

Register No.:

**612**

**April 2023**

*Time - Three hours  
(Maximum Marks: 100)*

- N.B.**
1. Answer all questions under Part-A. Each question carries 3 marks.
  2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.

**PART - A**

1. List out the factors affecting tool life.
2. Write about balancing of grinding wheels.
3. What is meant by quick return mechanism?
4. List the types of broaches.
5. Write short notes on adaptor.
6. Write short notes on gear hobbing.
7. Write the advantages of unconventional machining processes.
8. Write the metal removal rate process parameters in Electric discharge machining.
9. Draw the machine axes conventions of turning centre and name axes.
10. What is the purpose of G and M codes?

[Turn over.....

**PART – B**

11. (a) Explain the nomenclature of twist drill cutting tool with neat sketch.

(Or)

- (b) Explain Cylindrical grinder with neat sketch.

12. (a) Describe the standard slotter with neat sketch.

(Or)

- (b) Explain the vertical broaching machine with neat sketch.

13. (a) Explain universal milling machine with neat sketch.

(Or)

- (b) Explain the gear burnishing process with neat sketch.

14. (a) Explain electron beam machining with neat sketch. Also write its advantages, disadvantages and applications.

(Or)

- (b) Explain ultrasonic machining process with neat sketch. Also write its advantages, disadvantages and applications.

15. (a) Explain the construction and working principle of machining centre with neat sketch.

(Or)

- (b) Explain the working of linear and rotary transducers with neat sketches.

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