



(d) The aggregate crushing value of coarse aggregate which is used for making concrete, which in turn is used for purpose other than wearing surface should not exceed.

(i) 30%                      (ii) 40%

(iii) 45%                    (iv) 50%

(e) The tensile strength of concrete is measured by

(i) direct tension test in the universal testing machine

(ii) applying compressive load along the diameter of the cylinder

(iii) applying third point loading on a prism

(iv) applying tensile load along the diameter of the cylinder

(f) King closers are related to

(i) doors and windows

(ii) king post truss

(iii) queen post truss

(iv) brick masonry

(g) Which one of the following types of steel is used in the manufacture of rails?

(i) mild steel    (ii) manganese steel

(iii) cast steel    (iv) bessemer steel

2. (a) Define balance, movement, repetition, pattern, rhythm, emphasis, contrast and space in relation to aesthetic functions of a building design. 7
- (b) Briefly describe essential requisites for the supervision of contract works. What are the general objectives of supervision of construction ? 7
3. (a) List out various priorities in the preparation of an annual maintenance programme. Name some agencies for carrying out repair works in government buildings. 7
- (b) What are the steps in the planning of annual maintenance of MES assets ? Are there any constraints in maintenance of a building. 7
4. (a) Write a short note on Fire Alarm Systems. Describe various methods of fire fighting systems. 7
- (b) Explain different types of riveted connections. Discuss their advantages over welded connections. 7
5. (a) Explain natural and artificial methods of ventilation in building. Write their merits, demerits and limitations also. What are the various sound absorbing materials ? 7
- (b) How can one decide their suitability and effectiveness ? 7

6. (a) Write the name of the most suitable type of rollers used in the compaction of cohesive soils, water bound macadam and fine grained cohesionless soils, each. Describe any one roller briefly. 7
- (b) What do you understand by trouble shooting in plants and equipment? List and explain various troubles / problems generally encountered. 7
7. Write short notes on *any four* of the following :
- (a) stone crusher 4x3½=14
- (b) pile Foundation
- (c) waffle unit flooring systems
- (d) pre fabricated wall panel
- (e) Ground improvement techniques
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