SCHOOL OF DIPLOMA ENGINEERING, SOLDHA
QUESTIONS FOR REVISION
DIPLOMA AUTOMOBILE ENGG 3RD SEM
SUBJECT-EME

VERY SHORT QUESTIONS (2 MARKS)

1. What is fluid
2. Define mass density and specific weight of fluid
3. Define pressure
4. Define manometer
5. What is surface tension
6. Define viscosity
7. State Pascal's law
8. Name various types of manometer
9. What is guage presser
10. Name various pressure measuring devices
11. Define rate of flow
12. Define venturimeter
13. What is continuity equation of flow
14. Define work
15. Define different types of system
16. Define hydraulic ram
17. Define state
18. Define thermodynamics property
19. What is quasi-static process
20. Define ideal gas
21. State Joule's law
22. Define heat source and heat sink
23. State 1st law of thermodynamics
24. Define isobaric process
25. Give some example of reversible process
26. Define natural and artificial fuels
27. Name different types of coal
28. Define pressure ratio of compressor
29. What is use of intercooler

SHORT QUESTIONS (4 MARKS)

1. Differentiate between Liquid and Gas
2. Define
    a. Mass density
    b. Specific volume
    c. Specific gravity
3. Explain surface tension
4. Explain Bourdon Guage with diagram
5. Describe single tube manometer
6. Discuss differential manometer
7. Differentiate between laminar and turbulent flow
8. Explain Bernoulli's theorem
9. What is the function of hydraulic jack?
10. State second law of thermodynamics
11. Describe constant volume and adiabatic process

12. Define
    a. Thermodynamics system
    b. Thermodynamics surrounding
    c. Thermodynamics boundary
    d. Universe
13. Write the property of fuel
14. Define fuel and write different types of automobile fuels
15. Differentiate between super charging and turbo charging
16. Write any four application of compressed air
17. Draw a sketch of single stage compressor
18. Explain calorific value of fuel
19. Name various parts of automobile air conditioning

LONG QUESTIONS (10 MARKS)

1. Find the discharge in lt/sec. if the water flowing through a pipe having diameter 12cm and having velocity 5m/s.
2. A U-tube manometer containing mercury has its right limb open to the atmosphere. The left limb is full of water under pressure the center of which is in level with free surface of mercury. Find the pressure of water in the pipe above atomsphere, if the difference of level of mercury in the limbs is 5cm.
3. Describe the construction and working of hydraulic press
4. Describe construction and working of hydraulic jack
5. Describe the construction and working of double stage air compressor
6. Explain various componenets of automobile air conditioning
7. Describe the construction and working of hydraulic accumulator
8. A cyclic heat engine operates between a source temprature of 800^0C and a sink temperature of 30^0C. what is the least rate of heat rejection per kW net output of engine
9. Describe the construction and working of hydraulic break
10. Explain with neat sketch electronic analysers for analysis exhaust gas
11. Calculate the pressure due to a column of 0.4 of
    a. Water
    b. An oil of soecific gravity 0.8
    c. Mercury of specific gravity 13.6