MARKING GUIDELINE

MARKS	DURATION	QUESTIONS
35	55 minutes	3

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

Date: .....

MARK ____ / 35

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 $\frac{3}{5}$ of R250 is ... (1)

A) R50 **B)** R75

C) R416,67 **D) R150 ✓**

Answer: D — $250 \div 5 = 50$, and $50 \times 3 = 150$.

- **A** — that is only ONE fifth
- **B** — used $\frac{3}{10}$ of the amount
- **C** — divided by $\frac{3}{5}$ instead of multiplying

1.2 R840 is shared between two people in the ratio 3 : 4. The SMALLER share is ... (1)

A) R280 **B)** R420

C) R360 ✓ **D)** R480

Answer: C — $3 + 4 = 7$ parts, so one part is R120 and the smaller share is $3 \times 120 = R360$.

- **A** — divided by 3 instead of by 7
- **B** — shared it equally
- **D** — that is the LARGER share

1.3 A shirt costing R320 is reduced by $\frac{1}{4}$. The new price is ... (1)

A) R400 **B)** R316

C) R240 ✓ **D)** R80

> **Answer: C** — $\frac{1}{4}$ of $320 = 80$, and $320 - 80 = 240$.
>
> - **A** — added the discount instead of subtracting
> - **B** — subtracted R4
> - **D** — that is the DISCOUNT, not the new price

1.4 $\frac{2}{3}$ of a number is 18. The number is ... (1)

A) 54 **B) 27 ✓**

C) 36 **D)** 12

> **Answer: B** — Divide by $\frac{2}{3}$: $18 \times \frac{3}{2} = 27$. (Check: $\frac{2}{3}$ of $27 = 18$.)
>
> - **A** — multiplied 18 by 3
> - **C** — doubled 18
> - **D** — found $\frac{2}{3}$ OF 18 instead of working backwards

1.5 In a class of 40 learners, $\frac{2}{5}$ walk to school. How many do NOT walk? (1)

A) 20 **B)** 16

C) 24 ✓ **D)** 8

> **Answer: C** — $\frac{2}{5}$ of $40 = 16$ walk, so $40 - 16 = 24$ do not.
>
> - **A** — halved the class
> - **B** — that is the number who DO walk
> - **D** — found $\frac{1}{5}$ of 40

1.6 Which one of the following is the same as finding $\frac{1}{4}$ of an amount? (1)

A) multiplying by 4 **B)** dividing by $\frac{1}{4}$

C) subtracting 4 **D) dividing by 4 ✓**

> **Answer: D** — One quarter of an amount is that amount split into 4 equal parts.
>
> - **A** — that makes it 4 times as big
> - **B** — dividing by $\frac{1}{4}$ multiplies by 4
> - **C** — subtracting removes a fixed amount, not a fraction

1.7 Three friends share 12 sweets so that Ann gets $\frac{1}{2}$, Ben $\frac{1}{3}$ and Cara the rest. Cara gets ... (1)

A) 3
B) 4
C) 6
D) 2 ✓

> **Answer: D** — Ann 6 and Ben 4, so Cara gets $12 - 10 = 2$.
>
> - **A** — took Cara's share as $\frac{1}{4}$ — it is $1 - \frac{1}{2} - \frac{1}{3} = \frac{1}{6}$
> - **B** — that is Ben's share
> - **C** — that is Ann's share

1.8 A tank holds 60 ℓ. It is $\frac{2}{3}$ full. How much more is needed to fill it? (1)

A) 40 ℓ
B) 20 ℓ ✓
C) 30 ℓ
D) 90 ℓ

> **Answer: B** — $\frac{2}{3}$ of $60 = 40$ already in, so $60 - 40 = 20$ more.
>
> - **A** — that is what is already IN the tank
> - **C** — used a half instead of two thirds
> - **D** — multiplied 60 by $\frac{3}{2}$

1.9 Increase R150 by $\frac{1}{5}$. (1)

A) R180 ✓
B) R155
C) R120
D) R30

> **Answer: A** — $\frac{1}{5}$ of $150 = 30$, and $150 + 30 = 180$.
>
> - **B** — added 5 instead of one fifth
> - **C** — DECREASED instead of increasing
> - **D** — that is the increase alone

1.10 Which one of the following is the GREATEST? (1)

A) $\frac{4}{5}$ of 40 ✓
B) $\frac{2}{3}$ of 42
C) $\frac{3}{4}$ of 36
D) $\frac{1}{2}$ of 60

> **Answer: A** — The four values are 32, 28, 27 and 30.
>
> - **B** — 28
> - **C** — 27
> - **D** — 30

ANSWER GRID — MARKING GUIDELINE

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]

Answer the questions below. Show ALL your calculations.

2.1 Calculate $\frac{3}{4}$ of $60 + \frac{1}{3}$ of 45. **(4)**

$\frac{3}{4} \times 60 = 45$ *(1)*

$\frac{1}{3} \times 45 = 15$ *(2)*

$45 + 15 = \mathbf{60}$ *(1)*

2.2 $\frac{3}{4}$ of a number is 24. Determine the number. **(3)**

$\frac{3}{4}$ of the number $= 24$, so $\frac{1}{4} = 8$ *(1)*

The whole $= 8 \times 4$ *(1)* $= \mathbf{32}$ *(1)*

2.3 Sipho is given R120. He spends $\frac{1}{4}$ of it on a book and $\frac{1}{3}$ of it on food. Calculate, in rands, how much he has LEFT. **(5)**

Spent: $\frac{1}{4} + \frac{1}{3} = \frac{3}{12} + \frac{4}{12} = \frac{7}{12}$ *(2)*

Left: $1 - \frac{7}{12} = \frac{5}{12}$ *(1)*

$\frac{5}{12} \times 120$ *(1)* $= \mathbf{R50}$ *(1)*

QUESTION 3 [13 MARKS]

Answer the word problems below.

3.1 A farmer plants $\frac{2}{5}$ of a field with maize and $\frac{1}{3}$ of the field with beans. The rest is left fallow. Determine the fraction left fallow. (4)

$\frac{2}{5} + \frac{1}{3} = \frac{6}{15} + \frac{5}{15} = \frac{11}{15}$ *(2)*

$1 - \frac{11}{15}$ *(1)* $= \mathbf{\frac{4}{15}}$ *(1)*

3.2 If the field is 45 hectares, calculate how many hectares are left fallow. (3)

$\frac{4}{15} \times 45$ *(2)* $=$ **12 hectares** *(1)*

3.3 A 7-litre container is used to fill $\frac{1}{2}$-litre bottles. Determine how many bottles can be filled in total, and how much is left after 9 bottles have been filled. (4)

$7 \div \frac{1}{2} =$ **14 bottles** *(2)*

9 bottles use $9 \times \frac{1}{2} = 4\frac{1}{2}$ ℓ *(1)*

$7 - 4\frac{1}{2} = \mathbf{2\frac{1}{2}}$ **ℓ** left *(1)*

3.4 Explain the difference between finding a fraction OF an amount and dividing BY a fraction. (2)

Finding a fraction (less than 1) of an amount makes it smaller — you multiply *(1)*; dividing by a fraction less than 1 makes it bigger — you count how many pieces fit *(1)*

TOTAL: 35 marks

This question paper consists of 3 questions.

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