Code No: 2603/CBCS/BL

FACULTY OF ENGINEERING

BE (Civil) V-Semester (CBCS) (Backlog) Examination, November 2020

Subject : Water Resources Engineering-I

Time: 2 Hours **Max. Marks : 70**

PART – A

Note : Answer any Five question **(5 x 2 = 10Marks)**

1. What are major water quality issues in reservoir management?
2. Convert 200 TMC into million m^3
3. What is the function of foundation gallery in gravity dam.
4. What is the limiting height of gravity dam if concrete strength is 300 kN/m^2 and specific weight of concrete is 10 kN/m^2.
5. The distance between focus and directrix in a homogeneous embankment dam is 12m, permeability of soil is 3 $x10^{-4}$ m/s. Find seepage per m length of Dam.
6. Write any three methods to control seepage through foundations of earth dam.
7. Explain failure of weir due to scouring.
8. Determine the crest level of a surplus weir if flood discharge is 300 cumec and head is 1.5 ,length is 15 m, Assume c = 1.7
9. The initial velocity is 12m/s and depth is 0.8m, what is the head loss in the jump.
10. Briefly explain energy dissipation with roller bucket type dissipater.

PART – B

Note : Answer any Four question **(4 x 15 = 60 Marks)**

11. Analyze the stability of given gravity dam for the following conditions: Friction coefficient between concrete-foundation is 0.70; allowable compressive and shear stresses in concrete are 2000 kN/m2. Take specific weights of concrete and water are 25 kN/m3 and 10 kN/m3 respectively.
    The height of dam is 50m,free board is 4m,top width is 6m,D/s face of the dam is vertical from top up to 5m, D/S face slope is 0.8H ;1 V.

12 Am homogenous embankment dam has u/s and d/s slopes 3.5h: 1v and 3h:1v respectively. The free board is 2m and height of dam is 20m. A horizontal blanket extends 30m from toe towards up stream. The permeability of soil is 3 x 10^{-5} m/s. Plot the phreatic line and determine the seepage.

13. a) Explain the design procedure for a weir of irrigation tank
    b) What are the causes of failure of weirs?

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14. a) The water head on the crest of a spillway is 2.1 m. Approach flow velocity is 2 m/s Total bridge length over the spillway is 50 m. There are 4 rounded piers each 1 m wide. Abutments are rounded. Take Kp = 0.01 and Ka = 0.1. Determine the flood discharge assuming c as 2.1
    b) Explain in detail any one of USBR energy dissipater.

15. Derive the expression for base width of elementary profile from no tension and no sliding condition.

16. a) What are principles of fixing irrigating water rates?
    b) Explain how uplift pressure is calculated when foundation gallery is present in a gravity dam.
17. a) Explain the salient features of riparian rights.
    b) Explain the failure of earth dam due to sudden drawdown phenomenon.

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Code No. 2613 / CBCS/BL

FACULTY OF ENGINEERING

B.E. V - Semester (CBCS)(Backlog) Examination, November 2020

Subject : Gender Sensitization

Time: 2 Hours **Max. Marks : 70**

PART – A

Note : Answer any Five question **(5 x 2 = 10Marks)**

1 Gender and Sex
2 How does culture determine gender?
3 Discuss the developmental initiatives towards gender sense.
4 Discuss Gender based division of labour.
5 What are different roles played by gender?
6 Domestic violence against women.
7 PC & PNDT ACT.
8 Why is women's work around the house "invisible"?
9 Nirbhaya Act, 2013
10 Woman artists of Telangana

PART – B

Note : Answer any Four question **(4 x 15 = 60 Marks)**

11 What is the nature and scope of gender sensitisation?

12 Discuss the amendments in the constitution related to women reservation.

13 Describe various challenges in gender sense.

14 Discuss various challenges in gender sense.

15 What are the causes for gender Inequality in India?

16 Critically examine the co-existence and respect towards women through ages.

17 Describe the labour laws for empowerment of women.

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