

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

UNIVERSITY OF MUMBAI

Examination 2020 under cluster 9 (FAMT)

Program: BE Automobile Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester V

Course Code:AEC501

Course Name:

IC Engine

Time: 1hour

Max.
Marks: 50

Question No	Question	Option A:	Options B:	Options C:	Options D:
Q1.	The working fluid in a Carnot cycle is _____.	CNG	LPG	real gas	Ideal gas
Q2.	In a reciprocating engine with a cylinder diameter of D and stroke of L, the cylinder volume is _____.	$(\pi/4 \times D^2 \times L) / \text{clearance volume}$	$(\pi/4 \times D^2 \times L) - \text{clearance volume}$	$(\pi/4 \times D^2 \times L) \times \text{clearance volume}$	$(\pi/4 \times D^2 \times L) + \text{clearance volume}$
Q3.	In SI engine, ignition lag is reduced if the initial temperature and pressure are _____.	increased	constant	decreased	changes periodically
Q4.	How many cells are used in a 12 volt car battery?	2	4	6	8
Q5.	The function of induction system of Spark Ignition (SI) engine is to supply _____ to various cylinders of the engine.	Fully vaporized mixture of fuel and air	Liquefied mixture of fuel and air	Partly vaporized mixture of fuel and air	supply spark to distributor
Q6.	If petrol is used in a diesel engine, then _____.	higher knocking will occur	low power will be produced	efficiency will be low	black smoke will be produced
Q7.	The theoretically correct mixture of air and petrol is _____.	09:01	10:01	22:1	15:1

Q8.	Lower stroke to bore ratio _____ i.m.e.p.	reduces	enhances	fluctuates	does not effect
Q9.	In spark ignition engines a nearly _____ mixture of air and fuel is formed in the carburettor.	heterogenous	homogenous	solid	LIQUID
Q10.	Dual Cycle is a combination of _____ .	Otto cycle and Diesel cycle	Otto cycle and Stirling cycle	Brayton cycle and steam cycle	Diesel and Stirling cycle
Q11.	At high altitudes, the automobile requires	Chemically correct mixture	Rich mixture	Lean mixture	Correct mixture
Q12.	A cycle consisting of two reversible isothermal processes and two reversible isobaric processes is known as	Atkinson cycle	Stirling cycle	Brayton cycle	Ericsson cycle
Q13.	CDI stands for _____.	Computerised digital ignition	Capacitive discharge ignition	Controlled discharge ignition	Coil discharge ignition
Q14.	Hydrocarbons are decomposed into smaller hydrocarbons by _____.	reforming	refining	cracking	polymerization
Q15.	_____ concentration high in methanol that is why it is used as an excellent fuel.	oxygen	chlorine	hydrogen	ozone
Q16.	Following data pertains to four stroke cycle gas engine. Bore is 60 cm and stroke is 100 cm. clearance volume is 60 cc, calculate brake thermal efficiency. relative efficiency can be taken as 0.5.	0.55	0.5	0.3	0.25
Q17.	Which one of the following is not a cause of higher unburnt hydrocarbon emissions from I C Engines?	Crevice volumes and flow in crevices	High combustion temperatures	Valve overlap	Oil on combustion chamber walls

Q18.	Sequence of coolant circulation is _____.	pump-radiator-block-head	pump-block-head-radiator	pump-block-radiator-head	pump-radiator-head-block
Q19.	For geometrically similar engines, performance map shows _____.	Indicated power v/s speed	BMEP v/s Mean piston speed	Brake thermal efficiency v/s speed	Indicated thermal efficiency v/s speed
Q20.	In C.I engines, At constant speed, delay period is proportional to _____.	dwel angle	delay angle	swirl angle	injection period
Q21.	Volatility of diesel fuel oil is _____.	Minimum temperature to which oil is heated in order to give off inflammable vapours in sufficient quantity to ignite momentarily when brought in contact with a flame	Provide cleaning action	It catches fire without external aid	Indicated by 90% distillation temperature, i.e., when 90% of sample oil has distilled off

Q22.	Advantage of Air Injection system is _____.	fine atomization and distribution of fuel	mep is higher	Cheaper fuels can be used	It uses compressed air
Q23.	Flash point of fuel oil is _____.	Minimum temperature to which oil is heated in order to give off inflammable vapours in sufficient quantity to ignite momentarily when brought in contact with a flame	Temperature at which it solidifies or congeals	Temperature at which it catches fire without external aid	Indicated by 90% distillation temperature, i.e. when 90% of sample oil has distilled off
Q24.	Auxiliary hole is provided in injector nozzle for pilot injection in _____.	Pintle nozzle	Pintaux nozzle	Single hole nozzle	Multi hole nozzle
Q25.	For the same compression ratio, the efficiency of dual combustion cycle is _____.	Greater than Diesel cycle	Less than Diesel cycle	Less than Diesel cycle and greater than Otto	Greater than Diesel cycle and less than Otto cycle

