

**University of Mumbai**  
**Examination 2020 under cluster 4 (PCE)**

Program: BE Mechanical Engineering  
Curriculum Scheme: **Rev 2016**  
Examination: **Fourth Year Semester VII**  
Course Code: **MEDLO7032** Course Name: **Automobile Engineering (DLOC)**

Time: 1 hour

Max. Marks: 50

=====

Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	Axle shaft of the three-quarter floating axle is subjected to
Option A:	Bending stress only
Option B:	Bending and torsional stress
Option C:	Torsional stress only
Option D:	Torsional stress and stress due to axial force during cornering
Q2.	The arrangement in which road springs act as torque and thrust members is known as _____.
Option A:	Hotchkiss drive
Option B:	Torque tube drive
Option C:	road spring drive
Option D:	Torque tube drive, road spring drive
Q3.	Sideways forces are absorbed by which of the following component?
Option A:	Coil springs
Option B:	Torsion bars
Option C:	Air springs
Option D:	Leaf springs
Q4.	Which of the following is not a part of driving axle unit?
Option A:	Propeller shaft
Option B:	Final drive
Option C:	Differential
Option D:	Half shafts
Q5.	Following type of rear axle is used in a car and light commercial vehicles are _____.
Option A:	Semi-floating axle
Option B:	Full floating axle
Option C:	Three quarter Floating axle
Option D:	Full floating axle, Three quarter Floating axle

**University of Mumbai**  
**Examination 2020 under cluster 4 (PCE)**

Q6.	___ are provided in the clutch smooth engagement.
Option A:	Coil springs
Option B:	Cushion springs
Option C:	Torsion springs
Option D:	Spring basic disc
Q7.	The brake warning light warns the driver of_____.
Option A:	water in the master cylinder
Option B:	air in the hydraulic system
Option C:	failure of primary or secondary circuit of hydraulic system
Option D:	power brake failure.
Q8.	Tandem master cylinder consists of _____.
Option A:	one cylinder and one reservoir
Option B:	two cylinders and two reservoirs
Option C:	two cylinders and one reservoir
Option D:	one cylinder and two reservoirs
Q9.	Which of the following is not the component of differential?
Option A:	Ring gear
Option B:	Bevel gear
Option C:	Carrier
Option D:	Lay shaft
Q10.	A locking differential is useful for what type of vehicle ?
Option A:	Sports car
Option B:	Passenger vehicle
Option C:	off road vehicle
Option D:	Formula one vehicle
Q11.	A differential gear in automobiles is used to _____.
Option A:	reduce speed
Option B:	provide jerk-free movement of vehicle
Option C:	assist in changing speed
Option D:	help in turning
Q12.	Damper in an automobile is used to _____.
Option A:	Dissipate the energy
Option B:	Absorb the energy
Option C:	Release the energy
Option D:	Increase the energy

**University of Mumbai**  
**Examination 2020 under cluster 4 (PCE)**

Q13.	Sprung weight is _____.
Option A:	Weigh of vehicle minus unsprung weight
Option B:	Weigh of chassis frame
Option C:	Weight of wheels
Option D:	Weight of wheels and axles
Q14.	What do the permissible of mixing cross-ply and radial-ply automobile tires allow?
Option A:	Cross-ply tires on left wheels
Option B:	Cross-ply tires on right wheels
Option C:	Cross-ply tires on front wheels
Option D:	Cross-ply tires on rear wheels
Q15.	Which of the following spring is used in rigid axle suspension?
Option A:	Coil spring
Option B:	Leaf spring
Option C:	Air spring
Option D:	Torsion spring
Q16.	Which is the main function of the tread pattern on tyre?
Option A:	The tread grooves pass air between the tyre and road surface, thereby preventing tyre from overheating
Option B:	The crests between the tread grooves absorb road noise
Option C:	In wet conditions, the tread grooves expel water that is drawn between the tyre and road surface
Option D:	The tread pattern protects the tire's inner carcass from small stones and pieces of glass
Q17.	Which of the following is not an advantage of the alternator?
Option A:	Higher output
Option B:	Lower weight
Option C:	Less maintenance
Option D:	High efficiency
Q18.	The purpose of the alternator stator is to _____.
Option A:	Change alternating current to direct current.
Option B:	Have voltage induced in its windings
Option C:	Build up a strong magnetic field.
Option D:	Conduct the field current.

**University of Mumbai**

**Examination 2020 under cluster 4 (PCE)**

Q19.	What does CCA stand for in engine starting methods?
Option A:	Circuit card assembly
Option B:	Cold cranking amps
Option C:	Chromate copper arsenate
Option D:	Capital cost allowances
Q20.	The generator which gives dc supply to the rotor of an alternator is called as _____.
Option A:	Convertor
Option B:	Exciter
Option C:	Inverter
Option D:	Rectifier
Q21.	The most effective section against bending is ____.
Option A:	Rectangular bar
Option B:	Round bar
Option C:	Round hollow tube
Option D:	Square hollow section
Q22.	Which of this falls into LMV( Light Motor Vehicle) category based on capacity?
Option A:	Cars
Option B:	Motorbike
Option C:	Trucks
Option D:	Buses
Q23.	The essential automobile structure consists of frame, axle, wheels and _____.
Option A:	Gear Box
Option B:	Engine
Option C:	Suspension
Option D:	Differential gear
Q24.	Which of the following system prevents car crash and assists driver to retain control over the vehicle which is skidding out of control?
Option A:	Automatic stability control
Option B:	Electronic cruise control
Option C:	Overrunning clutch
Option D:	Integrated starter alternator

**University of Mumbai**  
**Examination 2020 under cluster 4 (PCE)**

Q25.	Permanent magnet synchronous machine along with voltage source inverter is used in_____.
Option A:	EGR system
Option B:	Integrated starter alternator
Option C:	EBD
Option D:	TCS

**University of Mumbai**  
**Examination 2020 under cluster 4 (PCE)**

Program: BE Mechanical Engineering  
Curriculum Scheme: **Rev 2016**  
Examination: **Fourth Year Semester VII**  
Course Code: **MEDLO7032** and Course Name: **Automobile Engineering**

Time: 1 hour

Max. Marks: 50

---

---

Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	C
Q2.	A
Q3.	D
Q4	A
Q5	A
Q6	B
Q7	C
Q8.	B
Q9.	D
Q10.	C
Q11.	D
Q12.	A
Q13.	D
Q14.	C
Q15.	B
Q16.	C
Q17.	D
Q18.	B
Q19.	B
Q20.	B
Q21.	D
Q22.	A
Q23.	C
Q24.	A
Q25.	B