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6th Sem / Mech, GE, Mech. Engg. (Fabrication 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 chassis (CO1)

a) Wheels b) Rear axle
c) Front axle d) seats

Q.2 The function of steering system is to (CO3)

a) Stop the vehicle
b) control the direction of vehicle
c) provides stability to the vehicle
d) Reduce the speed of vehicle

Q.3 Which of these is used in automobile to provide suspension? (CO2)

a) coil springs b) torsion bars
c) leaf springs d) all of these

Q.4 What is the function of alternator? (CO5)

a) Recharging the battery
b) voltage regulator
c) auto ignition
d) none of these

Q.5 What is an IC engine

a) the fuel is ignited and burned inside the engine
b) the fuel is burned inside a combustion chamber
c) the fuel is ignited outside the combustion chamber
d) none of these

Q.6 The electrolyte used in a lead acid battery is: (CO1)

a) Hydrochloric acid b) Nitric acid
c) Sulphuric acid d) Lead peroxide

Q.7 If there are 7 clutch plates in a multi plate clutch what is the number of pair of contract surfaces (CO2)

a) 5 b) 4
c) 6 d) 8

Q.8 In a diesel engine, the fuel gets ignited by: (CO3)

a) Fuel injection b) Electric spark
c) Heater Plug d) Heat of compressed air

Q.9 When breaks are applied on a moving vehicle the kinetic energy is converted into (CO4)

a) mechanical energy b) heat energy
c) practical energy d) potential energy

Q.10 Telescopic shock absorber consist of (CO4)

a) one chamber b) two chambers
c) three chambers d) four chambers

SECTION-B

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

Q.11 Define an automobile. (CO1)

Q.12 Define king Pin Inclination. (CO2)

Q.13 Write the function of brakes. (CO4)

Q.14 Name any two types of suspension springs. (CO4)

Q.15 Define Dynamo. (CO5)

Q.16 Define toe in (CO2)

Q.17 Write the function of propeller shaft (CO2)

Q.18 Write the function of carburetor (CO2)

Q.19 Define specific gravity (CO5)

Q.20 Write the function of clutch. (CO3)

SECTION-C

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

Q.21 Give classification of automobiles on the basis of capacity, power source wheels and purpose. (CO1)

Q.22 Write a short note on electric vehicles. (CO5)

Q.23 How will you classify clutches. (CO2)

Q.24 Write the advantages of single plate clutch. (CO2)

Q.25 What is wheel balancing? What are its different types. (CO1)

Q.26 Write the functions of shock Absorber. (CO2)

Q.27 Enlist the types of gear box. Explain anyone. (CO3)

Q.28 Draw the power flow diagram in rear wheel drive and 4 wheel drive. (CO1)

Q.29 Write the factors affecting tyre life. (CO3)

Q.30 Explain the construction detail of lead acid cell battery. (CO5)

Q.31 How will you check voltage and specific gravity of batteries? (CO6)

Q.32 Draw layout of air brake system and explain its working. (CO4)

Q.33 Explain 'oversteer' and 'understeer'. (CO3)

Q.34 Write any four functions of front axle. (CO2)

Q.35 What do you mean by universal joint? Why is it needed? (CO3)

SECTION-D

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

Q.36 Explain the principle, construction and working of differential. (CO2)

Q.37 Explain Ackerman steering mechanism with neat diagram. (CO3)

Q.38 Explain the construction and working of Hydraulic Brake with a neat sketch. (CO3)