

Con. 3550-08.

(FURTHER REVISED COURSE)

BB-5257

(4 Hours)

[Total Marks : 100

- N.B. :** (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of remaining **six** questions.
(3) Assumptions made should be **clearly** stated.
(4) Illustrate answers with **neat sketches** wherever **required**.

Q-1.a) What are the precautions to be taken for the protection of steel against corrosion. (04)

b) Explain the types and utility of shafts in tunnels. (04)

c) Explain the advantages and disadvantages of pneumatic caissons. (04)

d) Write a note on corrective measures to minimize land-slide hazards. (04)

e) Explain the applications of polymer impregnated concrete. (04)

Q-2.a) What are the preliminary and detailed investigations required to be carried out for selecting a dam site for a dam project? Explain. (08)

b) What are the advantages of indirect methods of sub-soil investigations? Explain 'Electrical Resistivity Method'. (06)

c) Describe the safety measures required in excavation to avoid accidents. (06)

Q-3.a) What are the various equipment used for excavation and what factors will you consider in selecting suitable equipment for the excavation work in hand? Explain the factors affecting production of trenching machines. (08)

b) What are the requirements of soil stabilisation? Write a detailed note on bituminous (cementing) stabilization. (06)

c) Explain the chemical stabilisation using –
(i) Lime, and
(ii) Aggregants and dispersants. (06)

[TURN OVER

