# VELAMMAL

**INSTITUTE OF TECHNOLOGY**
**CHENNAI-601204**

## QUESTION BANK

## ME 2252 MANUFACTURING TECHNOLOGY - II

**UNIT 4**

**PART-A**

1. What do you mean by loading of grinding wheels? **(Nov 2005)**

2. Why is sawing is commonly used process? **(Nov 2005)**

3. Define a band saw**? (May 2006)**

4. List any four common abrasives used in grinding wheel **(May 2006)**

4a.What is the types of surfaces that could be produced using plain cylindrical grinders? (**Nov 2006**)

4b. Explain the abrasive jet grinding with diagram. (**Nov 2006**)

5. State the abrasives used in the manufacture of grinding wheels? **(Nov 2007)**

6. What for lapping is used? **(Nov 2007)**

7. A grinding wheel is specified as A 24 K 7 V. What does each letter indicates? **(Apr 2008)**

8. Compare & contrast the gear generation process with gear forming process? **(Apr 2008)**

9. What is the need of truing and dressing operations in grinding wheels? **(Nov 2008)**

10.List the advantages of honing?**(Nov 2008),** ( **Nov 2006**)

11.What is meant by dressing and truing of grinding wheels?**(Nov 2009)**

12.How is a broaching machine specified?**(Nov 2009)**

13.Mention four important factors that influence the selection of grinding wheels?**(May 2009)**

14.Wha is roller burnishing process?**(May 2009)**

15.Define hardness of grinding wheels?**(Nov 2010)**

16.Define lapping?**(Nov 2010)**

17.Compare gear forming with gear generation method?**(Apr 2010)**

18.State the application of honing & lapping finishing method?**(Apr 2010)**

19.What is meant by "grade"& "structure" of a grinding wheel?**(Apr 2011)**

**2**0.What are all the parameters that would affect the MRR in abrasive jet machining?**(Apr 2011)**

21.What are the types of surface grinders?**(Nov 2011)**

22.Mention any two advantages of gear hobbing?**(Nov 2011)**

23.Name two artificial abrasive materials?**(May 2012)**

24.Write any four applications of Abrasive jet machining?**(May 2012)**

25. State the difference between turning and dressing of grinding wheel. **(Nov 2013)**

26. Name the process parameters involved in the lapping process. **(Nov 2013)**

27. How is grinding wheel designated? **(Apr 2013)**

28. List the gear generating process. **(Apr 2013)**

## PART-B (16 MARKS)

1. How do you classify cylindrical grinders? What is the difference b/w Plain & Universal cylindrical grinder? (8) ***(Nov 2005).***

2. Discuss the standard method of specifying a grinding wheel by taking an example? (8) ***(Nov 2005).***

3. Sketch and explain the main parts of band saw? (8) ***(Nov 2005).***

4. List the advantages & limitations of gear hobbing process over other gear generation processes? (8) ***(Nov 2005).***

5. With neat sketches, explain the various types of center less grinding process (10) ***(May 2006)***

6.Explain abrasive grinding? (6) ***(May 2006)***

7.Explain the construction & working of a pull type broaching machine? (8) ***(May 2006)***

8.Explain the process of gear hobbing? (8) ***(May 2006)***

9.State the advantages & limitations of broaching. (8) ***(Nov 2007)***

10.Compare gear hobbing with gear shaping. (8) ***(Nov 2007)***

11.Explain self-sharpening characteristics of grinding wheels.(5) ***(Nov 2007)***

12.Describe the use of cutting fluids in grinding (5) ***(Nov 2007)***

13.Explain wheel truing & dressing? (6) ***(Nov 2007)***

14.Discuss the three type of feed in center less grinding machine. (8) ***(Apr 2008)***

15.Explain about the glassing & dressing of grinding wheel (8). ***(Apr2008)***

16. Explain the principle of broaching operation with neat sketches. (8) ***(Apr 2008)***

17.Draw and explain the broach tool. (8) ***(Apr 2008)***

18. Explain with neat sketches the following operations: Honing, Lapping, Super finishing, Buffering, Polishing (16) ***(Nov 2008/2011, May 2012)***

19.Explain with neat sketches. Discuss the working of continuous surface broaching machine & write its merits and demerits. (16) ***(Nov 2008)***

20.Discuss the various bonding materials used for making grinding wheels. (8) ***(Nov 2009)***

21.Sketch and explain the three methods of external cylindrical center less grinding. (8) ***(Nov 2009)***

22.Sketch a broaching tool and explain the different nomenclature. (8) ***(Nov 2009)***

23.Explain how a spur gear is machined in a gear shaping machine. (8) ***(Nov 2009)***

24.Explain the salient features of a center less grinding machine & discuss the different operations that can be carried out in it. Mention some advantage. (16) ***(May 2009/ Nov 2010)***

25.Briefly discuss about the different types of abrasives used in a grinding wheel. (8) ***(May 2009)***

26.Explain the gear shaving, gear honing, gear lapping processes.(8) ***(May 2009)***

27.Write short note on gear forming & gear shaping?(8) ***(Nov 2010)***

28.Write short note on gear shaping? (8) ***(Nov 2010)***

29.Give the specification of grinding wheels? (6) ***(Nov 2010)***

30.What is meant by dressing & truing of grinding wheel? (10) ***(Apr 2010)***

31.List the advantages and limitations of gear shaping? (6) ***(Apr 2010)***

32.Explain the principle of gear hobbing with neat sketches? (10) ***(Apr 2010)***

33. Discuss the various bonding material used for making grinding wheel? (8) ***(Apr 2011)***

34.Sketch & explain the three methods of external cylindrical center less grinding (8) ***(Apr 2011)***

35.List the advantages and disadvantages of gear shaping process? (8) ***(Apr 2011)***

36.Explain how a spur gear is machined in a gear hobbing machine? (8) ***(Apr 2011)***

37.With the help of sketches, describe any two methods of cylindrical grinding? (8) ***(Nov 2011)***

38.Describe with neat sketches a gear hobbing machine and the way it generate the gear tooth. (8) ***(Nov 2011)***

39.With the help of sketch, describe the working principle of abrasive jet machining state its product applications? (8) ***(Nov 2011)***

40. Sketch and explain the following: ***(May 2012)***

1. The setup of wheel and work piece for a ‘through-feed’ center less grinding. (4)

2. The setup of wheel for ‘in feed’ & ‘end feed’ centers less grinding. (4)

43.Explain the factors to be considered to select a grinding wheel and recommended parameters. (8) ***(May 2012)***

44. Classify the grinding machines. ***(May 2013)***

45. Explain the working principal of center less grinding machine. ***(May 2013)***

46. Describe the two types of lapping operations. ***(May 2013)***

47. Explain the principal operation of gear hobbing process. ***(May 2013)***