EXAM-STYLE CLASS TEST

MARKS	DURATION	QUESTIONS
31	50 minutes	3

Name: ..... Class: .....

Date: .....

MARK ____ / 31

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 A fair die is rolled once. P(rolling a 4) is ... (1)

A) $\frac{4}{6}$ **B)** $\frac{1}{2}$

C) $\frac{1}{6}$ **D)** $\frac{1}{4}$

1.2 A fair die is rolled once. P(an EVEN number) is ... (1)

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

C) $\frac{1}{2}$ **D)** $\frac{1}{6}$

1.3 The probability of an event that is CERTAIN is ... (1)

A) 1 **B)** 0,5

C) 100 **D)** 0

1.4 If P(A) = 0,3, then P(NOT A) is ... (1)

A) 1,3 **B)** −0,3

C) 0,3 **D)** 0,7

1.5 A bag has 4 red and 6 blue balls. P(red) is ... (1)

A) $\frac{6}{10}$ **B)** $\frac{4}{6}$

C) $\frac{2}{5}$ **D)** $\frac{1}{4}$

1.6 Two coins are tossed. The number of possible outcomes is ... (1)

A) 4 **B)** 3

C) 8 **D)** 2

1.7 Two coins are tossed. P(two heads) is ... (1)

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

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

1.8 Relative frequency differs from theoretical probability because it is based on ... (1)

A) guesswork **B)** what ACTUALLY happened in trials

C) the number of outcomes only **D)** what SHOULD happen

1.9 A coin is tossed 100 times and lands on heads 46 times. The relative frequency of heads is ... (1)

A) 46 **B)** 0,46

C) 0,5 **D)** 54

1.10 A coin is tossed and a fair die is rolled. The number of possible outcomes is ... (1)

A) 8 **B)** 12

C) 6 **D)** 2

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 [10 MARKS]

A bag contains 5 red marbles, 7 blue marbles and 8 green marbles. One marble is drawn at random.

2.1 Write down P(red) as a fraction in its simplest form AND as a percentage. (3)

2.2 Determine P(not green). Show your working. **(3)**

2.3 One green marble is drawn and NOT replaced. Determine the probability that the next marble drawn is also green. **(4)**

QUESTION 3 [11 MARKS]

Answer the following.

3.1 Two coins are tossed at the same time. Write down the sample space, and hence determine the probability of getting exactly ONE head. **(4)**

3.2 An ordinary die is rolled once. Determine the probability of rolling a prime number. **(3)**

3.3 A coin is tossed 200 times and lands on heads 118 times. Calculate the relative frequency of heads, and explain why it is not exactly equal to the theoretical probability. **(4)**

TOTAL: 31 marks

This question paper consists of 3 questions.

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