Material Testing and Evaluation

SECTION- A (2 Marks)

1) Differentiate between Portland Cement and white cement.
2) What are the precautions to be taken while storing cement?
3) What are the major ingredients of Paint? Give the role of each ingredient.
4) Differentiate between Headers and Stretchers in brick bonds.
5) List any four qualities of good timber.
6) List any four defects in plastering
7) Segregation and Bleeding of concrete.
8) List two methods of providing acoustics and insulation in buildings.
9) What is Hydration of cement?
10) How Batching of concrete is done?
11) List the defects in timber.
12) What is Ashlar masonry?
13) Distinguish between paint and Distemper.
14) What is acoustics?
15) Differentiate between paints and varnishes.
16) What is the significance of bonding in brickwork?
17) Distinguish between white washing and distempering.
18) Qualities of good timber.
19) Composition of good brick earth.
20) Varieties of fire bricks.

SECTION –B (5 Marks)

Q.1) Decribe the classification of Bricks as per Indian standards. How do they compare on their properties?

Q.2) What is meant by soundness of cement? Explain the procedure of testing soundness.

Q.3) What are factors affecting workability of concrete? Explain the methods to determine workability.

Q.5. What are the advantageous and disadvantageous of concrete block masonry over brick masonry?

Q.6) Explain in detail, the manufacturing process of cement.

Q.7) What do you understand by the term “Workability of concrete”? How is this measured?

Q.8) What are the characteristics of a good timber? Why seasoning of timber is done?

Q.9) Explain the various operations involved in the manufacture of glass.

10) What are the ingredients of Paint? Describe briefly each of them.

11) How many groups are there in IS codes for Civil Engineering?

12) Which IS code is used to refer details regarding measurement of building and civil engineering works?

SECTION C (10 Marks)

1) What types of tests conduct on bricks for construction purpose.

2) What is ferrous and non ferrous material, explain?

3) what is the importance of structural steel.

4)What are the mechanical properties of steel?

5) What are the mechanical properties of stainless steel?

6) What are the test on aggregates?

7) What are the three criteria that are important in the materials selection process?

8) What is weighted point method for material selection?

9) Explain method of interpretation?

10) How do you prevent material fatigue and also explain what are the three stages of fatigue failure.

11) Which is the most important IS code for a Civil Engineer? Explain.

12) What are the different steps or processes involved in the Quality Control Procedure?