

**B. Voc Automotive Manufacturing****Subject: Workshop Technology****Subject Code: BBME-203****Semester-3<sup>rd</sup>****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 6 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**

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## SECTION -A (OBJECTIVE TYPE QUESTIONS)

(10x1=10 Marks)

1. Vacuum is the machining medium for?
  - a) Laser Beam Machining
  - b) Water Jet Machining
  - c) Electron Beam Machining
  - d) None of the above
  
2. Which of the following is used as gas laser in Laser beam machining?
  - a) Helium-neon
  - b) Argon
  - c) CO<sub>2</sub>
  - d) All of the above
  
3. The slope of the stress-strain curve in the elastic deformation region is
  - a) Elastic modulus
  - b) Plastic modulus
  - c) Poisson's ratio
  - d) None of the above
  
4. Removing the pieces from the edge in shearing operation is known as?
  - a) Perforating
  - b) Parting
  - c) Notching
  - d) Lancing
  
5. Grain number of grinding wheel is \_\_\_\_ to grain size
  - a) Directly proportional
  - b) Inversely proportional
  - c) Does not depend
  - d) None of the mentioned

6. Which of the following symbol's range of alphabet represent soft grain in grinding wheel?
- a) A-H
  - b) I-P
  - c) Q-T
  - d) T-Z
7. Surface grinders are used to.
- a) Grind flat surfaces to a specific size
  - b) Grind surfaces to a specific finish
  - c) Grind hardened parts that can't be cut with conventional tools
  - d) All of the above.
8. In grinding irregular, curved, tapered, convex and concave surfaces, the grinder used is
- a) Cylindrical Grinder
  - b) Internal Grinder
  - c) Surface Grinder
  - d) Tool and Cutter Grinder
9. The broaching operation in which the work moves past the stationary tool is called
- a) Pull broaching
  - b) Push broaching.
  - c) Surface broaching
  - d) Continuous broaching
10. Hobbing machines are characterized by \_\_\_\_\_
- a) production rate
  - b) largest module or PCD it can generate
  - c) accuracy of the machine
  - d) size of the machine

**SECTION -B (ESSAY TYPE QUESTIONS)**

**(5x5=25 Marks)**

- 1 How conventional processes are different from Unconventional processes? Explain the need for Unconventional processes and classify them. 05
- 2 Describe the process of Laser Beam Machining with a neat sketch. Discuss the application, advantages and disadvantages of LBM. 05
- 3 (a) What is Hooke's Law? Enlist various stages in Stress-Strain Curve for mild steel. 03  
(b) A string 4 mm in diameter has original length 2 m. The string is pulled by a force of 200 N. If the final length of the spring is 2.02 m, determine (1) stress (2) strain (3) Young's modulus. 02
- 4 (a) Write short notes on the following: 05  
1. Blanking, 2. Nibbling, 3. Coining, 4. Drawing, 5. Trimming
- 5 (a) How does a broaching machine work? Briefly explain the different types of broaching tool. 03  
(b) What are the different methods of grinding being used in today's era? 02
- 6 Explain any two of the following processes: 05  
1. Hobbing, 2. Shaping, 3. Shaving.

**-----END OF PAPER-----**