

- Q.28 Write the Importance of intake and exhaust manifold. (CO1)
- Q.29 Explain Crank case ventilation. (CO6)
- Q.30 Discuss the working of Fuel Cell Engine. (CO7)
- Q.31 Discuss the phenomenon of combustion in C.I. engines. (CO1)
- Q.32 Enlist the various alternative automobiles fuels and explain their important characteristics. (CO5)
- Q.33 Write the working of fuel feed pump. (CO2)
- Q.34 Describe the working of Wankel engine. (CO7)
- Q.35 Express Ignition Lag in S.I. Engines. (CO1)

#### Section-D

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

- Q.36 Explain the phenomenon of supercharging of engines along with types and location of superchargers. Also write advantages and disadvantages of supercharging. (CO2)
- Q.37 Enlist any five engine faults, their causes and methods of rectification. (CO4)
- Q.38 Enumerate various types of exhaust pollutants emitted from petrol and diesel engine and their effects on human beings in detail. (CO5)

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### 5 Sem., Branch : Auto Subject : Auto Engine - II

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note: Multiple type Questions. All Questions are compulsory. (10x1=10)**

- Q.1 Cetane rating is related to (CO1)  
a) Petrol b) Diesel  
c) CNG d) LPG
- Q.2 Turbocharger gets power from. (CO2)  
a) Exhaust gases b) Battery  
c) Crank Shaft d) Brakes
- Q.3 Priming is required in (CO3)  
a) Fuel injector b) Carburettor  
c) Fuel Feed pump d) Turbo charger
- Q.4 Most commonly used fuel in a fuel cell are (CO7)  
a)  $N_2$  and  $O_2$  b)  $CO_2$  and  $H_2$   
c)  $N_2$  and  $CO_2$  d)  $H_2$  and  $O_2$
- Q.5 High oil consumption in an engine may be due to (CO4)  
a) Improper ignition timing  
b) Adulterated fuel  
c) Clogged spark plugs  
d) All of these

- Q.6 Which of the following is not a source of vehicle pollution : (CO6)
- a)  $\text{No}_x$                                       b)  $\text{CO}_2$   
 c) HC    d)  $\text{C}_2\text{H}_5\text{OH}$
- Q.7 Following emission norm is being currently followed in India. (CO6)
- a) Bharat Stage - I                      b) Bharat Stage - II  
 c) Bharat Stage - IV                      d) Bharat Stage - VI
- Q.8 Full form of CNG is (CO7)
- a) Common Natural Gas  
 b) Compressed Natural Gas  
 c) Compressed Neutral Gas  
 d) Common Neutral Gas
- Q.9 Which of the following is responsible for detonation- (CO1)
- a) After burning                      b) Pre-burning  
 c) Ignition delay                      d) Flame Propagation
- Q.10 In DI diesel engine, DI stands for (CO1)
- a) Double Injector                      b) Dual Injection  
 c) Directed Injection                      d) Direct Injection

#### Section-B

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

- Q.11 Define Flame propagation. (CO1)  
 Q.12 Write the use of spark plug. (CO1)  
 Q.13 Describe carburetion. (CO1)

- Q.14 Define Fuel cell engine. (CO7)  
 Q.15 Define Exhaust pollutant. (CO6)  
 Q.16 What do you mean by the Turbulence. (CO1)  
 Q.17 Define Octane rating. (CO1)  
 Q.18 Write the use of Fuel Filter. (CO2)  
 Q.19 Define uncontrolled combustion. (CO2)  
 Q.20 Name the types of fuel filters. (CO3)

#### Section-C

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

- Q.21 Explain the working of Hybrid system used in Automobiles. (CO7)  
 Q.22 Describe the working of Governors used in engines. (CO2)  
 Q.23 Write purpose and objectives of using CNG/LPG engine. (CO7)  
 Q.24 Write emission norms for Automobiles. (CO6)  
 Q.25 Write engine specifications of a car. (CO4)  
 Q.26 Illustrate the working of Fuel Injectors used in Diesel Engines. (CO3)  
 Q.27 Explain the working and functions of a Turbo charger. (CO2)