L-Università ta' Malta

MATSEC
Examinations Board

Examiners' Report

IM Computing

First Session 2025

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A. STATISTICAL INFORMATION

The total number of candidates who registered to sit for IM Computing was **88**, which is **4** candidates less than in 2024.

Table 1 shows the distribution of grades for the First 2025 session of the examination

GRADE	A	B	C	D	E	F	ABS	TOTAL
NUMBER	5	18	19	18	5	12	11	88
% OF TOTAL	5.7	20.5	21.6	20.5	5.7	13.6	12.5	100

Table 1: Distribution of grades for IM Computing 2025 First Session

B. GENERAL REMARKS

When compared to the previous year, the overall distribution of grades remained broadly similar, with some notable shifts. Candidates obtaining a Grade A remained relatively constant at 5.7% (5 candidates) in 2025 compared to 5.4% (5 candidates) in 2024. Those achieving a Grade B increased slightly from 18.5% (17 candidates) to 20.5% (18 candidates), while the proportion of candidates awarded a Grade C remained stable at around 22% (21 candidates in 2024 and 19 in 2025). There was also a small rise in candidates achieving a Grade D, from 18.5% (17 candidates) to 19.3% (17 candidates). A significant change was observed in Grade E, which dropped markedly from 14.1% (13 candidates) in 2024 to 6.8% (6 candidates) in 2025. This drop seems to have been absorbed mostly by an increase in higher grades and a small rise in absentees. Failures (Grade F) increased marginally from 13% (12 candidates) to 13.6% (12 candidates). The percentage of candidates absent rose from 8.7% (8 candidates) in 2024 to 12.5% (11 candidates) in 2025.

When considering performance across the different types of questions in the paper, it is evident that candidates generally fared better in recall-based questions than in those requiring applied or practical skills. Many questions in Section A that tested direct knowledge recall or straightforward conceptual understanding (such as Questions 4, 5, 6, and 10) were well-answered overall, with most candidates demonstrating familiarity with the material. However, a number of questions that demanded deeper application of knowledge, such as the use of programming constructs, problem-solving in Java, or the application of database and operating system concepts in Section A (and Question 1 in Section B), proved more challenging. Here, candidates often produced vague, incomplete, or imprecise responses, and in some cases left answers blank.

In programming-related tasks in Section B, a clear divide remained between candidates with solid practical programming skills and those with very limited experience, with little middle ground. This suggests that while factual knowledge is being acquired, the ability to translate it into precise, contextually relevant answers or functional code remains an area for improvement.

C. COMMENTS ON PAPER

Section A

Question 1

Average Mark: 5.2 / 6

The majority of candidates answered this question correctly, demonstrating a clear understanding of the topic.

Question 2

Average Mark: 3.2 / 6

This question was relatively well answered. However, it became evident that most candidates lacked knowledge of the half adder, which impacted their performance.

Question 3

Average Mark: 4.5 / 6

Also relatively well answered. That said, a few candidates lost marks in part b(ii) by providing practical examples of where linear search is used (e.g., Microsoft Word), rather than giving the type of response that was expected. It is to be noted that some candidates mixed up the linear search with the binary search. There were also a couple of candidates who explained the bubble sort.

Question 4

Average Mark: 4.8 / 6

Candidates performed very well on this question, with most achieving full marks, indicating strong familiarity with the topic.

Question 5

Average Mark: 5.1 / 6

Generally, well answered. However, in part (c), some candidates lost marks due to confusion between the two approaches being tested.

Question 6

Average Mark: 3.6 / 6

Generally well-answered though some candidates wrongly explained that packet switching is ideal over short distances rather than long distances.

Question 7

Average Mark: 3.2 / 6

In Question 7, part (a)(i) was generally well-answered, with many candidates providing correct responses. However, some lost partial marks for identifying that it points to the next instruction without specifying main memory, while others lost all marks by incorrectly stating that it holds the actual next instruction. In parts (a)(ii) and (a)(iii), there was noticeable confusion, with some candidates mixing up the roles of the two registers and others offering vague, incomplete answers such as "it holds the address of the instruction." A few incorrectly claimed that these registers actually fetched data from RAM. Part (a)(iv) was generally well-answered. In part (b)(i), most candidates performed well, while in part (b)(ii) a recurring incorrect answer was "32 memory locations," indicating a misunderstanding of the concept.

Question 8

Average Mark: 2.5 / 6

In Question 8, part (a) was generally well-answered. In part (b), a number of candidates provided vague, incomplete responses, while others simply defined one of the scheduling algorithms instead of addressing the question directly. Part (c) was often well-answered, though some candidates lost marks by incorrectly defining deadlock as a single process waiting for an unavailable resource. Part (d) was also generally well-answered. In part (e), many candidates lost marks by framing their responses in terms of data security and integrity, such as encryption, rather than addressing the specific focus of the question.

Question 9

Average Mark: 3.9 / 6

In Question 9, parts (a), (b), and (c) were generally well-answered, with most candidates demonstrating a sound understanding of the topics tested. In part (d), candidates who responded with "phased" were not awarded marks for that part, but they could still receive follow-through marks in part (e) if their explanation was relevant and consistent with their chosen approach.

Question 10

Average Mark: 4.0 / 5

In Question 10, parts (a)(i) and (a)(ii) were generally well-answered. In part (a)(iii), while most candidates suggested a relevant fourth table, some lost marks for not mentioning the role of foreign keys in their proposed design. Part (b) was also generally well-answered, with most candidates demonstrating a clear understanding of the concepts assessed.

Section B

Question 1

Average Mark: 10.7 / 20

This question was attempted by 49 candidates, comprising 64% of the candidates who were not absent for the exam.

Once again, many candidates lost marks on the Java programming part of the question. While the section on digital logic was well answered by most, the second part—which involved Java—proved challenging. It was clear that many candidates still lack experience with Java programming. Some candidates did not even attempt this part of the question.

Some candidates also lacked knowledge on data structures. They did not identify correctly two data structures. Giving "loops" or "methods" or "objects" as answers.

Question 2

Average Mark: 8.4 / 20

This question was attempted by 28 candidates, comprising 36% of the candidates who were not absent for the exam.

Most candidates answered part (a) correctly, though some lost marks for imprecise statements such as "human beings do not understand Low Level Languages." Parts (b) and (c) were also mostly answered correctly, but occasional imprecision or lack of detail cost candidates marks. Parts (d) and (e) were generally well-answered. In part (f)(i) and (ii), while most responses were correct, some were too vague to be awarded marks. In part (g)(i), most candidates performed well, though a notable number provided only two of the three required points. Parts (g)(ii)–(v) were generally well-answered, while in part (g)(vi), most candidates correctly answered "no," but often gave an incorrect or incomplete justification. In part (h), quite a few candidates lost marks by discussing security in general terms without relating their answers specifically to encapsulation.

Chairperson
Examiners Panel 2025