Sem-III / Manufacturing Engg.-I / PROD

03-06-14

QP Code : NP-18714

(3 Hours) [Total Marks : 80

N.B. : (1) Question No. 1 is compulsory.
(2) Attempt any three questions out of remaining five questions.
(3) Assume suitable data wherever required, but justify the same.
(4) Figures to the right indicate full marks.
(5) Illustrate answers with neat sketches wherever required.
(6) Answers to questions should be grouped and written

1. Explain in brief with the help of neat sketch: (5 X4)

(A) Planner mechanism.

(B) Face and shell milling cutters.

(C) Compression moulding related to plastics.

(D) Classification of machine tools based on relative motion between tool and work piece.

2. (A) Why chucks are used? List various types of chucks used in lathes. Describe any one in brief. (10)

(B) Name different broaching machines. Sketch block diagram of any one and identify parts. Describe the machine in brief. (10)

3. (A) Describe the principle of quick return mechanism as used in shapers. What are the difference between shaping and slotting machine? (10)

(B) Explain all principal parts of radial drilling machine with neat sketch and compare it with Up - right drilling machine. (10)

4. Explain in brief with the help of neat sketch: (5 X4)

(A) Rotational moulding related with plastics.

(B) Vertical boring machine.

(C) Cutting speed, feed and depth of cut related to shaper.

(D) Types of indexing methods.

5. (A) List the various taper turning methods. Explain taper turning by taper turning attachment on lathe. (10)

(B) How milling machines are classified? Explain with neat sketch column and knee type milling machine. (10)

6. Write short notes on: (5 X4)

(E) Friction saw and abrasive saw cutting off machines.

(F) Feed mechanism of shaper.

(G) Extrusion of glass.

(H) Blow Moulding related with plastics.

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