

- Q.23 Explain water / Cement ratio.
- Q.24 Explain any four types of cement with its use.
- Q.25 Write names of physical properties of cement.
- Q.26 Write raw materials used for manufacturing of cement.
- Q.27 Write the uses of plaster of paris.
- Q.28 Write the process of checking the soundness of cement in lab.
- Q.29 Write properties and uses of Quick setting cement.
- Q.30 Explain cement manufacturing process.
- Q.31 Explain calcination process of limestone.
- Q.32 Write the uses and property oil well cement.
- Q.33 Describe Le-Chadelier's Apparatus.
- Q.34 Explain mechanical properties of Portland cement.
- Q.35 Explain determination of final setting time?

#### SECTION-D

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

- Q.36 Explain various health and safety measures taken in cement industry.
- Q.37 Explain the procedure of Soundness test of cement.
- Q.38 Explain the dry process of cement manufacturing with flow diagram.

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**4th Sem.**  
**Branch : Ceramic**  
**Sub.: Cement Technology**

**Time : 3 Hrs.**

**M.M. : 100**

#### SECTION-A

**Note: Multiple type Questions. All Questions are compulsory. (10x1=10)**

- Q.1 Cement was invented in  
a) 1902                                      b) 1804  
c) 1916                                      d) 1824
- Q.2 The proportional Iron oxide in white cement clinker should be:  
a) 1%    b) 4%  
c) Less than 10%                          d) More than 4%
- Q.3 Addition of gypsum during final grinding of cement clinkers:  
a) Retards the rate of setting  
b) Accelerates the rate of setting  
c) Does not alter the setting time  
d) Decreases the cost of cement
- Q.4 The main component of lime stone is:  
a)  $\text{Na}_2\text{O}$                                       b)  $\text{CaO}$   
c)  $\text{FeO}$                                         d)  $\text{MgO}$

- Q.5 In cement production Gypsum is added in :
- Raw mill
  - Kiln
  - Crusher
  - Cement Mill
- Q.6 Water cement ratio test is done to check?
- Workability
  - Strength
  - Fineness
  - Coarse
- Q.7 Calcareous materials contains
- Alumina
  - Magnesium
  - Limestone
  - All of these
- Q.8 Vicat needle is used in determination of
- Initial setting time
  - Final setting time
  - Consistency
  - All of these
- Q.9 PPC Means?
- Perfect Portland Cement
  - Portland Produced Cement
  - Portland Pozzolana Cement
  - Productive Portland Cement
- Q.10 Soundness of cement is tested by
- Vicat apparatus
  - Le Chatalier apparatus
  - Soundness meter
  - Duff Abrams apparatus

## SECTION-B

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

- Q.11 Cement is made of \_\_\_\_\_ material. (Inorganic/Organic)
- Q.12 Blast furnace slag cement is made from \_\_\_\_\_. (Furnace slag/Tank furnace)
- Q.13 Initial setting time of cement should not be less than \_\_\_\_\_. (30 min/1hr)
- Q.14 Cobalt is used for getting \_\_\_\_\_ colour in cement (White/Blue)
- Q.15 A good quality cement should have higher percentage of \_\_\_\_? (Lime/Silica)
- Q.16 The cementing property of cement is due to \_\_\_\_\_. (Lime/Iron oxide)
- Q.17 Colour of lime stone is \_\_\_\_\_.
- Q.18 The temperature range in a cement kiln is \_\_\_\_\_? (500-1000\* C/ 1000-1200\*C)
- Q.19 \_\_\_\_\_% gypsum is added in cement. (3/5)
- Q.20 Colour of portlant cement is grey. (True/False)

## SECTION-C

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

- Q.21 What you meant by workability?
- Q.22 What is admixture? Enlist at least three admixtures with their use.