

- Q.24 Write the process of checking the soundness of cement in lab.
- Q.25 Explain the determination of initial and final setting time with neat sketch.

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Time : 3 Hrs.

M.M. : 60

**3rd Sem. / Ceramic Engg  
Subject : Cement Technology**

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**SECTION-A**  
**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1  $\text{Al}_2\text{O}_3$  is formula of \_\_\_\_\_.  
a) Aluminum                  b) Aluminum Oxide  
c) Aluminum trioxide    d) Aluminum dioxide
- Q.2 Colour of portlant cement is \_\_\_\_\_.  
a) Grey                  b) Blue  
c) Orange                  d) Red
- Q.3 Water consistency test is done by ?  
a) Blaine apparatus  
b) Le-chatelier's apparatus  
c) Vane apparatus  
d) Vicat apparatus
- Q.4 Low heat cement is used in massive concrete structures like  
a) dam                  b) house  
c) Road                  d) All of the above

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 \_\_\_\_\_ percentage of gypsum is used in cement.

- a) 50%
- b) 25%
- c) 15%
- d) 3%

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Initial setting time of cement is controlled by \_\_\_\_\_ (Gypsum/Plaster of paris)

Q.8 Formula of iron Oxide is  $\text{Fe}_2\text{O}_3$ . (True/False)

Q.9 Cement is made of \_\_\_\_\_ material (Inorganic/organic).

Q.10 Initial setting time of cement should not be less than \_\_\_\_\_ (30 min/1hr).

Q.11 CaO is also called as limestone. (True/False)

Q.12 Water is used in wet process of cement manufacturing. (True/False)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Explain any four types of cement with its use.

Q.14 Explain water/cement ratio test.

Q.15 Write the uses and property white cement.

Q.16 Explain water consistency of cement.

Q.17 Explain the chemical reactions taking in rotary kiln.

Q.18 Describe the determination of fineness of cement.

Q.19 Explain the thermo chemistry of clinker formation.

Q.20 What is admixture? Enlist at least three admixtures with their use.

Q.21 Describe working of cyclone dust collector.

Q.22 Write the properties and uses of the Quick setting cement?

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain cement manufacturing process with flow diagram.