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2112E045

DIPLOMA OF VOCATION
Mechanical Manufacturing
Subject: Jigs Fixtures and Gauge design
Subject Code: ME-502
Semester: Fifth
December 2021
Theory (External): 35 Marks
Time: 03 Hours

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 1 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 5 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

Roll Number									

SECTION -A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x1=10 Marks)

- A. Define jigs
- B. What is difference between jigs and fixtures
- C. State any two locating devices
- D. Define the term "Interchangeability" used in jigs and fixtures
- E. State the application of pneumatic jigs and fixtures
- F. Define basic principle of location
- G. State the use of ring gauges
- H. State the use of thread gauges
- I. State the practical application of box type jigs
- J. State the practical application of boring fixtures

5. Define Fixtures. State its types used in mass production
6. Classify Limit gauges with neat sketches
7. Discuss the Taylor's principle of maximum and minimum material condition
8. Classify Jigs and Fixtures

==END OF PAPER==

SECTION -B (ESSAY TYPE QUESTIONS)
(5x5=25 Marks)

1. State the differences between Jigs and Fixtures
2. Discuss "3-2-1 principle of location" with neat sketch
3. Discuss the use of bushes and their types used in drilling Jigs
4. Discuss any three clamping devices with neat diagrams