

MECHANICAL PRODUCTION TECHNICIAN LEVEL 6

ENG/OS/MEM/CR/7/06 Printed By: Technical And Vocational College

Perform Workshop Processes Date: 25.11.2025 10:47 AM

November/ December 2025

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10:47 AM



TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

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WRITTEN ASSESSMENT

Time: 3 HOURS

AM

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INSTRUCTIONS TO CANDIDATE
Date: 25.11.2025 10:47 AM

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1. The paper consists of **TWO** sections: **A** and **B**. Date: 25.11.2025 10:47 AM
2. Answer ALL questions in section A and ANY THREE (3) questions in section B.
3. Marks for each question are indicated in the brackets.
4. Candidates are provided with a separate answer booklet.
5. **DO NOT** write on this question paper.

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This paper consists of FOUR (4) printed pages.

Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.

SECTION A (40 MARKS)

Answer ALL Questions in This Section

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1. While preparing to use a grinding machine in the workshop, a trainee seeks your guidance. State FOUR safety precautions you would advise them to observe. (4 Marks)
2. During a forging demonstration in class, the instructor asks trainees to identify common forging methods. List FOUR methods they mentioned. (4 Marks)
3. In a welding shop, a client wants to understand the difference between MIG and TIG welding before choosing a method for his project. Distinguish between the two methods. (2 Marks)
4. While setting up a machining process, an apprentice confuses a jig with a fixture. Differentiate between these two components. (2 Marks)
5. A new technician joins your team and is introduced to the milling section. Highlight FOUR types of milling machines they should be familiar with. (4 Marks)
6. The management of a factory is considering replacing conventional machines with CNC machines. State FOUR advantages that this transition would bring. (4 Marks)
7. During a production review, the supervisor emphasizes the importance of job cards. Highlight FOUR reasons why job cards are essential in workshop operations. (4 Marks)
8. A group of students visits a foundry workshop and processes are still widely used. List FOUR advantages of foundry work that the technician explained. (4 Marks)

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While working on different workpieces, an operator is asked to identify various grinding processes. Outline FOUR operations she named. (4 Marks)

Date: 25.11.2025 10:47 AM

10. In a heavy equipment manufacturing workshop, technicians rely on drilling machines for different machining tasks. Outline FOUR operations that they can perform using drilling machine. (4 Marks)
11. A trainer introduces trainees to advanced machining processes beyond conventional methods. List FOUR advanced machining processes they were introduced to. (4 Marks)

SECTION B (60 MARKS)

Answer Any THREE Questions in This Section

12.

10:47 AM

a. During a milling class, the instructor asks you to explain different cutting techniques performed on a milling machine. Explain SIX techniques you could mention. (12 Marks)

b. While operating a lathe, a trainee is asked to set appropriate cutting speeds and feeds. Explain FOUR factors that he should consider when setting these machining parameters. (8 Marks)

13.

a. In a workshop setting, you are tasked with machining a component on a lathe. Outline the sequential steps you would follow from preparation to finishing the workpiece. (10 Marks)

b. During a training session, your instructor emphasizes the importance of safety in

metall fabrication. Discuss FIVE key precautions you should take when handling sheet metal work. (10 Marks)

14.

a. You are appointed to help set up a new mechanical workshop. Explain FIVE factors you would consider in planning and establishing the workshop. (15 Marks)

b. workshop where apprentices are being trained on fabrication tasks.

Date: 25.11.2025 10:47 AM

the instructor demonstrates the use of basic hand-held tools that are commonly required for daily operations. As an apprentice, describe FIVE of these hand tools and their specific use in fabrication work (5 Marks)

15.

a. In a forging assignment, you are instructed to produce a specific component. Describe the steps you would take in performing a forging operation from preparation. (15 Marks)

workshop assembly project, an apprentice is instructed to join metal components securely. Identify FIVE mechanical fastening methods that can be applied in this task. (5 Marks)