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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (PSYCHIATRY) – AUGUST 2020

Date :- 10th August 2020

Time:- 1.00 p.m. – 4.00 p.m.

Answer **all ten (10)** questions.

Answer **each question in a separate book.**

ESSAY PAPER

1. A 25-year-old woman was referred to the psychiatry clinic with a history of episodic change in behaviour in the office for the past 3 months. She was seen repeating the same activity at times for about 5 minutes. During those periods she was observed to be gazing blankly. Sometimes, she lost consciousness after the episode and upon regaining consciousness she was seen to be sleepy. She denied any recollection of the event. There was no past history or family history of psychiatric illnesses and she was not on oral contraceptives.
 - 1.1. State the most likely diagnosis for her presentation giving reasons. (30 marks)
 - 1.2. State two (02) possible underlying aetiological factors for the above presentation. (20 marks)
 - 1.3. Name five (05) investigations you would carry out giving reasons. (50 marks)

2.
 - 2.1.
 - 2.1.1. Name the main components of the basal nuclei. (15 marks)
 - 2.1.2. Describe briefly the functional connections of the basal nuclei. (45 marks)
 - 2.1.3. List five (05) clinical manifestations of the basal ganglia disorders. (15 marks)
 - 2.2. List the components of the limbic system and their functions. (25 marks)

Contd...../2-

3. Following is a scene in a movie popular among youth: a young, attractive, slender woman in a swimsuit and an older tall muscular man, who is sipping from an alcoholic drink in his hand are having a conversation. She tells the man in a suggestive tone that he looks more handsome with the glass in his hand. This is the first time this female character appears on this movie. She later appears in many scenes as a violent assassin who does not value an intimate relationship with a man.

A 15-year-old male viewer later described this female character as 'the ideal sex partner'.

- 3.1. Outline stereotypes this movie scene may prime in adolescent viewers.

(40 marks)

- 3.2. Briefly give the likely psychological/sociological explanations on why the adolescent male viewer has developed the above-mentioned stereotypes.

(30 marks)

- 3.3. Briefly explain the likely effect this scene may have on the alcohol drinking behaviour of adolescent male viewers giving reasons.

(30 marks)

4. Explain the following scenarios using principles of psychology/sociology

- 4.1. A person is given a diagnosis of non-Hodgkin's lymphoma by his doctor. He takes the news calmly and asks the doctor detailed questions about the aetiology and prognosis of the condition. Following this the person proceeds to research lymphoma and newer treatment methods on the internet.

(25 marks)

- 4.2. In the middle of a heated argument between a couple, the husband suddenly leaves and starts chopping firewood.

(25 marks)

- 4.3. A professional basketball player performs well at free throws during a basketball match when competing with a tough team in a large stadium.

(25 marks)

- 4.4. A teacher accuses a student of plagiarizing and shows a published passage similar to the one written. The student denies copying this work. However, he acknowledges having read this at some point.

(25 marks)

Contd...../3-

5. An 18-year-old male presents to the medical ward with fever, rigidity and difficulty in swallowing. He has been diagnosed with post-schizophrenic depression and is on risperidone 8mg and fluoxetine 20mg daily.
 - 5.1. List three (03) differential diagnoses for the current presentation in this patient. (20 marks)
 - 5.2. Explain the potential contribution of the above medications in causing conditions given in 5.1. (40 marks)
 - 5.3. List three (03) investigations potentially useful in differentiating above conditions with expected findings in each condition. (40 marks)

6. Outline the neuropharmacological basis of the following
 - 6.1. Chlordiazepoxide in alcohol withdrawal syndrome (30 marks)
 - 6.2. Atomoxetine in attention deficit hyperactivity disorder (ADHD) (30 marks)
 - 6.3. Bupropion in smoking cessation (40 marks)

7. Compare and contrast the following
 - 7.1. Imagery and illusion (30 marks)
 - 7.2. Confabulation and perseveration (30 marks)
 - 7.3. Overvalued idea and delusion (40 marks)

8. Write notes on the following
 - 8.1. Pure word deafness (20 marks)
 - 8.2. Pure word blindness (20 marks)
 - 8.3. Echolalia (20 marks)
 - 8.4. Delusional memory (40 marks)

9.
 - 9.1. Outline the mechanism of magnetic resonance imaging (MRI). (20 marks)
 - 9.2. List six (06) contraindications for MRI. (30 marks)
 - 9.3. Compare the different applications of CT and MRI in brain imaging. (50 marks)

10.

10.1. Describe the concept of hierarchy of evidence. (30 marks)

10.2. During a discussion on the efficacy of antidepressants, one psychiatrist says that in **his clinical experience**, the new antidepressant A is better than the older antidepressant B for unipolar depressive disorder.

According to another psychiatrist, the **consensus** of his university department is that a newer antidepressant C is better than either antidepressant A or B.

Describe giving reasons how you rate the above two (02) statements based on the hierarchy of evidence. (30 marks)

10.3. Outline three (03) research methods available to decide on comparative efficacy of medications. (40 marks)