

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester V

Course Code: MEC501 and Course Name: ICE

Time: 1 hour

Max. Marks: 50

=====

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

Q1.	During the Cruising range of Automotive Engine which type of A/F mixture is provided
Option A:	Lean Mixture
Option B:	Chemically Correct Mixture
Option C:	Rich Mixture
Option D:	Strong mixture
Q2.	In 3 Way Catalytic convertor catalyst Rhodium is used to remove which of the following harmful gases
Option A:	HC (Hydrocarbon)
Option B:	NO (Nitrogen Oxides)
Option C:	CO (Carbon Monoxide)
Option D:	IO (Igrex Oxide)
Q3.	Main advantage of pintaux nozzle is
Option A:	Better cold starting performance
Option B:	Ability to distribute the fuel
Option C:	Good penetration
Option D:	Good atomization
Q4.	Rope brake dynamometer is used for calculation of
Option A:	Brake Power
Option B:	Frictional Power
Option C:	Indicated Power
Option D:	Air standard efficiency
Q5.	CNG stand for
Option A:	Compressed Natural Gas
Option B:	Combustion Nature Gas
Option C:	Consume Natural Gas
Option D:	Carbon Nature Gas
Q6.	In which engine spark plug is used
Option A:	Diesel Engine
Option B:	Petrol Engine

Option C:	The Homogeneous Charge Compression Ignition engine
Option D:	Sterling Engine
Q7.	Dissociation is the disintegration of Combustion products at Temperature above
Option A:	3000 K
Option B:	900 K
Option C:	200 K
Option D:	1600 K
Q8.	Which is the multi-grade oil
Option A:	SAE 30
Option B:	API SF
Option C:	SAE20 W50
Option D:	API 50
Q9.	Turbochargers are generally
Option A:	Centrifugal compressors
Option B:	Reciprocating compressors
Option C:	Vane blowers
Option D:	Roots blower
Q10.	In Four Stroke engine one Power stroke is obtained in how many degree rotations of crank-shaft
Option A:	180 Degree
Option B:	360 Degree
Option C:	450 Degree
Option D:	720 Degree
Q11.	which is not the component of Magneto Ignition system
Option A:	Transformer core
Option B:	Contact Breaker
Option C:	Nozzle
Option D:	Capacitor
Q12.	4-Which of the following Air-fuel ratio is considered as rich mixture in Spark Ignition (SI) engine?
Option A:	Below 11:1
Option B:	Below 15:1
Option C:	Below 20:1
Option D:	Above 20:1
Q13.	Compression Ratio is the ratio of
Option A:	Swept Volume to clearance Volume
Option B:	clearance Volume to Swept Volume
Option C:	clearance Volume to Total Volume
Option D:	Total Volume to clearance Volume

Q14.	Any vehicle that runs on Diesel fuel is compatible with how much % blend of Biodiesel fuel
Option A:	10% - 20%
Option B:	30% - 40%
Option C:	40% - 45%
Option D:	45% - 50%
Q15.	Advantage of Air Injection System is
Option A:	Cheaper Fuels can be used
Option B:	MEP is high
Option C:	Fine atomization and distribution of fuel
Option D:	Compact in size
Q16.	The mean effective pressure obtained from engine indicator indicates the
Option A:	Maximum pressure developed
Option B:	Minimum pressure
Option C:	Instantaneous pressure at any instant
Option D:	Average pressure
Q17.	Blowby losses are
Option A:	Directly proportional to the inlet pressure
Option B:	Inversely proportional to the inlet pressure
Option C:	Proportional to the square root of inlet pressure
Option D:	No relation with pressure
Q18.	Supercharging is normally done in
Option A:	Racing cars
Option B:	Marine Engine
Option C:	Automotive diesel Engine
Option D:	Aircraft Piston Engine
Q19.	What is the function of crank position sensor
Option A:	To measure rotational speed of crankshaft
Option B:	To operate inlet and exhaust valves
Option C:	To measure rotational speed of flywheel
Option D:	To measure the quantity of fuel
Q20.	Types of Supercharger are
Option A:	Reciprocating type
Option B:	Gear Type
Option C:	Centrifugal Type
Option D:	Hinge type
Q21.	Volumetric efficiency of supercharged engine
Option A:	Between 100-110%

Option B:	Between 900-100%
Option C:	Between 80-90%
Option D:	Between 70-80%
Q22.	Which method is used to calculate Friction Power
Option A:	Engine Indicator Instrument
Option B:	Rope brake dynamometer
Option C:	Eddy current dynamometer
Option D:	William's line method
Q23.	Throttle position sensor is mounted on
Option A:	Piston
Option B:	Crankshaft
Option C:	connecting rod
Option D:	Butterfly shaft
Q24.	The working cycle in case of four stroke engine is completed in following number of revolutions of crankshaft
Option A:	$\frac{1}{2}$
Option B:	1
Option C:	2
Option D:	4
Q25.	The engine produced 15.05 kW of power at 4 kg/h of fuel consumption find the thermal efficiency CV=44000 kJ/Kg
Option A:	20.78 %
Option B:	30.78 %
Option C:	40.78 %
Option D:	50.78%