

MODULE – 1 FOUNDATION

- Q.1** What is foundation? Discuss various functions of Foundation.
- Q.2** What is sub surface investigation? What are the site exploration
- Q.3** What are the various methods of Sub soil exploration? Explain in detail
- Q.4** Describe In brief, various methods of boring for subsoil exploration. Explain wash boring with neat sketch.
- Q.5** Write a short note on seismic method.
- Q.6** Describe the plate load test for determining safe bearing capacity of soil with sketch.
- Q.7** Explain the methods of improving safe bearing capacity of soil.
- Q.8** What is mean by Combined footing, Strap footing, Raft foundation explain in detail.
- Q.9** What are the problems of foundation in black cotton soil? What precautions are taken during foundation construction in black cotton soil?
- Q.10** What are the causes of foundation? What remedial measures would you adopt?
- Q.11** Describe with sketch any two cast in situ concrete pile.
- Q.12** Describe in brief various type of pile driving equipments, giving sketch of each.
- Q.13** What are the most common causes of failure of pile.
- Q.14** Explain with sketches, construction procedure of 1) Button bottom pile 2) Simplex pile
- Q.15** Write a short note on under reamed pile.
- Q.16** What is pneumatic caisson? Where is it adopted? Describe the procedure for sinking, giving advantages and disadvantages.
- Q.17** What is meant by tilting caisson? What are the reasons? How the tilted caissons can be brought in correct position diseases?
- Q.18** Describe box caissons, give neat sketch, in which box caisson are adopted?

MODULE – 2 MASONRY CONSTRUCTION

- Q.1** What do you mean by masonry work? Name the different kind of masonry. What is meant by load bearing and non load bearing wall?
- Q.2** Draw the typical sketch, showing the following and define terms.
- | | | | |
|---|--------------|----|-----------------|
| 1 | Reveal | 10 | Through stone |
| 2 | Corbel | 11 | Butress |
| 3 | Cornice | 12 | Threshold |
| 4 | Jambs | 13 | Header |
| 5 | Coping | 14 | Stretcher |
| 6 | Quoin | 15 | Bevelled closer |
| 7 | Closer | 16 | Mitred Closer |
| 8 | King Closer | 17 | Frog |
| 9 | Queen Closer | 18 | Throating |
- Q.3** What are the various types of stone masonry? Describe various types of rubble masonry, give sketches.
- Q.4** Define mortar. Explain cement and lime mortar
- Q.5** Write a note on random rubble built to course stone masonry
- Q.6** What is meant by bonds in brick masonry? What are the rules for bonding? State various types of bond.
- Q.7** Write a short note on English bond.
- Q.8** Differentiate between English bond and Flemish bond
- Q.9** What is composite masonry? Write various types of it? Explain any one in detail
- Q.10** What is meant by cavity wall? Why it is provided?
- Q.11** Discuss in brief, giving various types of arches based on material and workmanship.
- Q.12** Explain the reinforced brick lintel with sketch
- Q.13** Explain in brief the objects of plastering.
- Q.14** Define mortar, describe in brief, the various types of mortar for plastering.
- 1) Lime mortar
 - 2) Cement Mortar
 - 3) Cement-Lime mortar
- Q.15** What is the purpose of pointing? Explain methods of pointing.

- Q.16 Describe the various types of pointing, give sketch of each.
Q.17 What are the various characteristic of a good paint?

MODULE – 3 PLAIN AND REINFORCED CONCRETE CONSTRUCTION & FORMWORK

- Q.1 Enlist the various types of Cement used in construction industries and explain any two In detail.
- Q.2 Write a short note on Ordinary Portland Cement.
- Q.3 What is importance of water In concrete mix. Describe various properties and impurities of water. Explain water cement ratio.
- Q.4 Explain.
- 1) Water Cement Ratio
 - 2) Slump test
 - 3) Grade of Concrete
 - 4) Compaction Factor test
 - 5) Durability of concrete
 - 6) Curing of concrete
 - 7) Workability of concrete
- Q.5 What are the methods of proportioning concrete mixes? Describe each in brief.
- Q.6 Explain the methods of mixing, placing, compacting and curing of concrete.
- Q.7 Explain the different between plain cement concrete and reinforced cement concrete.
- Q.8 Differentiate between precast and cast in situ concrete.
- Q.9 Why formwork in necessary ? What are the requirement of good formwork? Which type of material used for preparing formwork.
- Q.10 Explain with neat sketches, the formwork for RCC column.
- Q.11 Explain briefly 1) Slip formwork 2) False work for bridges.
- Q.12 What are the different types of centering for big arches of bridges? Explain briefly each one of them.

MODULE – 4 BUILDING COMPONENT

- Q.1** What are the point kept in view, while locating doors and windows?
- Q.2** Draw the neat sketch of a timber door and window with shutter, label various parts and define various term.
- Q.3** What are the factors affecting the selection of size, shape, location and number of windows in room?
- Q.4** Describe with sketch the following types of window:
- 1) Casement window
 - 2) Clere storey windows
 - 3) Glazed and sash windows
 - 4) Fanlight
 - 5) Bay window
 - 6) Dormer window
- Q.5** Define stair, draw the detail sketch of a stair, lable and define various parts: Landing, Flight, Nosing, Winder, Stringer, Handrail, Balustarde, Nosing.
- Q.6** Describe with sketch, the following types of stairs:
- 1) Quarter turn stair
 - 2) Open well stair
 - 3) Dog legged stair
 - 4) Spiral stair
 - 5) Straight flight stair.
- Q.7** Describe in brief, the following with neat sketch
- 1) Escalators
 - 2) Elevator
- Q.8** What are the essential requirements of good floor?
- Q.9** Describe the various factors affecting the selection of flooring material.
- Q.10** What are the different types of timber floors? Describe single and double joist timber floor with neat sketch.
- Q.11** Define roof. Describe briefly the essential requirements of good roof.
- Q.12** Compare steel roof truss and timber roof truss.

MODULE – 5 SPECIAL WORK

- Q.1** What do you understand by under pinning? When do you require it? Explain pit method and pile method, giving sketch of each.
- Q.2** Write note on following
- 1) Needle scaffolding
 - 2) Dead shores
 - 3) Steel scaffolding
- Q.3** What does it mean by shoring? Enlist the types of shores and describe it in brief any one.
- Q.4** What is meant by scaffolding? Discuss the essential requirement of it.
- Q.5** What is need of temporary works?
- Q.6** Describe the procedure of pumping from well points for dewatering. What are its disadvantages?
- Q.7** Describe with sketch, the freezing process for dewatering.
- Q.8** Define a coffer dam. What are the purposes of construction of cofferdam.
- Q.9** Describe the methods for constructing single wall cofferdam.
- Q.10** Write a short note on Cellular cofferdam.
- Q.11** Describe in brief, the various methods of demolition.
- Q.12** Discuss in brief, various types of thermal insulating material.
- Q.13** What is sound insulation? What are various effective measures adopted to achieve sound insulation in a building.

MODULE – 6 GREEN BUILDING

- Q.1** What is mean by Green Building Explain in brief.
- Q.2** What are the characteristic of Green building?
- Q.3** What are the benefits of Green building Concept?
- Q.4** Describe the green building products and material.