

B.E. DEGREE EXAMINATION, 2015**(CIVIL ENGINEERING)****(SEVENTH SEMESTER)****CLEC-701 / PCLEC-401. GROUND WATER ENGINEERING**

May]

[Time : 3 Hours

Maximum : 75 Marks

*(Maximum 60 Marks for those joined before 2011-12)**Answer any ONE FULL question from each unit.**EACH full question carries TWELVE marks.***UNIT - I**

1. Explain how rock properties affect ground water. (15)
2. Explain how the ground water gets originated in detail. (15)

UNIT - II

3. Explain the laboratory method of measuring permeability. (15)
(OR)
4. Examine how pumping test is done in Copper Jacob method. (15)

UNIT - III

5. (a) Explain the functions of perforation screens and gravel packing. (8)
(b) Explain the use of rings in vertical and radial drilling. (7)
(OR)
6. What is infiltration gallery? Explain with a neat sketch. (15)

UNIT - IV

7. Explain in detail how electrical resistivity method of ground water exploration is done. (15)
(OR)
8. Explain geographical method of ground water exploration. (15)

UNIT - V

9. Explain with neat sketch the ditch and flooding type and basin type recharge of ground water. (15)
(OR)
10. Explain any three methods of artificially recharging ground water. (15)

B.E. DEGREE EXAMINATION, 2015

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEC-702. IRRIGATION AND WATER POWER ENGINEERING - II

May]

[Time : 3 Hours

Maximum : 75 Marks

*(Maximum 60 Marks for those joined before 2011-12)**Answer any ONE FULL question from each unit.**ALL questions carry EQUAL marks.***UNIT - I**

1. Explain the types of irrigation in detail. (15)

(OR)

2. Explain the types of canal falls with neat sketch. (15)

UNIT - II

3. Explain the types of weirs with neat sketch. (15)

(OR)

4. Examine the factors governing the design of weir or barrage. (15)

UNIT - III

5. Explain the various types of dam in detail. (15)

(OR)

6. Explain the problems associated in the construction of dam. (15)

UNIT - IV

7. Explain the principles of design of drainage canal. (15)

(OR)

8. Briefly explain the types of lining with their construction. (15)

UNIT - V

9. Explain the components of hydroelectric installation with neat sketch. (15)

(OR)

10. Explain the canal regulator in detail. (15)

B.E. DEGREE EXAMINATION, 2015

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEC-703 / PCLEC-603. ENVIRONMENTAL ENGINEERING - II*(Maximum 60 Marks for those joined before 2011-12)*

May]

[Time : 3 Hours

Maximum : 75 Marks

*(Maximum 60 Marks for those joined before 2011-12)**Answer any ONE FULL question from each unit.**ALL questions carry EQUAL marks.***UNIT - I**

1. (a) What are the various classifications of sewerage systems? (8)
 (b) Write down the fluctuation of sewage flow. (7)
 (OR)
2. What are the commonly used appurtenances in sewerage system? Describe each one of them. (15)

UNIT - II

3. Explain the working principle of a primary settling tank. Also, design the dimensions of a primary settling tank to treat 20 MLD of sewage with a five days BOD of 80 mg/l. What will be the concentration of effluent BOD? (15)
 (OR)
4. Explain the various pumping systems. (15)

UNIT - III

5. Write down the various methods of disposal of sewage. (15)
 (OR)
6. Explain the construction steps involved in laying of a sewer line with neat sketches. (15)

UNIT - IV

7. Explain the design procedure of septic tanks. (15)
 (OR)
8. Explain with neat sketches of Imhoff tank. (15)

UNIT - V

9. Explain the methods of treatment of sludge. (15)
 (OR)
10. Explain :
 (a) Methods of sludge disposal. (b) Sludge digesting. (8 + 7)

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(SEVENTH SEMESTER)

CLEC-704 / PCLEC-602. REMOTE SENSING AND GIS

May]

[Time : 3 Hours

Maximum : 75 Marks

*(Maximum 60 Marks for those joined before 2011-12)**Answer any ONE FULL question from each unit.**ALL questions carry EQUAL marks.***UNIT - I**

1. (a) What is remote sensing? Describe the components of remote sensing. (8)
 (b) Explain in detail the atmospheric windows. (7)

(OR)

2. Explain in brief an ideal remote sensing system with an illustration. (15)

UNIT - II

3. What are the different sensor parameters? Describe them with examples. (15)

(OR)

4. Explain in brief the various platforms used in remote sensing. (15)

UNIT - III

5. What are the interpretation keys? Explain them with examples. (15)

(OR)

6. Describe at least four image enhancement techniques. (15)

UNIT - IV

7. What are the components of GIS? Describe the database structures that are employed in GIS data management. (15)

(OR)

8. (a) Explain any two standard GIS software. (8)
 (b) Write short notes on map projections and map analysis. (7)

UNIT - V

9. Compare and contrast raster and vector data representation with suitable examples. (15)

(OR)

10. Highlight issues and features of using GIS for large scale land information system. (15)

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B.E. DEGREE EXAMINATION, 2015

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEC-705 / PCLEC-701. URBAN AND RURAL PLANNING

May]

[Time : 3 Hours

Maximum : 75 Marks

(Maximum 60 Marks for those joined before 2011-12)

Answer any ONE FULL question from each unit.

ALL questions carry EQUAL marks.

UNIT - I

1. Briefly explain the master plan for developing a new school.

(OR)

2. Discuss briefly the redevelopment of slum clearance.

UNIT - II

3. List the basic commodities for the development of urban town.

(OR)

4. Distinguish between modern and satellite town.

UNIT - III

5. Discuss the different levels involved in the development of National Planning.

(OR)

6. Enumerate Land Acquisition Act.

UNIT - IV

7. Summarize the principles of Rural Planning.

(OR)

8. Discuss in detail the integral rural development programme.

UNIT - V

9. Explain in detail the grouping of houses.

(OR)

10. Discuss the need for usage of low cost materials in rural housing.

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(SEVENTH SEMESTER)

CLEE-706 / PCLEE-702 . WATER SHED CONSERVATION AND MANAGEMENT

May]

[Time : 3 Hours

Maximum : 75 Marks

*(Maximum 60 Marks for those joined before 2011-12)**Answer any ONE FULL question from each unit.**ALL questions carry EQUAL marks.***UNIT – I**

1. Discuss in detail the history of erosion.

(OR)

2. List out the approaches to soil and water conservation.

UNIT – II

3. State the methods to control soil erosion and explain them in detail.

(OR)

4. Discuss the erosion control in Gullies and also, discuss the effects.

UNIT – III

5. Explain in detail the methods to measure water conservation.

(OR)

6. Discuss the principle and techniques involved in flood water harvesting.

UNIT – IV

7. Mention the factors affecting watershed management and explain any two of them in detail.

(OR)

8. Summarize the watershed management practices.

UNIT – V

9. Explain in detail green land farming and its management techniques.

(OR)

10. How will you develop wasteland into usable land and state the methodology to be followed.