EXAM-STYLE CLASS TEST

MARKS	DURATION	QUESTIONS
33	50 minutes	3

Name: _____ Class: _____

Date: _____

MARK ____ / 33

INSTRUCTIONS AND INFORMATION

1. Answer **ALL** the questions in this question paper.
2. Answer QUESTION 1 by **circling** the letter (A–D) in the answer grid at the end of that section.
3. Show **ALL** calculations clearly.
4. Show all units where applicable.
5. Number the answers correctly according to the numbering system used in this question paper.
6. A non-programmable calculator may be used, unless stated otherwise.
7. Write neatly and legibly.

QUESTION 1 [10 MARKS]

Four options are given as possible answers to the following questions. Choose the correct answer and circle the letter (A–D) in the grid at the end of this section. If you want to change your choice, put a cross through the wrong letter and circle your new choice.

1.1 Factorise: $5x + 15$ (1)

A) $5(x + 15)$ **B)** $5x(1 + 3)$

C) $x(5 + 15)$ **D)** $5(x + 3)$

1.2 Factorise: $x^2 - 49$ (1)

A) $(x + 7)(x - 7)$ **B)** $(x + 7)^2$

C) $(x - 7)^2$ **D)** $x(x - 49)$

1.3 Factorise: $x^2 + 9x + 20$ (1)

A) $(x + 4)(x + 5)$ **B)** $(x + 2)(x + 10)$

C) $(x - 4)(x - 5)$ **D)** $(x + 1)(x + 20)$

1.4 Factorise: $x^2 - 5x - 14$ (1)

A) $(x + 7)(x + 2)$ **B)** $(x - 7)(x - 2)$

C) $(x - 7)(x + 2)$ **D)** $(x + 7)(x - 2)$

1.5 When factorising, the FIRST thing to look for is ... (1)

A) a trinomial **B)** brackets

C) a difference of squares **D)** a common factor

1.6 Factorise fully: $2x^2 - 18$ (1)

A) $2(x - 3)^2$ **B)** $2(x^2 - 9)$

C) $(2x + 3)(x - 6)$ **D)** $2(x + 3)(x - 3)$

1.7 Factorise fully: $3x^2 + 15x + 18$ (1)

A) $3(x^2 + 5x + 6)$ **B)** $3(x + 1)(x + 6)$

C) $3(x + 2)(x + 3)$ **D)** $(3x + 2)(x + 9)$

1.8 Factorise: $4x^2 - 25y^2$ (1)

A) $(4x + 5y)(4x - 5y)$ **B)** $(2x - 5y)^2$

C) $(2x + 5y)(2x - 5y)$ **D)** $(4x - 25y)^2$

1.9 Which expression is NOT factorised completely? (1)

A) $(x + 1)(x + 4)$ **B)** $2(x^2 - 16)$

C) $5x(x - 3)$ **D)** $3(x + 2)$

1.10 The factors of $x^2 + 6x + 9$ are ... (1)

A) $(x + 3)(x - 3)$ **B)** $(x + 3)^2$

C) $(x + 6)(x + 3)$ **D)** $(x + 9)(x + 1)$

ANSWER GRID — CIRCLE YOUR ANSWERS FOR QUESTION 1

1.1	A	B	C	D
1.2	A	B	C	D
1.3	A	B	C	D
1.4	A	B	C	D
1.5	A	B	C	D
1.6	A	B	C	D
1.7	A	B	C	D
1.8	A	B	C	D
1.9	A	B	C	D
1.10	A	B	C	D

QUESTION 2 [12 MARKS]

Factorise the following COMPLETELY.

2.1 $5x + 15$, and hence factorise $5x + 15 + 2(x + 3)$ fully. (3)

2.2 $8a^2b - 12ab$ **(3)**

2.3 $x^2 - 49$, and hence factorise $4x^2 - 49$. **(3)**

2.4 $3x^2 - 27$ **(3)**

QUESTION 3 [11 MARKS]

Factorise the following trinomials.

3.1 $x^2 + 9x + 20$, and hence factorise $x^2 - 9x + 20$. **(3)**

3.2 $x^2 - 8x + 15$ **(3)**

3.3 $x^2 + 2x - 15$ **(3)**

3.4 State what you must ALWAYS check for first when factorising, and give a reason. **(2)**

TOTAL: 33 marks

This question paper consists of 3 questions.

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