

- Q.27 Identify the various factor that affect selection of raw materials.
- Q.28 List different types of ordinary portland cement
- Q.29 Explain the determination of soundness of cement
- Q.30 List the purposes of additives in cement concrete
- Q.31 At what stage gypsum is added in cement and discuss its role in cement
- Q.32 Describe setting and hardening of cement
- Q.33 Write properties and uses of rapid hardening cement
- Q.34 Explain health and safety measure taken in cement industry
- Q.35 Explain oil well cement

#### SECTION-D

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

- Q.36 Explain cement manufacturing by wet process with the help of flow chart
- Q.37 Define initial and final setting time of cement. Explain determination of initial setting time
- Q.38 Explain different classes of lime. Write its properties and uses

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**4th Sem / Branch : Ceramic**  
**Subject:- Cement Technology**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 Pozzolona cement is made by using  
a) Fly ash                      b) Blast furnace slag  
c) Soda                         d) All of these
- Q.2 Low heat cement is used to make  
a) Tall Buildings            b) Under water repair  
c) Massive Buildings      d) None of these
- Q.3 Percentage of lime in portland cement is \_\_\_\_\_ %  
a) 17-25%                    b) 60-67%  
c) 5-10%                     d) 100%
- Q.4 Calcareous materials are those which contain \_\_\_\_\_ as major constituent.  
a) Lime                        b) Silica  
c) Alumina                    d) Iron Oxide
- Q.5 Initial setting time of ordinary portland cement is \_\_\_\_\_ mins.  
a) 30min                      b) 60min  
c) 90min                      d) 45mins

- Q.6 \_\_\_\_\_ is used to control setting time of cement
- a) Gypsum                      b) Silica  
c) Alumina                      d) Iron Oxide
- Q.7 Initial setting time of cement is measured by \_\_\_\_\_ apparatus.
- a) Vicat                          b) Lechatlier  
c) Rotary                        d) All of these
- Q.8 \_\_\_\_\_ cement is used for constructing structure under water
- a) Rapid Hardening      b) Quick setting  
c) White cement          d) Low heat cement
- Q.9 The admixtures which are added in cement to reduce setting rate are known as \_\_\_\_\_
- a) Retarders                      b) Accelerators  
c) Air entraining agents d) Workability admixture
- Q.10 Limestone is burned at \_\_\_\_\_ °C to convert into lime
- a) 600                              b) 700  
c) 800                              d) 900

### SECTION-B

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

- Q.11 Colour of ordinary portland cement is \_\_\_\_\_.  
(Black, Grey)
- Q.12 \_\_\_\_\_ is calcareous material. (Lime, Silica)

- Q.13 Initial setting time of cement is controlled by \_\_\_\_\_.  
(Gypsum, Iron Oxide)
- Q.14 Full form of C<sub>2</sub>S is \_\_\_\_\_. (Dicalcium silicate, Tricalcium silicate, Dicalcium aluminate)
- Q.15 IS sieve No 9 is used to measure \_\_\_\_\_ of cement  
(Fineness, soundness)
- Q.16  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$  is the formula of \_\_\_\_\_. (POP, Gypsum)
- Q.17 Additives are material which are added in concrete to improve certain property. (True, False)
- Q.18 Lime is the example of accelerator admixture.  
(True/False)
- Q.19 White cement have high iron content. (True/False)
- Q.20 \_\_\_\_\_ is used to measure soundness of cement.  
(Lechatlier's Apparatus, Vicat's Apparatus)

### SECTION-C

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

- Q.21 Explain classification of cement
- Q.22 List the properties of ordinary portland cement
- Q.23 Explain the thermo chemistry of clinker formation
- Q.24 Explain determination of fineness of cement
- Q.25 Differentiate natural and artificial cement
- Q.26 Write advantage and disadvantage of wet process over dry process