

# FAKULTEIT NATUURWETENSKAPPE

## **DEPARTMENT OF GEOLOGY**

MODULE GLG2A02 METAMORPHIC ROCKS

CAMPUS APK

EXAM JULY EXAM 2016

DATE: 28 JULY 2016 SESSION: 15:00

ASSESSOR(S)

INTERNAL MODERATOR PROF. H. MOURI

EXTERNAL MODERATOR PROF. M. ELBURG

DURATION3 HOURS MARKS 100

\_\_\_\_\_

NUMBER OF PAGES: 2 PAGES

INSTRUCTIONS: ONLY ANSWER ON THE QUESTION PAPER WHEN

REQUESTED.

# Question 1 (25%)

1) Explain and discuss the difference between the following types of metamorphism:

Contact Metamorphism Shock Metamorphism Burial Metamorphism Barovian Metamorphism

- 2) Provide examples from South Africa when possible.
- 3) Explain what controls the size and the shape of a contact metamorphic aureole.

# Question 2 (25%):

What are the different types of metamorphic reactions we studied in class, discuss each of them and illustrate with an example for each of them.

## **Question 3 (25%)**

Give the definitions of the following:

- 1) Geothermal Gradient
- 2) Porphyroblast
- 3) Crenulation cleavage
- 4) Serpentinite
- 5) Confining Pressure

## **Question 4 (25%)**

What are the parameters that control metamorphism, discuss each of them and illustrate with examples (and sketches when possible).