

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Program: BE Mechanical Engineering

Curriculum Scheme: **Rev 2012**

Examination: **Fourth Year Semester VIII**

Course Code: **MEE8026** and Course Name: **Automobile Engineering (Elective II)**

Time: 1 hour

Max. Marks: 50

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

Q1.	In which of the configuration of epicyclic gearbox output will be forward and fast output speed?
Option A:	Sun gear stationary, ring gear driven, planet carrier driving
Option B:	Sun gear driving, ring gear driven, planet carrier stationary
Option C:	Sun gear driven, ring gear stationary, planet carrier driving
Option D:	Sun gear stationary, ring gear stationary, planet carrier driving
Q2.	The following is an automatic clutch which is controlled by engine speed.
Option A:	Cone clutch
Option B:	Centrifugal clutch
Option C:	Fluid clutch
Option D:	Disc clutch
Q3.	Which of the following is the disadvantage of the open differential?
Option A:	High in cost
Option B:	Not reliable
Option C:	Complex design
Option D:	Sends most of the power to the wheel having less traction
Q4.	Why do the hypoid gears require special lubricant?
Option A:	Teeth are soft
Option B:	Teeth are hard
Option C:	Gears run faster
Option D:	There is relative motion between teeth
Q5.	The unloader valve in air brake system is mounted in between _____ and _____.
Option A:	brake valve, quick release valve
Option B:	quick release valve, brake chamber
Option C:	brake valve , reservoir
Option D:	compressor, reservoir
Q6.	In electric brake when current _____, the cam and brake shoes _____ to to release position by retractor spring.
Option A:	stops , returned
Option B:	starts, returned
Option C:	stops,moves away

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Option D:	starts, moves away.
Q7.	Which of the following conditions could cause the brakes to be applied without the pedal being pushed?
Option A:	The master cylinder fluid level is low.
Option B:	The master cylinder is overfilled and the vent port is plugged or covered
Option C:	The vent port is partially restricted
Option D:	The replenishing port is plugged or covered.
Q8.	Davis steering gears has _____.
Option A:	sliding pairs
Option B:	turning pair
Option C:	rolling pair
Option D:	cylindrical pair
Q9.	Dead axles _____.
Option A:	are simply beams which supports the vehicle weight
Option B:	are usually the rear axles
Option C:	contain differential
Option D:	are rotating part of drive line
Q10.	The car wheels are suspended on ____ that supports the weight, so that the road shocks are absorbed by them.
Option A:	wheels
Option B:	braking system
Option C:	forms and body
Option D:	springs
Q11.	Three types of springs used in automobile suspension system are _____.
Option A:	coil,leaf,torsion bar
Option B:	coil,lever,torsion bar
Option C:	leaf,suspension and superlift
Option D:	lever,leaf and coil
Q12.	As the speed of an alternator increases, the frequency _____.
Option A:	Increases
Option B:	Decreases
Option C:	Remains constant
Option D:	May increases or decreases depending on the power factor
Q13.	The rotor of alternator has _____.
Option A:	No slip rings
Option B:	Two slip rings
Option C:	Three slip rings
Option D:	Four slip rings

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Q14.	Alternator works on the principle of _____.
Option A:	Self and mutual induction
Option B:	Self mutual induction
Option C:	Faraday's law of electromagnetic induction
Option D:	Mutual induction
Q15.	The exciting field coil of an alternator is generally excited by _____.
Option A:	A separate dc generator driver by some source
Option B:	A separate ac generator drive by some source
Option C:	A dc generator coupled directly to the armature shaft
Option D:	A battery
Q16.	Gradient resistance for a vehicle depends on _____.
Option A:	Weight of vehicle
Option B:	Size of vehicle
Option C:	Speed of vehicle
Option D:	Width of tyres
Q17.	The automobile chassis consist of the engine, frame , power train , wheels, steering and _____.
Option A:	windshields
Option B:	the doors
Option C:	braking system
Option D:	luggage boots
Q18.	Abbreviation SUV stand for _____.
Option A:	Supply Unit Vehicle
Option B:	Sub-urban Utility Vehicle
Option C:	Short Urban Vehicle
Option D:	Super Utility Vehicle
Q19.	In an automobile most oftenly used glass is _____.
Option A:	Fibre glass
Option B:	Triplex glass
Option C:	Crown glass
Option D:	Plate glass
Q20.	Which type of Chassis is considered to be oldest one?
Option A:	Ladder chassis
Option B:	Backbone chassis
Option C:	Monocoque chassis
Option D:	Full Backward chassis
Q21.	The MAP sensor measures changes in the intake manifold pressure that result

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	from changes in _____.
Option A:	Octane number of the fuel
Option B:	tyre temperature
Option C:	exhaust gas pressure
Option D:	engine load
Q22.	When the vehicle is moving at a low speed, the speed sensor produces _____.
Option A:	a high-frequency signal.
Option B:	a low-frequency signal.
Option C:	a mid-frequency signal.
Option D:	a very high-frequency signal.
Q23.	An exhaust gas oxygen sensor is also known as _____.
Option A:	Reluctance sensor
Option B:	alpha sensor
Option C:	lambda sensor
Option D:	magnetic sensor
Q24.	In a Throttle Position sensor at wide Open Throttle, the signal will be approximately _____.
Option A:	0.5 to 1.5 volts
Option B:	1.5 to 2.5 volts
Option C:	3.5 to 4.7 volts
Option D:	5 to 6 volts
Q25.	Excessive play or looseness in the steering system is caused by _____.
Option A:	too tight spherical ball joints
Option B:	worn out front wheel bearings
Option C:	insufficient lubricant
Option D:	broken or bent steering arms or knuckles

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