

POSTGRADUA E INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION IN MD (PSYCHIATRY)

AUGUST 2012

Date:- 13th August 2012

Time : 1.00 p.m.-4.00 p.m.

Answer all 10 questions.

Answer each question in a separate book.

ESSAY PAPER

1. A 42-year-old woman is brought to the hospital by her husband with a complain of gradual change of behavior. She had lost interest in her usual day to day activities during the past 6-8 months. During that period she had gained weight significantly. She was found to be having Diabetes Mellitus 4 months ago. Although she is on metformin 850mg three times a day, blood sugar control had been poor. she was started on Enalapril 5mg twice daily 2 months ago as her blood pressure had been persistently elevated. She also complains of a recent onset back pain for which she was prescribed non steroidal anti inflammatory drugs. There is loss of libido as well.

The patient is obese with a BMI of 38. Obesity was mostly truncal. She is clinically depressed. There is male type facial hair. A slight kyphosis is noted. Her blood pressure is 180/100mmHg.

Results of Laboratory investigations are as follows.

Fasting Blood Sugar	180mg/dL	(70-110)
HbA1c	8.3%	(3.7-5.1)
Serum creatinine	0.8mg/dL	(0.6-1.5)
Serum Sodium	138mmol/L	(135-146)
Serum Potassium	3.0mmol/L	(3.5-5.0)
Haemoglobin	12g/dL	(13.5-17.7)
White cell count	8200	
Platelets	220x10 ³	

X ray of Thoraco lumber spine showed a wedge fracture of 12th thoracic vertebrae.

- (a) What is the most likely diagnosis ? (20 marks)
- (b) Based on the diagnosis in (a) above, describe the pathological basis of
- i. diabetes (15 marks)
 - ii. hypertension (15 marks)
 - iii. hypokalemia (15 marks)
 - iv. vertebral fracture (15 marks)
- (c) Name the biochemical test that confirms the diagnosis and explain the basis of this test. (20 marks)

2.

- (a) Outline the management of paracetamol overdose in the first 24 hours after admission (doses of drugs are not necessary). (50 marks)
- (b) A 45 year old man presented with one episode of generalized tonic clonic seizure.
Outline factors in the history that will help you to determine the aetiology of the seizure. (50 marks)

3

- 3.1. In a randomized control clinical trial, children with non psychotic major depressive disorder were randomized to fluoxetine or placebo arms. The primary outcome measurement was the global improvement on the clinical Global Impression Scale, at 8 weeks.

Of the 96 patients, 48 were randomized to fluoxetine treatment and 48 to placebo. Using the intent to treat sample, 27 of those receiving fluoxetine and 16 receiving placebo improved on the Clinical Global Impression Scale at study exit.

- (a) Calculate the number needed to treat (NNT) in this trial. (40 marks)
- (b) In your impression is the experimental intervention useful ? (give reasons). (15 marks)

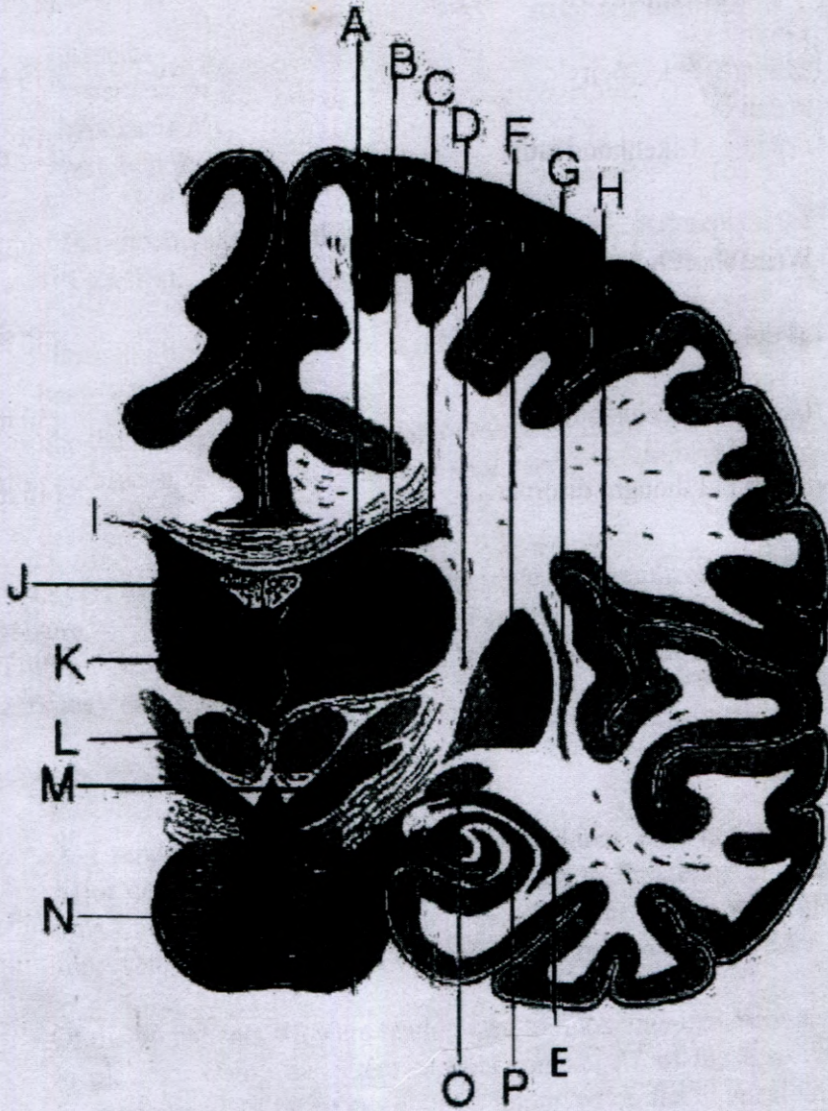
3.2. Explain the term

- (a) Sensitivity (15 marks)
- (b) Specificity (15 marks)
- (c) Likelihood ratio (15 marks)

4. Write short notes on

- (a) delusions of misidentification. (30 marks)
- (b) primary delusion. (30 marks)
- (c) formal thought disorder. (40 marks)

5.



- (a) Briefly describe this diagram. (20 marks)
- (b) Name the structures from A to P. (50 marks)
- (c) Name two (02) clinical conditions that results from a dysfunction of the structure F. (30 marks)

6. Describe the mode of action of the following drugs in respective clinical conditions.
- (a) sodium valproate in bipolar affective disorder. (25 marks)
 - (b) mirtazapine in depressive disorder. (25 marks)
 - (c) clozapine in resistant schizophrenia. (25 marks)
 - (d) disulfiram in alcohol dependence. (25 marks)
- 7.
- (a) Describe the functions of the cerebellum. (40 marks)
 - (b) List six (06) clinical signs of cerebellar dysfunction. (30 marks)
 - (c) How do you differentiate movement disorders of cerebellar dysfunction from that of Parkinson's disease? (30 marks)
8. Explain briefly the psychological basis of the following –
- (a) In a war movie the arrival of terrorists was always preceded by the wailing siren of a squad car and followed by perpetration of some horrifying action against the people. By the end of the movie the peculiar sound of siren alone elicited strong feelings of revulsion in most viewers in anticipation of the horror about to come. (20 marks)
 - (b) A research has shown that there is an increasing trend in adverse eating attitudes amongst the young females in a rural village after introducing television programmes for the first time. (20 marks)
 - (c) An observer noticed that an eleven month old baby girl used to protest intensely when her mother returns home after her usual daily work. He further observed that the same child at the age of two years was indifferent and did not show much emotional response to her mother who returned after an overseas training programme of six months duration leaving the child with the grand mother. (20 marks)

- (d) A son who has been very critical about his father's long grown beard started growing a similar beard following his death. (20 marks)
- (e) A university lecturer became more enthusiastic, motivated and adhered to more research work when his articles were selected intermittently than all the time by the scientific journals. (20 marks)

9. Explain the physiological basis of

- (a) long term memory. (30 marks)
- (b) panic attacks. (30 marks)
- (c) penile erection. (40 marks)

10.

- (a) List four (04) different approaches on which personality development is based on. (20 marks)
- (b) Describe one (01) of the above mentioned approaches of personality development. (60 marks)
- (c) Briefly describe four (04) tests used in the assessment of personality. (20 marks)