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200970

DIPLOMA

Press Tool and Die Maintenance and Stamping

Subject: Basics of Tool Maintenance

Subject Code: NDME-108

Semester: Second

September 2020

Theory (External): 70 Marks

Time: 03 hours

INSTRUCTIONS TO THE STUDENTS

1. Read the questions carefully and write the answers in the answer sheets.
2. Wherever necessary, the diagram drawn should be neat and properly labelled.
3. This questions paper comprises of 8 questions out of which student need to attempt any 4 questions.
4. All questions carry equal marks.
5. The time allotted will be 3 hours for examinations including time of downloading of question paper to emailing of answer books to the concerned Dean/IC.

ESSAY TYPE QUESTIONS

1. Explain the following terms:
 - a) Insert shapes and nomenclature
 - b) Insert materials and characteristics.

2. Describe the predictive maintenance and preventive maintenance approach in detail.

3. What do you understand by die maintenance? What guidelines are to be followed when sharpening cutting sections, pierce punches, and buttons?

4. Steel is often classified by general names. Briefly describe the following:
 - a) Low-carbon steel
 - b) High-carbon steel
 - c) Cold-drawn steel
 - d) Hot-rolled steel
 - e) Oil-hardened tool steel

5. What are the three fundamental categories of work piece location? List the rules that should be followed when designing clamps for fixtures.

6. Briefly explain different surface treatment methods employed for mould materials.

7. What are the preventive measures adopted to improve the mould life from failure and corrosion protection?

8. Explain the following:

- a) Die repairing methods
- b) Fitting and joining of die in stripper plate, pad, and spring with neat diagram.

****END OF PAPER****