



THE SCHOOL FOR EXCELLENCE (TSFX)

VCE PSYCHOLOGY UNITS 3 & 4

WRITTEN EXAMINATION 2018

Reading Time: 15 minutes
Writing Time: 2 hours 30 minutes

QUESTION AND ANSWER BOOK

Student
Number:

Letter

Structure of Book

Section	Number of questions	Number of questions to be answered	Number of marks
A	50	50	50
B	8	8	70
			Total 120

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or correction fluid/tape.
- No calculator is allowed in this examination.

Materials Supplied

- Question and answer book of 27 pages.
- Answer sheet for multiple choice questions.

Instructions

- Write your **student number** in the space provided above on this page.
- All written responses must be in English.

At the End of the Examination

Place the answer sheet for multiple-choice questions inside the front cover of this book.

Students are **NOT** permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.

QUESTION 9

Parkinson's Disease is caused by an imbalance of neurotransmitters, specifically

- A. A decrease of dopamine levels.
- B. A decrease of glutamate levels.
- C. An increase in glutamate.
- D. An increase in dopamine levels.

QUESTION 10

Julie has difficulty concentrating. It is often because she is thinking about whether she will sleep that night, and she worries about this for long periods of time. In terms of risk factors, this is an example of:

- A. Rumination, which is precipitating.
- B. Impaired reasoning, which is precipitating.
- C. Rumination, which is perpetuating.
- D. Impaired reasoning, which is perpetuating.

QUESTION 11

Alzheimer's disease is thought to be caused by interference with the transmission of neural impulses caused by _____ and gradual atrophy of the brain tissue because of the death of brain-cells, caused by _____

- A. neurofibrillary tangles; amyloid plaques
- B. amyloid plaques; neurofibrillary tangles
- C. oxygen starvation; amyloid plaques
- D. neurofibrillary tangles; glucose deficit

Use the following information to answer Questions 12 and 13.

Amelia conducted an experiment that required participants to perform three different types of tasks. The tasks differed in the level of complexity. Task A – difficult, Task B – medium, Task C – simple.

Amelia first asked the participants to perform each task individually. She noted the number of errors that each participant made on each task. Amelia then asked each participant to perform two of the tasks simultaneously. They performed all three combinations (tasks A and B, tasks A and C, and tasks B and C) in random order.

QUESTION 12

Compared to the other tasks, _____ requires _____ attention to be completed successfully.

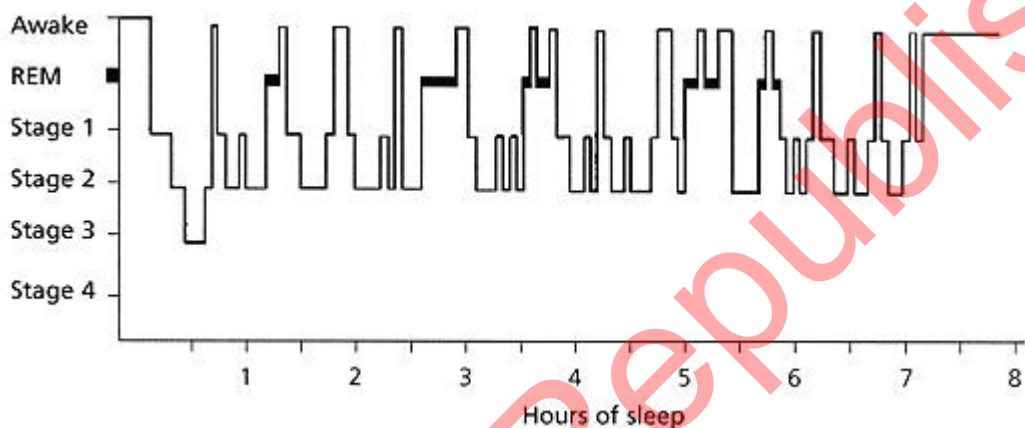
- A. A; divided
- B. A; selective
- C. C; divided
- D. C; selective

QUESTION 24

Jay calls his mother from the school office to get his Grandfather's phone number as he has left his phone at home. He dialled his grandfather's number but then received a busy signal. He waited a few minutes but when he started to dial the number again, Jay realised he had forgotten the number. This experience probably occurred because the phone number was only temporarily stored in his

- A. short-term memory
- B. long-term memory
- C. sensory register
- D. none of the above

Use the following information to answer Questions 25 and 26.

**QUESTION 25**

We experience significant changes in our sleep stages across the lifespan. Which age group is represented by the hypnogram above?

- A. Infants
- B. Adolescents
- C. Adults
- D. Elderly

QUESTION 26

This age group experiences a decrease in the total amount of time spent in:

- A. NREM deep sleep only
- B. Both REM and slow wave sleep
- C. REM sleep only
- D. Both REM and light sleep

QUESTION 27

The key assumption underlying the biopsychosocial framework is that

- A. psychologists alone cannot diagnose mental illness.
- B. factors from several domains may combine to influence mental health.
- C. social factors are more important than psychological factors in determining mental health.
- D. biological factors are not as important as psychological factors in determining someone's degree of mental health.

QUESTION 28

Vicki is having a party. When she looked around the party she notices her friends all reacting differently. Casper is busy dancing in the front room, Adelaide is staring dreamily out the front window and Griffin has recently fallen asleep at the table. If Vicki wanted to monitor her friends' brainwave patterns, she is likely to find that the prominent brainwave pattern for Casper is _____ waves; Adelaide is _____ waves and Griffin is _____ waves.

- A. beta; alpha; theta
- B. alpha; beta; theta
- C. theta; alpha; delta
- D. beta; alpha; delta

Use the following information to answer Questions 29 to 32.

Experimental research was conducted to trial medication for the management of depression. This medication was in a tablet that was given to participants. Participants were placed into either the control or experimental group by a research assistant drawing an odd or even number from a hat. Participants with odd numbers formed the control group; participants with even numbers formed the experimental group. A double-blind procedure with a placebo was used.

QUESTION 29

In this research, the placebo could be defined as

- A. the effect of the medication.
- B. the tablet containing no medication.
- C. a participant's expectation of the effect of the medication.
- D. the tablet containing the medication that was being trialled.

QUESTION 30

A placebo was most likely used in this experiment to

- A. control for an extraneous variable and assess the effect of the medication.
- B. standardise the experimental procedure and assess the effect of the medication.
- C. control for an extraneous variable and assess the effect of the dependent variable.
- D. standardise the experimental procedure and assess the effect of the dependent variable.

QUESTION 31

The double-blind procedure aimed to control for

- A. the placebo effect and extraneous variables.
- B. the experimenter effect.
- C. all extraneous variables.
- D. the placebo effect and the experimenter effect.

QUESTION 32

The experimental design was

- A. a repeated-measures design with counterbalancing.
- B. a repeated-measures design with random allocation.
- C. an independent-groups design with counterbalancing.
- D. an independent-groups design with random allocation.

QUESTION 33

In an experiment, it is essential to control for extraneous variables so that

- A. there is a probability that the results will be obtained by chance.
- B. a valid conclusion can be made about the effect of the independent variable on the dependent variable.
- C. a valid conclusion can be made about the effect of the dependent variable on the independent variable.
- D. the hypothesis is supported and the results of the experiment can be generalised to the broader population.

QUESTION 34

When Harper first went to the dentist she had no response to the dental nurse's white uniform. However, Harper then received a couple of painful fillings from the dental nurse in the white uniform. Now, the Harper reacts with fear to any nurse in a white uniform.

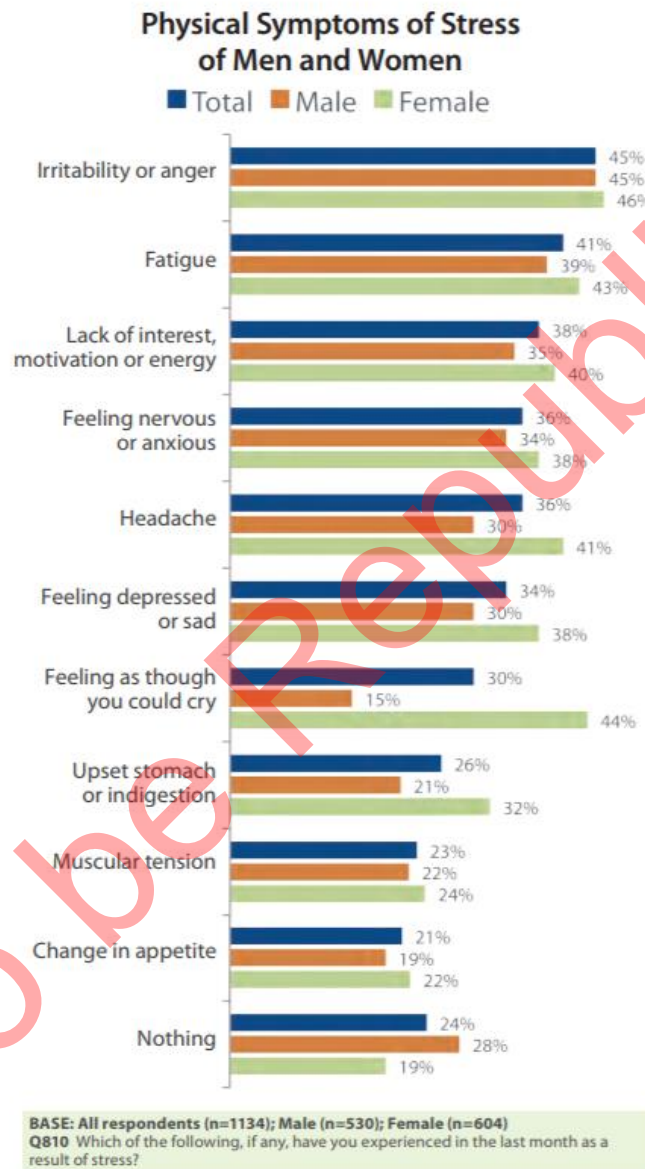
In this example, the sight of the nurse in a white uniform has become _____ to Harper.

- A. an unconditioned response
- B. a conditioned response
- C. a conditioned stimulus
- D. an unconditioned stimulus

QUESTION 6 (9 marks)

Source American Psychological organisation (2010) retrieved
<http://www.apa.org/news/press/releases/stress/2010/gender-stress.aspx>

Question 10 from the survey reads – Which of the following, if any, have you experienced in the last month as a result of stress?



a. Analyse and describe the major trends in the data above.

2 marks

b. Write an appropriate research hypothesis for this study.

3 marks

The American Psychological Association (APA) surveyed a total of 1000 males and 1000 females to investigate physiological stress responses to major life events. Participants were gathered through universities around the United States of America. They were pre-tested on existing mental health conditions prior to the study and anyone with a mental health condition was excluded.

c. Evaluate the reliability and external validity of this study.

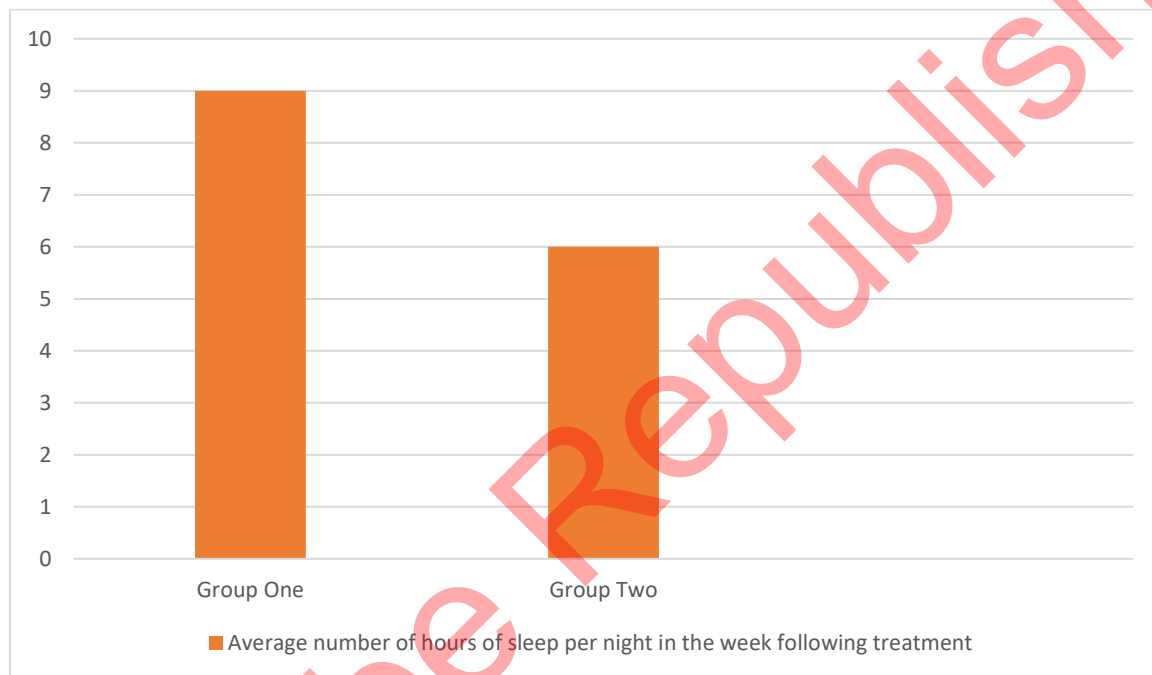
4 marks

QUESTION 7 (13 marks)

A study was conducted by a local doctor on a group of secondary school students, regarding sleep deprivation. Students had been complaining about their lack of sleep each night and being unable to get up for school on time in the morning.

Group One consisted of a group of high achieving Year 11 girls who were all chronically sleep deprived (only achieving an average of 6 hours of sleep per night). They were prescribed melatonin at 9pm and asked to utilise a light box from 7.30am for 2 weeks. Group Two consisted of a group of high achieving Year 11 boys who were all chronically sleep deprived (only achieving an average of 6 hours of sleep per night). They were asked to go to bed 2 hours earlier (than their usual 12 midnight bedtime) for 2 weeks.

Results



a. Write a hypothesis for this study.

3 marks

- b.** Describe the confounding variable that would have the most significant effect on the dependent variable, indicating how it would affect the generalisability of the research. 2 marks

- c.** Based on your knowledge of sleep, indicate two reasons why Group One yielded greater success using their treatment than Group Two. 2 marks

- d.** Evaluate the research design used and suggest ways to improve the experiment. 4 marks

- e.** Describe two potential behavioural changes due to sleep deprivation. 2 marks
