



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 Organisms	3 marks
(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