

FACULTY OF ENGINEERING**B.E. (Civil) V – Semester (CBCS) (Main) Examination, Nov. / Dec. 2018****Subject: Water Resources Engineering – I****Time: 3 Hours****Max.Marks: 70****Note: Answer all questions from Part – A and any five questions from Part – B.****PART – A (10x2 = 20 Marks)**

- 1 Define the terms bank storage and valley storage.
- 2 Define the term retarding basin.
- 3 State the objectives of galleries in gravity dams.
- 4 Distinguish between theoretical and practical profile to a gravity dam.
- 5 Write a brief on hydraulic fill type of earth dams.
- 6 State the consequences of earth quake failure in earthen dams.
- 7 List the functions of emergency spillways.
- 8 State the circumstances under which ogee spillway is to be used.
- 9 Define utilization factor and plant factor.
- 10 List the functions of flow duration curves.

PART – B (5x10 = 50 Marks)

- 11 a) Explain the steps involved in the fixation of spillway crest level.
b) Explain the reservoir operation policy for water quality management.
- 12 a) Design a practical profile of a concrete gravity dam for the following data:
RL of base of the dam is 350.0 m, RL of HFL is 400.0 m specific gravity of concrete is 2.4, safe compressive stress of concrete is 3000 kN/sq.m. and height of wave is 1.0 m.
b) List the forces acting on a gravity dam.
- 13 a) Calculate the seepage discharge per unit length of an earthen dam having homogeneous section with no drainage filter on the d/s side. The height of the dam is 12.0 m having a free board of 2.0 m with a top width of 4.0 m. The u/s face has an inclination of 3:1 and the d/s face is having 2:1. Adopt hydraulic conductivity of the soil as 8×10^{-3} cm/s.
b) Sketch the profiles of earth dams when only pervious material is available. The foundation is pervious to moderate depth beyond which impervious layer is available.
- 14 a) Explain the criteria for the safe design of embankments.
b) State the function of downstream drainage system.
- 15 a) Write a brief note on siphon spillways.
b) Describe with neat sketches the energy dissipation arrangements when the TWC lies below post jump depth curve.
- 16 a) List the different types of stilling basins as per USBR guidelines.
b) Estimate the length of apron ($S_o = 0.001$) for a type-I stilling basin d/s from an overflow spillway. The spillway crest is 15.0 long passing a discharge of 114 cumec. Manning's roughness factor n is 0.025.
- 17 a) Doctrines in groundwater.
b) List the seepage control measures through embankments and foundations of earth dams. Further, explain any one of them under each category.

FACULTY OF ENGINEERING
BE V Semester (CBCS) (Except Civil)(Main) Examination, Nov. /Dec. 2018

Subject: Gender Sensitization

Time: 3 Hours

Max Marks: 70

Note: Answer all questions from Part –A & any five questions from Part –B

Part – A (2 x 10 = 20 Marks)

1. What are the objectives of Gender Sensitization?
2. Explain the journey of Laxmi Agarwal and her campaign against Acid Attacks.
3. What message Emma Watson want to give through her speech at U.N Headquarters?
4. What is Gender Spectrum?
5. Why housework is invisible, undervalued and poorly appreciated?
6. What is the general perception of society regarding women's career?
7. Give details about the inequality of earnings between men and women.
8. Explain briefly about the women led Anti- Arrack Movement in Andhra Pradesh.
9. Write a short note on domestic violence in India.
10. Write briefly about Regalla Acchamamba.

PART – B (5 x 10 = 50 Marks)

11. Write about the story "Girl" written by Jamaica Kincaid. Explain how it is preparing one for womanhood.
12. What is the first lesson Dr. B.R. Ambedkar learnt in caste? Describe his childhood journey that turned into a nightmare.
13. Give some key factors for declining sex ratio and its demographic consequences.
14. Write the different categories of women's work that is unrecognized and unaccounted.
15. Write about the new forums of justice -Nari Adalat and Women's Jamaat related to domestic violence.
16. Explain Bhanwari Devi's struggle against caste discrimination and sexual harassment.
17. Write about the first Dalit woman leader T.N Sadalakshmi and her contribution as a political leader.
