

M.MED.FAMILY MEDICINE

FIRST YEAR THEORY EXAM– AUG 2013

PAPER I - MEDICINE AND ALLIED SCIENCES

TIME: THREE HOURS

MAXIMUM MARKS: 100

INSTRUCTIONS

- The paper will be for a total of **100 marks**.
- Answer **all** the Questions.
- The Paper has 2 parts – **Part A & Part B**.
- **Part A** will be **descriptive type questions** based on case scenarios (**40 marks**).
- **Part B** will have Objective type EMQs **extended matching questions (60 marks)**.
 - ✓ This will have 10 sets of these questions.
 - ✓ Each set will have 6 questions.
 - ✓ Each question will carry 1 mark.
 - ✓ Each set has a **theme** on the top. In each set there are **some options** given on the top followed by some **questions**. The options are lettered using the English Alphabets A, B, C, D and so on.

Example:

3. THEME –COMMON PSYCHIATRIC PROBLEMS [QUESTIONS. 3(i) – 3(vi)] (6marks)

From the options ‘A to H’ given below, choose the best answer for the questions 3(i) – 3(vi)

Options:

- A.** Inj. Haloperidol
- B.** Amitriptyline + counseling
- C.** Tab. Chlorpromazine
- D.** Tab. Trihexyphenidyl
- E.** Tab. Diazepam
- F.** Tab. Lithium
- G.** Inj. Fluphenazine deconoate
- H.** Tab. Risperidone

Questions: What is your treatment option in the following cases?

3(i) What is the drug of choice for Acute Psychosis?

3(ii) What is the drug of choice for Bipolar illness?

PART – A
DESCRIPTIVE QUESTIONS

(ANSWER ALL QUESTIONS)

1. 6 months old Anika is brought to the outpatient clinic by her anxious parents because the child is crying incessantly from morning. There is low grade fever. **(TOTAL: 20 MARKS)**

- A. How will you evaluate a child with incessant cry by history? **(5 Marks)**
- B. What are the relevant clinical findings you will look for in a child with incessant cry?
(5 Marks)
- C. What investigations will you do? **(5 Marks)**
- D. Describe features of infantile colic **(5 Marks)**

2. 60 year old Doraiswamy has been brought to you with clinical depression.

(TOTAL: 20 MARKS)

- A. What are the diagnostic criteria for category 1 disorder? **(5 Marks)**
- B. What are the organic conditions responsible for depression and how will you evaluate for them? **(5 Marks)**
- C. What are the non pharmacological and the pharmacological methods of treating depression ? . **(7 Marks)**
- D. What are the referral guidelines for depression? **(3 Marks)**

PART – B
EXTENDED MATCHING QUESTIONS

(ANSWER ALL QUESTIONS)

1. THEME: NAUSEA AND VOMITING [QUESTIONS. 1(i) – 1(vi)]

(TOTAL: 6 MARKS)

From the options 'A to F' given below, choose the best answer for the questions 1(i) – 1(vi):

Options :

- A. Scopolamine
- B. Ondansetron
- C. Meclizine
- D .Prochlorperazine.
- E. Pyridoxine
- F. Domperidone

Questions:

1(i). Drug of choice for Mrs. Sulochana who has vomiting along with migraine

1(ii). Drug of choice for Mr. Ravi who has motion sickness

1(iii). Drug of choice for Mrs. Shannah who is receiving chemotherapy

1(iv) . Drug of choice for Mrs. Kalpana who is in her first semester of pregnancy

1(v) . Drug of choice for Mrs. Radha who has vomiting and is on morphine for advanced breast carcinoma with secondaries

1(vi) Drug of choice for Mr.Govind who has vestibular neuronitis

2. THEME: CONTRAINDICATIONS FOR ANTIHYPERTENSIVES
[QUESTIONS. 2(i) - 2(vi)] (TOTAL: 6 MARKS)

From the options 'A to F' given below, choose the best answer for the questions 2(i) – 2(vi)

Options :

- A. Unstable Angina
- B. Pregnancy
- C. Addison's Disease
- D. Asthma
- E. Hepatic Precoma
- F. Depression

Questions: Which of the options given above are contraindicated for the use of the Anti-hypertensives given below?

2.(i). Amlodipine

2.(ii). Enalapril

2.(iii). Clonidine

2.(iv). Furosemide

2.(v). Atenolol

2.(vi) prazosin

3. THEME: DIAGNOSIS OF SEIZURE DISORDER [QUESTIONS 3(i) – 3(vi)]
(TOTAL: 6 MARKS)

From the options ‘A to I ’given below, choose the best answer for the questions 3(i) - 3(vi)]

Options :

- A. status epilepticus
- B. absence seizures
- C. simple partial seizures
- D. complex partial seizures
- E. Myoclonic seizures
- F. Atonic Phase
- G. Infantile spasms
- H. Tonic-clonic Phase
- I. Neonatal seizures

Questions:

- 3(i).** Mr.Balakrishna has seizure disorder. His seizures manifest as hearing abnormal sounds. The diagnosis is
- 3(ii).** 26 year old Muthu swami presents with generalized seizures, loud cry, impaired respiration, and pooling of secretions in oropharynx. What is the diagnosis?
- 3(iii).** 7 year old Neha presents with sudden, brief lapses of consciousness without loss of postural control which lasts for only few seconds; Consciousness returns as suddenly it was lost, accompanied by subtle brief motor signs such as rapid blinking of eyelids, chewing movements or small amplitude clonic movements of the hands. What type of seizures is this?
- 3(iv).** 4 month old Keerthi presents with abrupt movements of head, trunk or limbs and occur in a cluster of 10 to 20 movements per episode. What is the diagnosis?
- 3(v).** 16 year old Venkataraman has strong bilateral symmetrical jerky movements involving the upper limbs and his jaw usually in the morning after he has woken up. It lasts for a minute. He gives history of falling down momentarily. What type of seizures is this?
- 3(vi).** Jikku has seizure which starts in the right hand then becomes generalized. What type of seizures is this?

4. THEME: HEAD ACHE [QUESTIONS. 4(i) – 4(vi)] (TOTAL: 6 MARKS)

From the options ‘A to H’ given below, choose the best answer for the questions 4(i) –4(vi)

Options :

- | | |
|---------------------|-------------------------------|
| A. Classic migraine | E. Trigeminal neuralgia |
| B. Common migraine | F. Complicated migraine |
| C. Tension headache | G. Glossopharyngeal neuralgia |
| D. Cluster headache | H. Subarachnoid hemorrhage |

Questions: Choose the correct diagnosis from the options given above for the case scenarios given below:

- 4(i).** 20 year old Mrs. Madhuri presents with unilateral headache which is pulsating in quality which severely limits daily activities and accompanied by nausea. There is no aura.
- 4(ii).** 36 year old Mr. Manoj presents with deep, unilateral, excruciating, burning or stabbing pain which awakens him from sleep, associated with lacrimation
- 4(iii).** 24 year old Ms. Vanitha comes with unilateral headache which is pulsating in quality which severely limits daily activities and accompanied by nausea and aura
- 4(iv).** 30 year old Ramola presents with pressing, tightening, or vice-like gripping headache extending from the forehead to the occiput which is bilateral and radiating to trapezius and posterior neck
- 4(v).** 32 year old Amrita has history of paroxysms of sharp and stabbing unilateral facial pain of sudden onset, and repeated at very short intervals
- 4(vi).** 40 year old Mr. Mahesh suddenly gets a very severe ‘worst head ache ever’ when he is in working in the office

**5. THEME: PSYCHIATRIC DISORDERS - TREATMENT [QUESTIONS. 5(i) – 5(vi)]
(TOTAL: 6 MARKS)**

From the options ‘A to H’ given below, choose the best answer for the questions . 5(i)–5(vi):

Options :

- | | |
|----------------------------|-------------------------------|
| A. Sodium valproate | E. Bowel training |
| B. Antidepressants | F. Polyethylene glycol |
| C. Bisacodyl | G. Liquid Paraffin |
| D. Lactulose | H. Enema |

Questions:

- 5(i).** Treatment for Mrs. Sonali who alternates between pathological bursts of energy, excessive talkativeness , sleeplessness and periods of remorse and apathy.
- 5(ii).** Treatment for 20 year old Doraiswamy who has been brought with hallucinations, delusions and illusions for the past 10 days. He is sitting quietly, talking to himself and occasionally including you in conversation to tell about how two people are talking to him about his school days.
- 5(iii).** Treatment for Gowthami who presents with psychotic symptoms and marked agitation. She is not violent.
- 5(iv).** Treatment for Subhash who presents with anorexia, loss of weight, Insomnia, fatigue and generalized weakness for the last 6 weeks. There is no history of drug abuse; his physical examination is completely normal.
- 5(v)** . Treatment for Mr. Sultan who has come with psychotic symptoms and coronary artery disease
- 5(vi).** Treatment for Doris who has come with tardive dyskinesia following antipsychotics

6. THEME : DIABETIC RETINOPATHY[QUESTIONS. 6(i) – 6(vi)]
(TOTAL: 6 MARKS)

From the options ‘A to P’ given below, choose the best answer for the questions ‘6(i) – 6(vi)’:

Options

- | | |
|--|-----------------------------|
| A. Proliferative Diabetic Retinopathy | H. Cotton wool spots |
| B. Sub clinical neuropathy | I. Venous beading |
| C. Autonomic neuropathy | J. Hard exudates |
| D. Proximal neuropathy | K. Micro aneurysms |
| E. Large fiber neuropathy | L. Blot hemorrhages |
| F. Entrapment syndrome | M. Moderate NPDR |
| G. Diffuse symmetrical polyneuropathy | N. Severe NPDR |
| | O. Very severe NPDR |
| | P. Mild NPDR |

Questions :

6(i). 58 year old Mr.Raju, a diabetic who has been on treatment presents with complaints of dull, aching, deep seated pain. He has impaired vibration sense, depressed deep tendon reflexes, sensory ataxia, Rombergs sign positive, small muscle wasting and deformity of toes and fingers. What is the most likely cause for this?

6(ii) 78 year old Mr.Kasi, a known patient of diabetes mellitus presents with pain in his right wrist and history of dropping his glasses and spoons. The pain has progressed slowly. He complains of numbness in hands and tingling in fingers . What is the most likely cause for this?

Mrs. Kani a known diabetic comes to you with difficulty in vision. You perform an ophthalmoscopic examination.

6(iii) You see bright white yellow structures with a wavy outline, coalescing to form patterns in the retina. What are they?

6(iv) You find saccular outpouchings from retinal capillaries seen as round bright spots with regular borders. What do you think they are?

6(v) If you see venous beading present in two or more quadrants, it indicates:

6(vi) 81 year old Mr.Balu, a diabetic presents to you with abrupt onset of pain in both thighs which started on the right thigh and progressed to the left thigh. This was followed by weakness of the thigh muscles and inability to rise from sitting position. What does Mr.Balu have?

7. THEME – THYROID DISORDERS

[QUESTIONS. 7(i) – 7(vi)]

(TOTAL: 6 MARKS)

From the options ‘A to H’ given below, choose the best answer for the questions 7(i) – 7(vi)

Options:

A. Hashimotos Thyroiditis

E. Hypothyroidism

B. Lymphocytic Thyroiditis

F. TSH high, free T4 low

C. De Quervain Thyroiditis

G. TSH normal, free T4 low

D. Growth hormone deficiency

H. TSH low, free T4 high

Questions: Mark the correct diagnosis for the following patients:

7(i) . 46 year old Mrs. Mary with enlargement of thyroid gland with evidence of hypothyroidism and positive result for thyroid antibodies.

7(ii). 35 year old Mrs. Faridha with painful thyroid swelling, fever and malaise for the past 2 weeks which started along with what looked like a viral fever.

7(iii). 24 year old Megala, a type 1 diabetic who has a 3 month old baby with new onset thyroid swelling

7(iv). Child with symmetrical dwarfism and decreased intelligence

Mrs. Sheetal, 65 years old lady comes to you with a history of bilateral pedal oedema, lethargy, constipation, weight gain and intolerance to cold.

7(v). What is your Diagnosis?

7(vi). What will be her TSH and free T4 levels for you to make such a diagnosis?

8. THEME: INTERPRETING RESULTS OF CSF ANALYSIS

[QUESTIONS 8(i) – 8(vi)] (TOTAL: 6 MARKS)

From the options 'A to L' given below, choose the best answers for the questions 8(i) – 8(vi):

Options:

- A. Viral meningitis
- B. Bacterial meningitis
- C. Subdural haematoma
- D. Papilloedema
- E. Tuberculous meningitis
- F. Normal
- G. N. Meningitides
- H. H.Influenza
- I. Staphylococcus Aureus
- J. Inj. Crystalline Penicillin : 0.5 lakh units daily in 3 divided doses for 14 days.
- K. Inj. Cefotaxime: 200 mg / kg/day q 6 H for 14 days
- L. L. Inj. Ciprofloxacin 500mg BD X 21 days

Questions:

From the Options above choose the right diagnosis for the following CSF analysis results:

8(i).CSF fluid turbid, WBC-500,Polymorphs-nil, Protein > 62mg/dl, Glucose 45mg/dl

8(ii) CSF fluid Crystal clear, WBC - 3, Polymorphs-nil, Protein 24 mg/dl, Glucose – 64 mg/dl

8(iii) CSF fluid turbid, WBC- 5238, Polymorphs- 86%, Protein 72 mg/dl, Glucose 35mg/dl.

8(iv).CSF fluid turbid, WBC- 512, Polymorphs- 27% lymphocytes – 73%, Protein 300mg/dl, Glucose 40 mg/dl.

22 year old Balaji comes to you with symptoms of meningitis. CSF gram stain shows bacterial meningitis.

8(v) What is the most probable causative organism?

8(vi) How will you treat Balaji?

9. THEME – CHEST PAIN [QUESTIONS. 9(i) – 9(vi)] (TOTAL: 6 MARKS)

From the options ‘A to N’ given below, choose the best answer for the questions 9(i) – 9(vi)

Options:

- | | |
|------------------------|------------------|
| A. Dissecting aneurysm | H. Pneumothorax |
| B. Pericarditis | I. STEMI |
| C. Pulmonary embolism | J. Pneumonia |
| D. Pneumonia | K. NSTEMI |
| E. Unstable angina | L. Positive |
| F. Dissecting aneurysm | M. Negative |
| G. Stable angina | N. Indeterminate |

Questions: Mark the correct diagnosis for the following patients:

- 9(i).** Mr. Shankar with pleuritic type of pain, fever with findings of egophony and dullness on percussion
- 9(ii).** Mrs. Banu with Pleuritic type of pain which gets relieved with sitting up and leaning forward and aggravated by lying supine and change in position. On examination, her temp –normal, Pulse rate- 114/min, B.P- 100/70mmHg.
- 9(iii).** Mr. Saleem known case of lung malignancy with a sudden onset of severe dyspnoea and chest pain and hemoptysis.
- 9(iv).** Mr. Murugan, a known case of COPD with sudden onset of dyspnoea and chest pain and findings of trachea shifted to opposite side and hyper resonant lung with absent breath sounds. On examination, he is Afebrile, Pulse rate- 114/min. Resp Rate- 32/min.
- 9(v).** Mrs. Malini with retrosternal chest pain radiating to back, both the thighs and legs with hypotension and absent pulses in right lower limb, radial pulse rate- 120/min, B.P- 90/70mmHg.
- 9(vi).** Mrs. Packyavathi has come with typical chest pain within 2 hours of chest pain. Her ECG is normal and troponin levels I are 0.6 ng/mL. Is it positive or negative?

**10. THEME: SEIZURES – DIAGNOSIS & TREATMENT [QUESTIONS. 10(i) – 10(vi)]
TOTAL: 6 MARKS)**

**From the options ‘A to K’ given below , choose the best answer for the questions
‘10(i) – 10(vi)’:**

Options

- | | |
|-----------------------------------|--|
| A. Diazepam | G. Myoclonic seizure |
| B. Sodium Valproate | H. Generalised tonic clonic seizure |
| C. Complex partial seizure | I. Simple partial seizure |
| D. Phenytoin | J. Lorazepam |
| E. Atonic seizure | K. Absence seizure |
| F. Alcohol | |

Questions :

- 10(i).** Mr. Kumar who is known to have Diabetes took his usual medication for the same but missed his lunch because he got busy. While on the bus home, he had loss of consciousness with tonic clonic movements of his limbs followed by postictal confusion. What type of seizure is this?
- 10(ii).** When treating a patient who is actively seizing, in your anxiety, you pushed the intravenous injection too fast and the patient developed respiratory depression. The drug you were giving must have been:
- 10(iii).** Mariamma comes to you with 2 episodes of generalized tonic clonic seizures over 1 month. She is not on treatment and you want to start her on an antiepileptic. Which antiepileptic causes nystagmus, ataxia, slurred speech, choreiform movements and hirsutism?
- 10(iv).** Sumitha suffers from episodes of sudden brief loss of postural tone and consciousness. She has had head injury once before because of this sudden fall. What is your diagnosis?
- 10(v).** Monika, 23 years has seizure disorder on treatment. She is going to get married this month. Drug of choice for all generalized seizures but best avoided in pregnancy is :
- 10(vi).** Drug of choice for status epilepticus if refrigerated storage is available is:
