ENGINEERING ADMISSIONS ASSESSMENT **D564/11**

ENGAA Mock Paper 1 **80 minutes**

SECTION 1

INSTRUCTIONS TO CANDIDATES

Please read these instructions carefully, but do not open this question paper until you are told that you may do so. This paper is Section 1 of 2.

A separate answer sheet is provided for this paper. Please check you have one. You also require a soft pencil and an eraser.

Please complete the answer sheet with your candidate number, centre number, date of birth, and name.

At the end of 80 minutes, your supervisor will collect this question paper and answer sheet before giving out Section 2.

This paper contains **two** parts, **A** and **B**, and you should attempt **both** parts.

Part A Mathematics and Physics (28 questions)
Part B Advanced Mathematics and Advanced Physics (26 questions)

This paper contains 54 multiple-choice questions. There are no penalties for incorrect responses, only marks for correct answers, so you should attempt **all** 54 questions. Each question is worth one mark.

For each question, choose the **one** option you consider correct and record your choice on the separate answer sheet. If you make a mistake, erase thoroughly and try again.

You **must** complete the answer sheet within the time limit.

You can use the question paper for rough working, but **no extra paper** is allowed. Only your responses on the answer sheet will be marked.

Dictionaries and calculators may NOT be used.

Please wait to be told you may begin before turning this page.

This question paper consists of 39 printed pages, including 2 blank pages.

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PART A Mathematics and Physics

1 In a room full of people, 40% are women.

Some of these people are left-handed, 6 of which are women.

If half of the women in the room are left-handed, how many people are in the room in total?

A 12
B 15
C 18
D 24
E 28
F 30
G 60
H None of these

2 A single resistor is connected to a battery.

The single resistor is then replaced by two identical resistors connected in parallel.

A student states that this combination will …

1 draw a greater current through the battery
2 dissipate more energy per second
3 have equal current through each resistor

Which of the student's statements are correct?

A 1 only
B 2 only
C 3 only
D 1 and 2 only
E 2 and 3 only
F 1 and 3 only
G 1, 2 and 3
H none of them