Engage Education Foundation

Units 3 and 4 Psychology

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Section A – Multiple-choice questions

Question 1
The correct answer is C.

Question 2
The correct answer is D.

Question 3
The correct answer is D.

Question 4
The correct answer is B.

Question 5
The correct answer is B.

Question 6
The correct answer is C.

Question 7
The correct answer is D.

Question 8
The correct answer is A.

Question 9
The correct answer is B.

Question 10
The correct answer is C.

Question 11
The correct answer is B.

Question 12
The correct answer is C.

Question 13
The correct answer is B.

Question 14
The correct answer is D.

Question 15
The correct answer is A.

Question 16
The correct answer is B.

Question 17
The correct answer is A.

Question 18
The correct answer is B.

Question 19
The correct answer is C.

Question 20
The correct answer is B.

Question 21
The correct answer is A.

Question 22
The correct answer is C.

Question 23
The correct answer is D.

Question 24
The correct answer is D.

Question 25
The correct answer is A.

Question 26
The correct answer is C.

Question 27
The correct answer is B.

Question 28
The correct answer is B.

Question 29
The correct answer is C.

Question 30
The correct answer is B.

Question 31
The correct answer is B.

Question 32
The correct answer is D.

Question 33
The correct answer is A.

Question 34
The correct answer is A.

Question 35
The correct answer is B.

Question 36
The correct answer is D.

Question 37
The correct answer is C.

Question 38
The correct answer is A.

Question 39
The correct answer is D.

Question 40
The correct answer is B.

Question 41
The correct answer is D.

Question 42
The correct answer is B.

Question 43
The correct answer is A.

Question 44
The correct answer is D.

Question 45
The correct answer is A.

Question 46
The correct answer is C.

Question 47
The correct answer is C.

Question 48
The correct answer is D.

Question 49
The correct answer is B.

Question 50
The correct answer is C.

Question 51
The correct answer is B.

Question 52
The correct answer is C.

Question 53
The correct answer is C.

Question 54
The correct answer is C.

Question 55
The correct answer is A.

Question 56
The correct answer is C.

Question 57
The correct answer is C.

Question 58
The correct answer is B.

Question 59
The correct answer is D.

Question 60
The correct answer is D.

Question 61
The correct answer is A.

Question 62
The correct answer is A.

Question 63
The correct answer is D.

Question 64
The correct answer is C.

Question 65
The correct answer is A.

Section B – Short-answer questions

Marks allocated are indicated by a number in square brackets, for example, [1] indicates that the line is worth one mark.

Question 1

Criticism:

- The level of awareness drops during sleep, resulting in us not hearing predators approaching [1]

Support (either is acceptable):

- Animals that are more likely to be prey sleep for a shorter time and shallower then predators [1]
- We sleep at night, a time when our vision is impaired [1]

Question 2

Somatosensory cortex - parietal lobe [1]

primary motor cortex - frontal lobe [1]

Question 3

The sympathetic nervous system was responsible for Philips acute onset of sweating, increased heart rate and breathing rate. [1]

The parasympathetic nervous system was responsible for calming Phillip down after the incident with the dog. [1]

Question 4

- The somatosensory cortex resides in the parietal lobe of the brain and detects touch, pressure and temperature from the opposite side of the body [1]
- The somatosensory cortex is positioned adjacent to the motor cortex. This means that when sensory information enters the somatosensory cortex, neural transmissions need only to move a very small distance between the two cortices, and motor responses can be carried out almost instantaneously [1]
- Mary's husband grabs her hand. The nerve transmission would travel up her spinal cord and into the somatosensory cortex (specifically the area of the somatosensory cortex responsible for the group of nerves that belong on Mary's hand). The neural transmission would then travel to the motor cortex, where the motor, or efferent response would travel back down the spinal cord and would stimulate the appropriate muscles of the hand to squeeze the hand back [2]

Question 5

A relatively permanent change in behaviour that occurs as a result of experience. It occurs through the lifespan and helps us adapt to the changing world [1]

Question 6

- Jimmy would construct a hierarchy of fears, ordering the stimuli from the least fear-provoking to the most fear-provoking [1] For example, looking at a picture of a spider is less fear provoking then watching a video of a spider, or holding a spider [1]
- Then, Jimmy would slowly work through his hierarchy of fears, progressing only to the next stage when he becomes comfortable at the current stage [1]. For example, when Jimmy no longer feels anxiety looking at the picture of the spider, he will then start watching video footage of spiders and so on [1]

Question 7a

Refers to desirable consequences, or rewards, which increase the chances of the behaviour being repeated, for example, praise, treats [1]

Question 7b

- Positive reinforcement is given for any behaviour that leads to the desired 'final' outcome during shaping [1]
- Shaping is used to teach behaviours that would not naturally occur without continuous reinforcement of the small behaviours that lead to, or approximate, the final behaviour [1]
- For example: giving a bird a treat when it takes a step in a clockwise direction. Each step the bird takes, it is rewarded until it can turn around in complete circles [1]

Question 8

- Role of learner during conditioning:
    - Classical - learner is passive
    - Operant - learner is active
- Timing of stimulus and response:
    - Classical - stimulus comes first
    - Operant - the consequence that strengthens or weakens the behaviour comes after the behaviour

Question 9

- Attention - Daniel would watch volleyball videos and pay attention to the spiking action [1]
- Retention - Daniel would take in the information and play it in his mind (visual representation) [1]
- Reproduction - Daniel would attempt a volleyball spike [1]
- Motivation - Daniel must have adequate motivation to want to learn how to spike [1]
- Reinforcement - if Daniel is reinforced after each attempt, he will be more likely to learn the skill and reproduce the behaviour [1]

Question 10

- Chunking involves grouping information to form a larger unit [1]
- It is used to increase the capacity of short term memory [1]
- An example of this would be grouping digits of mobile phone numbers together in order to remember 3 blocks of numbers, rather than 10 individual digits
- Eg. 0409884789 is harder to remember than 0409-884-789. Chunking was the process used to break the 10 digits into three groups of three to four numbers [1]

Question 11

- Sperling's research into the iconic sensory register suggested that people are able to retain a whole image in their mind for a very short time [1]
- Participants were asked to look at a tachistoscope while 12 symbols were shown for 1/20th of a second. Participants were asked to recall as many symbols as they could (average recalled 4) [1]
- Sperling then trained the participants to recall either the top, middle or bottom line of the symbols, depending on the tone they heard immediately after the presentation of symbols [1]
- Sperling found that the participants recalled an average of 3/4 symbols, no matter which line they were asked to recall [1]
- This suggests that the capacity of the iconic memory is very large, but the duration of time the images last is extremely short. He reaffirmed this by lengthening the delay between the symbols being presented and the tone being played, and fewer symbols were recalled [1]

Question 12
Enables the different components of working memory to interact with the long term memory [1]

Question 13
- Craik and Lockhart proposed that the level or depth in which we process information during learning determines how well it is stored in long term memory. Memories are best stored semantically, as more conscious thought and emotion goes into the encoding process [1]
- They believed that there are three levels of processing:
    - Shallow processing/structural encoding: remembered by their visual, structural and physical properties (eg. length of word, colour etc) [1]
    - Moderate processing/phonemic encoding: remembered based on acoustic properties (eg. rhymes with blue) [1]
    - Deep processing/semantic encoding: encoded according to meaning. Linked with emotions and prior memories. Most likely to be remembered [1]

Question 14a
Patterned thought, feeling or behaviour that is deviant, distressing and dysfunctional [1]

Question 14b
6 [1]

Question 14c
- In a particular society, thoughts, feelings and behaviours can be considered normal in one situation, and abnormal in another [1]
- For example, singing and talking loudly at a party is considered normal, but talking loudly and singing in a library would be considered abnormal. It is the situation that dictates the normality of the behaviour [1]

Question 15a
An approach to explain how biological, psychological and social factors combine to influence a person's physical and mental health [1]

Question 15b
Treating mental and physical illness from a three-pronged approach in order to create unity of health and wellbeing. For example, depression may have biological causes, psychological causes and social causes. By breaking down the causes and understanding each of them, well-fitted treatments can be applied to help the individual [2]

Question 16a
- Categorical involves a 'yes/no' approach and a focus on whether the person has a mental disorder or not, whereas dimensional approaches look at the severity or quantitative amounts of the symptoms experienced. For example, ‘‘do you feel uneasy (Y/N)?’’ and ‘‘how severe is your feeling of uneasiness?’’ respectively [2]
- Categorical approaches make communication between health care professionals easy and standardised, but dimensional approaches are a more complete picture of the individual and account for individual uniqueness (however they do not make communication easy between professionals) [2]

Question 16b

- Categorical approaches can lead to a diagnosis merely because of the presence of symptoms, even if the symptoms are weak comparatively [1]
- Categorical approaches can have low inter-rater reliability, which means that different diagnosis can be reached [1]
- Stigmatism can occur because of the Yes/No approach, leading to diagnosis of those without severe symptoms. This can then lead to placebo illnesses, where the patients have been 'labelled' and then start acting according to their diagnosis. For example being diagnosed with anxiety disorder, then feeling as though one must feel anxious [1]

Question 17

There are many suitable answers to this question. The answer must include a story mentioning 5 of the items in a meaningful way, for example:

> I was walking to the shops, but I slipped on a banana peel. It was just horrible! At the hospital, my hair was all knotty because they didn't have any hair brushes and the hospital toothpaste made my mouth dry. I went looking for milk at the hospital, but the nurses only had fruit. On the bright side, I did stock up on blueberries and apricots. But the blueberries made my teeth blue, so I was in a predicament. I wish I didn't slip on the banana peel and hurt my leg. [3]

Question 18

- Mental health is the capability of an individual to interact with others and the environment in a way that promotes wellbeing [1]
- Mental illness, however, describes psychological dysfunction the usually involves impairment in the ability to cope with everyday life, distress and thoughts and feelings atypical with the person [1]

Question 19

- Exercise results in the release of beta endorphins, which result in an increased sense of wellbeing. It also provides an excellent forum to meet people and expand your social circle, resulting in social support, to reduce stress [1]

Section C – Research scenario

Question 1

The number of nonsense syllables recalled as measured out of 15 [1]

Question 2

Whether or not the VCE student consumes caffeine [1]

Question 3

- Amount of food consumed with the caffeine
- hydration levels
- personal crisis of individuals, being distracted
- individual memory abilities (groups could be skewed with students with better memories in one group)
- what happens to the student in the hour between consuming caffeine/or not, and the recall test
- Any reasonable variable that can influence the results, without acting as the independent variable.

Question 4

- An extraneous variable is any variable that can cause a change in the dependent variable and therefore affects the results of an experiment in an unwanted way, whereas a confounding variable is a variable that acts as the independent variable, making it impossible to determine which has affected the dependent variable (the confounding, or the independent variable.) [2]
- In this experiment, an example of an extraneous variable could be what happens to the students in the hour between the consumption of caffeine or not, and the recall test [1]
- An example of a confounding variable in this experiment could be - all the control group participants did not listen to music during the hour between seeing the list and undertaking the recall, but the experimental group happened to spend the hour listening to music. The confounding variable would then be, 'the effect of music on memory recall of nonsense syllables' [1]

Question 5

Informed consent and voluntary participation [2]

Question 6

Debriefing - offering the names/numbers of doctors, psychologists, nutritionists etc which would be available to the participants if they felt affected by the caffeine and were concerned about their health etc. It involves clarifying the participants' understanding of the research study, and making them feel confident in their own abilities, in case they were concerned with their personal results [2]

Question 7

- No, the p value obtained was equal to 0.05 (the level of significance set for this experiment was less than 0.05) so the experimental condition cannot be generalised [1]
- There were also a number of extraneous variables not controlled which would have influenced the results in an unwanted way. There was no mention of the ethical procedures Jo did undertake, and if she did not act ethically during and after the experiment, the results cannot be confirmed or generalised to the wider population [1]