**QUESTION BANK**

**Semester** : IV sem.

**Subject** : Building Construction and materials

UNIT –I : -

Q.1. Define foundation. Explain, with sketches, various types of shallow

foundations. (06)

Q.2 What is bearing capacity of soil & what are different methods of finding

The bearing capacity of soil? (05)

Q.3. Enlist various types of shallow foundations. Describe in detail raft

Foundation. (05)

Q.4. What measures would you take while constructing foundation in Black

Cotton Soil? Explain. (05)

Q.5. Suggest a suitable foundation under the following circumstances and state

 Why ?

1. Foundation on sloping ground
2. When it is not possible to extend the footing of an exterior column (04)

Q.6. What are the functions of foundation? Enlist essential requirements of

good foundation. (06)

Q.7. What are causes of failure of foundation? Give its remedial measures. (06)

Q.8. Write short note on:

 i) Improvement of B.C. in poor soils.

 ii) Raft foundation.

 iii) Combined footing. (06)

Q.9. A brick wall 20cm thick is 2.75 m in height above the plinth level. The

plinth height is 60 cm. Design the strip footing for wall carrying a super

imposed load of 7 t/m run. Soil weight 1650 kg/m3 , angle of repose for

soil is 300 , Unit weight of masonry is 2000 kg/m3, Modulus of rupture for concrete 1:3:6 is 3.5 kg/m3, safe bearing capacity of soil is 10t/m2 sketch

the foundation section. (07)

Q.10. Design the foundation for a load bearing structure, resting on soil having

 Bearing capacity as 180 kN/m3. And angle of internal friction 300. The

density of soil is 16 kN/m3. The wall thickness is 300 mm and the total

load coming on the wall in 120 kN / length. (09)

UNIT:-II

Q.1. What are the good qualities of brick? Enumerate the testes on brick as per

 IS code? (06)

Q.2. What do you understand by the term ‘Closer brick’? Described various

types of closer bricks. (05)

Q.3. Draw the plan and elevation of the following :

 i) 11/2 brick thick wall in English bond

 ii) 2 brick thick Double Flemish bond. (05)

Q.4. Define the terms:-

 i) Frog

 ii) King closer

 iii) Header

 iv) Queen closer. (04)

Q.5. Compare English bond with Flemish bond. (06)

Q.6. Write the principles to be adopted while construction of brick masonry. (06)

Q.7. What is bond ? Describe in brief various types of bond used in Brick

Masonry. (06)

Q.8. What is cavity wall? Describe its advantages and disadvantages. (06)

Q.9. What do you understand by ‘Reinforced Brick Masonry’ Explain the

method of construction. (07)

UNIT :- III

Q.1. What are the functions of Arches and lintels? Give relative merits and

demerits of lintels over arches. (06)

Q.2. Write short note on

 i) Relieving Arch

 ii) Construction of arch (04)

Q.3. What are the various types of arches, Explain any one. (06)

Q.4. What are the requirement of good quality stone as per I.S-speciation (04)

Q.5. List out and explain the common building stones found in India. (06)

Q.6. Define the following terms:

 i) Cornice

 ii) Weathering

 iii) Through stones. (03)

Q.7. Draw the elevation and cross section of typical stone masonry:-

 a) Course Rubble masonry

 b) Random Rubble masonry. (04)

Q.8. Enlist common types of joints provided in stone masonry. Give their

Sketches. (05)

Q.9 Enlist various types of Ashlar stone masonry. Explain any one in details. (06)

Q.10. What are the appliances used for lifting heavy stones? Explain briefly.

Draw sketch. (06)

Q.11. What are the different methods of Damp proofing ? Explain in brief.. (04)

Q.12. What are the effect of dampness on the structure. Describe any one

Method. To prevent the defects of dampness. (07)

Q.13. Compare the brick masonry with stone masonry. (06)

UNIT: IV

Q.1. What are the good requirement of floors. (05)

Q.2. Describe in brief the construction of R.C.C floor. (06)

Q.3. Write short note on I.P.S. Flooring specifications. (07)

Q.3. What do you understand by ‘Ribbed floor’? Summaries various advantages

of the same. (06)

Q.4. What are the factors to be considered for the selection of floor material. (03)

Q.5. Write short notes on :-

 i) Mud and muroom flooring

 ii) Terrazzo flooring

 iii) Jack arch flooring. (05)

Q.6. What are the different type of floor finishes? (06)

Q.7 What are the advantages and disadvantages of pitched and flat roofs? (07)

Q.8 Enumerate good requirement of roofs. (04)

Q.9. Draw neat sketch of King post truss. (04)

Q.10. Describe with neat sketch Queen post roof truss. (06)

Q.11. Enlist various types of roof covering for pitched roof that are commonly

adopted in India Explain any one in detail. (05)

UNIT:-V

Q.1. Explain briefly the requirement of good staircase. How are treads and

risers proportioned for a stair? (06)

Q.2. What are the different types of stairs? With neat freehand sketch, Explain

In brief. (05)

Q.3. Explain the following with neat sketches:-

 i) Flight

 ii) Going

1. Landing
2. Trade and rise
3. Newel Post. (05)

Q.4. Define terms :

 i) Winders

 ii) Head room

 iii) Baluster

 iv) Flight

Q.5. Give a short account on planning of Dog-legged staircase in a public

building with free hand sketch. (07)

Q.6. Plan the dog-legged stair for a building in which the vertical distance

between the floor is 3.6m. The stair hall dimensions 2.5m X 5m. Design

a dog-legged stair with neat sketch. (08)

Q.7. What is the difference between Ramp and Escalator? Where these are

 used for. (02)

Q.8. Discuss the purpose, location and sizes of door. (06)

Q.9. Define the following terms:- (Any four)

 i) Stile

 ii) Hold-fast

 iii) Rebate

 iv) Mullion

 v) Fan-light (04)

Q.10. What are the different types of wooden doors? Draw neat sketch of Battened, Ledged and Braced door. (06)

Q.11. Draw the neat sketch of Dormer Window and Gabled Window.

Q.12 Differentiate between fixed and pivoted window with the help of sketches. (07)

Q.13 Write short note on following (any Two)

 i) Bay window

 ii) Clear story window

 iii) Sky-light.

 iv) Dormer and gable window. (06)

Q.14. What is the necessity of plastering ? What are the specification of

 Plastering in wall construction. (07)

Q.15. Write short note on :

 i) Stucco plastering

 ii) Defects in plastering work (07)

Q.16. Enumerate the defects in plastering and suggest suitable remedial measures(06)

Q.17. What is the object of pointing. Describe the operation of pointing regarding

 the preparation of surface and its application completely. (05)

Q.18. Discuss the requirement of good paint. (06)

Q.19 Explain white washing procedure. (05)

Q.20 Differentiate between paints and distemper (05)

Q.21 What are the defects in painting? Suggest suitable remedial measures. (05)

Q.22. What do you understand by the term ‘Scaffolding’ ? With a neat sketch

 describe in detail the brick layers Scaffolding. (06)

Q.23. What do you understand by the term ‘Under prinning’ and shoring?

 Explain with these operations are made use and why? (06)

Q.24. What are the requirement of good ‘Form work, (06)