

- Q.23 Describe the role of additive in cement.
- Q.24 List various factors that affect selection of raw materials.
- Q.25 Explain determination of fineness of cement.
- Q.26 List different type of cement.
- Q.27 Explain the thermo chemistry of clinker formation.
- Q.28 Explain the test done to determine the water consistency.
- Q.29 Write physical properties of cement.
- Q.30 Write properties and uses of Quick setting cement.
- Q.31 Describe Le-Chadelier's Apparatus.
- Q.32 Explain mechanical properties of Portland cement.
- Q.33 List advantages of wet process.
- Q.34 Explain chemical composition of portland cement.
- Q.35 Explain role of gypsum in cement.

Section-D

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

- Q.36 Explain cement manufacturing by wet process with the help of flow chart.
- Q.37 Explain the effect of raw materials and its constituents on the properties of cement.
- Q.38 Discuss the health and safety measures taken in cement industry.

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

Time : 3 Hrs. M.M. : 100

SECTION-A

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

- Q.1 Cement was invented in
a) 1902 b) 1804
c) 1916 d) 1824
- Q.2 Portlant cement was invented by
a) Joseph Aspdin b) Albert Einstein
c) Ferredy Nissan d) None of these
- Q.3 Percentage of silica in Portland cement is ____%.
a) 17-25% b) 25-50%
c) 5-10% d) 100%
- Q.4 The proportional Iron oxide in white cement clinker should be ____.
a) 1% b) 4%
c) Less than 10% d) More than 4%

- Q.5 Initial setting time of ordinary portland cement is ____ mins.
 a) 30 mins b) 60 mins
 c) 90 mins d) 45 mins
- Q.6 Colour of portland cement is _____.
 a) Grey b) Blue
 c) Orange d) Red
- Q.7 Gypsum is used for controlling ____ Cement.
 a) Setting time
 b) Mixing time
 c) Softening temperature
 d) Ignition temperature
- Q.8 The main component of lime stone is :
 a) Na_2O b) CaO
 c) FeO d) MgO
- Q.9 Calcareous materials contains
 a) Alumina b) Magnesium
 c) Limestone d) All of these
- Q.10 ____ apparatus is used to determine fineness of cement?
 a) Vicat b) Blaine Air Permeability
 c) Beaker d) Furnace

Section-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Colour of portland cement is _____. (Grey/Black)
- Q.12 A good quality cement should have higher percentage of ____? (Lime/Silica)
- Q.13 Formula of iron Oxide is Fe_2O_3 . (True/False)
- Q.14 The final setting time of ordinary Portland cement is 6 Hrs. (True/False)
- Q.15 90 mesh sieve is used to measure _____ of cement.
- Q.16 Blast furnace slag cement is made from _____. (Furnace slag/Tank furnace)
- Q.17 Colour of lime stone is _____.
- Q.18 Initial setting time of cement should not be less than _____. (30 min/1 hr)
- Q.19 Soundness of cement is tested by ____ apparatus. (Vicat/Le Chatelier's)
- Q.20 Gypsum is used to control the initial setting time of cement. (True/False)

Section-C

- Note:** Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)
- Q.21 Write difference between natural and artificial cement.
- Q.22 Describe the raw materials used in manufacturing of cement.