



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE**  
**2025\_1 EXAMINATION...**

**COURSE CODE: EHS517**

**COURSE TITLE: BIOMETEOROLOGY**

**COURSE UNITS: 2 CREDIT UNITS**

**TIME ALLOWED: 1 ½ HOURS**

**TOTAL SCORE: 70 MARKS**

**INSTRUCTION: ANSWER ALL QUESTIONS**

- 1 (a) Highlight how the Babylonians, Egyptians, Chinese, and Greeks contributed to the early foundations of biometeorology **2 marks**  
(b)i. In what ways can global climate change influence the frequency and intensity of weather disasters **4 marks**  
ii. Explain how biometeorology can contribute to mitigating impacts on human health? **4 marks**  
(c)i. Describe how extreme heat and cold weather variations affect mortality rates in different populations, stating the factors that make certain groups more vulnerable **7 marks**  
ii Explain the mitigation strategies for the vulnerable population exposed to extreme heat and cold weather variations **3 marks**
- 2 (a) Explain how the responses of plants, integrate to affect overall plant growth and gas exchange? **5 marks**  
(b)i. Define Environmental physiology **3 marks**  
ii. Explain how environmental physiology contribute to agriculture **3 marks**  
(c) Highlight three (3) general characteristics studied in Environmental physiology **3 marks**  
(e)i Define altitude and state its classification **5 marks**  
ii. Highlight the health implications of altitude **4 marks**  
iii Highlight the implications of altitude for aviation **2 marks**
- 3 (a) List five (5) Meteorological elements with their methods of measurement and units **10 marks**  
(b) State the components of solar radiation that affect life on Earth **3 marks**  
(c) Explain the significance of humidity in the atmosphere for living organisms **3 marks**  
Organisms  
(d) Highlight the primary focus of the study of biometeorology **2 marks**  
(e) List the three indices of disease measurement with an example each **3 marks**  
(f) i. Explain the steps involved in establishing a causal relationship between a factor and a disease **3 marks**  
ii. State the importance of eliminating bias and confounding **1 mark**