

# AR13

CODE: 13CE2009

Set-1

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI  
(AUTONOMOUS)

II B.Tech II Semester Regular / Supplementary Examinations, April-2017  
CONCRETE TECHNOLOGY

(Civil Engineering)

TIME: 3 Hours

Max.Marks:70

## PART-A

ANSWER ALL QUESTIONS

[1X10 = 10M]

1. a) Define workability of concrete?  
b) What is pozzollana?  
c) What is bleeding of concrete?  
d) What is curing of concrete?  
e) What is nominal mix of concrete?  
f) List out the field tests of cement?  
g) Define standard consistency of cement?  
h) Define water cement ratio?  
i) List out any four factors effecting shrinkage of concrete.  
j) What are the laboratory tests conducted on aggregate?

## PART- B

Answer one question from each unit

[5 X12 = 60M]

### UNIT-I

2. What are advantages of admixtures in concrete? Explain different types of admixtures with their purpose in concrete? (12M)  
(OR)
3. What are the various laboratory tests for cement? Explain any three laboratory tests for cement in detail? (12M)

### UNIT-II

4. Explain the classification of aggregates based on size and shape of the aggregates? (12M)  
(OR)
5. a) explain workability of concrete. (5M)  
b) List out and explain factors effecting workability? (7M)

### UNIT-III

6. a) Explain with neat sketch non- destructive testing of concrete using pulse velocity method? (6M)  
b) Discuss the merits and demerits of ultrasonic pulse velocity method when compared to rebound hammer method? (6M)  
(OR)
- 7.a) Differentiate between flexural strength and tensile strength of concrete. (5M)  
b) Explain the relation between strength and gel space ratio? (7M)

### UNIT-IV

8. Define modulus of elasticity and shrinkage? Write types of shrinkage? (12M)  
(OR)
9. Define creep? What are the factors effecting creep? Write down the relation between creep and time? (12M)

### UNIT-V

10. a) Write short notes on the factors in the choice of mix proportions? (6M)  
b) Write about concept of mix design? (6M)

(OR)

11. Briefly explain various methods for proportioning of concreting mixes (12M)

# AR13

CODE: 13ME2012

SET-1

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI  
(AUTONOMOUS)

II B.Tech II Semester Regular / Supplementary Examinations, April-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. Sketch the following thread profiles for a nominal diameter of 25 mm and pitch 3 mm and give their applications: i) BSW thread, ii) Buttress thread iii) Square thread, iv) ACME thread and v) Worm thread.
2. Draw top view and sectional front view of double riveted, double strap, chain butt joint to join plates of 10 mm thickness.
3. Draw half sectional front view with top half in section and side view of protected type flange coupling to connect two shafts, each of diameter 30 mm.

## PART-B

[1 x 40 = 40 Marks]

4. The details of an eccentric are shown in figure. Assemble the parts and draw i) Half sectional front view ii) side view.

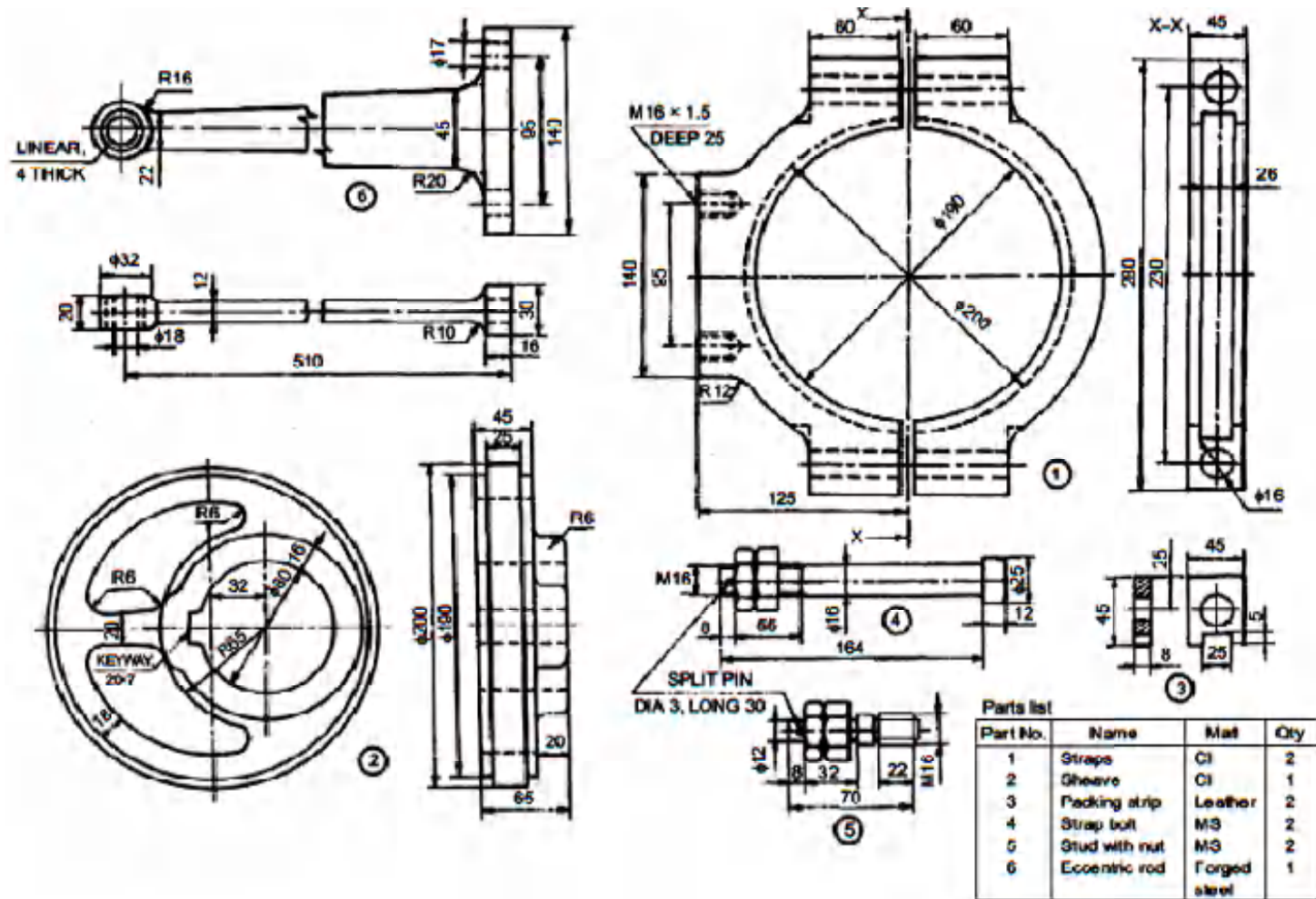


Fig.1 Details of Eccentric

# AR13

CODE: 13CS2010

SET-2

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI  
(AUTONOMOUS)

II B.Tech II Semester Regular / Supplementary Examinations, April-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 is the difference between declarative language and imperative language?  
b) What are syntax errors?  
c) Define dangling reference?  
d) What is L-value and R-value?  
e) What are named parameters?  
f) Define Message passing techniques?  
g) What is external fragmentation?  
h) Why aliases are consider as a problem in language design and implementation?  
i) Define a one-pass complier?  
j) Why language features to be orthogonal?

### PART-B

Answer one question from each unit

[5x12=60M]

#### UNIT-I

2. a) Mention the Regular expressions and context free grammars 6M  
b) Explain about the process of compilation. 6M
- (OR)
3. a) Explain about Top-Down and Bottom-Up with suitable example. 6M  
b) Write a brief note on scanning. 6M

#### UNIT-II

4. a) Explain Implementing Scope. 6M  
b) How to Annotate a syntax tree? 6M
- (OR)
5. a) What are internal fragmentation, external fragmentation and garbage collection give an example? 6M  
b) Explain about semantic analyzer 6M

#### UNIT-III

6. a) Explain about selection and iteration 6M  
b) Explain about records and variants 6M
- (OR)
7. a) How to use strings, sets and pointers in languages? 6M  
b) Explain about precedence and association rule? with suitable example 6M

#### **UNIT-IV**

- |             |    |                                  |    |
|-------------|----|----------------------------------|----|
| 8.          | a) | Explain about co-routines        | 6M |
|             | b) | How does calling sequence works? | 6M |
| <b>(OR)</b> |    |                                  |    |
| 9.          | a) | Explain about exception handling | 6M |
|             | b) | Discuss about In-line expansion  | 6M |

#### **UNIT-V**

- |             |    |  |    |
|-------------|----|--|----|
| 10.         | a) | How does Initialization and finalization will take place in languages? | 6M |
|             | b) | What is the difference between linking and dynamic linking?            | 6M |
| <b>(OR)</b> |    |  |    |
| 11.         | a) | Explain about dynamic method of Binding                                | 6M |
|             | b) | What is evolution order revisited in functional programming?           | 6M |

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