PRIFYSGOL ABERYSTWYTH UNIVERSITY

SEMESTER ONE 2025/26

PSYCHOLOGY DEPARTMENT

MODULE CODE PS32120: Behavioural Neuroscience

Time allowed: **TWO HOURS**

Answer any TWO questions from the choice of three questions. Each question answer contributes to 50% of the final mark. Please provide citations where appropriate (a reference list is not required)

UNSEEN EXAM – NOTES ARE ALLOWED IN THE AGREED FORMAT i.e. template provided on blackboard pages (one side of A4, typed only). You MUST hand in your notes with your exam script so ensure you have included your student ID on your notes page.

STUDENTS MAY SUBMIT ANSWERS TO THIS PAPER IN EITHER WELSH OR ENGLISH

Once seated, students may complete the front cover of the answer book(s) and the attendance slip ONLY.

DO NOT TURN THE EXAMINATION QUESTION PAPER OVER UNTIL INSTRUCTED TO DO SO.

1. Using Parkinson's disease as a case study, discuss the role of neurotransmitters in motor control and their relevance to neurological disorders of the motor system.

2. Drawing on existing evidence, discuss the similarities and differences in clinical presentation and underlying pathophysiology between vascular dementia and behavioural variant frontotemporal dementia.

3. A patient presents with significant speech production difficulties. They can understand spoken language and follow verbal instructions, but they struggle to produce fluent and meaningful speech. In addition, they show motor weakness in the right arm and hand. Using at least one structural and one functional neuroimaging method explain how and why you would use each method to investigate the patient's difficulties, describe key differences between structural and functional neuroimaging, propose a hypothesis about the likely location of the brain damage, based on symptoms and your knowledge of neuroanatomy, and justify how the imaging results might support your hypothesis.

END OF PAPER