



17308

16117

3 Hours / 100 Marks

Seat No.

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- Instructions :** (1) *All questions are compulsory.*
(2) *Answer each next main question on a new page.*
(3) *Illustrate your answers with neat sketches wherever necessary.*
(4) *Figures to the right indicate full marks.*
(5) *Assume suitable data, if necessary.*
(6) *Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.*

Marks

1. A) Attempt **any six** of the following : **(6×2=12)**
- a) State any four points considered while preparing job layout for building work.
 - b) What is timbering and strutting ?
 - c) Write any four tools and plants used for excavation.
 - d) State the purpose of foundation.
 - e) State various types of stone masonry.
 - f) State the purpose of providing cavity walls in building.
 - g) Enlist four causes of cracks.
 - h) State the uses of roller compacted concrete.
- B) Attempt **any two** of the following : **(2×4=8)**
- a) State any four building components with their function of framed structure.
 - b) State the general principles to be observed during construction of good quality stone masonry.
 - c) What do you mean by vacuum dewatering concreting ? Where it is used ?
2. Attempt **any four** of the following : **(4×4=16)**
- a) What are the remedial measures to overcome settlement ?
 - b) Explain the strengthening of embankments by soil reinforcing techniques with neat sketch.(Any one).
 - c) Suggest the suitable and economic foundation in 2.5 m depth of black cotton soil for a building with neat sketch.
 - d) Explain English bond with the help of neat sketch.
 - e) Differentiate between plastering and pointing.
 - f) Explain king post truss and queen post truss with it's suitability of each.

P.T.O.



3. Attempt **any four** of the following :

(4×4=16)

- a) What is scaffoldings ? State any two types of it with their function.
- b) Define prefabricated structure. Enlist any four advantages and disadvantages.
- c) Give any eight precautions you will take while setting out foundation for residential building.
- d) Draw section of a R.C.C. slab roof showing thickness, end bearing, clear span and reinforcement.
- e) Suggest most suitable type of door for the following :
 - i) Entrance of bank
 - ii) Garage
 - iii) Main door of residential building
 - iv) Garden.
- f) Why metal windows are preferred to wooden windows ?

4. Attempt **any four** of the following :

(4×4=16)

- a) Explain pre-tensioning and post-tensioning prestressed concrete.
- b) Explain the process of Guniting and Grouting, to repair concrete work.
- c) What is under-reamed pile ? Draw neat sketch showing the details of it.
- d) Define the following :
 - i) Facing
 - ii) Backing
 - iii) Hearting
 - iv) Through stone, with sketch.
- e) Explain the process of surface preparation and painting an old wooden surface.
- f) What is DPC ? State its necessity.

5. Attempt **any four** of the following :

(4×4=16)

- a) State four uses of wire mesh and geosynthetics.
- b) What is meant by composite masonry ? State it's different types.
- c) State the different types of bonds used in brick masonry. Enlist the requirements of good bond.
- d) Differentiate between load bearing structure and framed structure.
- e) What is Raft-foundation ? State its suitability with different types.
- f) Explain termite proofing with it's necessity and importance.

6. Attempt **any two** of the following :

(2×8=16)

- a) Explain pile foundation and well foundation with neat sketches.
 - b) What is tremix floor ? Write the procedure to construct tremix floor.
 - c) Explain the Ready Mix Concrete w.r.t.
 - i) Definition
 - ii) Application
 - iii) Workability
 - iv) Equipments used.
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