

Code: 13CE2009**ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)****II B.TECH II SEM END EXAMINATIONS, JULY, 2015****CONCRETE TECHNOLOGY****(Civil Engineering)****Time: 3 Hours****Max Marks: 70****PART-A****Answer all questions****[1X 10 = 10M]**

- 1.(a) Explain the difference between 53 grade cement and 43 grade cement by strength.
- (b) What is a fly ash?
- (c) What is a grading curve?
- (d) What is bleeding.
- (e) Define final setting time of cement.
- (f) What is abram's law.
- (g) Define workability.
- (h) What is creep.
- (i) Define modulus of elasticity.
- (j) What is "Design Mix"

PART-B**Answer one question from each unit****[5 X12=60M]****UNIT-I**

- 2.Explain the tests on physical properties of cement.
- (OR)
3. Explain the procedure for finding pout of initial and & final setting of times of cement.

UNIT-II

4. Explain the classification of aggregates based on shape & texture.
- (OR)
5. Explain the procedure for finding out workability by compaction factor test.

UNIT-III

6. Explain factors affecting strength of concrete.
- (OR)
7. Explain the procedure for NDT test by Ultrasonic Pulse Velocity Test.

UNIT-IV

8. Explain creep of concrete. Explain procedure for measurement of creep of concrete.
- (OR)
9. Explain static & Dynamic modulii of elasticity.

UNIT-V

10. Explain "Acceptance criteria" for sampling as per IS456.
- (OR)
- 11.Design a concrete mix for the following data for M-30.
Type of cement – Ordinary Portland, Fine aggregate natural river sand conforming to grading zone II of Table 4, of IS: 383-1970.
Coarse aggregate – Crushed (angular), Coarse aggregate of 20 mm maximum size conforming to IS:383 code requirements. Specific gravities of cement, sand and coarse aggregate are 3.14, 2.63 and 2.61 respectively. Type of exposure mild Degree of quality control – very good Degree of workability 0.80 for M-30.

CODE: 13ME2012**ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)****II B.TECH II SEM END EXAMINATIONS, JULY, 2015****MACHINE DRAWING
(Mechanical Engineering)****Time: 3 Hours****Max Marks: 70****Answer two questions from Part-A
&
Part-B is compulsory****PART-A****Answer two questions from Part-A****[2 X 15=30M]**

- 1 Draw the following dimensioned sketch of a Split - muff coupling to join two shafts of 25 mm diameter.
a) Half sectional front view b) Top view c) Side view
2. (a) Sketch the following thread profiles for a nominal diameter of 30 mm and pitch 2 mm.
i) Square headed bolted joints.
ii) ACME thread
iii) Withworth Thread

(b) Draw half sectional view of foot step bearing.
- 3.(a) Draw the sectional front view and top view of the double riveted double strap zig zag butt joint with dia of the rivet as 14 mm.

(b) Draw the Conventional representation of bolts.

PART-B**Part-B is compulsory****[1X40=40M]**

4. Assemble all the parts of Stuffing box as shown in Fig.1 and draw the following assembled views:
a) Sectional front view b) Top view c) List the bill of materials

CODE: 13ME2012

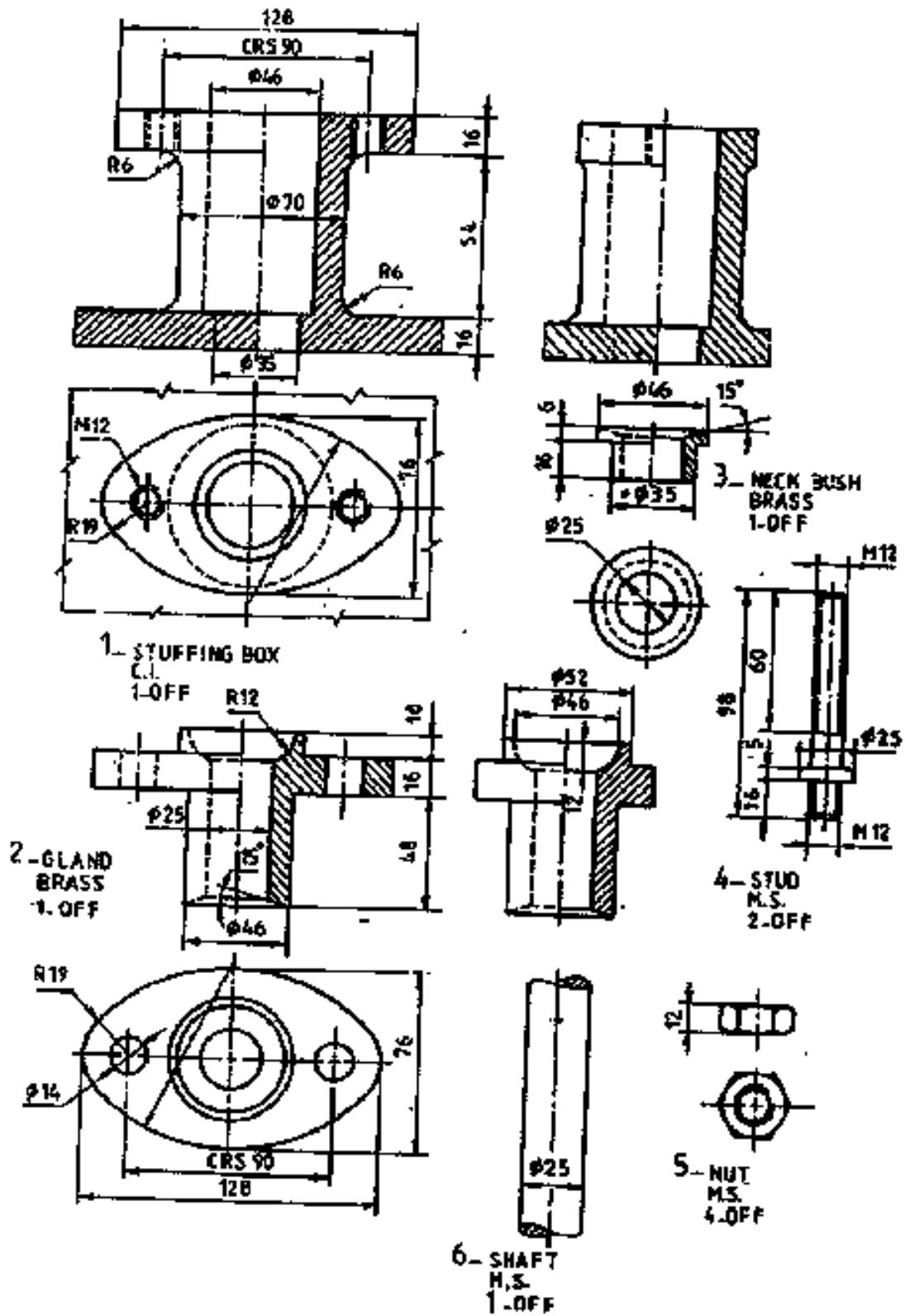


Fig. 1 Stuffing Box

Code: 13CS2010

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI
(AUTONOMOUS)

II B.TECH II SEM END EXAMINATIONS, JULY, 2015

PRINCIPLES OF PROGRAMMING LANGUAGES

(Common to CSE & IT)

Time: 3 Hours

Max Marks: 70

PART-A

Answer all questions

[1 X 10 = 10M]

1.
 - a) Define context free grammar?
 - b) Define object lifetime?
 - c) Define Attribute grammar?
 - d) Define concurrency?
 - e) Why java is called pure object oriented programming language?
 - f) Define Array data type?
 - g) What are drawbacks of procedure oriented programming languages as compared to the object oriented programming languages?
 - h) What are the uses of frame pointer?
 - i) What is race condition?
 - j) What is Horn clause?

PART- B

Answer one question from each unit

[5 X 12= 60M]

UNIT-I

2.
 - a) Explain different reasons for studying programming languages? [6M]
 - b) Explain briefly different programming domains? [6M]

(OR)

3. Explain briefly language evolution criteria with examples? [12M]

UNIT-II

4. Explain in brief describing syntax and semantics? [12M]

(OR)

5.
 - a) Explain object lifetime and storage management?. [6M]
 - b) Define Attribute grammars. ? What is the difference between synthesized and inherited attributes? [6M]

UNIT-III

6. Explain briefly Expression evaluation with example. [12M]

(OR)

7.
 - a) Summarize visibility rules of C++. How do the rules for member name visibility in small talk and objective-C differ from the rules of most other object-oriented languages? [6M]
 - b) Explain in detail about parameter passing techniques?. [6M]

UNIT-IV

8.
 - a) Explain the distinction between decisions that are bound statically and those that are bound dynamically. What is the advantage of binding things as early as possible? What is the advantages of delaying bindings? [6M]
 - b) In what ways may an enumeration type be preferable to a collection of named constants? In what ways may a sub range type be preferable to its base type? In what ways may a string be preferable to an array of characters? [6M]

(OR)

9. Discuss about the concurrency control with examples. [12M]

UNIT-V

10.
 - a) Explain the difference between dynamic and static method binding(i.e., between virtual and non-virtual methods). [6M]
 - b) What does it mean for a generic parameter to be constrained? Explain the difference between explicit and implicit constraints. Why will C # accept int as a generic argument, but Java won't? [6M]

(OR)

11.
 - a) Describe in detail about data hiding in Euclid and Ada. [6M]
 - b) Summarize Prolog's facilities for database manipulation. Explain the usage of assert, retract, and clause. [6M]