

Course No: CVL 2310
Course Title: Concrete Technology
Date: 14/3/2018
No. of Questions: (3)
Time: 1hours
Using Calculator

University of Palestine



First Middterm Exam
Second Semester
2017/2018
Total Grade:

Instructor Name: Dr.Ayed Zuhud
Student No.: _____
Student Name: _____
College Name: _____
Dep. / Specialist: _____
Using Dictionary-No –Closed book

Question One:

Mark the following phrases true or fouds between brackets

- 1) Cement paste consists of cement+water +sand ()
- 2) Mortar+aggregate → concrete ()
- 3) Concrete has low tensile strength ()
- 4) Phosphates is one of the raw materials used in cement manufacturing ()
- 5) The first step of cement manufacturing is grinding the raw materials ()
- 6) The kiln temperature is about 700 °C ()
- 7) The dry method of cement manufacturing consumes about 100kg of coal/ton of cement ()
- 8) The first step before cement manufacturing is quarry of raw materials ()
- 9) Type four of cement contains quantity of Alite more than Belite ()
- 10) C₂S is faster in gaining compressive strength than Ferrite ()

Question Two:

1-Using curves, show the relationship between rate of heat evolution and time during the stages of cement hydration.

2-Using curves show the relation ship between the compressive strength and time in days for the various primary of constituents of cement.

Question Three:

Determine the volume of hydrated cement paste and the volume of empty capillaries for the mix of 150 g of cement using 0.55 w/c (water cement ratio).

(Gel porosity percent 28%_ Unbound water 23% of cement_Specific gravity of hydrated products 2.15_Decrease in the amount of 25.4% of the bound water occurs in the solid hydration product.)

End of Questions
Good luck