

UNIVERSITY OF BOLTON
SCHOOL OF EDUCATION AND PSYCHOLOGY
PSYCHOLOGY PATHWAYS
SEMESTER ONE EXAMINATION 2019/2020
BIOPSYCHOLOGY
MODULE NO:PSC5005

Date: Friday 17th January 2020

Time: 10.00 – 1.00 (3 hours)

INSTRUCTIONS TO CANDIDATES:

Candidates are advised that the examiners attach importance to legibility of writing and clarity of expression. **YOU ARE STRONGLY ADVISED TO PLAN YOUR ANSWERS.**

There are **SIX** questions on this paper.

Answer **THREE** questions.

All questions carry equal marks.

Start each answer in a fresh answer book.

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Section One - Answer this question (seen question)

1. An investigation of the relationship between perceived stress and stress reactivity using the Trier stress test.

With reference to the study above:

- I. Provide a rationale for conducting the research and a description of the methodology and results.
- II. Interpret the outcome in terms of the psychological mechanisms that can moderate the stress response and relate this to the relevant literature.
(The outputs from the study can be found in the attached appendix).

Section Two – Answer this question

1. Ms. A.P is a 46 year old female with a long history of maladaptive behaviours including problematic drinking since the age of 15. Eight months ago Ms A.P. was referred to a one month detoxification program at a local clinic, with a diagnosis of severe alcohol use disorder. The patient was prescribed Librium, Thiamine (vitamin B1) and anti-anxiety medication, in the first weeks of her treatment. Group therapy meetings were then attended on a regular basis. In terms of your understanding of addiction from a biopsychological perspective, discuss the case of Ms A.P in terms of the neural regions implicated in the addiction cycle, the allostatic load it creates and the positive and negative reinforcing aspects of the cycle and subsequent effects on behaviour.

Section Three - Answer ONE question from the following four questions

1. Neurodegenerative diseases differ in terms of pathology and psychological outcomes. Discuss.
2. Evaluate the ability of the Gate Control Theory of pain to account for the psychological dimension of pain.
3. Evaluate how findings from clinical studies have furthered our understanding of empathy in humans.
4. Using one or more examples, discuss the effects of the endocrine system on human behaviour.

END OF QUESTIONS

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Appendix

Mean heart rate change

		Mean	N	Std. Deviation
Pair 1	Heart rate at time 1	72.80	40	6.76
	Heart rate at time 2	89.97	40	9.37

T-Test: Heart rate change

		t	df	Sig. (2-tailed)
Pair 1	Heart rate at time 1 - Heart rate at time 2	-16.29	39	.000

Correlations: Perceived stress and neuroticism

		Big 5 Neuroticism score Range 8-40
Perceived stress score range 0-40	Pearson Correlation	.86**
	Sig. (2-tailed)	.000
	N	40

Correlations: Perceived stress and physiological change

		Systolic change	BPM change	Cortisol change
Perceived stress score range 0-40	Pearson Correlation	-.40*	-.51**	-.49**
	Sig. (2-tailed)	.011	.001	.001
	N	40	40	40

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

END OF PAPER