Reg. No. _____

Karunya University

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

Model question Paper – Nov 2012

Subject Title: Metal Cutting theory and Practices **Time : 3 hours**
Subject Code: 09ME223 **Maximum Marks: 100**

Answer ALL questions

PART – A (10 x 1 = 10 MARKS)

1. Define machining.
2. What is the difference between orthogonal and oblique cutting?
3. State the purpose of chip breaker.
4. Example for multi point cutting tool is_____.
5. Classify the cutting fluid.
6. What is the use of inserts?
7. Which equipment is used to measure force during metal cutting?
8. What are the sources of heat generation during metal cutting?
9. Define tool wear.
10. What is chatter in machine tool?

PART – B (5 x 3 = 15 MARKS)

11. What are all the types of chips?
12. How will you measure the force during metal cutting?
13. Explain any one of the method to measure cutting temperature.
14. Define Tool life.
15. Explain the tool wear and also state its classification

PART – C (5 x 15 = 75 MARKS)

16. Explain the different types of chip with neat sketch.

(OR)

17. Discuss the classification cutting process with an example.

18. Explain single point cutting tool with neat sketch.

(OR)

19. Discuss various types of equipments used for force measurement during metal cutting.

20. a) Explain the effect of various parameters on temperature developed during machining

(OR)

21. b) Explain the various methods of measuring cutting temperature in metal cutting

22. How does the method of application affect the effectiveness of the cutting fluid?

(OR)

23. What are the advantages of index able inserts? How can index able inserts and their holders be specified?

24. Explain Taylor's tool life equation

(OR)

25. Discuss the different mechanisms of tool wear.