Total No. of Questions :8] *[Total No. of Printed Pages :2*

 Roll No .....

MVCT/MVCP-302(A)

M.E./M.Tech., III Semester

Examination, June 2017

Advanced Dam Design and Construction

(Elective-II)

Time : Three Hours

Maximum Marks: 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) List down preliminary investigations and surveys for selection of site of gravity dam.
   b) Describe method of zoning for evolution of profile of a gravity dam.

2. a) Write design steps for "Ogee spillway section".
   b) Explain the procedure of design of spillway crest gates and sluice gates.

3. a) Describe the procedure of stability analysis of high gravity dam.
   b) Draw the sketch and write the steps of design of hydraulic siphon.

4. a) Give the classification of Arch dams. How different forces are stabilised in Arch dam?
   b) Describe following dams
      i) Inclined arch dams
      ii) Dome-dams

5. a) Elaborate the design criteria of earthen dams against over toppling.
   b) Explain theory of flownets for homogeneous & zoned embankments.

6. a) Describe method of analysis of stability of slopes by slip circle method?
   b) How "Photoelasticity" is useful in the design of dams?

7. a) Explain methods of river diversion for construction of dams.
   b) How "Electrical Analogy method" is useful in the design of dams.

8. Write short notes on any FOUR of the followings :
   a) Energy Dissipation arrangements
   b) Chute Spillway
   c) Hoisting machines
   d) Seepage control in dams
   e) Rockfill dams
   f) Contraction joints in gravity dams

******