FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
DEPARTMENT OF PLANT BIOLOGY
FIRST SEMESTER BTECH. EXAMINATION, 2017/2018 SESSION

COURSE CODE: PLB 412
COURSE TITLE: PLANT PHYSIOLOGY III
COURSE UNIT: 3
TIME ALLOWED: 2 HOURS

INSTRUCTION: ***USING APPROPRIATE LABELED DIAGRAM WHERE NECESSARY, ANSWER ANY FOUR (4) QUESTIONS IN ALL; TWO (2) QUESTIONS FROM EACH SECTION***

SECTION A

1a. Outline the three ways in which genetic information flows from DNA to protein.
b. Outline the steps involved in protein synthesis
c. What are the importance of Respiration?

2a. What is Translocation?
b. Explain the different directions of Translocation
c. Discuss any mechanism of translocation, giving its merits and demerits

3a. What is Respiratory Quotient? Give its normal value and mention the various deviations from it.
b. Write a concise essay on:
i. communication in plants
ii. mechanism of water Absorption

SECTION B

4a. Describe the stages involved in flower initiation from the vegetative stage to fruit production.
b. With the aid of a simple experiment demonstrate how reproduction triggers senescence in an Angiospermic plant
c. Highlight two effects of auxins in fruit development

5a. Write notes on the theories that explain senescence in plant.
b. Give two reasons for seed dormancy.
c. List two (2) synthetic auxins.

6a. Explain the mechanism involved in the synthesis of Indole Acetic Acid (I.A.A) from tryptophane.
b. Explain two types of dormancy in seeds
c. Highlight four (4) effects of gibbrellins in plants