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**Question Paper Code: 34703**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fourth Semester

Mechanical Engineering

01UME403 - MANUFACTURING TECHNOLOGY II

(Regulation 2013)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

1. In any metal cutting, cutting force at job-tool contact point is measured by
  - (a) Wattmeter
  - (b) Dynamometer
  - (c) Pyrometer
  - (d) Hydrometer
2. Continuous chips are formed during the cutting of
  - (a) Ductile material
  - (b) Brittle material
  - (c) Non-metallic material
  - (d) Metals with low thermal conductivity
3. The type of turret indexing mechanism is
  - (a) Ratchet and pawl
  - (b) Geneva
  - (c) Cam mechanism
  - (d) Rack and Pinion
4. Tool life is very much affected by
  - (a) Depth of cut
  - (b) Tool geometry
  - (c) Cutting speed
  - (d) Feed
5. The metal is removed in drilling machine by
  - (a) Extrusion
  - (b) Shearing
  - (c) Shearing and Extrusion
  - (d) Shearing and Compression

6. Trepanning is performed for
- (a) Finishing a drilled hole                      (b) Producing a large hole without drilling  
(c) Truing a hole for alignment                (d) Enlarging a drilled hole
7. Which of the following is not an abrasive material?
- (a)  $Al_2O_3$                       (b) SiC                      (c) Diamond                      (d) WC
8. Honing is an operation primarily used for finishing
- (a) Flat surface                      (b) Cylindrical surface  
(c) Hole                      (d) Irregular surface
9. In a point-to-point type Numerical Control system
- (a) Control of position and velocity of the tool is essential  
(b) Control of only position of the tool is sufficient  
(c) Control of only velocity of the tool is sufficient  
(d) Neither position nor velocity need to be controlled
10. In an NC machining operation the G code for the tool movement along a circular path is
- (a) G03                      (b) G02                      (c) G01                      (d) G00

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. Explain the variables and factors affecting Machinability. (8)
12. List the step by step procedure for preparing tool layout of turret and capstan lathe in detail. (8)
13. Sketch and explain the hydraulic drive of a horizontal shaper. (8)
14. Explain Honing and Super finishing with neat sketch? (8)
15. Define CNC and DNC? With a help of a diagram explain the working of NC machine tool. (8)