

BACHELOR OF VOCATION
Automotive Mechatronics
Subject: Manufacturing Technology
Subject Code: BCMT-201
Semester: Third (Lateral Entry)
January 2021
Theory (External): 70 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 2 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 10 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 (OBJECTIVE TYPE QUESTIONS)

(10x2=20 Marks)

- A Alloys of which of the following metal is not used for hot chamber die casting?
- (a) Tin
 - (b) Lead
 - (c) Zinc
 - (d) Iron
- B Which of the following are made of metals that maintain their strength at high temperatures?
- (a) Permanent molds
 - (b) Expendable molds
 - (c) Composite molds
 - (d) Ceramic molds
- C Which of the following is included in machining process?
- (a) extrusion
 - (b) soldering
 - (c) drilling
 - (d) coating
- D The type of tool used on lathe, shaper, and planer is
- (a) single-point cutting tool
 - (b) two-point cutting tool
 - (c) three-point cutting tool
 - (d) multi-point cutting tool
- E Cutting tool material is ____
- (a) High carbon steel
 - (b) High speed steel
 - (c) Cemented carbides
 - (d) All of the above

- F Crater wear occurs at
- (a) Tool flank
 - (b) Tool shank
 - (c) Tool face
 - (d) None of the mentioned
- G Shaping of metal by squeezing them in between two or more dies in order to obtain desire shape is done by?
- (a) Forming
 - (b) Forging
 - (c) Welding
 - (d) Grinding
- H Compound dies performs
- (a) two or more operations at one station in one stroke
 - (b) two or more operations at different stations in one stroke
 - (c) only one operation and that too at one work station
 - (d) two operations at two different work stations in the same stroke
- I What is the key element of water jet machining for material removal?
- (a) Tool Holder
 - (b) Work piece
 - (c) Water jet
 - (d) Power source
- J Which of the following material cannot be machined using electronic discharge machine?
- (a) Iron
 - (b) Aluminum
 - (c) Copper
 - (d) Wood

SECTION –B (ESSAY TYPE QUESTIONS)

(5x10=50 Marks)

- Q1 Explain moulding sand ingredients with their functions in sand moulding.
- Q2 Explain with sketch single point cutting tool nomenclature with its geometry.
- Q3 State the governing factors of tool life, and also tell “built up edge formation”.
- Q4 Compare Combination and Compound die in press tool machine.
- Q5 Annotate Abrasive jet machining (AJM) and electric discharge machining (EDM) .
- Q6 How extrusion differs from rolling operation in metal forming?
- Q7 Write about the role of cutting fluid in machining operation.
- Q8 Write honing, buffing and lapping super finishing operations.

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