17973

22223

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any TEN of the following: **20**

a) Define forging and state it's types.

b) State different types of press operations.

c) Give advantages of casting process.

d) What are different machines used for moulding?

e) How welding processes are classified?

f) Name different Resistance Welding Techniques.

g) Why flux is used in welding operation?

h) What are basic parts of lathe machine?

i) What are different types of Reamers?

j) What are different types of drilling machine?

k) What is Notching operation in case of press working?

l) State different types of moulding sand.

m) State two causes and two remedies of blow holes.

n) Write the applications of extrusion process.

Marks

2. Attempt any TWO of the following: **16**

a) Explain construction and working of Cupola furnace.

b) Describe with neat sketch Oxyacetylene gas welding. Give it's advantages and disadvantages.

c) Explain with neat sketch basic parts of Radial drilling machine.

3. Attempt any FOUR of the following: **16**

a) Explain two high rolling mill with neat sketch.

b) Draw the neat sketch of twist drill and show the following points.

i) Flutes

ii) Helix angle

iii) Lip

iv) Point angle

c) Compare Direct and Indirect Extrusion process.

d) List down various casting defects with their remedies.

e) Explain piercing and lancing operation with neat sketch.

f) Explain closed die Forging with neat sketch.

4. Attempt any FOUR of the following: **16**

a) Compare Hot rolling and cold rolling process.

b) State the types of dies. Explain compound die with neat sketch.

c) Explain Bending operation in case of press working with neat sketch.

d) What is injection moulding? Explain with neat sketch.

e) Explain the properties of plastic.

f) Differentiate between TIG and MIG welding.

Marks

5. Attempt any FOUR of the following: **16**

a) Explain the process of compression moulding with neat sketch.

b) State different operations performed on lathe machine with neat sketch.

c) Explain Laser Beam welding with neat sketch.

d) Explain centrifugal casting with neat sketch.

e) Explain the cutting parameters of drilling operations.

f) What is forming operations? Explain drawing operation.

6. Attempt any FOUR of the following: **16**

a) What is core? State different types of cores.

b) Explain vacuum forming with neat sketch.

c) Name different types of rolling mills. Explain the principle of rolling.

d) Explain the process of punching and blanking with neat sketch.

e) List the various parts of center lathe and explain their functions. (Any two)

f) Explain various drilling machine operations. (Any two)