

BWDB/IWM / BUET M.Sc.

Surveying

1. Correction Problem, contour line
2. Total station

Water Resources Engineering

1. Organogram of Ministry of water resources and BWDB
2. Problems on Subcritical, supercritical flow(like what type of flow will be? when Q and V are given)
3. Problem of Canal design (using Manning's and Chegis formula)
4. Transition flow, Turbulent flow.
5. Find command area and Irrigated area.
6. Problem on Irrigation(Garage books-chapter1,2,3,6)
7. Duty and Delta, Delta & Duty Math
8. What is hydrograph? Draw Hydrograph. Rainfall measurement
9. Show the Bar/char
10. Critical Depth math
11. Reynolds Number, Froude number.
12. Flow profile
13. Open channel flow, hydrology, Hydraulic Structure, Water quality, Khoslas theory
14. Stage Discharge curve, stage velocity curve
15. Ground water(Aquifer, Aquiclude, Confined /unconfined)
16. Hydraulic Structure design
17. Number of transboundary river in bangladesh
18. Specific energy curve
19. Top width, trapezoidal chanel design math
20. Leaching requirement math
21. Fraude number math
22. River training works
23. Cross drainage works
24. Why are you interested to pursueM.Sc. in WRE?

Environment Engineering

1. Problem on PH, Filtration, Disinfection.
2. Aerobic, Anaerobic, Facultative Ponds.
3. Septic Tank
4. Turbidity, TDS, Total dissolved solid, water distribution pipeline.
5. Chlorination and its graph
6. Breaking point, Water purification
7. Latrines (pit, simple pit, VIP)
8. Process of Different types of Water Purification
9. BOD & COD
10. 10. Water quality, How ensured?
11. Bacteria

Structures

1. What type of structures? Indeterminate or Determinate?
2. SFD & BMD& AFD(axial force diagram)
3. Deflection calculation

4. Force is given at any point, what force in what direction has to be applied to make it stable?
5. S.F.D & B.M.D of simply supported beam
6. Truss member free
7. Deflection(4 methods) find deflection
8. Influence line
9. Modulus of elasticity and rigidity math

R.C.C

1. USD method doubly reinforced and beam design
2. Temperature reinforcement & Corner reinforcement
3. All specifications
4. Ultimate strength design

ENGINEERING MATERIALS

1. Definition of initial setting time & final setting time, Segregation & bleeding
2. Scaffolding, formwork.
3. Fineness modulus (99 %)

Geo-technical Engineering

1. Definition: Liquid Limit & math, Plastic Limit & math, Void Ratio, Porosity, Equipotential Line, Flow net and math, Standard Penetration Test, Cone Penetration Test, Soil test
2. Problem on Mohr's circle (Shear Strength)
3. Pile load calculation, Different types of Sheet Piles, Pile load Test
4. Difference between different type of piles & under what condition they should be used
5. Group Pile Load bearing Capacity math, Mathematical problems
6. Grain Size Distribution, Shrinkage, Pore pressure
7. Cofferdam
8. slope failure, toe failure, slope circle
9. plasticity chart
10. unit weight and void ratio math

Transportation

1. Super elevation
2. Figure right of way (for flexible pavement)
3. Definition, Mathematical problems
4. Road structure
5. Sight Distance Definition, Breaking Distance.
6. S.S.D math and equation

Computer

1. Basic Knowledge

English

1. Green house effect, Environmental degradation.

2. Fill in the gaps(Preposition, the ,a, an Gender)
3. Right of verbs(go, went, gone, going)
4. Narration, voice, Synonyms & antonyms

General Knowledge

1. Bengalis, English, Bangladesh & International aspects
2. Elaboration of terms
3. Volleyball, Indoor games, kabadi
4. Barak obama president number, Priministar of England
6. A river in your district
7. Myanmar rivers
8. Number of trans-boundary river (57) (54 India, 3 Myanmar) an their names and total rivers in Bangladesh
9. Padma-jamuna source of generation, confluence

MCQ (BWDB)

1. Irrigation(10 marks)
2. Civil Subject(20 marks)

Note:

- 1) For M.Sc. admission in WRE dept. of BUET only see the water resoueces question, MCQ. May be on question paper at first.

Read books

Garge(irrigation engineering)
B.M. Das (principle of Geotechnical engineering and foundation engineering)
Vente Chow(Open Channel Flow)
M.A. Aziz (Engineering Materials)
Feroz Sir(ITN, enviroenmtnal engineering)
Transportation engineering(Sing/ Khanna or any books)
Strucure (Basic books, Singer, strength of materials)