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Roll No.

220434

3rd Sem.
Branch : Ceramic
Sub.: Cement Technology

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (6x1=6)

- Q.1 Portlant cement was invented by
a) Joseph Aspdin b) Albert Einstein
c) Ferredy Nissan d) None of these
- Q.2 Initial setting time of ordinary Portland cement is _____ mins.
a) 30 mins b) 60 mins
c) 90 mins d) 45 mins
- Q.3 Iron oxide in white cement clinker should be
a) 1% b) 4%
c) Less than 0.3% d) More than 4%
- Q.4 Colour of portlant cement is _____.
a) Grey b) Blue
c) Orange d) Red

- Q.5 Gypsum is used for controlling _____ cement.
 a) Setting time b) Mixing time
 c) Softening temperature d) Ignition temperature
- Q.6 _____ apparatus is used to determine the initial setting time of cement?
 a) Vicat b) Blaine Air permeability
 c) Le-Chadlier's d) Furnace

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. $(6 \times 1 = 6)$

- Q.7 Chalk is calcareous material. (True/False)
- Q.8 _____ is example of additive. (Air entering agent / Flux)
- Q.9 Soundness of cement is tested by _____ apparatus. (Vicat / Le Chatelier's)
- Q.10 _____ % gypsum is added in cement. (3/5)
- Q.11 Al_2O_3 is formula of _____.
- Q.12 Clinker is grinded with _____. (Gypsum / Plaster of paris)

SECTION-C

Note: Short answer type Questions. Attempt any eight questions out of ten Questions. $(8 \times 4 = 32)$

- Q.13 Write the difference between OPC and quick setting cement.

- Q.14 List uses of oil well cement.
- Q.15 Explain the effect of raw material on the properties of cement.
- Q.16 Explain the determination of fineness of cement?
- Q.17 Explain the thermo chemistry of clinker.
- Q.18 Explain the working of electro static precipitator.
- Q.19 List advantages of wet process over dry process.
- Q.20 Write uses of lime.
- Q.21 What precautions should be taken to control environmental pollution.
- Q.22 Describe the role of additive in cement.

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. $(2 \times 8 = 16)$

- Q.23 Write the health and safety measures taken in cement industry.
- Q.24 Explain cement manufacturing by wet process with the help of flow chart.
- Q.25 Explain the determination of initial and final setting time with neat sketch.