

B.Voc. Automotive Manufacturing
Subject: Workshop Technology – 1 (Machining)
Subject Code: BBME112
Semester: 2nd
Batch: 2018-21
Theory (External): 35
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 mark.
3. **Section B** comprises 8 essay type questions out of which students need to do any 5. Each question carries 5 mark.
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

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SECTION –A (OBJECTIVE TYPE QUESTIONS)

(10x1=10 Marks)

- Q1 Differentiate between reamers and taps.
- Q2 Why the jigs and fixtures are used?
- Q3 What is the difference between a jig and a fixture?
- Q4 What is the function of auto tool changer?
- Q5 Define cutting speed.
- Q6 What are primary deformation zone and secondary deformation zone in metal cutting operations?
- Q7 Classify steels.
- Q8 What are the function of inserts?
- Q9 What are active and inactive cutting oils?
- Q10 What function a metal working fluid performs?

SECTION –B (ESSAY TYPE QUESTIONS)

(5x5=25 Marks)

- Q1 Explain the machining process routing and sequence.
- Q2 What are locating devices or locators? Which factors govern the selection of a locator?
- Q3 What are milling fixtures? How do you classify them?
- Q4 Explain the principle of wire cut machine in detail.
- Q5 What is CNC? How the loading and setting of tools is performed? Explain.
- Q6 What are the properties of a cutting tool material? Explain the specialities of tungsten carbide and cobalt steel cemented carbides cutting tool materials.
- Q7 A single point cutting tool has a back rake of 10° and side rake of 14° . Calculate its (i) orthogonal rake (ii) Inclination angle when the approach angle is 70° .
- Q8 What are the qualities of a good cutting fluid? How do you classify the cutting fluids?

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