Reg. No. _____

Karunya University

(Karunya Institute of Technology and Sciences)

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

Model Question Paper

Subject Title: PRODUCTION PROCESSES - II **Time: 3 hours**

Subject Code: 12ME203 **Maximum Marks: 100**

Answer ALL questions

PART – A (10 x 1 = 10 MARKS)

1. What is Built-Up-Edge?
2. In orthogonal turning process the feed is 0.25 mm/rev. at 50 r.p.m. The thickness of the chip removed is 0.5 mm. Find the chip thickness ratio.
3. What are the various materials used for making lathe bed?
4. Name the three types of feed on a lathe.
5. The formula used for calculating index crank movement in simple indexing is _____.
6. In climb milling the feed direction of the work piece is -------- as that of the cutter rotation.
7. Name the abrasives used for making grinding wheel:
8. What is the difference between forming and generation?
9. In AJM process, material is removed from the workpiece by _____.
10. What are the two types of transducers used in USM?

PART – B (5 x 3 = 15 MARKS)

11. How can you specify size of a lathe?
12. List out the differences between shaping and planning.
13. Differentiate up milling and down milling:
14. What do you mean by centreless grinding? What are the common methods used for feeding the workpiece?
15. Describe the principle of operation of Electro chemical grinding:

PART – C (5 x 15 = 75 MARKS)

16. With relevant sketches explain the different types of chips produced in metal cutting.

(OR)

17. Describe the mechanism and types of tool wear in metal cutting.

18. Explain the operations that may be performed on a lathe.

(OR)

19. Describe the crank and slotted link quick return mechanism used in shapers in detail.
20. What is indexing? Explain simple and compound indexing in detail.

(OR)

21. With a neat sketch, describe the nomenclature of a broach tool.
22. Explain the designation and selection of a grinding wheel.

23. Explain the following in detail with neat sketches: (a) Gear shaping (8)
    (b) Gear hobbing. (7)
24. Explain the working principle, equipment and process parameters of Abrasive Jet Machining (AJM).

(OR)

25. Explain the working principle and equipment setup of Electric Discharge Machining (EDM).