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NAAC ACCREDITED INSTITUTE
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NH-5, Anakapalle – 531002, Visakhapatnam, A.P.
Phone: 08924-221111 / 221122/9963981111, e-mail:info@diet.edu.in

QUESTION BANK

Subject: ENVIRONMENTAL IMPACT ASSESSMENT AND MANAGEMENT

Name of the Faculty: Mr.B.Seshagiri Rao, Asst. Prof.,

Class: IV B.Tech Civil –II Sem

Unit-1

1. a) What is EIA? Explain.

   b) Discuss objectives, merits and demerits of EIA

2. a) Discuss about the need of EIA for engineering projects

   b) Describe possible changes in the environment by various project activities.

3. a) Describe the preparation of Environmental Base map

   b) Describe systematic approach for using EIA as a planning tool for major Project activities in brief.

4. a) What are the basic concepts of EIA?

   b) Describe the elements of EIA?

5. Explain the different characteristics that the impact evaluation methods should have.

6. Explain the classification of environmental parameters in EIA.

Unit-2

1. a) Give a brief account on cost benefit analysis of EIA.

   b) Describe Environmental media Quality Index method in detail.

2. Describe the EIA methodologies.

3. a) Describe matrix method in detail b)Explain overlay methods of EIA.

4. List out different EIA methods. Explain Ad-hoc methods in detail.

5. Explain the criteria for the selection of EIA Methodology.

6. a) Explain Environmental media quality index method.

b) Explain the Box-model approaches for prediction of various environmental impacts for engineering projects.

Unit-3

1. Discuss the mitigation measures for soil and groundwater impacts.

2. Explain the various steps in preparing of E1A report of soil and groundwater.

3. Discuss about environmental indices for water and air quality.

4. Write a detailed note on Direct land use impacts.

5. Write a detailed note on identification of activities which will have different types of impacts on soil and ground water Quantity and Quality.

Unit-4

1. a) Describe different sources of air pollution.

b) Describe the environmental effects on surface water.

2. a) Explain stepwise how do you predict and assess impacts in the Air environment.

b) Write a detailed note on identification of surface water Quantity or Quality impacts.

3. a) Draw the schematic diagram for conceptual approach to the study focused on surface water Environment impacts.

b) Write a detailed note on ‘compilation of water Quantity-Quality information.

4. a) Explain various developmental activities which cause significant impact on surface water resources.

b) Describe the mitigation measures for surface water environment impact

5. What are the various environmental indicators and indices? Explain the environmental indices for air quality description.

6. Describe biological and regulatory mitigation measures for the mitigation of biological impact.

Unit-5

1. Differentiate between deforestation and forest degradation.

2. Explain the common causes of deforestation around the world.

3. Explain the effects of deforestation around the world.

4. Explain the environmental impact of Deforestation.

5. Explain the impact of developmental activities on Vegetation.

6. Explain the impact of developmental activities on Wildlife..

Unit-6

1. Discuss evaluation of audit data and preparation of Audit report.

2. Write a note on Environmental legislation.

3. What is EMP? What are measures employed for mitigation of adverse environment?

4. Write a detailed note on generalized approach for assessment of air pollution Impact.

5. Explain the different stages of Environmental audit.

6. a) What are the different types of Environmental audit.

   b) Describe the process of Audit protocol

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DEPARTMENT OF CIVIL ENGINEERING

IV-II QUESTION BANK **ACDAMIC YEAR 2017-18**

SUBUECT: **ESTIMATION SPECIFICATION AND COSTING** NAME OF FACULTY: **G. NARAHARI**

UNIT-1

1.a) State different types of approximate estimate. Illustrate any one with example.
b) State the different types of detailed estimates and their use.

2.a) Differentiate between detailed estimate and abstract estimate
b) Explain the use of approximate estimate in civil engineering

3.a) List the major information/data needed for enabling preparation of estimate for a building.
b) Discuss the various units of measurement used for estimation of civil works.

4.a) What is approximate estimate and explain the importance?
b) What is accuracy in estimate preparation?

5 Give at least 4 purposes of preparing estimates for civil engineering works.

6 a) Mention the standard units used in estimation for any 5 items of building works.
b) Explain briefly the relevance of approximate method of estimate.

UNIT-2

1 a) Through rate analysis, calculate the rate per unit volume of 1:2:4 pcc
b) Through rate analysis, calculate the rate per unit volume of 1:8 plastering of 10mm thick

2 a) Explain the objective of carrying out Rate Analysis in civil works
b) List the components to be considered for Rate analysis of Brick Masonry work

4 calculate the rate analysis for 15m2 area of brick masonry of 0.3m thick?

5 Through rate analysis, calculate the rate per unit of 12mm thick cement plastering 1:6.

6 Explain steps needed for carrying out rate analysis for a typical item in civil works.

UNIT 3

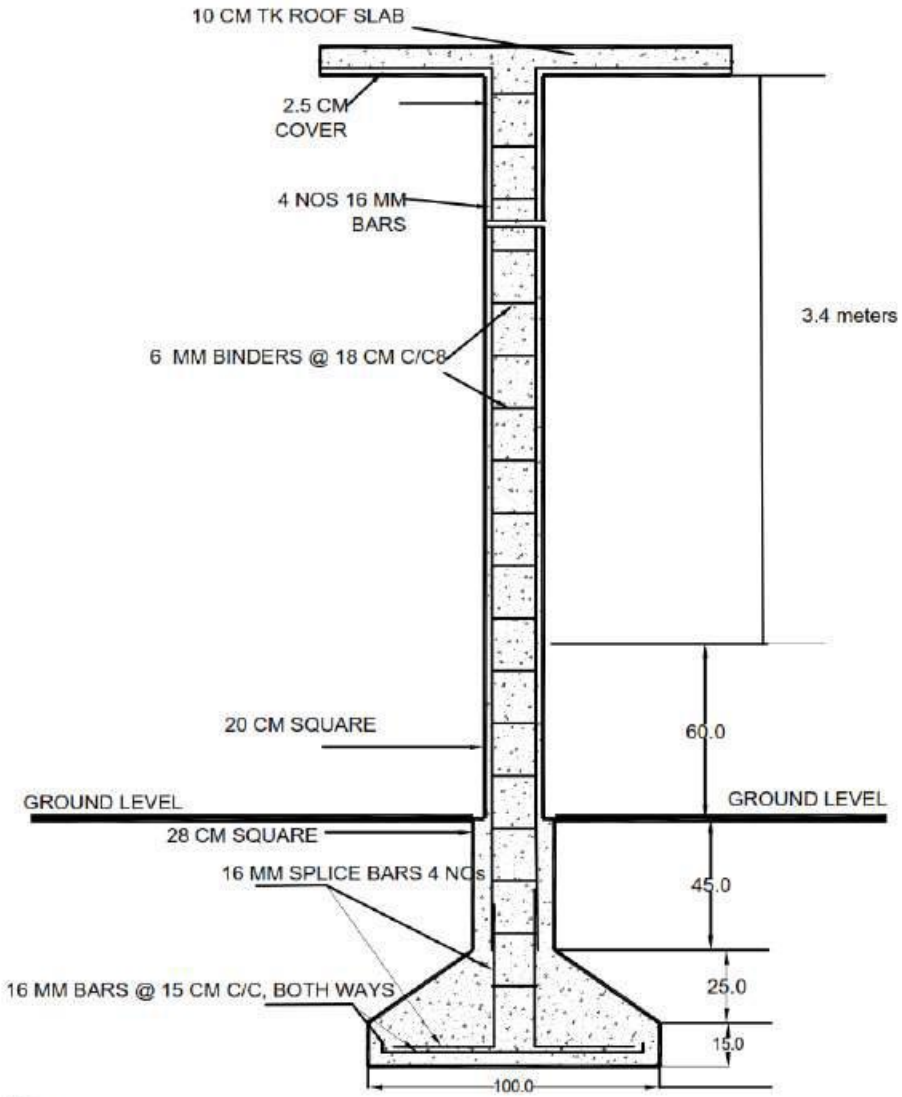
1 a) State any three methods of calculation of earth work for road. Explain any one of them.
b) Which method is more accurate for calculation of earthwork and why?

2 Work out quantities of earth work for a section of road as given in table.

Chainage (meters)	0	30	60	90	120	150
Ground Level	110.00	109.00	109.70	108.70	109.80	109.80

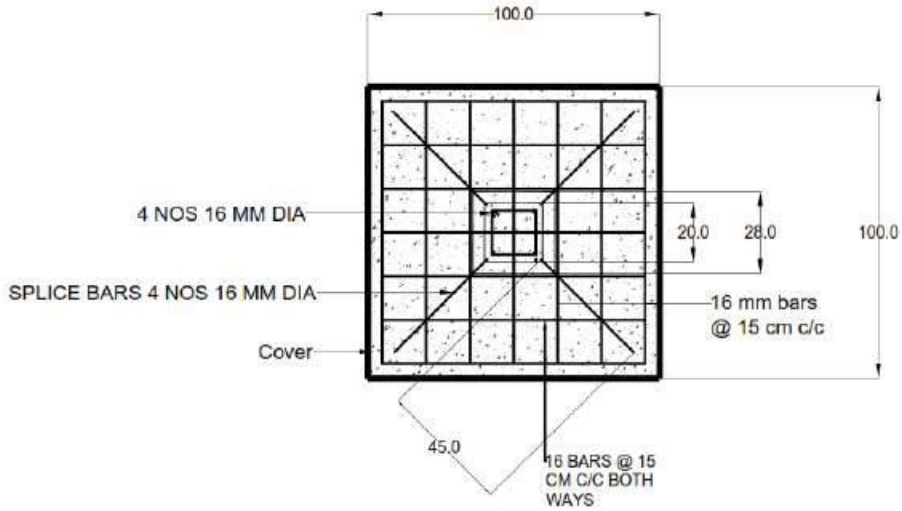
I. Formation level at 0.00 M Chainage = 110.00 M
II. Gradient of formation line = 1 in 300, upwards
III. Top width of formation = 10.00 M
IV. Side slope = 2:1

3 Calculate the quantity of steel required for an RCC column with footing shown in figure 3. Also, prepare schedule of bars for the column. *Note: Make suitable assumption as necessary.*



Note:
All dimensions in CM
Assume date as necessary

SECTION



PLAN

RCC COLUMN & FOOTING

4 The ground levels along the center line of the road are given below
Chainage (meters)
0 50 100 150
RL of Ground 97.00 96.50 96.00 97.50
The road is to be formed in embankment with the formation level at 100.00m throughout the length. If the road width is10.00 m and the side slopes 2:1, calculate the quantity of earthwork required by Trapezoidal rule. Assume transverse slope as level.

5 Calculate the quantity of earthwork in embankment for a portion of channel with the following data:
Bed width = 3 m
Free Board = 44 cm
Slope of dissing = 1:1
Side slope of banking - 1.5:1
Full supply depth – 1 m
Top width of both banks – 1.5 m
Distance (m) 0 30 60 90 120 150
Ground Level (m)
225.24 224.8 224.43 224.12 224.50 224.98
Proposed Bed Level (m)
224 223.94 223.88 223.82 223.76 223.70

UNIT-4

1 Write the detailed specifications for damp proof course (2.5cmthick) C.C 1:1.5:3

2 Write the specifications for marble flooring in a residential building.

3 Distinguish between lump sum contract and item rate contract

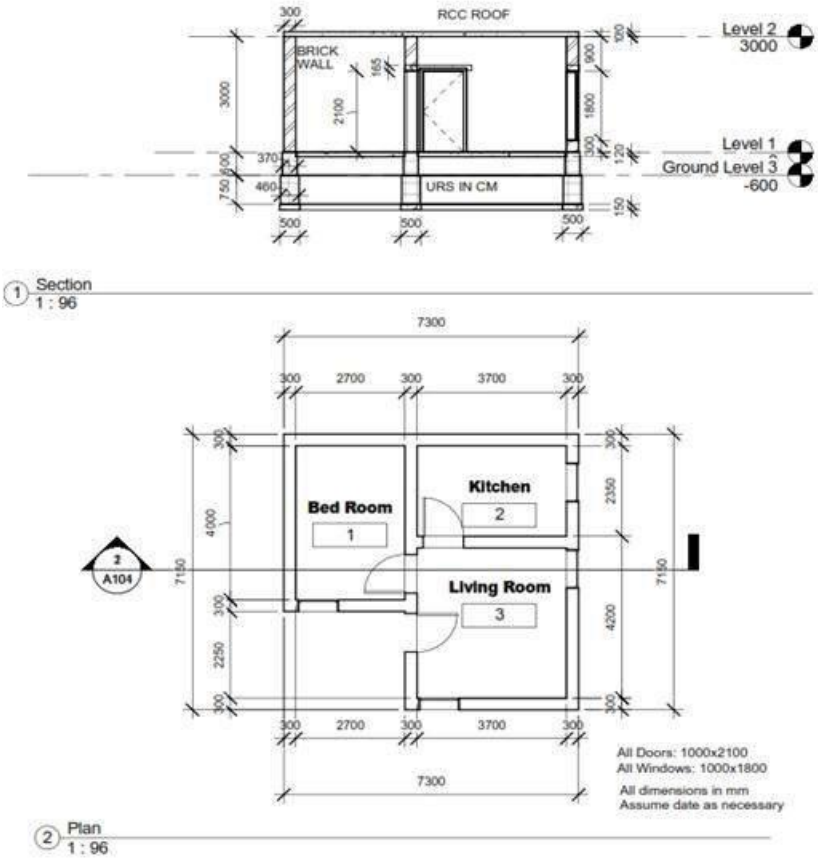
4 a) What do you understand by General Conditions of Contract (GCC) in tender document?
b) Explain Cost plus percentage contract.

5 a) State the purpose of penalties in contract agreements? [7]
b) What is EMD and when it is forfeited?

6 a) List components of a typical tender notice.
b) Explain the procedure to be followed for opening construction tenders.

UNIT 5

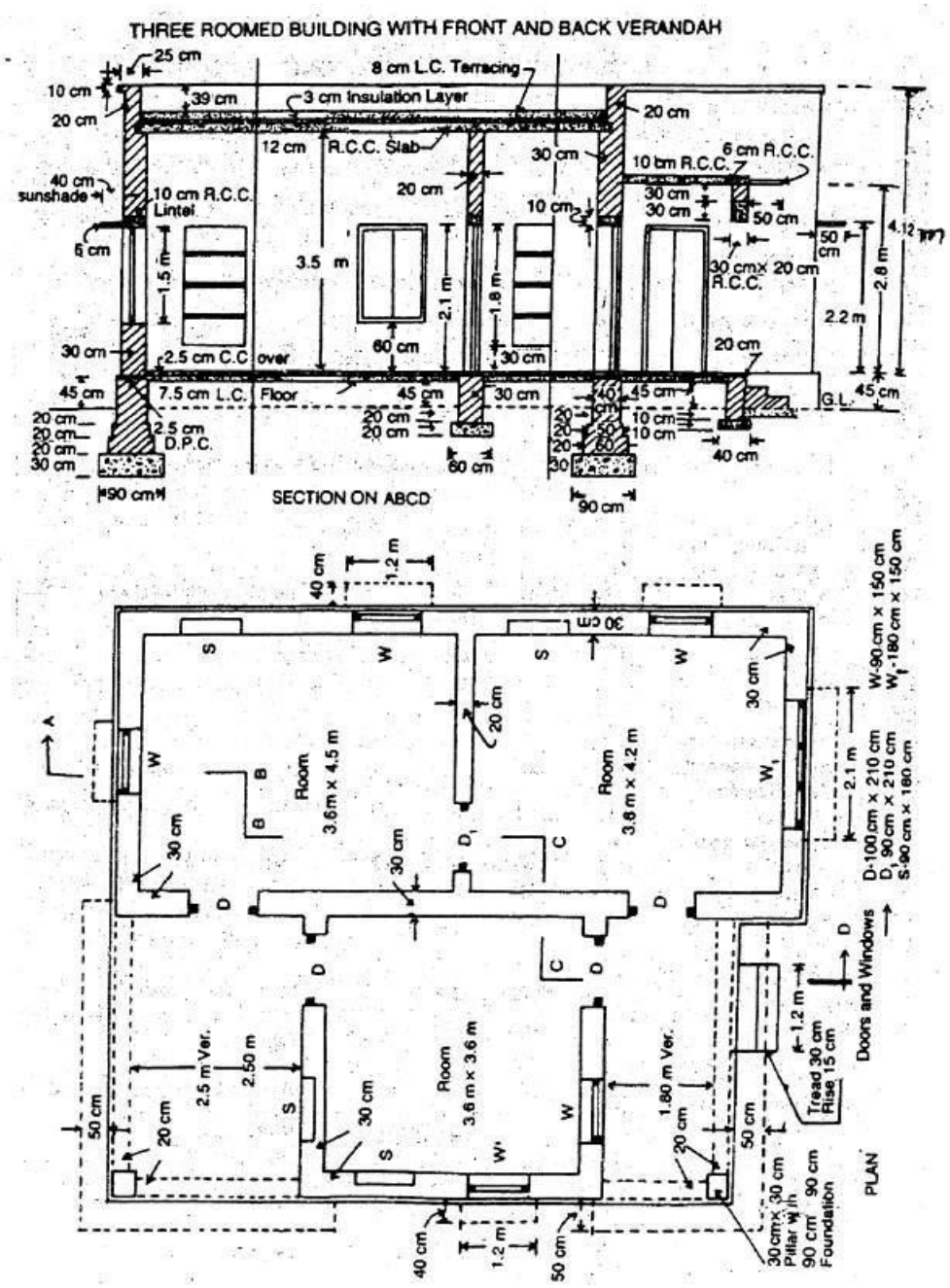
1 Calculate quantity of following items of work and enter the same in standard format of measurement sheet with brief description of item (refer fig 1.):
(i) Excavation for wall foundation
(ii) Brick works
Note: Make suitable assumptions where necessary.



6 a) The Figure 1 shows 3 roomed building. Estimate the quantities and cost of earth work in excavation for foundation in hard soil @ Rs.140/cum.

Note: make assumptions where necessary.

b) For the same building estimate the CC bed in 1:4:8 for all walls @ Rs. 2900/cu.m

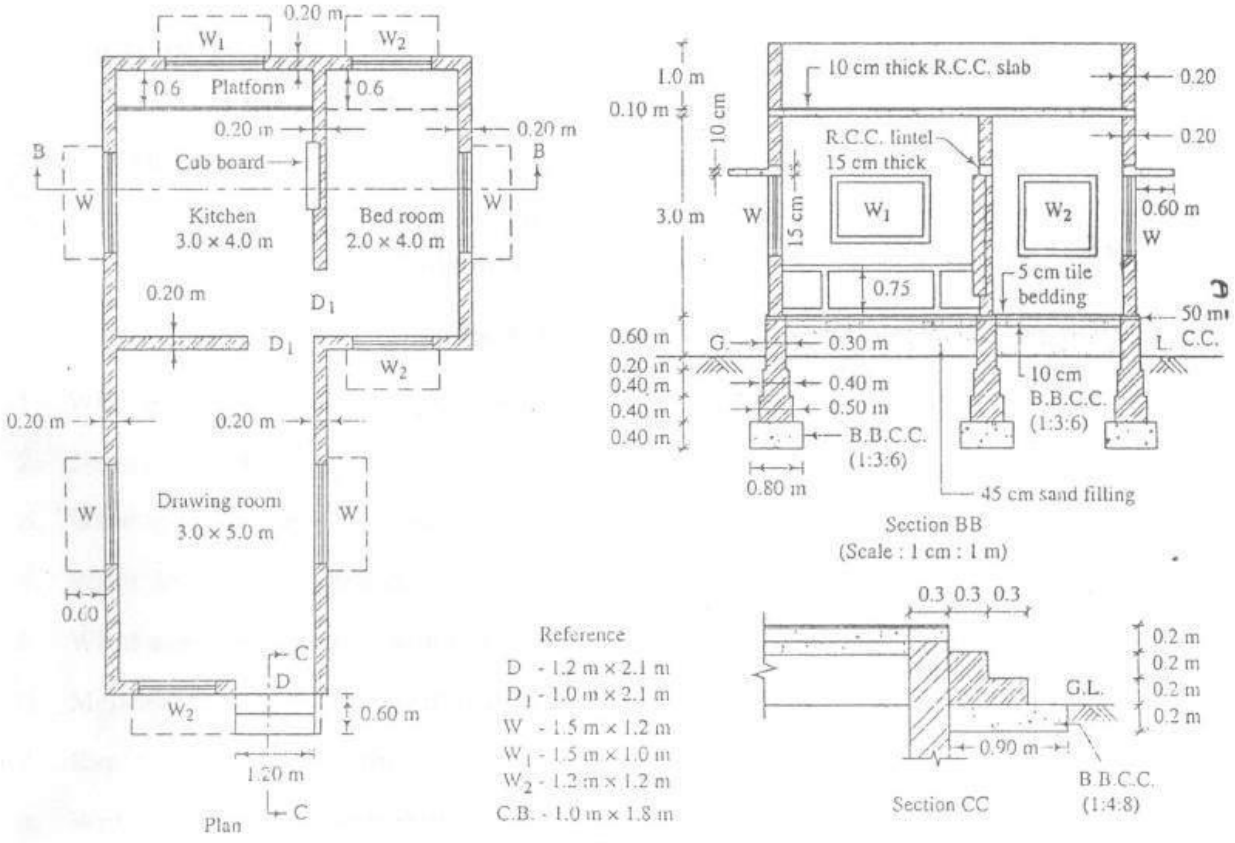


UNIT-7

1. Detailed Estimate of a Building by Long wall and short wall method shown in Figure - 2? Assume suitable data.

2 Prepare detailed estimate for the plastering of super structure in CM 1:6 for building in Figure 2.

Note: Make suitable assumptions where necessary.



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NAME: M RVSG Gupta DEPARTMENT: CIVIL

DISSIGNATION: ASSISTANT PROFESSOR YEAR/SEM:IV/II

SUBJECT: REPAIR AND REHABILITATION OF STRUCTURES (Elective IV)

UNIT-01 DETERIORATION OF STRUCTURES

1. What is meant by deterioration of structures and mention causes.
2. What is the process of deterioration like freezing and thawing.
3. What meant by wetting and drying explain in detail?
4. What is meant by abrasion erosion, pitting.
5. Write a clear note on Carbonation and Abrasion.
6. Explain any four causes for deterioration of concrete structure with neat sketches.
7. Explain Alkali aggregate reaction on structures
8. Describe briefly about sulphate attack acid attack temperature and their causes

UNIT-02 NON DESTRUCTING TESTING

1. Write a detail note about non destructive method for concrete structures
2. Explain the testing procedure of rebound hammer method clearly
3. Explain about damages caused due to corrosion with neat sketch
4. What are the factors effecting corrosion
5. Describe ultrasonic pulse velocity test for concrete members with sketch
6. Explain briefly rebar locator and corrosion meter?
7. Determine the methods of corrosion measurements.
8. Write a detail note on pull out test

UNIT-03 FAILURES OF BUILDING

1. Definition of building failures and types of failures for in concrete structures
2. What are the different types of failures in Distressed building.
3. List out the causes of failures.
4. Discuss about faulty design failure.
5. Write a detail note on fire damage
6. Explain diagnostic methods and equipment.
7. What are the remedial measures for cracks.
8. Explain the methodology for investigation of failures in buildings and explain any one method.

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UNIT-04 MATERIALS FOR REPAIR AND REHABILITATION

1. What is mean by ad mixtures? write different types of admixtures used in concrete making
2. What are the materials used for repair and rehabilitation.
3. Write the chemical composition for admixtures
4. List out the natural admixtures.
5. Explain the detail about fibers, wraps, glass , carbon fiber wraps
6. Write a short on steel plates.
7. Explain the concrete behavior under corrosion
8. Explain detail about depth of carbonation
9. Explain detail about corrosion activity measurement
10. List out echo methods and explain.
11. Explain detail about ultrasonic pulse velocity tests and pull out tests.

UNIT-05 REPAIR TECHNIQUES

1. Explain concept of grouting technique for a cracked beam.
2. What is meant by jacking, short creating.
3. Write detail about different repair techniques for concrete structures
4. What is meant by nailing underpinning.
5. What is meant by bonded plates
6. Explain with neat sketch how to do grouting in cracked slab.
7. Explain the process for under watering
8. Distinguish between repair and rehabilitation
9. What is mean by weathering corrosion

UNIT-06 INVESTIGATION OF STRUCTURES

1. Write down the case study for rehabilitation for bridges piers
2. Write down the case study for rehabilitation for dams
3. Write down the case study for rehabilitation for canals
4. Write down the case study for rehabilitation for heritage structures.
5. Write one case study of bridge failures its investigation causes and conclusion.
6. Explain detail corrosion and erosion structures.
7. Explain the coefficient of thermal expansion with respect to the strength of concrete.
8. What is the application of expansive cement?
9. How you do you repair and rehabilitation a structures distresses by fire.
10. What observations should be considered in case of distress and explain any one preliminary test method.

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IV B.TECH – II – SEM QUESTION BANK (2017-18)

Branch: CIVIL

Faculty Name: Dr.K.Hari Krishna

Watershed Management

UNIT - I

1. a) What is watershed? What is the concept of watershed development? 5M
   b) What are the objectives of the watershed development? 5M
2. a) What is the need of the watershed development? 5M
   b) Explain about watershed management? 5M
3. Explain about integrated and multidisciplinary approach for watershed Management? 10M

UNIT – II

1. a) What are the characteristics of watershed? 5M
   b) Explain socio-economic characteristics of watershed? 5M
2. Explain briefly about characteristics of watershed? 10M
3. a) What is the basic data on watersheds? 5M

UNIT – III

1. a) Define erosion and list the types of erosion? 5M
   b) What are the types and causes of erosion? 5M
2. Estimate soil loss using Universal soil loss equation? 10M
3. a) How to control soil erosion? 5M
   b) Explain about trenching and Bunding?

UNIT – IV

1. What are the techniques of rainwater harvesting? 10M
2. a) What is surface flow harvesting? 5M
   b) What is subsurface flow harvesting? 5M
3. What are farm ponds and dugout ponds?

UNIT – V

1.	What is land use and land capability classification?	10M
2.	a) What is management of forest	5M
	b) What is management of agriculture	5M
3.	a) What is land grading operation	5M
	b) Explain about reclamation of saline soils	5M

UNIT – VI

1.	a) Write about data of watershed for modeling?	5M
	b) What are the advances of watershed models?	5M
2.	Explain about application and comparison of watershed model?	10M
3.	a) What is model calibration?	5M
	b) What is model validation?	5M