# ASSIGNMENT FEEDBACK FORM

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| Student Name/ID/Section | Obada Mohammad Khaled Alhalaybeh - 23110107 - 8 | | |
| HTU Course Title and No. | 40303221 - Discrete Maths | | |
| BTEC Unit Code and Title | F/618/7429 - Discrete Maths | | |
| Assignment Number | 1 | Assessor Name | Rola Musleh |
| Submission Date | Jun 17, 2025 | Date Received 1st submission | Jun 17, 2025 |
| Re-submission Date | | Date Received 2nd submission | |

**Ongoing formative feedback from assessor:**

- **Attendance:** Weak
- **Lab / In-class Activity:** Not applicable
- **One-to-one Formative Discussion:** Good
- **Participation:** Weak

**Assessor feedback for summative assessment:**

## General Feedback

The student showed a good knowledge of set theory and functions, the student could demonstrate operations on sets, and determine the order of bags, also find the inverse of a function.

The student showed a good knowledge in graph theory, that the student was successfully able to construct a binary tree for a simple mathematical statement and to find the required search. Also, the student was able to apply Dijkstra's Algorithm and to find the shortest path. Furthermore, the student was able to accurately assess the existence of Eulerian and Hamiltonian circuits.

The student showed good knowledge in Boolean Algebra, that the student was successfully able to diagram a logic circuit for a given Boolean expression and to produce a truth table for simple scenario, also to use K-map to simplify a given Boolean expression.

The student effectively explored applicable concepts within abstract algebra.

## Strength of Performance

The student was able to:

- Perform algebraic set operations in a formulated mathematical problem.
- Determine the cardinality of a given bag (multiset).
- Model contextualised problems using trees, both quantitatively and qualitatively.
- Use Dijkstra's algorithm to find a shortest path spanning tree in a graph.
- Diagram a binary problem in the application of Boolean algebra.
- Produce a truth table and its corresponding Boolean equation from an applicable scenario.
- Describe the distinguishing characteristics of different binary operations that are performed on the same set.
- Determine the order of a group and the order of a subgroup in given examples.
- Determine the inverse of a function using appropriate mathematical techniques.
- Assess whether a Eulerian and Hamiltonian circuit exists in an undirected graph.
- Simplify a Boolean equation using algebraic methods.
- Validate whether a given set with a binary operation is indeed a group.
- Explore, with the aid of a prepared presentation, the application of group theory relevant to your given example.

## Limitation of Performance

The student was unable to:

- Formulate corresponding proof principles to prove properties about defined sets.
- Construct a proof of the Five Color Theorem.
- Design a complex system using logic gates.

The student was not able to prove the given statement using set identities.
The student gave an incomplete and not clear proof of the Five Color Theorem.
The student was not able to design a complete and correct complex system using logic gates ( simplification is not correct).

| Grade: M | Assessor Signature: *Rola Mufied Elias Musleh* | Date: Jun 16, 2025 |
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**Resubmission Feedback (if required):**

| Grade: | Assessor Signature: | Date: |
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**Criteria** *(To be filled before resubmission)*

| P1 ☑ | P2 ☑ | P3 ☑ | P4 ☑ | P5 ☑ | P6 ☑ | P7 ☑ | P8 ☑ | **Final Grade** |
|---|---|---|---|---|---|---|---|---|
| M1 ☑ | M2 ☑ | M3 ☑ | M4 ☑ | D1 ☐ | D2 ☐ | D3 ☐ | D4 ☑ | **M** |

### Student Declaration:

**I certify that the formative and summative assessments for this assignment have been fully explained and understood by me, I also do understand that the grade above is simply a recommendation that could later be changed during any of the verification processes.**

**Student Name:**         **Student Signature:**

**Date:**