

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER-2020

PRODUCTION PROCESS OF AUTOMOBILE COMPONENTS

[Maximum marks: 75]

(Time: 2.15 Hours)

PART – A

(Answer any *three* questions in one or two sentences. Each question carries 2 marks)

- I. (1). List any four types of pattern allowances.
(2). Define the purpose of cores in sand moulding.
(3). Name three types of steel making process.
(4). Define welding.
(5). List different types of grinding machine. (3 x 2 = 6)

PART – B

(Answer any *four* of the following questions. Each question carries 6 marks)

- II. (1). Explain centrifugal casting.
(2). Explain the advantages and disadvantages of powder metallurgy.
(3). Describe the Bessemer process with a neat sketch.
(4). Compare soldering and brazing.
(5). Explain thermit welding process.
(6). Explain the various steps involved in NC system.
(7). Explain thread cutting method in Lathe. (4 x 6= 24)

PART – C

(Answer *any of the three units* from the following. Each question carries 15 marks)

UNIT –I

- III. (a). Explain different types of patterns. (8)
(b). Describe permanent mould casting. (7)

OR

- IV. (a). With a neat sketch explain the shell moulding process. (8)
(b). Explain properties of moulding sand. (7)

UNIT-II

- V. (a). Explain different types of forging. (8)
(b). List the advantages and disadvantages of cold working. (7)

OR

- VI. (a). Explain open hearth process. (8)
(b). Explain drawing and extruding operation. (7)

UNIT-III

- VII. (a). List different types of welding. (8)
(b). Describe laser beam welding. (7)

OR

- VIII. (a). Explain submerged arc welding. (8)
(b). Describe polarity in arc welding. (7)

UNIT-IV

- IX. (a). Explain any two taper turning methods in detail. (8)
(b). Describe the working principle of standard shaper. (7)

OR

- X. (a). Explain crank and slotted link quick return mechanism. (8)
(b). Describe flexible manufacturing system and its advantages. (7)