



Civil Engineering Department
Building Material Laboratory
(ENCE 214)
Quiz # 1

Student Name:
Student ID:

Instructor: Dr.Sameh Al-Jadaa
Assistance: Eng.Haneen Terawe

Question # 1: Complete the sentences (15 marks)

1-Bulk specific gravity (SSD) can be defined as

.....

2-In sieve analysis test the fine aggregates washed on sieve #, also it must be dried in the oven at a temperature of.....for..... hours.

3- In sieve analysis test the fine aggregates was put on the vibrating machine for minutes, while coarse aggregates put on vibrating machine for minutes.

4-The main equation which used to calculate F.M for coarse aggregates

5- The texture of stone that used as building material must be

.....

6-In los Angeles Abrasion test the sample was put in device forminutes, with..... metallic spheres.

7- In compressive strength test, there are two type of failureand.....

8- The aggregate sample that used in los Angeles test is coarse aggregate which retained on sieve size and.....

Question # 2: (15marks)

Sieve analysis test was performed on(اسمسمية) sample, the sample total weight before washing = **260 gm** and the sample total weight after drying and before sieving=**230 gm.**

Complete the table and calculate Fineness modulus (F.M.)

►Note: show sample calculation only for one sieve

Table (1) Data for the sample

Sieve size(mm)	Individual retained mass (gm)	Corrected retained mass (gm)	Individual percent retained (%)	Cumulative percent retained (%)	Cumulative percent passing (%)
6.3	00.00				
5.0	00.00				
2.0	85.00				
1.6	70.00				
0.5	32.00				
0.2	20.00				
0.16	5.00				
Pan	15.00				
Total					

Question # 3: (10marks)

The data below obtained from specific gravity test for **coarse aggregate** sample:-

Table (1) Data for coarse aggregate

Oven dray weight (gm)	608
Submerged in water weight (gm)	382
SSD in air weight (gm)	622

1- Calculate apparent specific gravity.

2- Calculate water absorption ratio.