190703

B.Voc. Automotive Component Manufacturing
Subject: Welding Technology
Subject Code: LBME-102
Semester: 1st (Regular)
Batch: 2019-20
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)

Q1 Name two welding processes that employ a source of high-intensity electromagnetic radiation.

Q2 What do you understand by resistance diffusion welding?

Q3 Define continuous seam diffusion welding.

Q4 Sketch the schematic electrical arrangements of a single-phase frequency converter-type resistance welding machines with SCR contactors.

Q5 What do you understand by the size of weld?

Q6 How the setting of squeeze pressure, current, voltage are done in spot welding?

Q7 State the mechanism of material removal in Laser Beam Machining.

Q8 What type of inert gases are used in welding and why?

Q9 What are the requirements of fixturing in seam welding?

Q10 What do you understand by consumable and non-consumable electrodes?

SECTION –B (ESSAY TYPE QUESTIONS)

(5x10=50 Marks)

Q1 Explain the Solid state lasers and Gas lasers in details with neat diagrams.

Q2 What do you understand by Laser cutting? Explain its principle of cutting with neat diagram.

Q3 How a particular welding technique is selected for joining of two dissimilar metal parts? Explain with examples. Also explain the selection of electrodes for such welding techniques.

Q4 What do you understand by the verities of guns used for spot welding and their importance? Explain.

Q5 Explain the resistance seam welding operation with neat diagram.

Q6 How the quality of a welded product from seam welding is checked? What are the rectification processes adopted if the weld is not up to the mark?

Q7 How are the leakages test conducted for a metal pipe/tube prepared from seam welding? Explain with suitable diagrams.

Q8 What are the pressure vessels welding technology? What are its advantages and limitations?

****END OF PAPER****