



GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

(An Autonomous Institute of Government of Maharashtra)

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Name of Examination : **Summer 2021** - (Preview)

Course Code & Course Name : **ME355UD - Tool Engineering**

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Maximum Marks : **60**

Duration : **3 Hrs**

[Edit](#) [Print](#) [View Answer Key](#) [Close](#) **Answer Key Submission Type:** Marking scheme with model answers and solutions of numerical

Instructions:

1. All questions are compulsory.
2. Illustrate your answer with suitable figures/sketches wherever necessary.
3. Assume suitable additional data; if required.
4. Use of logarithmic table, drawing instruments and non programmable calculators is allowed.
5. Figures to the right indicate full marks.

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|---|------|
| 1) Answer any 2 (two) of the following. | [12] |
| 1) Discuss various type of tool wears. | [6] |
| 2) Discuss Taylor's relationship for cutting speed - tool life. | [6] |
| 3) What do you understand by the term 'Tool Designation'? Describe ASA and ORS in brief. | [6] |
| 2) Answer any 2 (two) of the following. | [12] |
| 1) What are the main differences between jig and a fixture? Name the essential elements which make up jig or a fixture. | [6] |
| 2) Define shear angle. Derive an expression for shear angle in a orthogonal cutting. | [6] |
| 3) What is milling fixture? Enumerate the essential features of a milling fixture. | [6] |
| 3) Answer any 2 (two) of the following. | [12] |
| 1) Explain the following terms. | [6] |
| 1. Bend allowance | |
| 2. Spring back | |
| 2) Explain in detail. | [6] |
| 1. Clamping devices | |
| 2. Jig Bushes | |
| 3) What is the fix - point location principle? Explain it with the help of suitable sketches. | [6] |
| 4) Answer the following questions. | |
| 1) Explain the term tolerances in brief and all the terms includes in it with neat sketch. | [6] |
| 2) Write short note on wear allowance. | [6] |
| 5) Answer the following questions. | |
| 1) What are the desirable properties of tool material? | [6] |
| 2) Write short note on classification of Gauge. | [6] |

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