

C-4494

Sub. Code

60641

B.Voc. DEGREE EXAMINATION, APRIL 2025.

Fourth Semester

Production Technology

CNC MACHINES AND PROGRAMMING

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Predict "NC" in NC machines stand for,
 - (a) Numerical Computer
 - (b) Network Control
 - (c) Numerical Control
 - (d) None of the above
2. CNC machines are classified based on
 - (a) The material they process
 - (b) The speed of operation
 - (c) The type of control system used
 - (d) The size of the machine
3. The primary function of slideways in CNC machines is to
 - (a) Hold the tool
 - (b) Provide feedback
 - (c) Clamp the workpiece
 - (d) Guide the machine movement

4. Feedback devices in CNC machines are used for
 - (a) Powering the spindle
 - (b) Lubricating the system
 - (c) Holding the workpiece
 - (d) Monitoring and correcting machine position
5. G codes are primarily used for
 - (a) Controlling motion
 - (b) Adjusting power levels
 - (c) Monitoring errors
 - (d) Machine control
6. M codes are related to
 - (a) Position control
 - (b) Machine auxiliary functions
 - (c) Machine control
 - (d) Error correction
7. A canned cycle for drilling includes
 - (a) Continuous cutting
 - (b) Milling
 - (c) Multiple peck depths
 - (d) Surface grinding
8. Pick the use of Peck drilling.
 - (a) High-speed machining
 - (b) Milling operations
 - (c) Tapping
 - (d) Removing chips during deep drilling

9. Abbreviate CAM.
- (a) Computer-Assisted Machinery
 - (b) Computer-Aided Manufacturing
 - (c) Centralized Automated Machine
 - (d) Computerized Automation
10. CNC program generation from CAD models involves
- (a) Post-processing (b) Manual programming
 - (c) Tool calibration (d) Error correction

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Compare conventional machines with NC machines.
Or
(b) Discuss the components of NC machines and their functions.
12. (a) Describe the role of slideways and spindle in CNC machines.
Or
(b) Brief about the importance of feedback devices in CNC systems.
13. (a) Write short notes on the role of G codes and M codes in the CNC programming.
Or
(b) What is adaptive control and how does it enhance CNC programming?
14. (a) Pen down the purpose of canned cycles in CNC programming.
Or
(b) Give short notes on the function and importance of subroutines in CNC machining.

15. (a) Discuss the role of CAD in CNC program generation.

Or

- (b) Tell about the recent advancements in CNC machines.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Elaborate the need for CNC machines and their impact on manufacturing industries.

Or

- (b) Discuss in detail the basic components of NC machines and their working.

17. (a) Elucidate the constructional features of CNC machines with a detailed focus on drive units and feedback control.

Or

- (b) Detail the troubleshooting techniques for common mechanical, electrical and pneumatic faults in CNC machines.

18. (a) Write a detailed CNC part program for a lathe to machine a component with a straight line and curved profile.

Or

- (b) Explain the coordinate systems used in CNC programming and their significance.

19. (a) Give a detailed CNC program for drilling using canned cycles, including dwell and peck drilling.

Or

- (b) Elaborate the concept and applications of macros in CNC programming.

20. (a) Detail the integration of CAD and CAM in CNC machining with a practical example.

Or

- (b) Discuss the various preparatory commands and transformations in CNC programming.

C-4495

Sub. Code

60646

B.Voc. DEGREE EXAMINATION, APRIL 2025.

Fourth Semester

Production Technology

PROFESSIONAL ETIQUETTES

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. What is the primary significance of business etiquette in the 21st century?
 - (a) To ensure conformity in dress codes
 - (b) To establish professional rapport and credibility
 - (c) To maintain traditional practices in business
 - (d) To limit interactions among employees
2. What is one essential component of personal appearance for a professional?
 - (a) Wearing bright colors
 - (b) Casual clothing
 - (c) Formal dressing with appropriate accessories
 - (d) Minimal use of makeup

3. Which of the following is a key aspect of email etiquette?
- (a) Using informal language
 - (b) Ignoring the subject line
 - (c) Using proper grammar, punctuation and a professional tone
 - (d) Not proofreading before sending
4. What should every official email contain?
- (a) An emotion for clarity
 - (b) A professional email address, subject line, and concise body
 - (c) Random attachments
 - (d) Informal greetings
5. What is the purpose of a meeting agenda?
- (a) To entertain attendees
 - (b) To list topics and ensure focused discussions
 - (c) To increase meeting time
 - (d) To provide refreshments
6. What is an essential element of dining etiquette?
- (a) Eating quickly
 - (b) Talking loudly during meals
 - (c) Using appropriate cutlery and maintaining posture
 - (d) Refusing to eat with others

7. Which of the following is most important during an interview?
- (a) Wearing casual attire
 - (b) Arriving without preparation
 - (c) Maintaining professional demeanor and being prepared
 - (d) Ignoring the interviewer's questions
8. What is one recommended tip for public speaking etiquette?
- (a) Speaking without pausing
 - (b) Injecting humor to lighten the mood
 - (c) Avoiding eye contact with the audience
 - (d) Speaking without considering the audience
9. What is one of the common mistakes during presentations?
- (a) Using clear and simple language
 - (b) Avoiding excessive animations in slides
 - (c) Failing to make eye contact with the audience
 - (d) Speaking at a slow pace
10. What is the primary challenge in multi-cultural business etiquette?
- (a) Ignoring local traditions
 - (b) Understanding and respecting cultural differences
 - (c) Focusing only on one culture
 - (d) Adopting a single set of rules for all cultures

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain the importance of personal appearance in a business setting.

Or

- (b) Discuss how professional dressing affects the overall perception of an individual in the workplace.
12. (a) Describe the key components of effective email etiquette and its significance in professional communication.

Or

- (b) Discuss the role of telephone etiquette in maintaining professionalism in an office environment.
13. (a) What are the key factors that contribute to an effective meeting?

Or

- (b) Explain the significance of business card etiquette in professional networking.
14. (a) Describe the recommended interview attire and its impact on making a positive first impression.

Or

- (b) Discuss the steps involved in preparing for a telephonic interview.

15. (a) How can body language affect the outcome of a presentation?

Or

- (b) Discuss the role of cultural awareness in making a successful business presentation.

Part C

(5 × 8 = 40)

Answer **all** questions, choosing either (a) or (b).

16. (a) Explain the role of business etiquette in creating a professional work environment and its impact on career advancement.

Or

- (b) Analyze how using technology and social media affects business etiquette in the modern workplace.

17. (a) Discuss the essential components of email etiquette and how they contribute to clear and professional communication.

Or

- (b) Evaluate the role of telephone etiquette in building strong professional relationships.

18. (a) Discuss the significance of managing meetings effectively and how it impacts team productivity.

Or

- (b) Explain the role of dining etiquette in business networking and how it can influence professional relationships.

19. (a) How do interview etiquettes affect the hiring process and what should candidates focus on to improve their chances?

Or

- (b) Discuss the importance of public speaking etiquette and its effect on audience engagement during a presentation.
20. (a) Explain how multi-cultural challenges can influence business etiquette and how professionals can navigate these challenges.

Or

- (b) Analyze the importance of understanding cultural differences in a globalized work environment and its impact on business success.
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