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**5th Sem. / Branch : Auto
Subject:- Auto Engine - II**

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1** The ignition quality of petrol is expressed by
a) Cetane number b) Octane number
c) Colorific value d) None of the above

Q.2 Petrol that detonates easily is called
a) High octane petrol b) Low octane petrol
c) Blended fuel d) Unleaded petrol

Q.3 The process of removing the burnt gases from the engine cylinder by the fresh charge coming into the engine cylinder from the crankcase, is known as
a) Cleaning b) Priming
c) Scavenging d) Detonation

Q.4 The self-ignition temperature of Diesel as compared to petrol is
a) Higher
b) Lower
c) Same
d) Depends on fuel quality

Q.5 The process of supplying the intake air to the engine cylinder at a pressure greater than the pressure of the surrounding atmosphere is known as

- a) Supercharging b) Auto ignition
c) Scavenging d) Detonation

Q.6 The exhaust gas from petrol engine contains
a) Petrol vapours b) Water vapours
c) Carbon monoxide d) All of these

Q.7 The fuel that detonates easily, is
a) N-heptane b) Iso-octane
c) Benzene d) Alcohol

Q.8 The function of a governor in automobiles is to
a) Limit the power
b) Limit the vehicle speed
c) Maintain constant engine speed
d) Maximize the fuel economy

Q.9 The crankcase dilution means
a) Dilution of fuel in the crankcase
b) Dilution of oil by water in the crankcase
c) Dilution of lubrication oil by fuel in the crankcase
d) Dilution of mixture passing through crankcase in two stroke engines

Q.10 The main task of a battery in automobiles is to
a) Supply electricity to the alternator
b) Act as a reservoir or stabilizer of electricity
c) Supply electricity to the vehicle's electrical system at all times while the engine is running
d) Supply a large amount of power to turn the starter motor when the engine is being started

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SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Octane rating is used for _____ fuel.
- Q.12 There are _____ stages in combustion of diesel engine.
- Q.13 _____ improves the engine power output.
- Q.14 _____ is the rotary engine.
- Q.15 Full form of LPG is _____.
- Q.16 _____ filters the fuel.
- Q.17 Full form of EGR is _____.
- Q.18 Full form of ECU _____.
- Q.19 OPOC use _____ no. of piston.
- Q.20 CC stands for _____ for engine capacity.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What are the phases of combustion in CI engine, show with neat diagram? (CO2)
- Q.22 Differentiate between detonation and knocking? (CO3)
- Q.23 What are the various types of combustion chamber for diesel engines, discuss any three? (CO4)
- Q.24 Briefly explain any one type of fuel filter? (CO2)
- Q.25 What are the effect of locating turbocharger on engine performance? (CO4)

- Q.26 Discuss how fuel cell engine works with neat diagram? (CO3)
- Q.27 Discuss the five reasons for high fuel consumption? (CO4)
- Q.28 Briefly explain working of camless engine? (CO3)
- Q.29 Discuss the technologies to improves engine economy and output?
- Q.30 How exhaust gas recirculation method is useful to reduce emission? (CO4)
- Q.31 How catalytic convertor reduce the emission? (CO4)
- Q.32 What engine specification of any one Maruti Suzuki car? (CO1)
- Q.33 What are the sources of engine emission? (CO2)
- Q.34 What are the effects of petrol engine pollutants on human health? (CO3)
- Q.35 Briefly explain the sensors used in CRDI engine? (CO4)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Analyze the causes and remedies of starting trouble of an engine? (CO4)
- Q.37 How hybrid system works in a car, explain with neat diagram? (CO3)
- Q.38 Explain construction and working of any one type of fuel injection system with neat diagram? (CO3)
(Note :- CO for offical use only)