

- Q.23 What are various types of cement?
Q.24 Write process of making of plaster of paris.
Q.25 Explain working of rotary kiln with diagram.
Q.26 What are calcareous materials?
Q.27 What are physical properties of cement?
Q.28 Describe the sieve analysis test to find fineness of cement.
Q.29 Explain chemical composition of portland cement.
Q.30 What are the precautions taken for environmental pollution.
Q.31 Explain the effect of raw material on the properties of cement.
Q.32 Explain mechanical properties of Portland cement.
Q.33 Describe Le-chadelier's Apparatus.
Q.34 What are the advantages and disadvantages of wet process?
Q.35 Write about blast furnace slag cement?

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
Q.36 Explain how initial and final setting time of cement is found?
Q.37 Explain the process of checking the soundness of cement.
Q.38 Write the wet process for the manufacture of cement with neat diagram.

No. of Printed Pages : 4 180445/120445/030437
Roll No. /435

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

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Portland cement is greyish in colour due
a) MgO b) CaO
c) Fe₂O₃ d) Alkalies
- Q.2 The binding material in cement concrete is
a) Cement b) Sand
c) Gypsum d) Water
- Q.3 Workability of fresh cement concrete depends upon
a) Water cement ratio
b) Grading of aggregates
c) Use of admixture
d) All the above
- Q.4 _____ % Gypsum is added in cement
a) 5 b) 8
c) 3 d) 10

- Q.5 Rapid hardening cement attains maximum strength within
 a) 12-24 hours b) 24-72 hours
 c) 3-5 days d) 7 days
- Q.6 Low heat cement is used in massive concrete structures like
 a) dam b) house
 c) road d) all of these
- Q.7 Cobalt is used for getting _____ in cement.
 a) red b) blue
 c) green d) white
- Q.8 The expansion in portland cement can be tested by?
 a) fineness test
 b) soundness test
 c) setting time
 d) water consistency test
- Q.9 The standard consistency test is done by?
 a) Blaine apparatus
 b) le-chatelier's apparatus
 c) vane apparatus
 d) Vicat apparatus
- Q.10 Gypsum used in cement manufacturing acts as?
 a) accelerator b) air-entraining agent
 c) plasticizer d) retarder

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Percentage of silica in Portland cement is ____%. (17-25% / 100%)
- Q.12 _____ Kiln is used for cement manufacturing. (Rotary kiln/Tunnel)
- Q.13 CaO is also called as limestone. (True/False)
- Q.14 Gypsum is used to control the initial setting time of cement. (True/False)
- Q.15 Rapid hardening cement attains maximum strength in _____. (3-5 days / 7 days)
- Q.16 Formula of Gypsum is _____. ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ / CaSO_4)
- Q.17 Final setting time of cement should not be more than _____. (1hr / 10hrs)
- Q.18 Water is used in wet process of cement manufacturing. (True/False)
- Q.19 _____ fuel is used in rotary kiln in cement plants. (Coal / Petrol)
- Q.20 Gypsum is used to make plaster of paris. (True/False)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What Raw materials are used for the manufacture of cement?
- Q.22 What is the role of gypsum in cement production?