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

Roll No .....

CE-702-GS

B.E. VII Semester

Examination, December 2020

Grading System (GS)

Advanced Structural Design - II (R.C.C.)

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. What do you understand by Shear walls? Also explain its importance.

2. Design a cantilever Retaining Wall for the following data:
Height of the fill to be retained by the wall=5m,
Weight of earth =1800kg/m^3., Angle of internal friction=30^o
Coefficient of friction between soil and base slab=0.6,
bearing capacity of soil=20t/m^2.
Depth of foundation =1.5m, Material available: M 20 concrete and grade Fe415 steel.

3. What do you understand by "Bunker"? Also give its steps for design and its checks.

4. What do you understand by Intl tank? When and where it is provided? Explain.

5. a) List the various losses in prestress and explain them in detail.
b) Explain in detail design of culvert.

6. Design a rectangular tank resting on the ground for a capacity 100kilolitres. Use M25 concrete and Fe 415 rebars.

7. Design the bunker to be used for storing coal with following data:
   Capacity of bunker = 600 kN
   Unit weight of coal = 8 kN/m^3
   Size of bunker in plan = 4.0 m × 4.0 m
   Bottom opening = 0.5 m × 0.5 m

8. Write short notes on any four of the following:
   a) Sway and Non sway building
   b) Bracing elements
   c) Plane of Rupture
   d) Limit state method
   e) T-beam

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