

THIRD SEMESTER DIPLOMA EXAMINATION IN AUTOMOBILE
ENGINEERING—OCTOBER, 2011

PRODUCTION PROCESS OF AUTOMOBILE COMPONENTS

[Time : 3 hours

(Maximum marks : 100)

PART—A

- I Answer the following questions in one or two sentences. Each question carries 2 marks. Marks
1. Define a 'Core' in pattern making.
 2. State the term 'Upsetting' in forging operation.
 3. Name the welding positions.
 4. State the term 'cutting speed' in a lathe operation.
 5. List the drives used in NC machines. (5×2=10)

PART—B

- II Answer any *five* of the following. Each question carries 6 marks.
1. Explain the dry sand moulding and also list three advantages.
 2. Illustrate polarity in welding. Distinguish between straight and reverse polarity.
 3. Explain the L-D process with figure.
 4. Discuss any four pattern allowances in detail.
 5. Explain press forging with sketch.
 6. Explain the working of Hydraulic shaper in 100 words.
 7. Describe the projection welding with sketch. (5×6=30)

PART—C

(Answer *one* full question from each unit. Each question carries 15 marks.)

UNIT—I

- III (a) Describe the hot chamber die casting with figure. 7
- (b) List any four advantages of shell moulding process. 4
- (c) Explain four types of patterns used. 4

OR

	Marks
IV (a) Illustrate centrifugal casting with figure.	7
(b) Explain any four properties of moulding sand.	4
(c) Write short note on 'permanent mould casting'.	4
UNIT—II	
V (a) Draw and explain a steel making process.	7
(b) Distinguish between sizing, coining.	4
(c) List and explain any four cold working processes.	4
OR	
VI (a) Describe the process for making crank shaft of an engine.	7
(b) Write short note on 'Anvil' with rough sketch.	4
(c) Define the term 'Seamless Tubing' and explain with sketch.	4
UNIT—III	
VII (a) Illustrate Arc welding process with sketch.	7
(b) Discuss types of gas flames in oxy-acetylene welding.	4
(c) Write short note on heat affected zone of weld.	4
OR	
VIII (a) Sketch and explain MIG welding process.	7
(b) Distinguish between bare and coated electrodes for arc welding.	4
(c) List any four welding processes.	4
UNIT—IV	
IX (a) Describe tail stock set over method for taper turning in lathe.	7
(b) Discuss the types of grinding methods.	4
(c) Differentiate Drilling and Reaming.	4
OR	
X (a) Draw and explain Bench type drilling machine.	7
(b) State four uses of slotter machine.	4
(c) List four classifications of shaping machine.	4