

**ACADEMIC YEAR: 2017-2018 (EVEN Semester)**

**V.S.B ENGINEERING COLLEGE, KARUR**

**DEPARTMENT OF CIVIL ENGINEERING**

**ASSINGMENT QUESTIONS**

**CE6601 DESIGN OF REINFORCED CONCRETE AND BRICK MASONRY  
STRUCTURES**

**Year/Semester: III Year/ V1 Semester B.E., Civil Engineering “A & B” Section**

**Faculty Name:Ms.M.Praveena**

**Date:**

1. Explain briefly about various types of retaining walls with a neat sketch.
2. Write the applications of retaining walls and sketch the arrangement of reinforcement of retaining walls.
3. With a neat sketch explain the various types of water tanks.
4. Sketch the arrangement of circular slabs with different loading conditions and explain the various methods to determine the loads in circular slabs.
5. Explain briefly about intze type water tank with a neat sketch and also draw its reinforcement details.
6. Write in detail in various loading conditions in staircases and draw a neat sketch on different types of staircases.
7. Explain the methods of designing shear key in retaining walls and also write the principles involved in different components of retaining wall.
8. With a neat sketches explain the methods involved in flat slabs and sketch its components.
9. Explain the various principles involved in design of box culvert.
10. With a neat sketch explain the bridges and its various components.
11. List out the various bricks arrangement used in buildings with a neat sketch.
12. Derive from principles the ultimate design moments for a rectangular simply supported slab panel using yield line approach.
13. Explain the factors to be considered while designing brick masonry with respect to stability and lateral supports on the structure.
14. Enumerate the various loading conditions adopted in brick masonry under different support and loading conditions.

15. Write the advantages, disadvantages, uses and applications of design of brick masonry.

**V.S.B ENGINEERING COLLEGE, KARUR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**ASSINGMENT QUESTIONS**  
**CE6602 STRUCTURAL ANALYSIS II**

**Year/Semester: III Year/ V1 Semester B.E., Civil Engineering “A & B” Section**

**Faculty Name: Mr.C.Mohanaselvan**

1. Write the step by step procedure of analysis of pin jointed plane frame by force method.
2. Write the step by step procedure of analysis of continuous beam by force method.
3. Explain the field application of force method.
4. Write the step by step procedure of analysis of pin jointed plane frame by displacement method.
5. Write the step by step procedure of analysis of continuous beam by displacement method.
6. Explain the field application of displacement method.
7. Explain the shape function of triangular truss.
8. Explain the shape function of four nodal elements.
9. Write the application of finite element method in structural analysis.
10. Derive the shape factor for various elements.
11. Write the application for upper bound and lower bound theorem.
12. Explain the plastic theory of structures.
13. Explicate the application of tension coefficient method in curved beam.
14. What are the methods in structural analysis and explain any two?
15. Briefly explain the types of space structures and bridges.

**V.S.B. Engineering College, Karur**  
**Department of Civil Engineering**  
**ACADEMIC YEAR: 2017-2018 (EVEN Semester)**  
**CE6605-ENVIRONMENTAL ENGINEERING II**

**Assignment**

1. Explain the need and necessity of proper sanitation for a town.
2. With the help of a neat sketch, bring out the pattern of variation of sewage flow in an Indian city.
3. Differentiate between Conservancy system and Water carriage sewerage system.
4. Write a note on the sewer ventilation.
5. Briefly describe the method of treating the waste water from paper and pulp industry.

6. What do you mean by waste water sludge? Write the principles and importance of aerobic and anaerobic digestions.
7. Give an account of the diseases caused by environmental health hazards and their etiology.
8. Explain chemical oxidation and wet air oxidation.
9. How phosphorous can be removed from waste water.
10. Discuss the various waste minimization techniques.
11. Explain the concept of sloughing of bio-film in trickling filter.
12. Explain the terms “Effluent Standards” and “MINAS”.
13. Explain the concept of zero discharge.
14. Write a detailed note on photo-catalysis process.
15. What is CTEP? State whether it can be used to treat different kind of waste water.

**V.S.B. Engineering College, Karur**

**Department of Civil Engineering**

**ACADEMIC YEAR: 2017-2018 (EVEN Semester)**

**CE6604-RAILWAYS, AIRPORTS & HARBOUR ENGINEERING**

**ASSIGNMENT QUESTIONS**

1. When and where the soil suitability analysis is carried out and explains.
2. Draw a neat dimensional sketch of the permanent way cross section and explain the functions of various components.
3. a) What are points and crossings? What are their types? Draw sketch of left hand turnout and
4. types of airport marking. Explain with neat sketch the runway marking. b) Draw a typical sketch showing the general lighting pattern for a International airport.
5. Summarize how poor soil is being stabilized and explain the methods in detail.
6. a) What are the various types of aircraft parking system? Explain with neat sketches. b) List the factors to be considered for the selection of site for a commercial airport.
7. Discuss in detail about wind rose diagram? Explain different types of wind rose diagrams.
8. Explain in brief: 1. Clear Zone. 2. Approach zone 3. Turning zone. 4. Buffer zone.
9. Describe the importance of runway lighting. Explain threshold lighting with the help of sketches.
10. Explain the various Navigational aids both fixed and floating. b) Draw a neat sketch of a

- typical harbour and indicate the salient components
11. What is breakwater? What are the causes for failures of breakwater and suggest remedies? Enlist the types of breakwaters commonly used.
  12. . Distinguish between wet docks and dry docks. Describe the operation of any two dry docks with sketches.
  13. Define dredging? Explain the reasons for its adoptions. How dredged Materials are disposed off?
  14. Explain the concept of littoral drift and how it affects the location of harbour.
  15. Explain the different natural phenomena to be studied before the design of harbour.

**V.S.B. ENGINEERING COLLEGE, KARUR**

**Department of Civil Engineering**

**Academic year: 2017-2018 (Even Semester)**

**ASSIGNMENT QUESTIONS**

**Class: III Year / VI Semester B.E. Civil Engineering - "B" Section**

**Name of Subject: Concrete Technology**

**Name of Faculty member: Ms.V.Sudha**

1. Describe the importance of the quality of water used for concreting. How does increasing the quantity of water influence the properties of fresh and hardened concrete?
2. Explain in detail about the test on fine and coarse aggregates.
3. Explain in details the various specifications of concrete. What are the various factors which affect the workability of concrete?
4. What are the stages of transformation of fresh concrete to hardened concrete? Explain.
5. Explain in detail about the various test conducted on cement.
6. What are the various types of chemical attacks encountered by concrete? What precautions can be taken to ensure good quality concrete in coastal structures?
7. Explain in detail the composition, physical properties of the Silica fume and discuss how it improves the properties of concrete.
8. Explain in detail the composition, physical properties of the mineral admixture GGBS and discuss the benefits of using it in concrete.
9. Write short notes on (i) Accelerators, (ii) Retarders, (iii) Plasticizers.
10. Discuss at length the composition, properties of the mineral admixture Fly Ash and write the benefits of using it in concrete.
11. Explain the Design Procedure for BIS method of Concrete Mix Design.
12. Write any one procedure for determining concrete mix design
13. Design the concrete mix for grade M30 with suitable conditions. Find the quantities of constituents of the mix for a bag of cement.
14. Explain the factors that influence the choice of mix design.
15. Explain in detail about the statistical quality control and acceptance criteria of concrete.

**V.S.B. ENGINEERING COLLEGE, KARUR**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**ASSIGNMENT**  
**CE 6603- DESIGN OF STEEL STRUCTURES**

**Year/Semester & Branch: III / VI B.E Civil Engineering**

**Faculty Name: Mr.P.Ramshankar**

**Date:**

1. Draw neat sketch of unequal angle section and channel section with their geometric properties.
2. Write the step by step design procedure for design of compression members.
3. Define effective length of weld. State how to calculate length of weld required.
4. State the relation between throat thickness and size of weld required.
5. Compare welded joints with bolted joints with respect to strength, efficiency and workmanship.
6. A flat 150 mm \* 8 mm is used as tension member with 20 mm diameter bolts. Find the minimum net area.
7. Write the step by step design procedure of design of lacing system.
8. Define slenderness ratio and radius of gyration. Why is the radius of gyration taken minimum?
9. Why lacings are used? How much load is taken by lacings?
10. Draw a typical sketch of welded plate girder section showing various components.
11. What is gusseted base. Draw neat sketch with label.
12. Define slab base and gusseted base. In which column base, the thickness of base plate is minimum and why?
13. Define truss. Draw neat sketch of any six panel truss showing main tie, principal rafter, angle of pitch and span. State two uses of steel roof trusses.
14. Draw a neat sketch of roof truss showing component parts. Also define the component parts.
15. Draw a neat labelled sketch of HOWE truss of 12 m with 8 panels naming all important components.

Prepared by  
(P.Ramshankar)

Approved by  
(HoD)