

- Q.23 What are the major advantage of gaseous fuel over liquid and solid fuel.
- Q.24 Discuss muffle furnace
- Q.25 Discuss pulverised coal.
- Q.26 List type pyrometers
- Q.27 Write properties and uses of LPG gas.
- Q.28 Discuss flash point.
- Q.29 Discuss ultimate analysis of coal.
- Q.30 List the classification of kiln.
- Q.31 Discuss glass tank furnace.
- Q.32 Explain infrared pyrometer.
- Q.33 Explain manufacturing process of producer gas.
- Q.34 Explain working of regenerators
- Q.35 Define octane number and cetane number.

SECTION-D

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

- Q.36 Describe types of fuels with examples.
- Q.37 Explain working of redwood viscometer with neat diagram.
- Q.38 Describe working of glass tank furnace and refractory used in it.

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3rd Sem / Ceramic Subject:- Fuels and Furnaces

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Combustion is an _____
- Exothermic reaction
 - Endothermic reaction
 - Chain reaction
 - Hydrogen reaction
- Q.2 A bomb calorimeter is used for finding the _____ of solid and liquid fuel.
- Dew point
 - Calorific value
 - Melting point
 - Strength
- Q.3 Thermocouple is used to measure the
- Pressure
 - Temperature
 - density
 - calorific value
- Q.4 Which of the following is not a recuperative furnace?
- Soaking pit
 - Coke oven
 - Steam boiler
 - Reheating furnace

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- Q.5 Damper is located
- before ID fan
 - after ID fan
 - top of chimney
 - top of crown
- Q.6 Coal is a _____ fuel.
- solid
 - liquid
 - gas
 - none
- Q.7 Roller kiln is a _____ type of kiln.
- batch
 - continuous
 - both
 - none
- Q.8 CO₂ stands for
- carbon
 - carbon dioxide
 - carbon monoxide
 - carbon trioxide
- Q.9 Fossil fuels are _____
- non-carbon
 - non-renewable resources
 - renewable resources
 - None
- Q.10 Chemical formula of methane is _____
- CH₄
 - CH₃
 - CH₂
 - CH

SECTION-B

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

- Q.11 CO stands for _____. (Carbon dioxide/ carbon monoxide)
- Q.12 Stack heat losses can be minimised by controlling the excess air. (True/False)
- Q.13 Shuttle kiln is a batch type of kiln. (True/False)
- Q.14 Tank furnace is used to make _____. (Glass/ Cement)
- Q.15 Crown is a part of kiln/ furnace. (True/False)
- Q.16 Water gas is a source of nitrogen gas. (True/False)
- Q.17 Thermocouple is used to measure temperature. (True/False)
- Q.18 Damper is used to control furnace pressure. (True/False)
- Q.19 Water is a combustible substance. (True/False)
- Q.20 Tunnel kiln is a continuous type of kiln. (True/False)

SECTION-C

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

- Q.21 Give examples of each solid, liquid, and gaseous fuel along with some important uses.
- Q.22 Differentiate between continuous and batch type kiln