Name of the Candidate :

3258

B.E. DEGREE EXAMINATION, 2016

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEC - 701 / PCLEC - 401. GROUND WATER ENGINEERING

[Time : 3 Hours

November]

Maximum : 75 Marks.

Answer any ONE FULL question from each unit.

ALL questions carry EQUAL marks.

UNIT - I

1. Explain the factors influencing the ground water fluctuations. (15)

(OR)

2. (a) Write the limitations of Darcy's law. (5)

   (b) Write the factors affecting permeability. (10)

UNIT - II

3. Explain the methods adopted for finding the specific yield of a well. (15)

(OR)

4. Derive the discharge equation of a well in an unconfined aquifer. (15)

UNIT - III

5. Explain the method for constructing hollow wells and deep wells. (15)

(OR)

6. (a) Explain about image well theory. (8)

   (b) Explain about partial penetration wells. (7)

UNIT - IV

7. Explain in detail about test drilling in subsurface investigation. (15)

(OR)

8. Explain with neat sketch electrical resistivity method of investigation. (15)

UNIT - V

9. Explain Ghyben Herberg relation between fresh water and saline water. (15)

(OR)

10. Explain the different methods available for controlling the sea water intrusion and sketch the fresh-salt water interface. (15)

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B.E. DEGREE EXAMINATION, 2016

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEC - 702. IRRIGATION AND WATER POWER ENGINEERING

November] [Time : 3 Hours

Maximum : 75 Marks.

Answer any ONE FULL question from each unit.

ALL questions carry EQUAL marks.

UNIT - I

1. Briefly describe the various types of irrigation with neat sketches. (15)

(OR)

2. Describe the various types of canal falls with neat sketches. (15)

UNIT - II

3. With neat sketches, describe the various complements of diverson head works. (15)

(OR)

4. Explain the Khosla's theory. Also, state the limitations of khosla's theory. (15)

UNIT - III

5. Brief about the various important featuers to be considered in the selection of site of dams. (15)

(OR)

6. Briefly describe the various cases of failure of earthen dams with neat sketches. (15)

UNIT - IV

7. Describe briefly about the following: (3×5=15)

(a) Ridge canal. (b) contors canal. (c) water loggins.

(OR)

8. Describe briefly about a siphon aqueduct with neat sketches. (15)

UNIT - V

9. Brief about canal registation works and explain any one in detail. (15)

(OR)

10. Describe the various complements of hydro electric power station. (15)

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B.E. DEGREE EXAMINATION, 2016

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEC - 703 / PCLEC - 603. ENVIRONMENTAL ENGINEERING - II

(Common with Part - Time)

November] [Time : 3 Hours

Maximum : 75 Marks.

Answer any ONE FULL question from each unit.

ALL questions carry EQUAL marks.

UNIT - I

1. Explain the type of sewerage system with neat sketches.

(OR)

2. What are the various shapes of sewer Explain.

UNIT - II

3. Discuss any four types of sewer appurtenances with working principles.

(OR)

4. With a neat diagram, explain the various pumps used for pumping of sewage.

UNIT - III

5. Briefly explain the characteristics and composition of sewage.

(OR)

6. Discuss BOD and its significance.

UNIT - IV

7. Write short notes on:

(a) Skimming tanks, and (b) Settling tanks.

(OR)

8. Explain merits and demerits of trickling filters.

UNIT - V

9. Discuss about the sludge thickening methods.

(OR)

10. Explain the principles and design of waste stabilization lagoons.

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B.E. DEGREE EXAMINATION, 2016

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

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

(Common with Part - Time)

November] [Time : 3 Hours

Maximum : 75 Marks.

Answer any ONE FULL question from each unit.

ALL questions carry EQUAL marks.

UNIT - I

1. (a) Explain briefly about the electromagnetic spectrum. (10)

   (b) What are the components of remote sensing? (5)

(OR)

2. Elucidate the followings:

   (a) Atmospheric scattering. (b) Spectural signature concepts. (15)

UNIT - II

3. Discuss briefly about the various types of remote sensing platforms. (15)

(OR)

4. (a) Describe briefly about the Microwave sensors. (10)

   (b) Discuss on the meteorological satellites. (5)

UNIT - III

5. Explain briefly about the basic elements of image interpretation. (15)

(OR)

6. Discuss about the multispectral image classification. (15)

UNIT - IV

7. (a) Explain the basic components of G.I.S. (10)

   (b) Brief the term- "Map projections". (5)

(OR)

8. Explain briefly the Data Base Management System (DBMS) practiced in GIS. (15)

UNIT - V

9. Briefly explain the following: (15)

   (a) Data vector and raster. (b) Data compression.

(OR)

10. Describe the methodology of Highway Alignment Studies used in GIS. (15)

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B.E. DEGREE EXAMINATION, 2016

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEE - 705 / PCLEE - 701. URBAN AND RURAL PLANNING

(Common with Part - Time)

(Elective - I)

November] [Time : 3 Hours

Maximum : 75 Marks.

Answer any ONE FULL question from each unit.

ALL questions carry EQUAL marks.

UNIT - I

1. (a) Explain the development of urban planning during ancient times as well as for present scenario.

(OR)

(b) Describe the objectives and principles of zoning.

UNIT - II

2. (a) What is the necessity of a new town, how it is done? Explain in brief.

(OR)

(b) Discuss about modern towns in detail, with an example.

UNIT - III

3. (a) Explain the various levels of planning and preparation of regional planning in detail.

(OR)

(b) Discuss about the national planning in detail.

UNIT - IV

4. (a) Differentiate between rural planning and urban planning with suitable examples.

(OR)

(b) What do you mean by urbanization? Discuss in detail.

UNIT - V

5. (a) Describe the necessity of housing planning and management in India.

(OR)

(b) Discuss about the low cost housing materials.

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B.E. DEGREE EXAMINATION, 2016

(CIVIL ENGINEERING)

(SEVENTH SEMESTER)

CLEE - 706 / PCLEE - 702. WATERSHED CONSERVATION AND MANAGEMENT

(Common with Part - Time)

(Elective - II)

November] [Time : 3 Hours

Maximum : 75 Marks.

Answer any ONE FULL question from each unit.

ALL questions carry EQUAL marks.

UNIT - I

1. Classify watershed and explain them in detail.

(OR)

2. Discuss in detail erosion problems in India.

UNIT - II

3. List out the types of soil erosion and methods to control them.

(OR)

4. Explain in detail the erosion control in torrents.

UNIT - III

5. State the factors affecting the need for water conservation.

(OR)

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

UNIT - IV

7. List out the factors affecting watershed management.

(OR)

8. Discuss the need for watershed management practices.

UNIT - V

9. Explain joint forest management.

(OR)

10. Discuss in detail grazing practices in wasteland development.