_2$ .

**Note: For this question, discrepancy is found in question/answer. So, this question is ignored for all candidates.**

**Options :**

1. Statement and all conclusions I, II and III are true.
2. Statement is false, but conclusions I, II and III are true.
3. Only statement and conclusions I and III are true.
4. Only statement and conclusions I and II are true.

**Question Number : 7 Question Id : 630680402739 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Select the option that is true regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): The C.I. engine is found to be more efficient than the S.I. engine.

Reason (R): Modern C.I. engines operate on a dual-cycle, which has efficiency greater than the Otto cycle.

**Options :**

1. ✘ Both A and R are individually true, and R is the correct explanation of A.
2. ✔ Both A and R are individually true, but R is not the correct explanation of A.
3. ✘ A is true, but R is false.
4. ✘ A is false, but R is true.

**Question Number : 8 Question Id : 630680402740 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the following air standard cycles with their working fluids

(A) Air standard cycle	(i) A mixture of air and fuel is a working fluid
(B) Actual cycle	(ii) Generation of energy by burning of fuel with air
	(iii) Air is working fluid
	(iv) No internal heat generation
	(v) This cycle is completely closed
	(vi) Energy is generated inside of the engine

**Options :**

1. ✔ (A)-(iii), (iv) and (v); (B)-(i), (ii) and (vi)
2. ✘ (A)-(i), (ii) and (vi); (B)-(iii), (iv) and (v)

3. ✘ (A)-(ii), (i) and (iv); (B)-(iii), (v) and (vi)

4. ✘ (A)-(i), (ii) and (iii); (B)-(iv), (v) and (vi)

**Question Number : 9 Question Id : 630680402741 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is INCORRECT about wire wheels?

**Options :**

1. ✘ This type of wheel can be used for tubed tyres only.

2. ✔ This type of wheel is used in racing cars only now a days.

3. ✘ Heat dissipation takes place to the surroundings by means of spokes fitted in the rim.

4. ✘ Tubeless tyres cannot be fitted over wire wheels.

**Question Number : 10 Question Id : 630680402742 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following symptoms is NOT due to low tyre pressure in a vehicle?

**Options :**

1. ✘ Increase in rolling resistance

2. ✘ Increased fuel consumption due to rolling resistance, which makes the engine work harder



3. ✘ Uneven tread wear - the edges of the tyre wear out faster

4. ✔ Smaller contact area with the road

**Question Number : 11 Question Id : 630680402743 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Select the option that is true regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): Caster angle is concerned with mending the angular proportions between the wheels' vertical axis and the vertical axis of the car when viewed from the front.

Reason (R): This is concerned with maintaining stability and balance while steering the car. The mechanic tends to find the fine balance between positive caster angle and negative caster angle to correct misalignment.

**Options :**

1. ✘ Both A and R are individually true, and R is the correct explanation of A.

2. ✘ Both A and R are individually true, but R is not the correct explanation of A.

3. ✘ A is true, but R is false.

4. ✔ A is false, but R is true.

**Question Number : 12 Question Id : 630680402744 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Select the option that is true regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): Toe is the alignment of the tyres in relation to being parallel to each other when viewed from directly above the vehicle. Tyres could face in (toe-in) or outwards (toe-out).

Reason (R): Tires are 'feathered' when the tread is smooth on one side and sharp on the other. This is usually a sign of poor toe alignment.

**Options :**

1. ✘ Both A and R are individually true, and R is the correct explanation of A.
2. ✔ Both A and R are individually true, but R is not the correct explanation of A.
3. ✘ A is true, but R is false.
4. ✘ A is false, but R is true.

**Question Number : 13 Question Id : 630680402745 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the following thermodynamic systems with their properties.

(A) Open system	(i) The system which can exchange only energy but not mass with surroundings
(B) Closed system	(ii) The system in which neither energy nor matter can be exchanged with surroundings
(C) Isolated system	(iii) The system which can exchange both matter and energy with surroundings

**Options :**

1. ✘ (A)-(i), (B)-(ii) and (C)-(iii)
2. ✘ (A)-(iii), (B)-(ii) and (C)-(i)

3. ✓ (A)-(iii), (B)-(i) and (C)-(ii)

4. ✗ (A)-(ii), (B)-(i) and (C)-(iii)

**Question Number : 14 Question Id : 630680402746 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Read the given statement and conclusions carefully and select the correct option.

Statement (A):

If there is no tendency to change the microscopic properties or inner properties of the system even when the system is isolated from surroundings, then it is considered the thermodynamic equilibrium.

Conclusion:

I. When any unbalanced force is absent in the system, then it is called chemical equilibrium.

II. Thermal equilibrium means there is no change of any property of the system.

III. If a system can undergo a chemical reaction, then it is called a chemically equilibrium system.

**Options :**

1. ✗ Statement A is correct, but conclusions I, II and III are not true explanations of A.

2. ✗ Statement A and conclusions I, II and III are individually true.

3. ✓ Only statement A and conclusion II are true.

4. ✗ Statement A is correct, and conclusions I, II and III are true explanations of A.

**Question Number : 15 Question Id : 630680402747 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Select the option that is true regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): Zeroth Law of Thermodynamics states that when two bodies are in thermal equilibrium with another third body, then the two bodies are also in thermal equilibrium with each other.

Reason (R): If we take three bodies A, B and C, then if A and B are in thermal equilibrium and B and C are in thermal equilibrium separately, then A and C are also considered to be in thermal equilibrium.

**Options :**

1. ✓ Both A and R are individually true, and R is the correct explanation of A.
2. ✗ Both A and R are individually true, but R is not the correct explanation of A.
3. ✗ A is true, but R is false.
4. ✗ A is false, but R is true.

**Question Number : 16 Question Id : 630680402748 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the following laws with their correct explanation.

A) First law of thermodynamic system	(i) It says that heat always moves from hotter objects to colder ones.
(B) Second law of thermodynamic system	(ii) It states that at absolute zero temperature of a system, the entropy becomes constant.
(C) Zeroth law of thermodynamic system	(iii) It states that energy cannot be created or destroyed, only converted from one form to another.
(D) Third law of thermodynamic system	(iv) If two systems are in thermal equilibrium with a third system, they must be in thermal equilibrium with each other.

**Options :**

1. ✘ (A)-(i), (B)-(ii), (C)-(iii) and (D)-(iv)

2. ✔ (A)-(iii), (B)-(i), (C)-(iv) and (D)-(ii)

3. ✘ (A)-(ii), (B)-(iii), (C)-(i) and (D)-(iv)

4. ✘ (A)-(iv), (B)-(iii), (C)-(ii) and (D)-(i)

**Question Number : 17 Question Id : 630680402749 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Read the given statement and conclusions carefully and select the correct option.

Statement (A):

The Mollier diagram is a tool used by engineers to predict, theoretically, the performance of systems and installations.

Conclusions:

I. The Mollier diagram is also called the enthalpy (h)–entropy (s) chart.

II. Typically, the Mollier chart covers pressure in the range of 1.0 to 10 bar and up to 100°C temperature and plotted for only water.

**Options :**

1. ✘ Statement A is correct, and conclusions I and II are not correct explanations of A.

2. ✘ Statement A is correct, and conclusions I and II are correct explanations of A.

3. ✔ Statement A is correct, and conclusion I is the only correct explanation of A.

4. ✘ Statement A correct, and conclusion II is the only correct explanation of A.

**Question Number : 18 Question Id : 630680402750 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Select the option that is true regarding the following two statements labelled Assertion (A) and Reason (R).

Assertion (A): The performance of a simple Rankine cycle is not sensitive to the efficiency of the feed pump.

Reason (R): The network ratio is practically unit for a Rankine cycle.

**Options :**

1. ✘ Both A and R are individually true, but R is not the correct explanation of A.
2. ✘ A is true, but R is not the correct explanation of A.
3. ✘ A is false, but R is the correct explanation of A.
4. ✔ Both A and R are individually true, and R is the correct explanation of A.

**Question Number : 19 Question Id : 630680402751 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is INCORRECT about mechanical brakes?

**Options :**

1. ✘ Brakes absorb energy and convert it to heat.

The capacity of a brake depends largely on the surface area of frictional surfaces but independent of the actuation force

2. ✔ applied.

The durability of a brake or service life between maintenance depends heavily on the type of material used to line the

3. ✘ shoe.

4. ✘ Mechanical brakes all act by generating frictional forces as two surfaces rub against each other.

**Question Number : 20 Question Id : 630680402752 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is NOT the main part of your vehicle's hydraulic brake system?

**Options :**

1. ✘ Brake pad leaf spring

2. ✘ Brake line

3. ✘ Brake disc

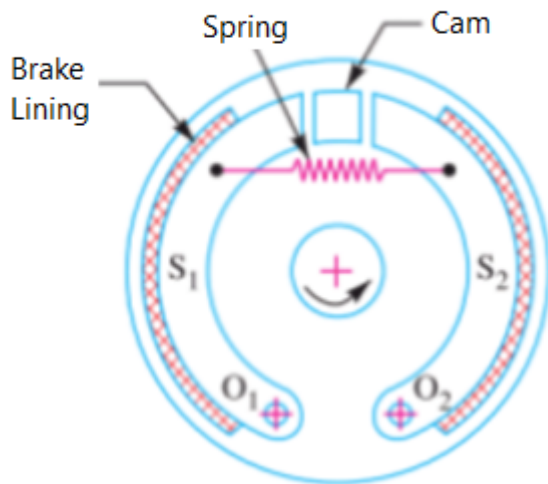
4. ✔ Leaf spring

**Question Number : 21 Question Id : 630680402753 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following types of brakes is shown in the figure?



Options :

1. ✘ External expanding brake
2. ✔ Internal expanding brake
3. ✘ Centrifugal brake
4. ✘ Hydraulic brake

Question Number : 22 Question Id : 630680402754 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

What is the principle of hydraulic brake system?

Options :

1. ✘ Zeroth law hydraulics
2. ✘ Newton's law of friction
3. ✔ Pascal's law pressure



4. ✘ Fourier's law of conduction

**Question Number : 23 Question Id : 630680402755 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

A braking system commonly used in heavy commercial vehicles and trucks that requires a heavy braking effort that can be applied by the driver's leg alone is known as:

**Options :**

1. ✘ Hydraulic brake system
2. ✘ Internal expanding brake system
3. ✘ Band brake system
4. ✔ Air brake system

**Question Number : 24 Question Id : 630680402756 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the following circuits of carburettor with their individual functions correctly.

(A) Main circuit	(i) Provides just enough fuel for fuel-efficient cruising
(B) Idle circuit	(ii) Provides just enough fuel to keep the engine idling
(C) Power enrichment circuit	(iii) Provides extra fuel when the car is going up a hill or towing a trailer
(D) Choke	(iv) Provides extra fuel when the engine is cold so that it will start

**Options :**

1. ✓ (A)-(i), (B)-(ii), (C)-(iii) and (D)-(iv)
2. ✘ (A)-(ii), (B)-(iii), (C)-(i) and (D)-(iv)
3. ✘ (A)-(iv), (B)-(iii), (C)-(ii) and (D)-(i)
4. ✘ (A)-(ii), (B)-(iii), (C)-(iv) and (D)-(i)

**Question Number : 25 Question Id : 630680402757 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the following type gear trains with their functions.

Gear type	Functions
(A) Simple gear train	(i) The gear train in which axis of first gear and last gear is co-axial.
(B) Compound gear train	(ii) The gear train which consists of more than one gear on any shaft.
(C) Epi-cyclic gear train	(iii) The gear train in which the axis of one or more gear moves relative to the fixed axis of another gear.
(D) Reverted gear train	(iv) The gear train which consists of only one gear on each shaft.

**Options :**

- ✘ (A). - (i), (B). - (iii), (C).- (ii) and (D). - (iv)
- ✘ (A). - (iii), (B). - (ii), (C).- (iv) and (D). - (i)
- ✔ (A). - (iv), (B). - (ii), (C).- (iii) and (D). - (i)
- ✘ (A). - (iv), (B). - (i), (C).- (iii) and (D). - (ii)

**Question Number : 26 Question Id : 630680402758 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In a master cylinder of a hydraulic brake system, the primary piston is the piston that is:

**Options :**

- ✘ near the front end of the car
- ✔ directly operated by the brake pedal
- ✘ hydraulically operated by the secondary piston
- ✘ operated by the return springs

**Question Number : 27 Question Id : 630680402759 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In a friction clutch assembly, the flywheel is located between the:

**Note: For this question, discrepancy is found in question/answer. So, this question is ignored for all candidates.**

**Options :**

1. driven shaft and transmission
2. transmission and propeller shaft
3. driven and driver shaft
4. engine and driven shaft

**Question Number : 28 Question Id : 630680402760 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

A single plate clutch has outer and inner diameters as 300 mm and 200 mm, respectively. The total force acting on the friction surface is 6000 N. If the coefficient of friction is 0.2, the power transmitted by the clutch at an angular speed of 300 rad/s is:

**Options :**

1. ✘ 36 kW

2. ✘ 90 kW

3. ✔ 45 kW

4. ✘ 30 kW

**Question Number : 29 Question Id : 630680402761 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is NOT a type of clutch?

**Options :**

1. ✘ Single plate type clutch

2. ✘ Multiple plate clutch

3. ✘ Centrifugal type clutch

4. ✔ Governor type clutch

**Question Number : 30 Question Id : 630680402762 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements about the multi-plate clutch is INCORRECT?

**Options :**

1. ✘ Multi-plate consists of a number of clutch plates.

2. ✘ Multi-plate clutch has higher friction surface, which is a multiple of the number of clutch plates.

The capacity of the multiple clutch to transmit torque however remains same as single plate clutch due to lower pressure

3. ✔ between various friction plates.

4. ✘ Wet multiple clutches are normally smaller in size, and the noise is also much less compared with dry clutches.

**Question Number : 31 Question Id : 630680402763 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

A force transducer works on the \_\_\_\_\_.

**Options :**

1. ✘ Hall effect principle

2. ✔ Piezoelectric principle

3. ✘ Laser principle

4. ✘ Magneto Rheological principle

**Question Number : 32 Question Id : 630680402764 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The tachogenerator is a device used to measure which of the following quantities?

**Options :**

1. ✘ Force
2. ✘ Torque
3. ✔ Angular velocity
4. ✘ Liquid level of the tank

**Question Number : 33 Question Id : 630680402765 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following types of combustion chambers is NOT used in the spark ignition engine?

**Options :**

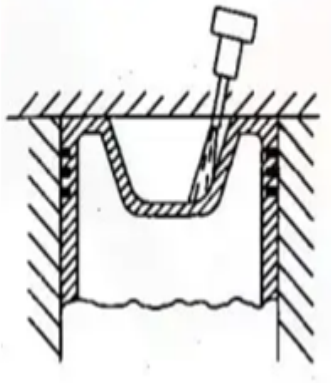
1. ✘ T-head type chamber
2. ✘ L-head chamber
3. ✘ I-head type chamber
4. ✔ Shallow depth chamber

**Question Number : 34 Question Id : 630680402766 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which combustion chamber is shown in the figure, and in which type of engine is it used?



Options :

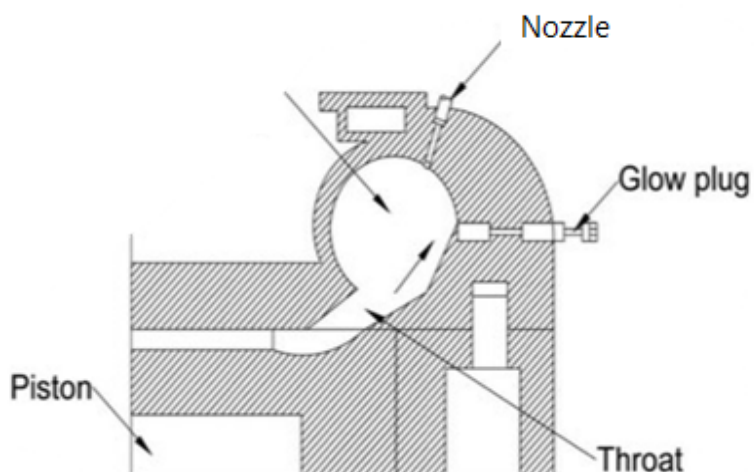
1. ✓ Cylindrical chamber used in compression ignition engine
2. ✗ Semi-spherical chamber used in spark ignition engine
3. ✗ Toroidal chamber used in compression ignition engine
4. ✗ Shallow depth combustion chamber used in spark ignition chamber

Question Number : 35 Question Id : 630680402767 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Which of the following types of combustion chambers is shown in the figure?



Options :



1. ✓ Swirl combustion chamber
2. ✘ Shallow chamber
3. ✘ F-head type chamber
4. ✘ T-head type chamber

**Question Number : 36 Question Id : 630680402768 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following operating variables is NOT affected due to ignition delay during compression ignition combustion?

**Options :**

1. ✘ Injection pressure
2. ✘ Compression temperature
3. ✘ Air velocity in combustion chambers
4. ✓ Suction air temperature

**Question Number : 37 Question Id : 630680402769 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The phenomenon of excessive turbulence increases combustion rapidly and leads to \_\_\_\_\_.

**Options :**

1. ✘ high power generation
2. ✘ low flame velocity
3. ✔ detonation
4. ✘ incomplete combustion

**Question Number : 38 Question Id : 630680402770 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The process of preparing a combustible fuel-air mixture outside the engine cylinder is known as:

**Options :**

1. ✘ Knocking
2. ✘ Vaporisation
3. ✔ Carburation
4. ✘ Compression

**Question Number : 39 Question Id : 630680402771 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is the maximum voltage range used in electrical circuits for two-wheeler vehicles?

**Options :**

1. ✘ 24 V

2. ✔ 12 V

3. ✘ 6 V

4. ✘ 4 V

**Question Number : 40 Question Id : 630680402772 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is voltage and power rating of rear, turn left signal lamp used in four-wheeler vehicles?

**Options :**

1. ✘ 24 V and 12 watt

2. ✘ 12 V and 5 watt

3. ✘ 20 V and 10 watt

4. ✔ 12 V and 10 watt

**Question Number : 41 Question Id : 630680402773 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is NOT a part of the capacitor discharge ignition unit?

**Options :**

1. ✘ Charging coil

2. ✔ Potentiometer

3. ✘ Hall sensor

4. ✘ Flywheel

**Question Number : 42 Question Id : 630680402774 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

An electrical device which is a combination of a distributor and generator built as one unit, making it different from the conventional distributor that creates spark energy without external voltage is known as:

**Options :**

1. ✘ Voltage Regulator

2. ✘ Alternator

3. ✘ Capacitor Discharge Ignition

4. ✔ Magneto

**Question Number : 43 Question Id : 630680402775 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is NOT a function of piston rings?

**Options :**

1. ✘ Sealing the combustion chamber
2. ✘ Controlling the thickness of the oil film on the cylinder wall
3. ✔ Carrying the heat away from the cylinder into the piston
4. ✘ Providing hydrodynamic lubrication

**Question Number : 44 Question Id : 630680402776 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following types of piston rings located in the ring groove is closest to the crankcase?

**Options :**

1. ✔ Oil ring
2. ✘ Compression ring
3. ✘ Wiper ring
4. ✘ Heat transfer ring

**Question Number : 45 Question Id : 630680402777 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The piston is not parallel sided but tapered, usually with a barrel form as shown in the figure. The correct position for piston \_\_\_\_\_ measurement (point x) should be verified with the product supplier, as the exact point will vary by application.



**Options :**

1. ✘ bottom dead centre
2. ✔ skirt diameter
3. ✘ top dead centre
4. ✘ Gudgeon pin thickness

**Question Number : 46 Question Id : 630680402778 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0.33**

Which of the following manufacturing methods will produce the strongest piston using aluminium alloys?

**Options :**

1. ✘ Marching processes
2. ✘ Casting method
3. ✔

✓ Forging method

4. ✘ Welding method

Question Number : 47 Question Id : 630680402779 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Which of the following parts of an engine is shown in the figure?



Options :

1. ✘ Piston cylinder

2. ✘ Cylinder head

3. ✓ Cylinder block

4. ✘ Crankcase

Question Number : 48 Question Id : 630680402780 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Which of the following types of pistons is shown in the figure?



**Options :**

1. ✘ Domed piston
2. ✘ Flat top piston
3. ✔ Dished piston
4. ✘ Relief valve piston

**Question Number : 49 Question Id : 630680402781 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The maximum magnitude of the unbalanced force perpendicular to the line of stroke of an engine to cause the variation in pressure between the wheel and the rail such that the vehicle vibrates vigorously is known as:

**Options :**

1. ✘ Swaying Couple
2. ✔ Hammer Blow
3. ✘ Resonance



4. ✘ Natural Vibration

**Question Number : 50 Question Id : 630680402782 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The firing order in an engine is important because a correct firing order can cause \_\_\_\_\_.

**Options :**

1. ✘ low pollution

2. ✔ minimum vibration

3. ✘ good air cooling

4. ✘ low fuel consumption

**Question Number : 51 Question Id : 630680402783 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements about torque tube drive is INCORRECT?

**Options :**

1. ✘ The propeller shaft is enclosed by a hollow torque tube.

2. ✔ Two universal joints are used.

3. ✘ Load-carrying capability is very low.

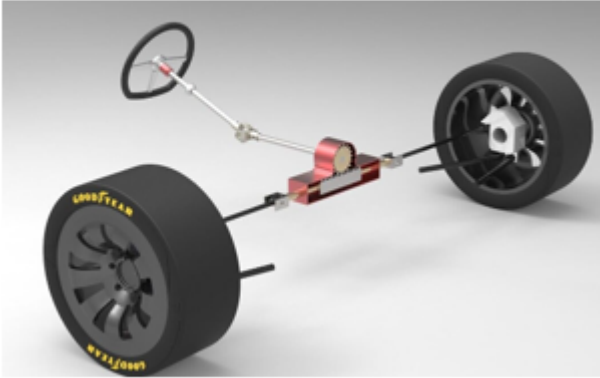
4. ✘ There is no slip joint in torque tube drive.

Question Number : 52 Question Id : 630680402784 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Which of the following steering mechanisms is shown in the figure?



Options :

1. ✔ Rack and pinion steering linkage

2. ✘ Relay type steering linkage

3. ✘ Gearbox steering linkage

4. ✘ Sliding steering linkage

Question Number : 53 Question Id : 630680402785 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Which of the following equations represents the basic condition for the steering mechanism for perfect rolling of all wheels?

Consider  $\varphi$  = angle of inside lock;  $\theta$  = angle of outside lock;  $b$  and  $c$  are the distances between rear and front wheels and distance between front wheels, respectively.

**Options :**

1. ✘  $\cot \varphi + \cot \theta = c/b$

2. ✔  $\cot \varphi - \cot \theta = c/b$

3. ✘  $\tan \varphi + \tan \theta = c/b$

4. ✘  $\tan \varphi - \cot \theta = c/b$

**Question Number : 54 Question Id : 630680402786 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The part of a lubrication system in piston engine whereby the crankcase sump is used as an integral oil reservoir is known as:

**Options :**

1. ✘ dry sump reservoir

2. ✘ dual lubrication sump reservoir

3. ✔ wet sump reservoir

4. ✘ cylinder case sump reservoir

Question Number : 55 Question Id : 630680402787 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

In which of the following types of engines is petrol lubrication system employed?

Options :

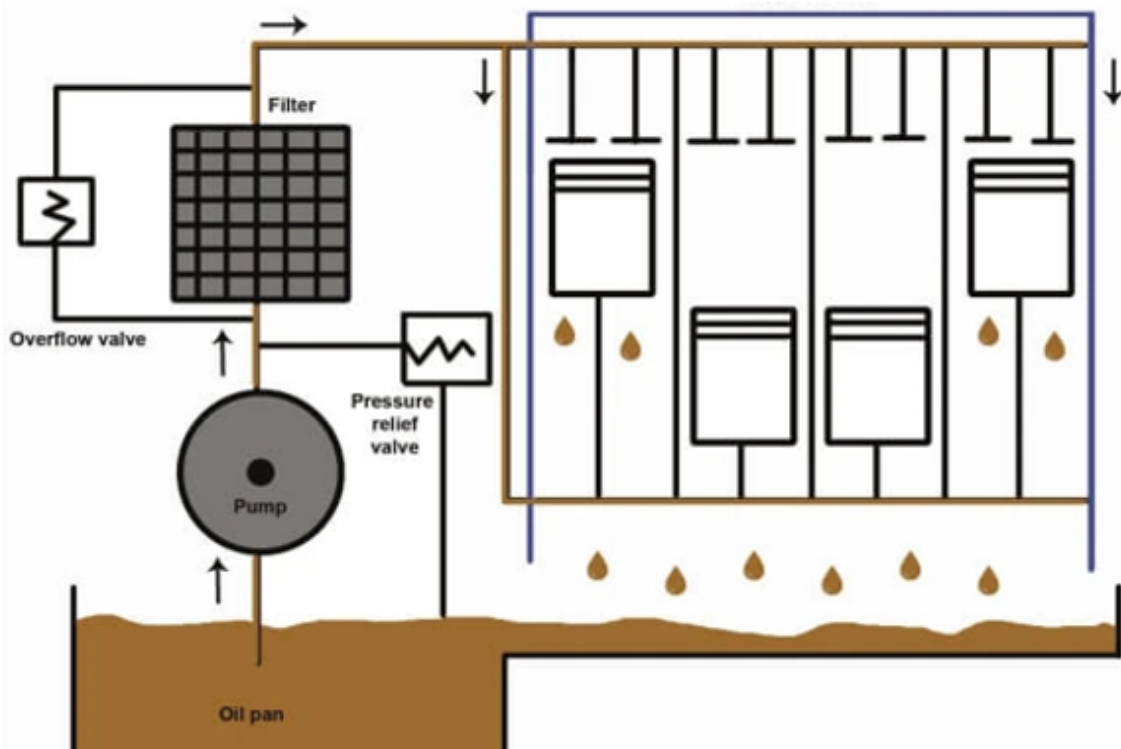
1. ✘ Four-stroke diesel engine
2. ✘ Four-stroke petrol engine
3. ✘ Steam engine
4. ✔ Two-stroke engines

Question Number : 56 Question Id : 630680402788 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Which of the following types of lubrication systems is shown in the figure?



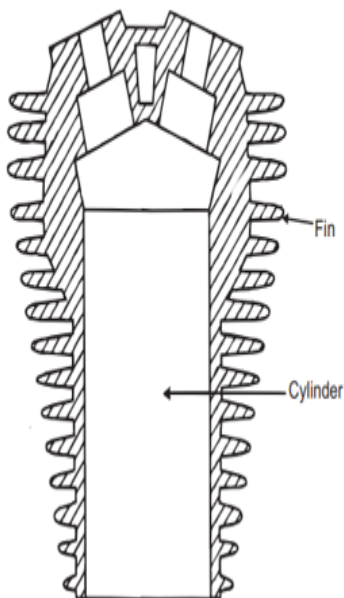
**Options :**

1. ✘ Petroil lubrication system
2. ✔ Pressure lubrication system
3. ✘ Pump lubrication system
4. ✘ Dry lubrication system

**Question Number : 57 Question Id : 630680402789 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The metal fins on the internal combustion engine's cylinder head as shown in the figure are used for which of the following purposes?



**Options :**

1. ✘ To heat the air during suction stroke
2. ✘ To dissipate the exhaust gases during exhaust stroke

3. ✓ To increase heat dissipation rate of the cylinder head by air cooling

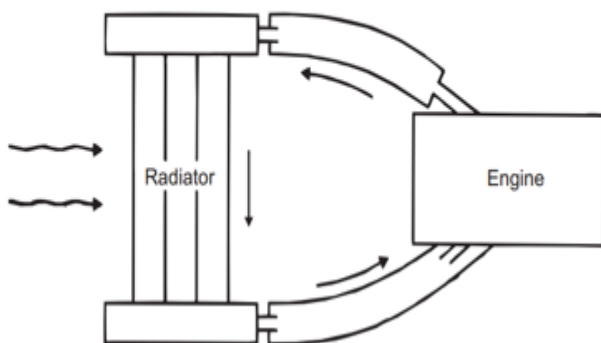
4. ✘ To increase the heat dissipation rate of the cylinder head by water cooling

**Question Number : 58 Question Id : 630680402790 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following types of internal combustion cooling system is shown in the figure?



**Options :**

1. ✘ Air syphon cooling system

2. ✘ Gravitational water cooling system

3. ✘ Buoyant syphon water cooling system

4. ✓ Thermo-syphon water cooling system

**Question Number : 59 Question Id : 630680402791 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

A type of manual transmission system in which transmission changes occur between gears rotating at the same speed is known as:

**Options :**

1. ✘ Differential transmission system
2. ✘ Automatic transmission system
3. ✔ Synchronesh transmission system
4. ✘ Reverted gear transmission system

**Question Number : 60 Question Id : 630680402792 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is the primary objective of an automatic transmission system?

**Options :**

1. ✔ Allow the engine to operate in its narrow range of speeds while providing a wide range of output speeds.
2. ✘ Allow the engine to operate at constant speeds while providing a wide range of output speeds.
3. ✘ Allow the engine to operate in its wide range of speeds while providing a narrow range of output speeds.
4. ✘ Allow the engine to operate in its wide range of speeds while providing a constant output speed.

**Question Number : 61 Question Id : 630680402793 Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is correct for the constant mesh gear box?

**Options :**

1. ✘ It has the simplest design of gear box.
2. ✔ It consists of helical gear.
3. ✘ The size of the gearbox is large.
4. ✘ It has more chance to damage the gear teeth during meshing.

**Question Number : 62 Question Id : 630680402795 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Identify the odd one in terms of components of a car air conditioner.

**Options :**

1. ✘ Compressor
2. ✘ Condenser
3. ✘ Evaporator
4. ✔ Rectifier

**Question Number : 63 Question Id : 630680402796 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**



Match the columns.

Refrigeration	Applications
(i) Domestic refrigeration	(a) Holding and displaying frozen and fresh food in retail outlets
(ii) Commercial refrigeration	(b) Appliances used for keeping food in dwelling units
(iii) Industrial refrigeration	(c) Large equipment, typically 25 Kw to 30 MW
(iv) Transport refrigeration	(d) Used during transportation by road, rail, air and sea

**Options :**

- ✘ (i)-b, (ii)-c, (iii)-a, (iv)-d
- ✘ (i)-c, (ii)-b, (iii)-a, (iv)-d
- ✘ (i)-d, (ii)-b, (iii)-a, (iv)-c
- ✔ (i)-b, (ii)-a, (iii)-c, (iv)-d

**Question Number : 64 Question Id : 630680402797 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0.33**

Which gas CANNOT be used in a sterling engine?

**Options :**

- ✘ Air
- ✘ Hydrogen
- ✘ Helium
- ✔ Neon

**Question Number : 65 Question Id : 630680402798 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following options about the given assertion and reason is correct?

Assertion (A): The air standard efficiency of the diesel cycle decreases as the load is increased.

Reason (R): With increase of load, cut-off ratio increases.

**Options :**

1. ✓ Both A and R are individually true and R is the correct explanation of A.
2. ✗ Both A and R are individually true but R is not the correct explanation of A.
3. ✗ A is true but R is false.
4. ✗ A is false but R is true.

**Question Number : 66 Question Id : 630680402799 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The main purpose of a wheel alignment is to:

**Options :**

1. ✓ control vehicle direction
2. ✗ stop the vehicle
3. ✓ reduce tyre wear
4. ✗ support vehicle weight

**Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.**

**Question Number : 67 Question Id : 630680402800 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following angles consists of the camber angle and steering axis angle?

**Options :**

1. ✘ Toe-out
2. ✘ Point of intersection
3. ✔ Included angle
4. ✘ Caster angle

**Question Number : 68 Question Id : 630680402801 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is a sign of bad wheel alignment?

**Options :**

1. ✘ Good cornering effect
2. ✘ Neutral steer
3. ✘ The steering wheel returns to the centre

4. ✓ The vehicle pulls to one side

Question Number : 69 Question Id : 630680402802 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Match the columns.

Wheel Alignment terms	Functions
(i) Castor	(a) Measures whether the front of a pair of wheels turns in or out, viewed from the front
(ii) Camber	(b) Measures the vertical tilt of the wheel
(iii) Toe	(c) Compares the steering axis to the vertical axis, when the car is viewed from the side
(iv) Thrust	(d) The imaginary line drawn perpendicular to the rear axles centre line

Options :

1. ✓ (i) - c, (ii) - b, (iii) - a, (iv) - d
2. ✗ (i) - d, (ii) - a, (iii) - b, (iv) - c
3. ✗ (i) - b, (ii) - c, (iii) - d, (iv) - a
4. ✗ (i) - c, (ii) - d, (iii) - b, (iv) - a

Question Number : 70 Question Id : 630680402803 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

During the throttling process \_\_\_\_\_ does not change.

Options :

1. ✗ pressure

2. ✘ internal energy

3. ✘ entropy

4. ✔ enthalpy

**Question Number : 71 Question Id : 630680402804 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In a disc brake, which component provides the pad-to-disc adjustment?

**Options :**

1. ✘ Bleed screw

2. ✘ Piston

3. ✘ Caliper

4. ✔ Piston seal

**Question Number : 72 Question Id : 630680402805 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following parts will face maximum wear?

**Options :**

1. ✘ Brake drum

2. ✓ Friction lining

3. ✘ Wheel cylinders

4. ✘ Retracting lever

**Question Number : 73 Question Id : 630680402806 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Read the given statement and conclusions carefully. Which of the given conclusions logically follow(s) from the statement?

Statement:

An air brake or, more formally, a compressed-air-brake system, is a type of friction brake for vehicles in which compressed air pressing on a piston is used to apply the pressure to the brake pad to stop the vehicle. Air brakes are used in large heavy vehicles.

Conclusions:

I) Air brakes are used in cars.

II) Air brakes are used in trucks, buses, trailers and semi-trailers.

**Options :**

1. ✘ Only Conclusion I follows

2. ✓ Only Conclusion II follows

3. ✘ Both conclusions follow

4. ✘ Statement is true, both conclusions are false

**Question Number : 74 Question Id : 630680402807 Is Question Mandatory : No Calculator :**

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

What is the pressure on air brakes?

Options :

1. ✓ 100 to 120 psi
2. ✗ 80 to 90psi
3. ✗ 150 to 200 psi
4. ✗ 32 to 40 psi

Question Number : 75 Question Id : 630680402808 Is Question Mandatory : No Calculator :

None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1 Wrong Marks : 0.33

Match the columns.

Braking Terms	Definition
(i) Bleeding	(a) Vacuum device that multiplies pedal effort
(ii) Bluing	(b) Discolouring of cast iron rotors due to heat
(iii) Brake booster	(c) Hydraulic pressure within the brake line
(iv) Brake line pressure	(d) Process of removing overheated fluid and air

Options :

1. ✗ (i)-b, (ii)-d, (iii)-c, (iv)-a
2. ✗ (i)-c, (ii)-a, (iii)-b, (iv)-d
3. ✗ (i)-d, (ii)-c, (iii)-b, (iv)-a

4. ✓ (i)-d, (ii)-b, (iii)-a, (iv)-c

**Question Number : 76 Question Id : 630680402809 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following options about the given assertion and reason is correct?

Assertion (A): Eddy current brakes use the drag force created by eddy currents as a brake to slow or stop moving objects.

Reason (R): Mechanical energy is converted into resistive heat energy by the principle of energy conservation.

**Options :**

1. ✓ Both A and R are correct and R is the correct explanation for A.
2. ✗ Both A and R are correct but R is not the correct explanation for A.
3. ✗ A is correct but R is incorrect.
4. ✗ Both A and R are incorrect.

**Question Number : 77 Question Id : 630680402810 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following is NOT a friction clutch?

**Options :**

1. ✓ Torque converter
2. ✗ Centrifugal clutch



3. ✘ Cone clutch

4. ✘ Disc clutch

**Question Number : 78 Question Id : 630680402811 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is the best word to describe the assembled parts of a clutch?

**Options :**

1. ✘ Welded

2. ✘ Bolted

3. ✔ Riveted

4. ✘ Solder

**Question Number : 79 Question Id : 630680402812 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

A clutch that consists of thin plates immersed in a bath of oil and has grooved surfaces for permitting the oil to flow through these plates is called:

**Options :**

1. ✘ Multiple dry clutch

2. ✓ Multiple wet clutch

3. ✗ Semi-centrifugal clutch

4. ✗ Centrifugal clutch

**Question Number : 80 Question Id : 630680402813 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ is a type of clutch used in motorcycles.

**Options :**

1. ✗ Single plate

2. ✓ Multi-plate

3. ✗ Diaphragm

4. ✗ Centrifugal

**Question Number : 81 Question Id : 630680402814 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

A pilot bearing that is worn or lacks lubricant will produce noise in the clutch when which condition exists?

**Options :**

1. ✗ Transmission is in gear

2. ✓ Clutch is disengaged

3. ✘ Vehicle is standing still

4. ✘ Clutch is engaged

**Question Number : 82 Question Id : 630680402815 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the columns.

Parts Name	Functions
(i) Torque converter	(a) Produces pressure
(ii) Input shaft	(b) Actuate the bands and clutches
(iii) Oil pump	(c) Produces pressure fluid coupling that connects and disconnects the engine and transmission
(iv) Piston and servos	(d) Transfers power from torque converter to internal drive member

**Options :**

1. ✓ (i)-c, (ii)-d, (iii)-a, (iv)-b

2. ✘ (i)-d, (ii)-c, (iii)-b, (iv)-a

3. ✘ (i)-b, (ii)-c, (iii)-d, (iv)-a

4. ✘ (i)-b, (ii)-a, (iii)-c, (iv)-d

**Question Number : 83 Question Id : 630680402816 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the given statements are correct?

1. In the SI engines, detonation occurs near the end of combustion; whereas in CI engines, knocking occurs near the beginning of combustion.
2. In SI engines, no problems are encountered on account of pre-ignition.
3. Low inlet pressure and temperature reduce knocking tendency in SI engines but increase the knocking tendency in CI engines.

**Options :**

1. ✘ 1, 2 and 3
2. ✘ Only 1 and 2
3. ✘ Only 2 and 3
4. ✔ Only 1 and 3

**Question Number : 84 Question Id : 630680402817 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which component is used to charge the battery driven by the engine?

**Options :**

1. ✘ Condenser
2. ✘ Rectifier
3. ✔ Alternator
- 4.

✘ Relay

**Question Number : 85 Question Id : 630680402818 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The output of an ignition coil is connected to which of the following parts?

**Options :**

1. ✘ Battery

2. ✘ Ammeter

3. ✔ Distributor cap

4. ✘ Spark plug

**Question Number : 86 Question Id : 630680402819 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is the temperature of the intake valve?

**Options :**

1. ✔ 200°C to 300°C

2. ✘ 300°C to 400°C

3. ✘ 400°C to 500°C

4. ✘ 500°C to 600°C

**Question Number : 87 Question Id : 630680402820 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

During a power stroke, the downward moment of the piston is done due to which pressure or force?

**Options :**

1. ✘ Fuel pressure

2. ✔ Gas pressure

3. ✘ Solid pressure

4. ✘ Liquid pressure

**Question Number : 88 Question Id : 630680402821 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Match the columns.

<b>IC Engine Terminology</b>	<b>Function</b>
(i) Bore	(a) Distance between TDC and BDC
(ii) Stroke	(b) Combined volume of all engines
(iii) Engine displacement	(c) SI engine
(iv) Spark plug	(d) Internal diameter of cylinder

**Options :**

1. ✘ (i)-c, (ii)-d, (iii)-a, (iv)-b

2. ✓ (i)-d, (ii)-a, (iii)-b, (iv)-c

3. ✘ (i)-a, (ii)-b, (iii)-c, (iv)-d

4. ✘ (i)-c, (ii)-a, (iii)-d, (iv)-b

**Question Number : 89 Question Id : 630680402822 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Read the given statement and conclusions carefully. Which of the given conclusions logically follow(s) from the statement?

Statement:

A piston is a component of reciprocating engines, reciprocating pumps, gas compressors, hydraulic cylinders and pneumatic cylinders, among other similar mechanisms.

Conclusions:

I) It is the moving component that is contained by a cylinder and is made gas-tight by piston rings.

II) Its purpose is to transfer force from expanding gas in the cylinder to the crankshaft via a piston rod.

**Options :**

1. ✘ Only Conclusion I follows

2. ✘ Only Conclusion II follows

3. ✓ Both conclusions follow

4. ✘ The statement is true but the conclusions are false

**Question Number : 90 Question Id : 630680402823 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In balancing of single cylinder engine, the rotating unbalance is:

**Options :**

1. ✘ Completely made zero and so also the reciprocating unbalance
2. ✔ Completely made zero and the reciprocating unbalance is partially reduced
3. ✘ Partially reduced and the reciprocating unbalance is completely made zero
4. ✘ Partially reduced and so also the reciprocating unbalance

**Question Number : 91 Question Id : 630680402824 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The air cooling system helps to dissipate the heat from which of the following parts?

**Options :**

1. ✘ Engine piston
2. ✘ Engine crank shaft
3. ✘ Exhaust pipe
4. ✔ Cylinder and head fins

**Question Number : 92 Question Id : 630680402825 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is the main purpose of a lubricant?

**Options :**



1. ✓ To minimise the friction
2. ✘ To increase the friction
3. ✘ To increase the weariness
4. ✘ To increase the noise

**Question Number : 93 Question Id : 630680402826 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Identify the INCORRECT statement related to the properties of a lubricant.

**Options :**

1. ✓ It should have low viscosity.
2. ✘ It should remain stable under changing temperatures.
3. ✘ It should keep lubricated pans clean.
4. ✘ It should not corrode metallic surfaces.

**Question Number : 94 Question Id : 630680402827 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Identify the multi-grade oil.

**Options :**

1. ✓ SAE 10W 30

2. ✘ SAE 25W

3. ✘ SAE 10

4. ✘ SAE 20W

**Question Number : 95 Question Id : 630680402828 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The pressure feed lubrication system does NOT lubricate which of the following parts?

**Options :**

1. ✘ Timing gears

2. ✓ Valve rods and push rods

3. ✘ Rocker arms

4. ✘ Main bearings of crankshaft

**Question Number : 96 Question Id : 630680402829 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The temperature gauge, which is most often located on your dashboard, indicates the temperature of:

**Options :**

1. ✘ lubricating oil
2. ✘ engine cylinder
3. ✔ jacket cooling water
4. ✘ engine piston

**Question Number : 97 Question Id : 630680402830 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ is typically sucked into the cylinder during the suction stroke in the fuel supply system.

**Options :**

1. ✘ Diesel
2. ✔ Air
3. ✘ Water
4. ✘ Oil

**Question Number : 98 Question Id : 630680402831 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0  
Correct Marks : 1 Wrong Marks : 0.33**

In which stroke of the petrol engine, 'exhaust gases' is released to the atmosphere?

**Options :**

1. ✔ Exhaust stroke
2. ✘ Power stroke
3. ✘ Compression stroke

4. ✘ Intake stroke

**Question Number : 99 Question Id : 630680402832 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following components of the engine system cleans the air before it enters the cylinder of the engine?

**Options :**

1. ✘ Crank

2. ✘ Piston ring

3. ✔ Filter

4. ✘ Spark plug

**Question Number : 100 Question Id : 630680402833 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ atomizes the fuel and mixes it with air in an I.C. engine.

**Options :**

1. ✘ Camshaft

2. ✘ Spark plug

3. ✘ Piston

4. ✔ Carburetor

**Question Number : 101 Question Id : 630680402834 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What condition does the engine require while idling in a spark ignition (SI) engine?

**Options :**

1. ✘ Maximum power output
2. ✘ Heavy load demand
3. ✘ Overheating
4. ✔ No power demand

**Question Number : 102 Question Id : 630680402835 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

When all the air supplied is fully utilized, a spark ignition (SI) engine produce \_\_\_\_\_?

**Options :**

1. ✘ minimum power
2. ✔ maximum power
3. ✘ no power
4. ✘ average power

**Question Number : 103 Question Id : 630680402836 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In which type of engine, petrol is used as fuel?

**Options :**

1. ✘ Steam engine
2. ✔ Spark ignition engine
3. ✘ Diesel engine
4. ✘ Turbine engine

**Question Number : 104 Question Id : 630680402837 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is correct regarding the fuel properties in an automobile system?

I. The volatile fuels are always preferred due to presence of constituents providing easiness in starting of engine in cold weather.

II. The vaporization of fuel immediately after the engine starts is affected by the speed with which it is warmed up.

**Options :**

1. ✘ Only I

2. ✘ Only II

3. ✔ Both I and II

4. ✘ Neither I nor II

**Question Number : 105 Question Id : 630680402838 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

To get petrol from crude oil, it is primarily \_\_\_\_\_ in a refinery.

**Options :**

1. ✘ filtered

2. ✘ compressed

3. ✔ distilled

4. ✘ oxidized

**Question Number : 106 Question Id : 630680402839 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is the primary source of most of the petrol used in automobiles?

**Options :**

1. ✘ Natural gas

2. ✘ Coal

3. ✔ Crude oil

4. ✘ Biofuels

**Question Number : 107 Question Id : 630680402840 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which method improves the antiknock qualities of the straight run gasoline by changing their molecular structure?

**Options :**

1. ✔ Reforming

2. ✘ Alkylation

3. ✘ Cracking

4. ✘ Polymerization

**Question Number : 108 Question Id : 630680402841 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What calorific value of fuel is necessary for efficient operation in an automobile?

**Options :**

1. ✔ High calorific value

2. ✘ Low calorific value

3. ✘ Average calorific value

4. ✘ Fuel power does not depend upon its calorific value

**Question Number : 109 Question Id : 630680402842 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What are the primary components of LPG used as fuel in an automobile?

**Options :**

1. ✘ Methane and ethane

2. ✘ Hydrogen and helium

3. ✔ Butane and propane

4. ✘ Oxygen and nitrogen

**Question Number : 110 Question Id : 630680402843 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ connects the transmission main or output shaft of the gear box to the differential of the rear axle.

**Options :**

1. ✔ Propeller shaft

2. ✘ Radiator

3. ✘ Airbags

4. ✘ Alternator

**Question Number : 111 Question Id : 630680402844 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**



**Correct Marks : 1 Wrong Marks : 0.33**

The 'Drive shaft' in a vehicle is also called \_\_\_\_\_.

**Options :**

1. ✓ Propeller shaft
2. ✘ Steering wheel
3. ✘ Seat belt
4. ✘ Axle beam

**Question Number : 112 Question Id : 630680402845 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is provided to accommodate changes in the length of the propeller shaft?

**Options :**

1. ✘ Coupling
2. ✘ Universal joint
3. ✓ Slip joint
4. ✘ Drive belt

**Question Number : 113 Question Id : 630680402846 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is added in an automobile to provide relative motion to both the rear wheels when the vehicle is turning?

**Options :**

1. ✘ Radiator
2. ✓ Differential
- 3.

✘ Gear box

4. ✘ Steering wheel

**Question Number : 114 Question Id : 630680402847 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is that principle which is similar to the principle of 'differential'?

**Options :**

1. ✘ Spring balance

2. ✘ Thermometer

3. ✘ Pressure cooker

4. ✔ Weighing beam

**Question Number : 115 Question Id : 630680402848 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In addition of its primary function, the 'rear axle' also serves as what in a vehicle's chassis?

**Options :**

1. ✘ A hydraulic pump

2. ✘ A fuel tank

3. ✘ A cooling system

4. ✔ A beam subjected to a bending load

**Question Number : 116 Question Id : 630680402849 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is correct regarding the types of rear axle of an automobile?

I. Dead axles do not rotate with the wheels but the wheels rotate on it.

II. Live axles are those axles which are attached to the wheel so that both of them rotate together.

**Options :**

1. ✘ Only I

2. ✘ Only II

3. ✔ Both I and II

4. ✘ Neither I nor II

**Question Number : 117 Question Id : 630680402850 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following types of vehicles typically has a dead rear axle?

**Options :**

1. ✘ Sports cars

2. ✔ Horse-drawn vehicles

3. ✘ Motorcycles

4. ✘ Electric scooters

**Question Number : 118 Question Id : 630680402851 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ allows a clutch to function in a vehicle's transmission system?

**Options :**

1. ✘ Magnetic force

2. ✓ Friction

3. ✗ Electrical current

4. ✗ Hydraulic pressure

**Question Number : 119 Question Id : 630680402852 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which process is responsible for expelling the exhaust gases from the cylinder during the exhaust stroke of the engine?

**Options :**

1. ✗ Knocking

2. ✗ Combustion

3. ✓ Scavenging

4. ✗ Ignition

**Question Number : 120 Question Id : 630680402853 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Exhaust gases are pushed out of the cylinder by the motion of what component in an engine?

**Options :**

1. ✗ Spark plug

2. ✗ Carburettor

3. ✓ Piston

4. ✗ Crankshaft

**Question Number : 121 Question Id : 630680402854 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is correct regarding the exhaust stroke in Four-stroke Otto Cycle Engine?

I. The suction valve remains closed and exhaust valve is open.

II. As the piston moves from BDC to TDC, it pushes the gases out through exhaust valves.

**Options :**

1. ✘ Only I

2. ✘ Only II

3. ✔ Both I and II

4. ✘ Neither I nor II

**Question Number : 122 Question Id : 630680402855 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In a four-stroke diesel engine cycle, when does the exhaust valve typically open?

**Options :**

1. ✘ At the beginning of the compression stroke

2. ✔ Just before the end of expansion

3. ✘ During the intake stroke

4. ✘ At the start of the power stroke

**Question Number : 123 Question Id : 630680402856 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is the most important gas produced during combustion in an automobile engine that

increases the atmospheric temperature?

**Options :**

1. ✘ O<sub>2</sub>
2. ✔ CO<sub>2</sub>
3. ✘ N<sub>2</sub>
4. ✘ SO<sub>2</sub>

**Question Number : 124 Question Id : 630680402857 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In the automobile engine, which two gases in the exhaust vary opposite to each other?

**Options :**

1. ✘ SO<sub>2</sub> and O<sub>2</sub>
2. ✘ O<sub>2</sub> and CO
3. ✔ CO<sub>2</sub> and CO
4. ✘ SO<sub>2</sub> and N<sub>2</sub>

**Question Number : 125 Question Id : 630680402858 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

The exhaust of spent gases from the cylinder of an automobile engine is done so that \_\_\_\_\_.

**Options :**

1. ✘ the engine can run silently
2. ✘ fuel efficiency is improved
3. ✔ fresh charge may be sucked in
4. ✘ the exhaust note becomes louder

**Question Number : 126 Question Id : 630680402859 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In a four stroke diesel cycle engine, during which piston movement does it push gases through the exhaust valves?

**Options :**

1. ✘ From TDC towards BDC
2. ✔ From BDC towards TDC
3. ✘ From TDC to BDC and back to TDC
4. ✘ No piston movement required

**Question Number : 127 Question Id : 630680402860 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What equipment is called 'a tray on wheels for mechanics to lie down on'?

**Options :**

1. ✘ Wrench
2. ✔ Creeper
3. ✘ Sinter
4. ✘ Hacksaw

**Question Number : 128 Question Id : 630680402861 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Where is the tyre-tube assembly mounted in a vehicle?

**Options :**

1. ✓ Over the wheel rim

2. ✘ On the rear axle

3. ✘ On the gear box

4. ✘ On the differential

**Question Number : 129 Question Id : 630680402862 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ is the final contact point between the road and the vehicle.

**Options :**

1. ✘ Gear box

2. ✓ Tyres

3. ✘ Wheel hubs

4. ✘ Differential

**Question Number : 130 Question Id : 630680402863 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In an automobile, what is the 'tread'?

**Options :**

1. ✘ The engine compartment

2. ✘ The steering wheel

3. ✘ Automobile's dashboard

4. ✓ The outer portion of the tyre that makes contact with the road surface

**Question Number : 131 Question Id : 630680402864 Is Question Mandatory : No Calculator :**



**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What are the rings that fit on the rim of the wheel and connect the tyre to the rim called?

**Options :**

1. ✓ Beads

2. ✗ Hubs

3. ✗ Valves

4. ✗ Axles

**Question Number : 132 Question Id : 630680402865 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In an automobile system, transmission system is also called \_\_\_\_\_.

**Options :**

1. ✗ Differential

2. ✗ Gear box

3. ✓ Power train

4. ✗ Wheel rim

**Question Number : 133 Question Id : 630680402866 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What system transmits the power developed by the engine of the automobile to the driving wheels?

**Options :**

1. ✗ Brake System

2. ✓ Transmission System

3. ✖ Steering System

4. ✖ Ignition System

**Question Number : 134 Question Id : 630680402867 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ enables the driver to disconnect the drive from the road wheels instantaneously and to engage drive from the engine to the road wheels gradually.

**Options :**

1. ✖ Gear box

2. ✖ Spark plug

3. ✖ Crown wheel

4. ✔ Clutch

**Question Number : 135 Question Id : 630680402868 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following component in an automobile provides the necessary leverage variation between the engine and road wheels?

**Options :**

1. ✖ Differential

2. ✔ Gear box

3. ✖ Brakes

4. ✖ Steering wheel

**Question Number : 136 Question Id : 630680402869 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In an automobile, under what condition is the clutch typically disengaged?

**Options :**

1. ✘ When accelerating
2. ✘ When idling at a stoplight
3. ✔ When shifting gears
4. ✘ Clutch is never disengaged

**Question Number : 137 Question Id : 630680402870 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

How should the clutch be engaged to avoid a sudden jerk?

**Options :**

1. ✘ Keep it disengaged at all times
2. ✔ Should engage gradually
3. ✘ Only engage it when coming to a complete stop
4. ✘ Engage it quickly

**Question Number : 138 Question Id : 630680402871 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What to do if steering becomes hard due to low tyre inflation?

**Options :**

1. ✘ Increase the engine's RPM
2. ✘ Replace the whole steering wheel
3. ✔ Inflate the tyres to the specified pressure

4. ✘ Ignore the problem, it will correct itself

**Question Number : 139 Question Id : 630680402872 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In an automobile, which system's primary function is to achieve angular motion of the front wheels to negotiate a turn?

**Options :**

1. ✔ Steering system

2. ✘ Brake system

3. ✘ Ignition system

4. ✘ Transmission system

**Question Number : 140 Question Id : 630680402873 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In an automobile, what type of stress induced in the shafts due to the transmission of torque?

**Options :**

1. ✘ Bending stress

2. ✔ Shear stress

3. ✘ Principle stress

4. ✘ Torsional stress

**Question Number : 141 Question Id : 630680402874 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In an automobile, what type of stress induced in the shafts due to the forces acting upon machine

elements like gears, pulleys etc.?

**Options :**

1. ✓ Bending stress
2. ✗ Shear stress
3. ✗ Principle stress
4. ✗ Hoop stress

**Question Number : 142 Question Id : 630680402875 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

In an automobile, what is the typical cross-sectional shape of the shaft?

**Options :**

1. ✗ Circular
2. ✗ Rectangular
3. ✗ Triangular
4. ✓ Tubular

**Question Number : 143 Question Id : 630680402876 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What is the primary function of a Universal Joint in the shaft of an automobile?

**Options :**

1. ✗ To steer the vehicle
2. ✗ To connect the engine to the wheels
3. ✗ To provide power to the lights
4. ✓ For up and down movements of the rear axle when the vehicle is running

**Question Number : 144 Question Id : 630680402877 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

How can the critical whirling speed of a shaft be increased?

**Options :**

1. ✘ Reducing its length
2. ✘ Reducing its diameter
3. ✔ Increasing its diameter
4. ✘ Increasing its weight

**Question Number : 145 Question Id : 630680402878 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is correct regarding the 'half shafts' of an automobile?

I. It is called half shafts because it normally transmits half of the available power from the differential to the wheel to which it is connected.

II. Each half shaft uses a constant velocity joint at both the inboard (differential) and outboard (wheel) end.

**Options :**

1. ✘ Only I
2. ✘ Only II
3. ✔ Both I and II
4. ✘ Neither I nor II

**Question Number : 146 Question Id : 630680402879 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ is commonly used for making the windscreen of a vehicle.

**Options :**

1. ✓ Laminated safety glass
2. ✗ Aluminium
3. ✗ Wrought iron
4. ✗ Plastic

**Question Number : 147 Question Id : 630680402880 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What function does 'Sulphur' perform in relation to tyre material in the production of rubber?

**Options :**

1. ✗ Speed enhancer
2. ✓ Vulcanizing agent
3. ✗ Helps in better gripping on the road
4. ✗ Helps in better turning on the road

**Question Number : 148 Question Id : 630680402881 Is Question Mandatory : No Calculator :**

**None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

Which of the following statements is correct regarding the materials used in body work of an automobile?

I. Steel is still used in majority of the cases being the cheapest along with the case with which it can be stamped out to form various shapes.

II. Thermoplastics are quite often used for components like boot covers, grills etc.

**Options :**

1. ✘ Only I
2. ✘ Only II
3. ✔ Both I and II
4. ✘ Neither I nor II

**Question Number : 149 Question Id : 630680402882 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

\_\_\_\_\_ is commonly used to tighten or loosen screws in a machine element of an automobile.

**Options :**

1. ✔ Screw driver
2. ✘ Pliers
3. ✘ Reamer
4. ✘ Sinter

**Question Number : 150 Question Id : 630680402883 Is Question Mandatory : No Calculator :  
None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 1 Wrong Marks : 0.33**

What tool is used for cutting metal with a hammer in an automobile maintenance workshop?

**Options :**

1. ✘ Pliers
2. ✔ Chisels
3. ✘ Hacksaw
4. ✘ Solder