# **UNIVERSITY OF BOLTON**

## SCHOOL OF PSYCHOLOGY

# **PSYCHOLOGY PATHWAYS**

## **SEMESTER 1 EXAMINATION 2023/2024**

## **BIOPSYCHOLOGY**

## **MODULE NO:PSC5005**

Date: Thursday January 11th 2024

Time:10:00am-1:00pm

**INSTRUCTIONS TO CANDIDATES:** 

Candidates are advised that the examiners attach importance to legibility of writing and clarity of expression. The answers should be evidence based and clearly evaluate the information. Citations and a reference section for each answer are expected.

YOU ARE STRONGLY ADVISED TO PLAN YOUR ANSWERS.

There are THREE sections on this paper.

Answer THREE questions. ONE question from each section

All questions carry equal marks.

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### QUESTIONS

#### Section 1: Answer ONE question from the following three questions

- Neurodegenerative diseases differ in terms of the pathological (disease) process and the corresponding psychological outcomes, especially at the mild to moderate stages. With reference to two or more neurodegenerative diseases, compare and contrast the underlying pathological process and evaluate the differences between them in terms of the outcomes at the cognitive and behavioural level.
- 2. Focusing on both the ascending and descending pathways, evaluate the ability of the neural mechanism proposed by the Gate Control Theory to account for the psychological dimension of pain.
- 3. With reference to specific examples, discuss the mechanism behind the interaction between the nervous system, hormones, and behaviour.

### Section 2: Answer this question

1. Patient TS was recently diagnosed, by a psychiatrist at a local rehabilitation clinic, with alcohol use disorder, and was admitted to the facility as an inpatient. Patient TS revealed that they considered that their problem with alcohol had existed for at least eleven years. At the initial consultation, the patient identified that for the first years after leaving university their drinking had generally been a positive and controlled experience. However, the patient recognised that over time this changed into a negative experience and their life became chaotic and was dominated by a compulsive need to alleviate an increasing and progressive emotional distress. Over the last three years TS reported a decline in both their psychological and physical health and had recently been extremely anxious and 'psychologically drained'. The patient appeared to have very limited cognitive capacity including a reduction in rational thinking and decision making.

In terms of Koob and Shulkin's (2029) framework of the addiction cycle and the allostatic process, evaluate from a biopsychological perspective how TS's addiction would have developed over time and led to their state at admission.

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#### Section 3: Answer this question

 Models of face processing emphasise the core (recognition and expression analysis) and the extended (cognitive and social) components as well as the neural substrates that support them. Our current understanding has been derived from the utilisation of several methods and techniques that fractionate the overall process.

Considering two or more methods or techniques that have been used to examine face processing, evaluate how face trustworthiness judgments are thought to be made at a neural level.

**END OF QUESTIONS**