



Note : Answer Five questions only

Q1) A- Discussed the Cement Compounds of C_2S and C_3S and their affect on the properties Of Portland cement? (10 marks)

B- Define Cement factors and study these factors? (10 marks)

Q2) A- Efflorescence is one of the problems in clay bricks what's mean and what are the causes of This problem. Give suitable solution to repair the efflorescence in brick? . (10 marks)

B- Define Light weight ordinary bricks? Give reasons for the Use of this type? (10 marks)

Q3) A- what is the (DTA) term mean in clay ? Explain the changes occurs in clay after heating by Sketch ? (10 marks)

B- Define workability and factors affected on it? (10 marks)

Q4) A - Calculate the capacity of Jaw Crusher where the available data is : (20 marks)

- Rpm (revolution per minute) of the main drive shaft is 170
- Width of swing Jaw is 60 mm
- Mean size of the crushed material is 20 mm
- Density of feed is 2.7 ton/m^3

Calculate capacity (Q) according to : 1- Taggart 2- Lewenson

$e = 200 \text{ GPa}$
 $M =$
 $Q = 150 \text{ m}^3/\text{d}$

Q5) A- For Selection of site for manufacturing of ordinary brick ? what should for Materials Engineer take in considers ? (10 marks)

B- W/ C (Water cement ratio) influences all the desirable quilities in Concrete ? Discussed that?

Q6) A - What are the Advantages of Hoffman's Kiln ? (10 marks)

B- Explain by Draw the process of Wet process of Manufacturing Portland Cement ? (10 marks)

.....GOOD LUCK.....

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