

- Q.27 Draw the block diagram of hydraulic power plant
 Q.28 Write the importance of safe storage of coal
 Q.29 Explain in detail about by product coke oven
 Q.30 Explain the working principle of vertical axis wind turbine
 Q.31 Discuss about the glass melting furnace with its labelled diagram
 Q.32 Write the manufacturing process of producer gas
 Q.33 Draw the labelled diagram of nuclear power plant
 Q.34 Explain the concept of windmill
 Q.35 Write a short note on
 - a) Portland cement
 - b) solar cooker

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the manufacturing process of water gas
 Q.37 With the help of neat diagram explain the working of blast furnace
 Q.38 Explain the process of thermal power plant with the help of neat diagram

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4th Sem / Chem
Subject:- Energy Technology

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 As time passes the calorific value of stored coal
 - a) Decreases
 - b) Increases
 - c) Remains unaltered
 - d) May increase or decrease
- Q.2 Which of the following is a poisonous fuel gas
 - a) Coke oven gas b) blast furnace gas
 - c) natural gas d) water gas
- Q.3 Which is the most matured coal
 - a) Ignite b) bituminous
 - c) semi Anthracite d) anthracite
- Q.4 Main constituent of natural gas is
 - a) Methane b) ethane
 - c) hydrogen d) propane
- Q.5 Fat coal means coal having
 - a) Low calorific value

- b) high volatile matter
 - c) low ash content
 - d) non smoking tendency
- Q.6 Bomb calorimeter is used to determine the calorific value of _____ Fuels
- a) Gaseous
 - b) solid
 - c) liquid
 - d) both solid and liquid
- Q.7 Which of the following fuel has the highest calorific value
- a) Petrol
 - b) hydrogen
 - c) LPG
 - d) natural gas
- Q.8 Flash point of Diesel And Kerosene is determined by
- a) Able apparatus
 - b) pensky Martin apparatus
 - c) saybolt apparatus
 - d) none of these
- Q.9 Which of the following has the lowest flash point of all
- a) Diesel
 - b) Kerosene
 - c) petrol
 - d) furnace oil
- Q.10 Most of the sun energy results from
- a) Thermo nuclear reactions
 - b) chemical reactions
 - c) Gravity
 - d) none of these

SECTION-B

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

- Q.11 Name any two renewable energy sources
- Q.12 Define energy
- Q.13 Write any two merits of conventional fuel
- Q.14 Define fire point
- Q.15 Expand NCV
- Q.16 Define Octane number
- Q.17 Which gas is used to reduce scaling in furnace stock?
- Q.18 What is the percentage of oxygen in the atmospheric air?
- Q.19 Name two major constituents of sun
- Q.20 Define cracking

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 solid fuel
- Q.22 Explain the process of ultimate analysis of coal
- Q.23 Differentiate between gross calorific value and net calorific value
- Q.24 Write about the fractional distillation of crude oil
- Q.25 Explain the Biomass conversion system in brief.
- Q.26 Write in brief about geothermal energy