Q.26 Write about wind energy and explain the concept of windmill.

Q.27 Discuss the concept of tidal energy in brief.

Q.28 Draw the labelled diagram of thermal power plant.

Q.29 Discuss about the carbonization process in brief.

Q.30 Explain the working principle of solar cell with its utilities

Q.31 Differentiate between natural gas and liquified petroleum gas

Q.32 Explain in detail about washing of coal

Q.33 Discuss the manufacturing process of water gas

Q.34 Explain the process of proximate analysis of coal.

Q.35 Write a short note on

a) Solar water heater

b) furnace atmosphere

SECTION-D

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

Q.36 Discuss about the manufacturing process of producer gas

Q.37 With the help of elementary block diagram explain the process of nuclear power plant

Q.38 Discuss about the glass melting furnace with its labelled diagram

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4th Sem / Chemical Engineering
Subject:- Energy Technology

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Gross heating value of Coal is_____the net heating value

a) Higher than b) lower than
c) same as d) none of these

Q.2 Benzene is used as a

a) Motor fuel
b) explosive
c) for making insecticides
d) perfume

Q.3 Largest constituent of blast furnace gas is

a) Hydrogen b) Nitrogen
c) Carbon monoxide d) Carbon dioxide

Q.4 For long flame and Easy ignition the coal you used should have

a) low ash b) high calorific value
c) high ash d) High volatile matter

Q.5 _____Is used as jet engine fuel

a) Petrol b) Diesel

c) kerosene d) Fuel oil

Q.6 LPG stands for

a) Liquid Petroleum gas

b) liquefied Petroleum gas

c) light Petroleum gas

d) Liquid petrol gas

Q.7 Which of the following has the highest flash point of all

a) Diesel b) kerosene

c) Petrol d) furnace oil

Q.8 Two majors constituents of Sun are

a) Helium and hydrogen

b) Oxygen and nitrogen

c) Helium and carbon dioxide

d) oxygen in hydrogen

Q.9 Solar cells converts the sunlight into

a) Electrical energy b) mechanical energy

c) heat energy d) chemical energy

Q.10 The nucleus of any atom

a) is negatively charged b) has no charge

c) Is positively charged d) none of these

SECTION-B

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

Q.11 Name any two non renewable energy sources

Q.12 Define fuel

Q.13 Define Flashpoint

Q.14 Write the composition of Portland cement

Q.15 Expand GCV.

Q.16 Define cetane number.

Q.17 Name the fuel used in blast furnace

Q.18 Which fuel is used in thermal power plants?

Q.19 What are the main constituent of natural gas?

Q.20 Define reforming

SECTION-C

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

Q.21 Write any two merits and demerits of liquid fuel over gaseous fuel

Q.22 Write about the process of proximate analysis of coal

Q.23 Discuss the fisher draw process of gasoline manufacturing

Q.24 Explain the process of determination of calorific value by Bomb calorimeter

Q.25 What do you know about origin of Petroleum also explain the uses of different petroleum products