



UNIVERSITY OF JOHANNESBURG
FACULTY OF EDUCATION
MAY/JUNE 2014 EXAMINATION

PROGRAMME: BED FOUNDATION PHASE

MODULE: MATHEMATICS FOR TEACHING FOUNDATION PHASE PIPE
LINE 2A

CODE: MFP2A10/MNS2A10

TIME: 3 HOURS

MARKS: 100

EXAMINERS: DR. K. LUNETA

MODERATORS: Mr J. P. MAKONYE

(This paper consists of 4 pages)

INSTRUCTIONS:

Read each question carefully before answering it. Answer all the questions.
Questions can be answered in any sequence but ensure that you clearly number your
answers. NO CALCULATORS ALLOWED

QUESTION 1

- 1.1** What is a fractional chart? Draw one that is made up of 4 different fractions from a single rectangular whole. (5)
- 1.2** How will you introduce a fraction to grade 1 class? . (3)
- 1.3** State four types of fractions discussed in this course and for each case provide an example. (8)
- 1.4** In point form, explain the steps to follow in order to SUBTRACT fractions with different denominators. (4)

[20]**QUESTION 2**

- 2.1** Find solutions to the following problems

i. $\frac{2}{5} \times \frac{1}{6}$ (2)

ii. $\frac{5}{12} \div \frac{4}{6} \div \frac{1}{8}$ (2)

iii. $\frac{3}{10} + \frac{5}{12}$ (2)

iv. $\frac{4}{20} - \frac{1}{4}$ (2)

- 2.2** Find the answer to the problem below.

$$6 + \frac{4}{15} + \frac{3}{25} \quad (4)$$

2.3. Simplify the problem below and find the answer

$$\frac{\frac{3}{4}}{\frac{9}{8}} \div \frac{8}{7} = \frac{4}{5}$$

(8)

2.4. Calculate and express your answers in the simplest form

i. $3\frac{1}{4} + 5\frac{3}{8}$ (6)

ii. $4\frac{1}{2} \times 2\frac{3}{4} \div 3\frac{2}{3}$ (6)

[32]

QUESTION 3

3.1 Find answers to the following problems.

i. 1.6×0.01

ii. $4.001 + 126.452 + 0.001269$

iii. $4.0015 - 3.101933$

iv. $0.096 \div 0.003$ (10)

3.2. Convert the following decimal numbers to fractions.

i. 0.20

ii. 0.00021

iii. 0.10014

iv. 2.25 (8)

3.3 Find $2\frac{1}{4}\%$ of R25.50

(4)

3.4 In a school of 900 learners two third go on a school trip. What percentage of the learners remains at school?

(4)

[26]

QUESTION 4**4.1 Simplify the following**

i. $a^7 \times a^{-10} \times a^3$ (2)

ii. $\frac{2\frac{a\sqrt{a}}{a}}{\sqrt{a}}$ (3)

iii. $(b^4 \times b^6)^2$ (2)

iv. $5^{1/4} \times 25^{1/2}$ (2)

v. $\sqrt{2\frac{1}{4}} \times \sqrt[3]{8\frac{1}{2}}$ (3)

4.2 i. Given that $M=3$, $V=2$, $S=1$ find the value of $F = 4MV^2 - 3S^{1/2}$ (3)

ii. Find the value of $s = ut + \frac{1}{2}at^2$ if $u=-2$, $t=\frac{1}{4}$ and $a=32$ (3)

iii. Make S the subject of the formula in the equation

$F = 4MV^2 - 3S^{1/2}$ (4)

[22]

.....

