23124

3 Hours / 70 Marks Seat No. | | | | | | | | |

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) Use of Non-programmable Electronic Pocket Calculator is permissible.

(7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Solve any FIVE : **5 × 2 = 10**

(a) Define : (i) Superstructure (ii) Foundation.

(b) List any four tools & plants used for excavation of earthwork.

(c) Define : (i) Corbel (ii) Cornice.

(d) State functions of an Arch.

(e) Name any four types of Natural stone floor finishes.

(f) Define :

(i) Underpinning

(ii) Shoring

(g) List any four types of doors.

2. Solve any THREE : **3 × 4 = 12**

(a) Differentiate between load bearing structure and framed structure (any four points).

(b) State the purpose of foundation.

(c) Draw neat sketch of stone masonry showing following components :

(i) Facing

(ii) Backing

(iii) Hearting

(iv) Bond stone

(d) State the requirements of good stair with respect to the following points :

(i) Location

(ii) Length of flight

(iii) Pitch of stair

(iv) Head room

3. Solve any THREE : **3 × 4 = 12**

(a) State the points to be observed in construction of brick masonry (any eight points).

(b) Explain pointing with respect to its necessity and its type.

(c) Explain how differential settlement is more dangerous than uniform settlement.

(d) Explain the waterproofing procedure for R.C.C. slab during construction and after construction.

4. Solve any THREE : **3 × 4 = 12**

(a) State the functions of following :

(i) Lintel

(ii) Plinth

(b) State any four defects in plastering work and give remedies on it.

(c) Describe any two causes of cracks in wall and state measures to prevent them.

(d) Compare between flat roof and pitched roof (any four points).

(e) State any four requirements of good brick.

5. Solve any TWO : **2 × 6 = 12**

(a) Explain with neat sketch, the layout of load bearing structure by centre-line method.

(b) Define Hollow brick masonry and state its advantages.

(c) Suggest suitable type of window for following building :

(i) School

(ii) Hospital

(iii) Cinema Hall

(iv) Staircase

6. Solve any TWO : **2 × 6 = 12**

(a) Draw neat sketch of under-reamed pile foundation & state situations under which it is used.

(b) List any three types of scaffolding with their suitability.

(c) Draw a neat sketch of dog-legged staircase and name its components.

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