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 $(\frac{2}{3})^2 = \ldots$ (1)

A) $\frac{4}{3}$ **B)** $\frac{4}{9}$

C) $\frac{6}{9}$ **D)** $\frac{2}{9}$

1.2 $\sqrt{\frac{25}{36}} = \ldots$ (1)

A) $\frac{5}{6}$ **B)** $\frac{5}{18}$

C) $\frac{6}{5}$ **D)** $\frac{25}{6}$

1.3 $\sqrt[3]{\frac{8}{27}} = \ldots$ (1)

A) $\frac{8}{3}$ **B)** $\frac{2}{3}$

C) $\frac{4}{9}$ **D)** $\frac{2}{9}$

1.4 $(1\frac{1}{3})^2 = \ldots$ (1)

A) $1\frac{1}{9}$ **B)** $1\frac{2}{3}$

C) $2\frac{2}{3}$ **D)** $1\frac{7}{9}$

1.5 Which one of the following is BIGGER than $\frac{1}{4}$? (1)

A) $(\frac{1}{4})^2$ **B)** $\sqrt{\frac{1}{4}}$

C) $\frac{1}{5}$ **D)** $(\frac{1}{4})^3$

1.6 $\sqrt{\frac{9}{16}} + (\frac{1}{2})^2 = \ldots$ (1)

A) $\frac{5}{4}$ **B)** $\frac{7}{8}$

C) 1 **D)** $\frac{3}{2}$

1.7 A square has an area of $\frac{49}{100}$ m^2. The length of one side is ... (1)

A) $\frac{7}{10}$ **B)** $\frac{49}{200}$

C) $\frac{7}{100}$ **D)** $\frac{49}{10}$

1.8 Squaring a fraction between 0 and 1 makes it ... (1)

A) bigger **B)** stay the same

C) smaller **D)** negative

1.9 $(\frac{3}{5})^2 \times \sqrt{\frac{25}{9}} = \ldots$ (1)

A) $\frac{3}{5}$ **B)** $\frac{9}{25}$

C) 1 **D)** $\frac{5}{3}$

1.10 Which one of the following equals $\frac{1}{8}$? (1)

A) $(\frac{1}{2})^2$ **B)** $(\frac{1}{4})^2$

C) $\sqrt{\frac{1}{4}}$ **D)** $(\frac{1}{2})^3$

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

[11 MARKS]

Calculate the following WITHOUT using a calculator. Leave your answers in the simplest form.

2.1 $(\frac{1}{2})^2 + (\frac{2}{3})^2$ **(4)**

2.2 $\sqrt{\frac{25}{36}}$, and then $\sqrt[3]{\frac{8}{27}}$ **(3)**

2.3 $\sqrt{\frac{49}{64}} - \sqrt[3]{\frac{27}{64}}$ **(4)**

QUESTION 3 [12 MARKS]

Answer the questions below.

3.1 Calculate $(1\frac{1}{3})^2$. **(3)**

3.2 Nomsa writes $(1\frac{1}{3})^2 = 1\frac{1}{9}$. Explain her mistake, and calculate the correct answer. **(3)**

3.3 A square has an area of $\frac{49}{100}$ m^2. Calculate the length of its side, and then its perimeter. **(4)**

3.4 Explain why $\sqrt{\frac{1}{4}}$ is BIGGER than $\frac{1}{4}$. **(2)**

TOTAL: 33 marks

This question paper consists of 3 questions.

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