

# University of Mumbai

## Examination 2020

Program: Automobile Engineering

Curriculum Scheme: Rev2016

Examination: Third Year Semester VI

Course Code: AEC601 and Course Name: Chassis and Body Engineering

Time: 1 hour

Max. Marks: 50

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

Q1.	Which is not a functions of the Chassis
Option A:	To carry load of the passengers or goods carried in the body.
Option B:	To support the load of the body, engine, gear box etc.
Option C:	To provide sufficient comfort for passengers.
Option D:	To withstand the stresses caused due to the bad road condition.
Q2.	A Transfer case is used in which of the following drive?
Option A:	Front engine rear wheel drive
Option B:	Rear engine front wheel drive
Option C:	Rear engine all four wheel drive
Option D:	All-wheel drive.
Q3.	Which of the following is a Requirements of the materials in automotive design?
Option A:	Light weight
Option B:	Visibility
Option C:	Safety
Option D:	Both Light weight and Safety
Q4.	The specific gravity of aluminum alloy is.....
Option A:	2
Option B:	2.7
Option C:	3
Option D:	3.5
Q5.	A ..... is a distinct structural frame component, to reinforce or complement a particular section of a vehicle's structure.
Option A:	BACKBONE CHASSIS
Option B:	Sub frame
Option C:	X Frame
Option D:	Flat Integral
Q6.	Identify Vehicle blind spot?
Option A:	Bonnet
Option B:	Clutch Pedal
Option C:	Radiator
Option D:	Suspension
Q7.	Identify Passive Safety feature?
Option A:	ABS
Option B:	Seat Belts

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Option C:	TCS
Option D:	Cruise Control
Q8.	The ..... has the engine in front of the passenger-carrying compartment.
Option A:	Articulated bus
Option B:	Classic bus
Option C:	Split-level bus
Option D:	Double Decker bus
Q9.	Sedan car with a horizontal trunk lid is called as?
Option A:	notchback
Option B:	Coupe
Option C:	SUV
Option D:	Convertible
Q10.	The force of air in time with longitudinal axis is called?
Option A:	Lift
Option B:	Thrust
Option C:	Drag
Option D:	Side force
Q11.	..... shape offers minimum drag.
Option A:	Sphere
Option B:	Circular
Option C:	Square
Option D:	Airfoil
Q12.	Identify the drag caused by air flowing through cooling passage, engine compartment and passenger compartment
Option A:	Cooling and Ventilation Drag
Option B:	Interference Drag
Option C:	Friction Drag
Option D:	Induced drag
Q13.	A .....is an automotive aerodynamic device whose intended design function is to 'spoil' unfavorable air movement across a body of a vehicle in motion.
Option A:	Gear
Option B:	Clutch
Option C:	Spoiler
Option D:	Differential
Q14.	Back rest angle for passenger car should be?
Option A:	20
Option B:	30
Option C:	50
Option D:	100
Q15.	General Feel parameters is ....

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Option A:	Temperature and Humidity
Option B:	Cushion length
Option C:	Backrest Width
Option D:	Cashion Length
Q16.	The aim of ..... is to define the vehicle weight during the design stage, and is based on drawings of the preliminary design.
Option A:	Drag analysis
Option B:	FEA analysis
Option C:	Weight analysis
Option D:	Crash analysis
Q17.	..... is a seat designed specifically to protect children from injury or death during vehicle collisions.
Option A:	Bucket Seat
Option B:	Child seat
Option C:	Passenger Seat
Option D:	Co-driver Seat
Q18.	A vehicle's ....., is the theoretical point where the sum of all of the masses of each of its individual components effectively act.
Option A:	center of pressure
Option B:	center of gravity
Option C:	center of velocity
Option D:	center of momentum
Q19.	Dynamic load = ..... x Dynamic load factor
Option A:	Normal load
Option B:	Weight load
Option C:	Static load
Option D:	Drag Force
Q20.	Which of the following load is caused by sidewise collision with obstacle?
Option A:	Side force
Option B:	Braking Force
Option C:	Inertia Force
Option D:	Drag force
Q21.	Tripped rollovers are caused by?
Option A:	Steering Input
Option B:	Vehicle Speed
Option C:	Friction with the ground
Option D:	forces from an external object
Q22.	..... is the twisting of an object due to an applied torque.
Option A:	Moment
Option B:	Torsion
Option C:	Bending

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Option D:	Couple
Q23.	In order to reduce the local increase in stresses around a hole, ..... is used to strengthen the edge.
Option A:	welding
Option B:	reinforcing
Option C:	drilling
Option D:	reaming
Q24.	The most common method of joining thin walled element of vehicle is?
Option A:	Electric resistance welding
Option B:	Riveting
Option C:	Bolting
Option D:	Soldering
Q25.	The drawback of Ultra-light Steel Auto Body (ULSAB) is \?
Option A:	Light in weight
Option B:	Improves Safety
Option C:	Expensive
Option D:	Improved comfort and driving performance