

**University of Mumbai**  
**Examination 2020 under cluster 9 (FAMT)**

**These are sample MCQs to indicate pattern, may or may not appeared in examination**

Program: **BE Mechanical Engineering**

Curriculum Scheme: **Revised 2016**

Examination: Third Year Semester V/~~V4~~ or Final Year Semester ~~VII/VIII~~

Course Code: **MEC501** and Course Name: **Internal Combustion Engine**

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 a four-stroke SI engine during suction
Option A:	only air is sucked
Option B:	only fuel is sucked
Option C:	air-fuel and oil is sucked
Option D:	fuel-air mixture is sucked
Q2.	In SI engine spark is ignited just _____ the compression ends.
Option A:	before
Option B:	after
Option C:	at the same time
Option D:	no relation
Q3.	Brake specific fuel consumption is defined as
Option A:	fuel consumption per hour
Option B:	fuel consumption per brake power hour
Option C:	fuel consumption per km
Option D:	air consumption per brake power
Q4.	During idling of engine, fuel is discharged
Option A:	Close to main jet
Option B:	Next to throttle
Option C:	Close to choke
Option D:	Close to intake valve
Q5.	During normal working of S.I. Engine the choke valve is kept ____
Option A:	Fully closed
Option B:	Fully opened
Option C:	Partially open
Option D:	Partially closed
Q6.	Number of lobes of cam of a contact breaker is depend on ____

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Option A:	Number of engine cylinders
Option B:	Compression ratio
Option C:	Size of battery
Option D:	Space available
Q7.	Firing order does not depend on
Option A:	Back pressure due to exhaust gases
Option B:	Engine cooling
Option C:	Load on bearing
Option D:	Type of fuel
Q8.	Which of the following statement is incorrect in case of detonation
Option A:	It increases carbon deposits
Option B:	It causes wreckage of piston
Option C:	It improves power & efficiency
Option D:	It increases heat transfer to engine parts
Q9.	Increase in ____ will decrease the intensity of knocking in SI engine
Option A:	Air temperature
Option B:	Compression ratio
Option C:	Engine speed
Option D:	Load
Q10.	Injection system in which the pump and the injector nozzle is combined in one housing is known as
Option A:	Unit injector system
Option B:	Distributor system
Option C:	Common rail system
Option D:	Individual pump and nozzle system
Q11.	Heavy and viscous fuels can be injected by using
Option A:	Air injection system
Option B:	Airless injection system
Option C:	Electronic Injection system
Option D:	Unit injection system
Q12.	In common rail injection system
Option A:	Self-governing of fuel is not possible
Option B:	Noise and stresses on driving mechanism are more
Option C:	Noise and stresses on driving mechanism are less
Option D:	Supply pressure of fuel is independent of the speed
Q13.	Knocking takes place in CI engine
Option A:	At the start of combustion
Option B:	At the end of combustion

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Option C:	During combustion
Option D:	Start of compression stroke
Q14.	In CI engine knocking tendency increases with
Option A:	Increase in combustion ratio
Option B:	Increase inlet temperature of air
Option C:	Decrease in compression ratio
Option D:	Increasing coolant water temperature
Q15.	In which stage of combustion of CI engine rapid combustion takes place
Option A:	Stage I
Option B:	Stage II
Option C:	Stage III
Option D:	Stage IV
Q16.	Detergents are oil additives used to
Option A:	reduce viscosity
Option B:	increase fire point
Option C:	prevent sludge formation
Option D:	prevent foaming
Q17.	Mist lubrication mainly used in
Option A:	four stroke petrol engine
Option B:	four stroke diesel engine
Option C:	two stroke petrol engine
Option D:	Wankle engine
Q18.	The thermostatic valves opens and provides passage for the flow of water towards the radiator at approximately
Option A:	90 degree Celsius
Option B:	150 degree Celsius
Option C:	250 degree Celsius
Option D:	350 degree Celsius
Q19.	Turbochargers are generally:
Option A:	vane blowers
Option B:	reciprocating compressor
Option C:	root blowers
Option D:	centrifugal compressors
Q20.	Volumetric Efficiency is a measure of
Option A:	Extent to which the fresh charge is Inducted in the Cylinder
Option B:	Speed of the Engine
Option C:	Power of the Engine
Option D:	Pressure Rise in the Cylinder

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Q21.	The Break Power of four cylinder engine is 40 kW with all cylinder firing. 29 kW power is recorded every time during cutting of individual cylinder. The Mechanical Efficiency of the Engine is
Option A:	91%
Option B:	73%
Option C:	81%
Option D:	79%
Q22.	Which of the following Pollution Control standard was proposed to go into effect for all vehicles manufactured on or after 1st April 2020
Option A:	BS IV
Option B:	BS V
Option C:	BS VI
Option D:	BS VII
Q23.	Increased valve overlap period will increase
Option A:	Oxides of Nitrogen
Option B:	Unburnt Hydrocarbons
Option C:	Particulates
Option D:	CO and CO <sub>2</sub>
Q24.	Viscosity & flash point of Biodiesel is
Option A:	Higher than Diesel
Option B:	Lower than Diesel
Option C:	Same as Diesel
Option D:	Unpredictable
Q25.	Position sensors are used at which of the following location?
Option A:	Combustion chamber
Option B:	Crankshaft angle measurement
Option C:	Exhaust system
Option D:	Fuel supply system