Government College Of Engineering, Amravati
Applied Mechanics Department

Class Test-II
Date-25/01/17

Course Code: - CEU 404 CONCRETE TECH.
Total Marks-15 Time-1 hr

Q.1 Define consistency of cement. Explain laboratory test for consistency of Cement. Draw sketch of the apparatus required for test. 05

Q.2 Write application of
i) Quick setting cement ii) sulphte resisting cement 02

Q.3 Write in detail the permissible limits for solids in water as IS 456 -2000 04

Q.4 Explain any TWO of following.
a) Absorption and moisture content of aggregate
b) strength of sand
c) Bulking of sand 04

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Class Test-II
Date-18/03l/17

Course Code: - CEU 404 CONCRETE TECH.
Total Marks-15 Time-1 hr

Q.1 Define admixture. Write any five function of admixture. 03

Q.2 Design a concrete mix of M30 grade using fly ash and following data 08

a)Grade designation – M30
b)Type of cement-OPC 43
c)Maximum nominal size of aggregate-20mm
d) Minimum cement content- 320 Kg/m^3
e)Max.water cement ratio- 0.45
f)workability- 100mm slump
g)exposure condition- severe (for RCC)
h)Method of concrete placing – pumping
i) Degree of supervision- good
j)Type of aggregate- crushed angular aggregate
k)Max.cement (OPC) content- 450 Kg/m^3
l) chemical admixture type- superplasticizer
m) Type of mineral admixture: fly ash conforming to Is 3812(part I)

Sp gravity cement – 3.15
Sp Gravity CA – 2.74
Sand – zone II
Sp. gravity FA – 2.74
Sp gravity fly ash 2.2
Assume fly ash as 30% of total cementious material.

Q.3 Explain any ONE of following. 04

a) compaction by vibration
b) transportation of fresh concrete