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**Question Paper Code : 11667**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2012.

Sixth Semester

Production Engineering

PR 2354 — DESIGN OF JIGS, FIXTURES AND PRESS TOOLS AND DRAWING

(Regulation 2008)

Time : Three hours.

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the essential elements of jigs and fixtures?
2. Sketch a long bush.
3. What is the use of a template jig?
4. What are the factors to be considered in the design of ~~milling fixture~~?
5. What is lancing?
6. Define forging.
7. What is meant by compound die?
8. What is the use of strippers?
9. List the various types of bending dies.
10. What is ironing?

PART B — (5 × 16 = 80 marks)

11. (a) Explain any four principles of location with neat sketches.

Or

- (b) Sketch and explain any four types of drill bushes.

12. (a) Sketch and explain the function of a box jig.

Or

(b) Sketch and explain a turning fixture used for machining non-cylindrical components.

13. (a) Define press working and explain any five press working operations with simple sketches.

Or

(b) Explain the design features of extrusion and wire drawing dies.

14. (a) Discuss in detail the design concepts of any four elements of a die.

Or

(b) (i) Sketch and explain combination die. (10)

(ii) Write note on strip layout and development. (6)

15. (a) Design and draw the progressive die taking suitable component as an example.

Or

(b) Design and draw a drill jig which can be used to drill holes on the flange coupling.