



**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY FACULTY OF  
FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION**

**DEPARTMENT OF SCIENCE, MATHEMATICS AND TECHNOLOGY EDUCATION**

**PST 5312 ONLINE LEARNING PRINCIPLES AND PRACTICES**

**Main Examination  
November/December 2024**

**This Examination Paper consists of 4 pages**

Time Allowed: 3 hours  
Total Marks: 100  
Internal Examiner: A. Mangena  
External Examiner: Dr B Moyo

**INSTRUCTIONS**

1. Answer any four questions.
2. Each question carries 25 marks. Total Marks are 100.

**ADDITIONAL MATERIALS NEEDED**

1. A computer with access to internet
2. Google chrome Web browser

**MARK ALLOCATION**

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5. (Practical)	25
<b>TOTAL</b>	<b>100</b>

**Question One**

a) Write in full the following abbreviations used in Online Learning:

- ChatGPT,
- AI,
- ODEL,
- MOOCS,
- MOODLE.

[5 Marks]

b) Copy and complete the following Table, the first example has been done for you.

<u>Term</u>	<u>Description</u>
Webex	Webex is a CISCO software which offers workspace chat and videoconferencing, It can be used for both business and academia.
Scratch	
Google Gemini	
Dropbox	
Survey Monkey	

[8 Marks]

c) Distinguish between Synchronous Learning and Asynchronous Learning.

[6 Marks]

d) Critique the notion that Whatsapp as a tool for learning is ineffective.

[6 Marks]

**Question Two**

- a) Study Figure 2.1 and describe the importance of good computer ergonomic habits. Provide a guideline for best practices in online leaning,



Figure 2.1

[15 Marks]

- b) Discuss the pros and cons of OER (Open Educational Resources).

[10 Marks]

**Question Three**

- a) Discuss the TPACK Model and show how it links to E-Learning.

[16 Marks]

- b) Explain how mobile learning fosters self-directed learning

[9 Marks]

**Question Four**

- a) Discuss the ethical considerations and challenges associated with online learning.

b) How does online learning promote accessibility and inclusivity in education?

[10 Marks]

[15 Marks]

**Question Five (Practical)**

a) Create a Google Form with 10 items (10 Questions)

The questions should be as follows

Question 1 should be Multiple Choice type question

Question 2 should be a Short Answer questions

Question 3 should be a Paragraph type question

Question 4 should be a Checkbox type of question

Question 5 should be a Dropdown type of question

Question 6 should be File upload type of question

Question 7 should be Linear Scale type of question

Question 8 should be Multiple choice grid type of question

Question 9 should be Tick box grid type of question

Question 10 should be a Date type od question

[20 Marks]

b) Create a Google classroom for the subject you are currently teaching.

[5 Marks]

~ End of Exam ~