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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**MAKE-UP EXAMINATION – JAN 2023**

**Course Code:** MEC 207

**Course Name:** Production Techniques-II

**Program & Sem:** B. Tech & V Sem

**Date:** 23-01-2023

**Time:** 9.30 AM TO 12:30 PM

**Max Marks:** 100

**Weightage:** 50%

**Instructions:**

- (i) Read the all questions carefully and answer accordingly.  
(ii) Draw neat sketches wherever necessary

**Part A [Memory Recall Questions]**

**Answer all the Questions. Each question carries 4 marks.**

**(5Qx4M=20M)**

1. Explain Single Point and Multi Point Cutting tools with examples (C.O.No.1) [Knowledge]
2. List the desirable properties of Cutting Fluids (C.O.No.1) [Knowledge]
3. With the help of a sketch explain the Centerless Grinding Operation (C.O.No.2) [Knowledge]
4. List the Advantages and Dis Advantages of Honing Process (C.O.No.3) [Knowledge]
5. List the commonly used G Codes with meaning (C.O.No.4) [Knowledge]

**Part B [Thought Provoking Questions]**

**Answer all the Questions. Each question carries 4 marks.**

**(5Qx6M=30M)**

6. How do you differentiate Orthogonal Cutting and Oblique Cutting with the help of sketch. (C.O.No.1) [Comprehension]
7. How do you specify a Lathe with the help of a sketch (C.O.No.2) [Comprehension]
8. With the help of a sketch label the parts of Horizontal Column & Knee Type Milling Machine. (C.O.No.2) [Comprehension]
9. With the help of a sketch label the parts of Radial Drilling Machine (C.O.No.2) [Comprehension]
10. What are the categories of waste considered in Lean Manufacturing (C.O.No.5) [Comprehension]

**Part C [Problem Solving Questions]**

**Answer all the Questions. Each question carries 10 marks.**

**(5Qx10M=50M)**

11. How the quick return motion for the ram is achieved by Hydraulic Shaper Mechanism. Justify with the help of sketch. (C.O.No.2) [Application]
12. How the material is removal is achieved using Electrical Discharge Machining. Justify with the help of sketch. (C.O.No.3) [Application]

13. Write CNC Program to machine the component shown in figure-1 using G90 and Figure-2 using G94 Cycles (C.O.No.4) [Application]

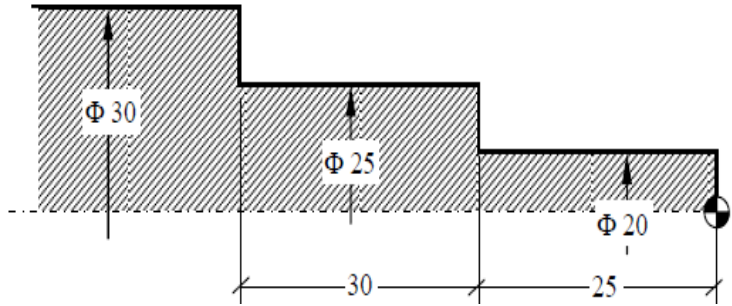


Figure-1

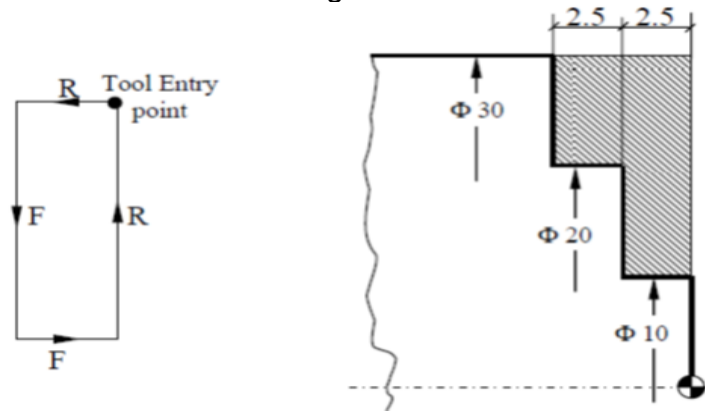


Figure-2

14. Write a part program to perform the contour slotting operation on the component as shown in the figure-3 (C.O.No.4) [Application]

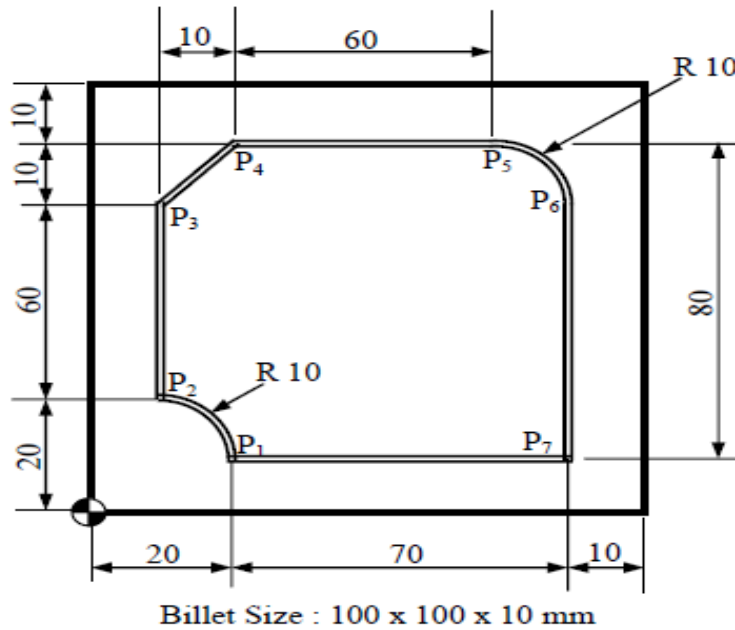


Figure-3

15. Divide 6 & 52 divisions by Simple Indexing Method? (C.O.No.2) [Application]

- Use Brown and Sharp Index Plates
- Plate 1 → 15, 16, 17, 18, 19 & 20 holes.
- Plate 2 → 21, 23, 27, 29, 31 & 33 holes.
- Plate 3 → 37, 39, 41, 43, 47 & 49 holes.