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6th Sem / Mech, GE, Mech. Engg. (Fabication Tech)
Subject:- Automobile Engineering

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Which of the following is not a part of transmission system? (CO2)
a) Clutch b) axle
c) propeller shaft d) lighting system

Q.2 Which of the following is mounted between the engine and the gearbox ? (CO2)
a) Propeller shaft b) reduction fan
c) differential gear d) clutch

Q.3 Full form of MPFI is (CO3)
a) multi-purpose fuel injection
b) multi point fuel injection
c) main petrol fuel injection
d) Multi petrol fire injection

Q.4 Which of the following automobile has two or four doors? (CO1)
a) Convertible vehicles b) pickups
c) Sedan d) All of these

Q.5 Which of the following is not an arrangement of IC Engine cylinders? (CO2)
a) Circular
b) opposed cylinder engine
c) radial
d) type engine

Q.6 The temperature of the piston will be more at which part in an automobile engine (CO1)
a) The piston rings
b) the piston walls
c) the crown of the piston
d) the skirt of the piston

Q.7 The positive plates of a lead acid battery has (CO2)
a) Lead Periodic (PbO_2)
b) Lead Sulphate ($PbSO_4$)
c) Spongy Lead (Pb)
d) Sulphuric acid (H_2SO_4)

Q.8 The type of steering gear mechanism used in automobile (CO3)
a) Power steering
b) worm and nuts steering
c) rack and pinion steering
d) all of these

Q.9 Hydraulic brakes function on the principle of (CO4)
a) law of conservation of momentum
b) law of conservation of energy
c) Pascal's law
d) none of these

Q.10 The following is a type of leaf springs (CO4)

a) three quarter elliptical
b) semi elliptic
c) quarter elliptic
d) all of these

SECTION-B

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

Q.11 Write the function of clutch. (CO1)
Q.12 Define caster angle (CO3)
Q.13 Define the tractive force (CO3)
Q.14 Define battery capacity (CO6)
Q.15 Name any two types of battery cells (CO5)
Q.16 Define kingpin inclination (CO3)
Q.17 Define swept volume (CO1)
Q.18 Define suspension system (CO2)
Q.19 Define alternator (CO5)
Q.20 Define overdrive (CO2)

SECTION-C

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

Q.21 How will classify drives? (CO2)
Q.22 Write a short note on hybrid electric vehicles. (CO6)
Q.23 Write the function of differential . (CO3)
Q.24 Write the advantages of multi plate clutch. (CO2)
Q.25 Discuss twin cam 16 valve technologies in 4 cylinder engine. (CO1)

Q.26 Explain single plate clutch with diagram. (CO2)
Q.27 What do you mean by automatic transmission system? (CO3)
Q.28 Describe wheel balancing and alignment system. (CO4)
Q.29 Explain the working of antilock brake system. (CO5)
Q.30 Explain the constructional detail of shock absorber with neat diagram. (CO5)
Q.31 Explain different types of suspension springs. (CO6)
Q.32 Explain various kinds of tyre wear. (CO3)
Q.33 Enlist components of steering system. Explain any two. (CO3)
Q.34 Write any four functions of front axle. (CO2)
Q.35 Compare MPFI with caburetor system. (CO1)

SECTION-D

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

Q.36 Explain Devis steering mechanism with the help of need sketch. (CO3)
Q.37 Explain the working of sliding mesh gearbox with neat diagram. (CO2)
Q.38 Explain the construction & working of lead Acid Battery.