

Q. P. Code : 27173

(3 Hours)

[Total Marks : 80

N.B.:- (1) Question No. 1 is compulsory.

(2) Attempt any **three** questions out of remaining **five** questions.

(3) Figures to the right indicate full marks.

(4) Illustrate answers with proper justification and neat sketches wherever required.

(5) Answers to questions should be grouped and written together.

1. Explain in brief with the help of neat sketch: **(Any Four)** **(5 X4)**
 - (A) Work holding devices related to planer machines.
 - (B) Conventional and climb milling.
 - (C) Broaching process.
 - (D) Classification and nomenclature of single point cutting tool.
 - (E) List of lathe accessories and attachments.
 2. (A) Explain any ten operations performed on lathe with neat sketch. **(10)**
(B) Explain twist drill nomenclature with neat sketch. Describe drilling machine operations. **(10)**
 3. (A) Enlist different types of shaping machines. Explain working principle of it? **(10)**
(B) Name different broaching machines. Explain any one type of broaching machine. **(10)**
 4. Explain in brief with the help of neat sketch: **(Any Four)** **(5 X4)**
 - (A) Gun drills.
 - (B) Calculation of machining time related to shaper.
 - (C) Rotational moulding related to plastics.
 - (D) Calculation of machining time related to lathe.
 - (E) Blow moulding related with ceramics.
 5. (A) How milling machines are classified? Explain with neat sketch special type milling machine. **(10)**
(B) Explain basic concepts related to thermoforming and extrusion related to plastics. **(10)**
 6. Write short notes on: **(Any Four)** **(5 X4)**
 - (A) Abrasive cutting off machine.
 - (B) Tool layout of pin.
 - (C) Copy milling machines.
 - (D) Types of slotting machine.
 - (E) Horizontal boring machine.
-