

**October 2018**

*Time – Three hours  
(Maximum Marks: 75)*

*[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory.  
Answer any FOUR questions from the remaining in each PART – A  
and PART – B*

*(2) Answer division (a) or division (b) of each question in PART – C.*

*(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and  
10 marks in PART – C.]*

**PART – A**

1. Mention two composite materials.
2. Name the various work holding devices used in a shaper.
3. Mention the different types of broaching operation.
4. List out the four types of milling cutter.
5. Name the finishing processes for unhardened gears.
6. What is the application of abrasive belt grinder?
7. What are the types of turning centre?
8. What is pultrusion?

**PART – B**

9. Enumerate three uses of autoclave process.
10. Compare thermoplastic and thermo set plastic.
11. Draw any one fixture used in shaper.
12. What are the specifications of a milling machine?
13. List out three merits of gear hobbing.
14. Show the arrangement for cylindrical form grinding.
15. List out three applications of ultrasonic machining.
16. What are the uses of feed back devices in CNC?

[Turn over.....

PART – C

17. (a) Explain sandwich moulding with a neat sketch.  
(Or)  
(b) With the help of a neat sketch, describe rotational moulding process.
18. (a) Explain the feed mechanism in a shaper with a neat sketch.  
(Or)  
(b) What are the broaching operations? Explain any two of them with a simple sketch.
19. (a) With sketches, briefly explain any three types of milling operations.  
(Or)  
(b) Explain a gear burnishing with a neat sketch.
20. (a) Explain a plunge cut grinding with a neat sketch.  
(Or)  
(b) Explain the construction and working of a laser beam machining with a sketch.
21. (a) Explain the construction and working of CNC turning centre.  
(Or)  
(b) Explain the various types of tool magazines used in CNC machines.

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