Scheme – I

Sample Question Paper

Program Name : **Diploma in Mechanical Engineering**
Program Code : **ME**
Semester : **Fourth**
Course Title : **Manufacturing Processes**
Marks : **70**

22446

Time: 3 Hrs.

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following. **10 Marks**

a) Name different types of Chips
b) List different slotting operations
c) State the desirable properties required for molding sands
d) Define term 'Forging"
e) State the applications of TIG welding
f) Name the gating elements
g) Name the fillers used in soldering

Q.2) Attempt any THREE of the following. **12 Marks**

a) Explain the Mechanism of Chip formation
b) Classify the shaping Machines
c) List the safety practices to be followed in Foundry
d) Compare between Open Die and closed die

Q.3) Attempt any THREE of the following. **12 Marks**

a) Draw a labeled diagram of Radial Drilling Machine
b) Explain term cutting speed and feed
c) Differentiate between shaper and slotting Mechanism

d) Explain the process “calendaring”

Q.4) Attempt any THREE of the following. 12 Marks

a) Draw the schematic diagram of principle of thread cutting on a lathe

b) Explain the working principle of shaping Machine with neat sketch

c) Differentiate between green sand and dry sand

d) Determine different defects in casting ?State their causes and remedies

e) Explain cold rolling process

Q.5) Attempt any TWO of the following. 12 Marks

a) Explain the process with neat sketch ‘Taper turning’

b) Draw the layout of pattern? State the procedure for pattern construction.

c) Explain with neat sketch press forging

Q.6) Attempt any TWO of the following. 12 Marks

a) Explain in brief the machining process for machining circular surface on slotting machine

b) Determine different defects in welding ?State their causes and remedies

c) Draw the sketch of ‘Roll forging operation ?Explain its workin

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Sample Test Paper - I

Program Name : **Diploma in Mechanical Engineering**
Program Code : **ME**
Semester : **Fourth**
Course Title : **Manufacturing Processes**
Marks : **20**

22446

Time: 1 Hour

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a. List main elements of Metal cutting
b. State the term Tool signature
c. Define term Depth of cut
d. State the functions of cross rail of shaping machine
e. Name different parts of shaper
f. Name the different mechanism used for Ram drive actuation in slotting machine

Q.2 Attempt any THREE. **12 Marks**

a. Classify Lathe
b. Explain in brief construction of three jaw chuck
c. Draw a tool signature of single point cutting tool mentioning all parameters
d. Explain the quick Return Mechanism of shaping machine
e. Explain with neat sketch the operation for cutting slots and keyway formation on shaping Machine

Scheme – I

Sample Test Paper - II

Program Name : **Diploma in Mechanical Engineering**
Program Code : **ME**
Semester : **Fourth**
Course Title : **Manufacturing Processes**
Marks : **20**

22446

Time: 1 Hour

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a. List different types of plastic
b. Name the gating elements
c. State the principle of Rolling
d. State the advantages of Extrusion process
e. List different methods used for heating in brazing operation
f. List the applications of MIG welding

Q.2 Attempt any THREE. **12 Marks**

a. Explain ‘ Blow Moulding Process”
b. Classify Patterns? Explain any one of them with neat sketch
c. Explain Upset forging with sketch
d. Compare between Open Die and closed die
e. Explain the principle of Resistance welding process with neat sketch