

INDIAN INSTITUTE OF TECHNOLOGY MANDI
SCHOOL OF ENGINEERING
FIRST QUIZ

IC141: Product Realization Technology

Maximum Marks: 25

Time 8:00-8:50 am

March 19, 2014

1. What is meant by Product realization? Explain it using block diagram. (2)
 2. Write the classification of engineering materials. (2)
 3. Write four application of Bio-material. (2)
 4. List the advantage and limitations of composites materials.(2)
 5. What is the principle of machining process? (2)
 6. Write the functions of machine tool (2)
 7. State the difference between capstan and turret lathe. (2)
 8. How is the grinding wheel designated? (2)
 9. How the size of milling machine is specified? (2)
 10. Explain slab milling and face milling with neat sketches. (2)
 11. What is the main function of Lathe? (1)
 12. What does CNC stand for — — — (0.5)
 13. Why do casting processes generally produce minimal waste? (0.5)
 14. Which of the listed parts belong to a file? (0.5)
 - a. Tang b. Blade c. Handle d. Mantle
 15. Workpiece movement in center-less grinding is accomplished by: (0.5)
 - a. Conveyor system b. Air or hydraulic pressure c. Regulating wheel axial force d. Radial table tilt
 16. Tool life of the cutting tool is most affected by: (0.5)
 - a. Cutting speed b. Tool geometry c. Microstructure of material being cut d. Not using coolant and lubricant
 17. Metal in machining operation is removed by: (0.5)
 - a. Tearing chips b. Distortion of metal c. Shearing the metal across a zone d. Cutting the metal across a zone
 18. The non circular jobs can be suitably held in: (0.5)
 - a. three jaw chuck b. four jaw chuck c. collet chuck d. mandrel
 19. The lathe tool post is mounted on the top of: (0.5)
 - a. compound rest b. cross slide c. apron d. saddle
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