



FACULTY OF ENGINEERING
END OF SEMESTER EXAMINATIONS - APRIL 2025

PROGRAMME: BACHELOR OF PETROLEUM ENGINEERING

YEAR/SEM: YEAR 1/SEMESTER 2

COURSE CODE: PTE1252

NAME: PETROLOGY

DATE: 2025-04-15

TIME: 2:00-5:00PM

INSTRUCTIONS TO CANDIDATES:

1. Read the instructions very carefully
2. The time allowed for this examination is STRICTLY three hours
3. Read each question carefully before you attempt and allocate your time equally between all the Sections
4. Write clearly and legibly. Illegible handwriting cannot be marked
5. Number the questions you have attempted
6. Use of appropriate workplace examples to illustrate your answers will earn you bonus marks
7. Any examination malpractice detected will lead to automatic disqualification.

DO NOT WRITE ANYTHING ON THE QUESTION PAPER

Section A Answer only three questions

Question 1:

Fill in the Blanks

- Clastic sedimentary rocks can be made up of _____.
- Each time through the cycle the sediment becomes more and more _____.
- Rocks formed from lava called _____.
- Rocks formed from magma at depth called _____.

(20 marks)

Question 2:

Multiple Choice Questions

a. Marble is a metamorphic rock that forms from a parent rock:

- Granite
- Limestone
- Sandstone
- A and B
- All of these

b. What type of metamorphism is caused by high temperature and high pressure imposed over a large volume of crust?

- Burial
- Contact
- Regional
- A and B
- All of these

c. Which of the following metamorphic rocks can not form from a shale?

- Schist
- Marble
- Hornfels
- slate
- All of these

d. Which of the following index minerals forms at the highest metamorphic grade?

- Chlorite
- Sillimanite
- Biotite
- Garnet
- A and B
- All of these

e. Which of the following processes will cause metamorphism?

- A change in the chemical environment
- An increase in temperature
- An increase in pressure
- None of these
- All of these

(20 marks)

Question 3:

Short Answer Questions

- What are the types of the depositional environments?
 - What is the economic importance of sedimentary rocks?
- (20 marks)

Question 4:

Define the Following Terms:

- a- Allochthonous b- Autochthonous c- A Tillite d- Bedding plane e- Facies
- (20 marks)

Section B Answer only two questions

Question 1:

Long Answer Question

a. Describe the types of the plate boundaries?

(20 marks)

1.

Question 2:

Long Answer Question

a- Describe the formation of the coal (involves several stages)

(20 marks)

Question 3:

Long Answer Questions

a. Describe the textures of igneous rock:

(20 marks)

Question 4:

Long Answer Question

a- Describe the formation of the coal (involves several stages)?

(20 marks)