AR13 SET-2

Code: 13CE2009

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
II B.Tech II Semester Supplementary Examinations, July-2017

CONCRETE TECHNOLOGY
(Civil Engineering)

Time: 3 Hours **Max Marks: 70**

PART-A

Answer all questions **[1 X 10 = 10M]**

1. (a) What is the function of retarders in concrete?
   (b) What are the disadvantages of improper mix design?
   (c) What is the importance of water cement ratio in mixing of concrete in strength aspect?
   (d) Write down the field tests of cement?
   (e) Define the term bleeding?
   (f) What is M20 grade concrete?
   (g) What are bogue's compounds?
   (h) If water content is increased what will happen to the surface area of the aggregate?
   (i) Write about the term characteristic compressive strength of concrete?
   (j) Distinguish between OPC and PPC?

Answer one question from each unit **[5 X 12 = 60M]**

PART– B

UNIT-I

2. Discuss the various classifications of cement and also explain their advantages and disadvantages?

(OR)

3. Discuss in detail about different chemical admixtures?

UNIT-II

4. a) Explain specific gravity test on fine aggregate?
   b) Explain the test procedure for finding water absorption and bulk density for aggregate?

(OR)

5. Discuss briefly about the stages of concrete production?

Code: 13CE2009

UNIT-III

6. a) Explain the importance of testing of concrete?

   b) Explain about the compressive strength and tensile strength of concrete?

(OR)

7. Discuss about the various non destructive tests of hardened concrete?

UNIT-IV

8. Define creep? What are the factors effecting creep? Explain the relation between creep and time

(OR)

9. Define modulus of elasticity and shrinkage? Explain about types of shrinkage

UNIT-V

10. What are the various factors in the choice of mix proportions? Explain about the durability of concrete

(OR)

11. Design M 25 grade concrete mix for the following data using BIS method:
    CA: 20mm crushed granite
    FA: River sand conforming to zone IV
    Workability: 50mm (Slump)
    Quality control: Good
    Exposure: Moderate
    Cement: OPC 53 grade
    Specific gravity: Cement: 3.15; FA: 2.65; CA: 2.55
    Water absorption by CA: 2 %
    Free surface moisture in FA: 2%
    Assume any missing data

***

AR13

CODE: 13ME2012 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
II B.Tech II Semester Supplementary Examinations, July-2017

MACHINE DRAWING
(Mechanical Engineering)

Time: 3 Hours **Max Marks: 70**

Answer any two questions from Part A
Part B is Compulsory

PART-A

[2 x 15 = 30 Marks]

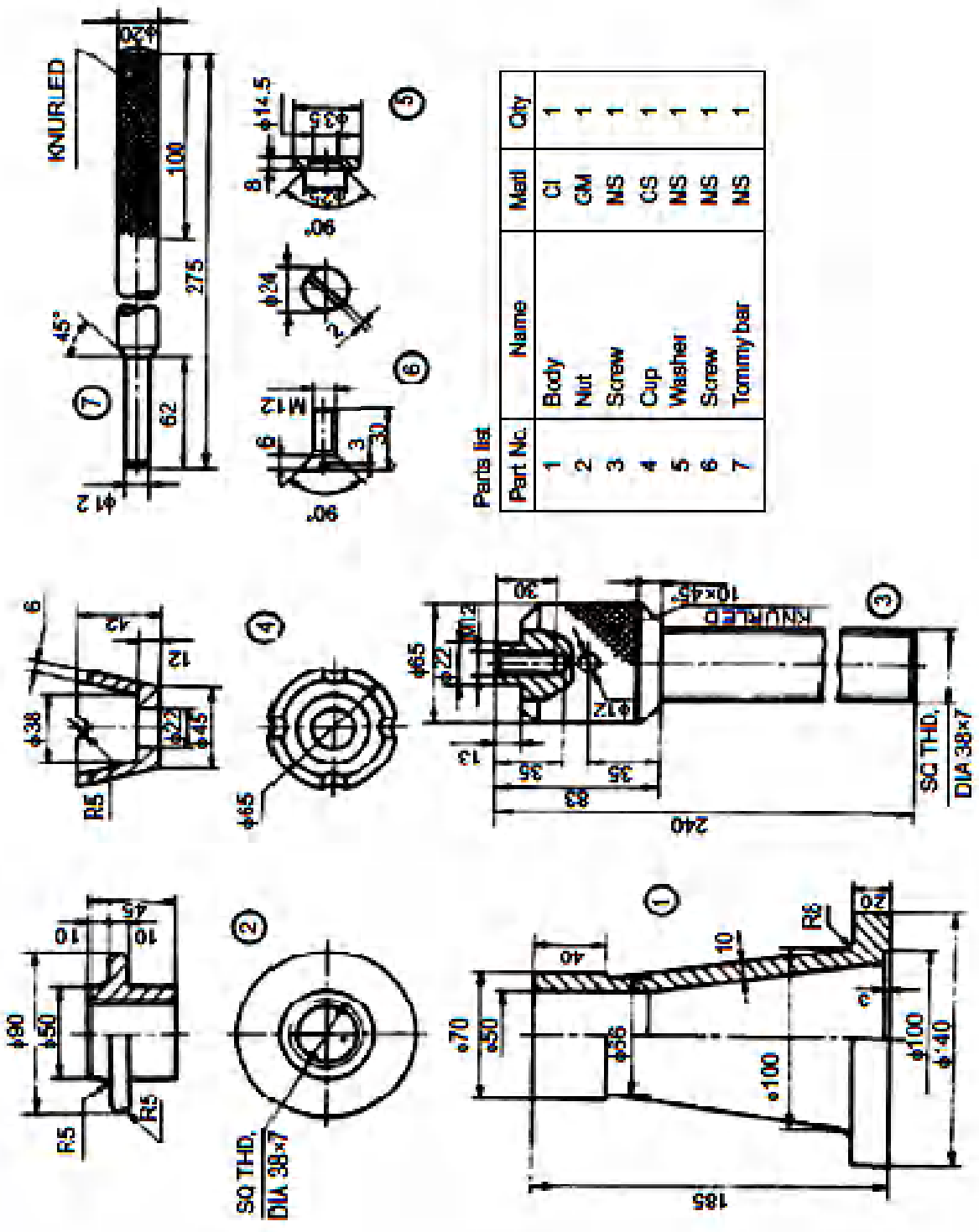
1. Draw the half sectional front view with top half in section and the side view of a cotter joint with socket and spigot ends, to connect two rods of 50 mm diameter each. (15)

2. Draw the sectional front view and top view of double riveted butt joint with single strap Zigzag type to join two plates of 20 mm thickness each. (15)

3 Draw the sectional front view and top view of knuckle joint to connect two rods of 35 mm diameter. (15)

PART-B

4. Assemble all parts of the screw jack, shown in figure and draw the following views: i) Half sectional front view and ii) Top view. (40)



***

AR13

CODE: 13CS2010 **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)
II B.Tech II Semester Supplementary Examinations, July-2017

PRINCIPLES OF PROGRAMMING LANGUAGES
(Common to CSE & IT)

Time: 3 Hours **Max Marks: 70**

PART-A

ANSWER ALL QUESTIONS **[1 x 10 = 10 M]**

1. a) What was the first programming language?
   b) What is bootstrapping?
   c) What are programming assertions? what is there purpose?
   d) Name any four major categories of control flow mechanisms?
   e) What is type inference and type clash?
   f) How does an in-Line and generic subroutine differ from macro?
   g) Define container class?
   h) Mention parameter passing techniques?
   i) What is symbol table?
   j) How does garbage is created?

PART-B

Answer one question from each unit **[5x12=60M]**

UNIT-I

2. a) Explain the phases of compiler in detail? **6M**
   b) What is the advantage of automatically generated scanner in comparison to a handwrite one? **6M**

(OR)

3. a) What is the difference between static and dynamic semantics? **6M**
   b) Explain about Top-Down and Bottom-Up with suitable example. **6M**

UNIT-II

4. a) Explain about the Scopes and Bind times? **6M**
   b) Discusses the role of the semantic analyser? **6M**

(OR)

5. a) How to organize space management for attributes? **6M**
   b) How does overloading operator work in Ada and c++? **6M**

UNIT-III

6. a) How to evaluate expression in language? **6M**
   b) Explain about the type checking in detail? **6M**

(OR)

7. a) How pointers and recursive types are work? **6M**
   b) Discuss about structured and un structured flow? **6M**

UNIT-IV

8. a) What are named parameters and what is a thunk? **6M**
   b) How does an In-line subroutine and generic subroutine differ from macro? **6M**

(OR)

9. Describe the algorithm used to identify an appropriate handler when an exception is raised in a language such as Ada and c++? **12M**

UNIT-V

10. a) Explain about Encapsulation and Inheritance? **6M**
    b) Discuss about logic programming in PROLOG 625? **6M**

(OR)

11. a) Explain about Multiple Inheritance? **6M**
    b) What is meant by higher order function? **6M**

***