(LF 0214)

M.MED. FAMILY MEDICINE SECOND YEAR THEORY EXAM – AUGUST 2014 PAPER I - MEDICINE AND ALLIED SCIENCES

Q.P. CODE: 434011

INSTRUCTIONS

Time: Three hours Maximum Marks: 100

- 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).
 - \checkmark 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. Below this, some **options** are given 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. Fluphenazinedeconoate
- 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?
- ✓ Match each question to a **single best option** and write it in your paper in the column provided like this: 3 (i)

3 (1)	
3 (ii)	
3 (iii)	
3 (iv)	
3 (v)	
3 (vi)	

Sub Code: 4011

[✓] Each option may be used more than once. Some options may not be used at all.

PART – A

DESCRIPTIVE QUESTIONS (ANSWER ALL QUESTIONS)

- 1. 72 years old Mr. Subhash has come to your clinic. He has clinical features of Parkinsonism. (Total: 20 Marks)
 - **A.** What are the clinical features of Parkinsonism? Explain the cardinal features of Parkinsonism. (5 Marks)
 - **B.** How will you treat Mr. Subhash? Draw a stepwise algorithm for the pharmacological management. (5 Marks)
 - C. Discuss the side effects of any three drugs used in Parkinsonism. (3 Marks)
 - **D.** How will you explain Mr. Subhash family about the illness? (5 Marks)
 - E. What are the indications of surgery in a patient with Parkinsonism? (2 Marks)
- 2. 56 year old Mrs. Sujatha has come with acute onset of difficulty in breathing.

(Total: 20 Marks)

- **A.** What are the causes of acute new onset dyspnea? (4 Marks)
- **B.** What are the clinical features of acute pulmonary edema? (4 Marks)
- C. Describe the characteristic radiology findings in acute pulmonary edema. (4 Marks)
- **D.** If the history and clinical features in Mrs. Sujatha are consistent with acute pulmonary edema, how will you manage her? (8 Marks)

PART – B

EXTENDED MATCHING QUESTIONS (ANSWER ALL QUESTIONS)

1. THEME: BLEEDING DISORDERS IN FAMILY PRACTICE [1(i) – 1(vi)]

(Total: 6 Marks)

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

Options:

A. Platelet disorder

C. Clotting factor deficiency

B. Vessel wall disorder

D. Disorders of the Red Blood Cells

Questions: Choose the correct mechanism for bleeding from the options above for each of the case scenarios given below:

1. (i) 9 year old Murugan has developed purpura, which are tender, following a history of

throat pain for 2 days.

- **1.** (ii) 52 year old Mr. Somu, a known asthmatic who is not on Multi-Dose Inhalers (MDI) has come with ecchymosis.
- **1.** (iii) 17 year old Ms. Geetha has come with congestion of eyes with short history of fever joint pain and hematemesis.
- 1. (iv) Mr. Faizal, a 12 year old student has history of hyper-flexible joints, scoliosis and redundant skin folds comes with frequent episodes of bruising.
- 1. (v) Mr. Hiralalal with chronic pancreatitis presents with subcutaneous bleeding.
- 1. (vi) 8 year old Devi has come with history of repeated mucosal bleeds.
- 2. THEME: ANTI DOTES FOR POISONING [2 (i) 2(vi)] (Total: 6 Marks)

From the options 'A to O' given below, choose the best answer for the questions 2 (i) -2 (vi):

Options:

- A. Benzathine Penicillin
- **B.** Atropine
- C. Dopamine
- D. DMSA
- E. Flumenazil
- F. Naloxone
- **G.** Pyridoxine

- H. Prazosin
- I. Acetyl cysteine
- J. Calcium gluconate
- **K.** Magnesium sulphate
- L. Cholestyramine
- M. Epinephrine
- N. Diazepam
- **O.** Diphenhydramine Hcl

Questions

- **2.** (i) Antidote for 3 year old Ram who has come with Paracetamol poisoning.
- **2.** (ii) Antidote for Mr. Hithesh who has come with Organochlorines.
- 2. (iii) Antidote for Ms. Hema who has come with history of mercury poisoning.
- 2. (iv) Antidote for Mr. Victor who has come with history of diazepam poisoning.
- 2. (v) Antidote for 17 year old Muthu who has come with history of opium poisoning.
- 2. (vi) Antidote for Ms. Shalini who has come with history of isoniazid poisoning.

3. THEME: COMMON TOXIC SYNDROMES (TOXIDROMES) [3(i) – 3(vi)] (Total: 6 Marks)

From the options 'A to H' given below, choose the best answer for the questions 3(i) - 3(vi):

Options:

A. Methadone**B.** Valproic acid

C. Benzodiazepines

D. Organophosphates

E. Belladonna alkaloids

F. Nicotine

G. Lithium

H. Amphetamines

Questions: Which of the drug listed in the options above is responsible for the toxidromes described in the questions below

- **3.** (i) Mr. Hari Krishnan who has consumed this drug presents with delirium, mydriasis, tachycardia, hyperthermia, dry skin, urinary retention and ileus.
- **3. (ii)** Mrs. Sumitra who has consumed this drug presents with increased salivation, lacrimation, urination, GI cramps, miosis, bronchorrhea, bradycardia and difficulty in breathing.
- **3.** (iii) Mr. Sethu who has consumed this drug presents with hypertension, fasciculations, abdominal pain and paresis.
- **3.** (iv) Mr.Gopalan who has consumed this drug presents with hypoventilation, hypotension, miosis, sedation and possibly hypothermia.
- **3.** (v) Mr. Jillani who has consumed this drug presents with tachycardia, hypertension, mydriasis, agitation, seizures, diaphoresis and hyperthermia.
- **3.** (vi) Mr. Lal presents with continuous yawning ,tachycardia, hypertension, mydriasis, diaphoresis, agitation, restlessness, seizures, abdominal cramps, increased lacrimation, and hallucinations after stopping this drug.
- 4. THEME: MOVEMENT DISORDERS [4 (i) -4(vi)] (Total: 6 Marks)

From options 'A to J' given below, choose the best answer for questions 4 (i) -4 (vi): Options:

A. Dopamine agonist

B. Carbamazepine

C. Primidone

D. MAO- B inhibitors

E. Pyridoxine in high doses

F. Diethyl carbamazine

G. Benztropine

H. Atenolol

I. Propranolol

J. Tetrabenazine

Questions Choose the correct Treatment from the options above for the patients described below:

- **4.** (i) First line of drug for 40 years old Mr. Suresh who presents with features of Parkinsonism.
- **4.** (ii) Mrs. Geetha presents with generalised dystonia.
- 4. (iii) 8 year old Ravi presents with severe Sydenham's chorea.
- **4.** (iv) Mrs. Leela presents with essential tremor which interferes with her normal activity.

- **4.** (v) Drug of choice for Mrs. Leela if she is an asthmatic.
- **4.** (vi) Drug that can be used in 7 year old Hari who presents with persistent tics.

THEME: 5. DIAGNOSIS OF SKIN INFECTIONS [5 (i) – 5 (vi)] (Total: 6 Marks)

From options 'A to J' given below, choose the best answer for questions 5 (i) -5 (vi):

Options:

A. Trichomycosisaxillaris

B. Erythrasma

C. Acne conglobata

D. Gram negative folliculitis

E. Chloracne

F. Verrucosa cutis

G. Lupus vulgaris

H. Scrofuloderma

I. Pityriasis Versicolor

J. Tinea Versicolor

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

- **5.** (i) Mr. Mani has come with brown scaly well-defined macules seen in axillae and groins. The lesions are otherwise asymptomatic.
- **5.** (ii) 20 years old Giri who was on oral doxycycline for the past two months for acne has developed folliculitis on the face.
- **5.** (iii) 30 years old Mrs. Jalaja has come with a lesion in the foot. The lesion shows central involution with an atrophic scar or form massive papillary excrescence with fissures.
- **5.** (iv) Mr. Lal has come with yellow, brown or black concretions on hair shafts in axillae, causing yellow-brown staining of clothes in the area of arm pits.
- **5.** (v) 6 year old Karthik has come with multiple annular erythematous plaques which spread centrifugally with clearing in the center and edge showing papulovesiculation with itching.
- **5.** (vi) 12 year old Kala has come with multiple hypopigmented lesions with coalescing scaly perifollicular macules in the back.

THEME: 6.TREATMENT OF CHOICE FOR SKIN INFECTIONS [6(i) – 6(vi)] (Total: 6 Marks)

From the options 'A to I' given below, choose the best answer for the questions 6 (i) -6 (vi):

Options:

- **A.** Oral erythromycin
- **B.** Surgical removal
- **C.** Oral terbinafine for 12-16 weeks
- **D.** Oral terbinafine for 2weeks
- **E.** Oral terbinafine for 6 weeks
- **F.** Topical imidazole
- **G.** Sodium fusidate topical application
- **H.** Oral Cloxacillin
- **I.** Electrocautery

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

- **6.** (i) Mr. Tilak has come with swelling and redness of nail folds and there are transverse greenish brown discolorations in the nails. He is a flower vendor.
- **6.** (ii) 6 years old Krithika presents with greyish patch of alopecia in the scalp with scaling. There is severe itching.
- 6. (iii) Mrs. Ramani presents with brown scaly well defined macules in the axillary flexures
- **6.** (vi) Mr. Sultan presents with fine punched out lesions which coalesce to give a cribriform pattern over the soles.
- **6.** (v) 8 year old Geetha has come with multiple shallow ulcers in the gluteal region with raised, indurated and violaceous margins. She has constitutional symptoms.
- **6.** (vi) Mr. Kannan, a 47 year old driver has come with complaints of an angry red mass in the back which is discharging through multiple openings.

7. THEME: TREATMENT OF JOINT PAIN [7(i) –7(vi)] (Total: 6 Marks)

From the options 'A to L' given below, choose the best answer for the questions 7 (i) - 7(vi).

Options:

A. Hydroxychloroquine
B. Methotrexate
C. Azathioprine
D. Sulphasalazine
E. Cyclosporine
D. Sulphasalazine
E. Cyclosporine
E. Cyclophosphamide
E. allopurinol

Questions

Mrs. Parvathi has come with complaints of bilaterally symmetrical joint pain involving the proximal interphalangeal joints. The pain involves more than three joints; there is morning stiffness more than one hour. X-ray shows involvement of subchondral bone.

- 7. (i) The first line DMARD* for Mrs. Parvathi
- 7. (ii) If Mrs. Parvathi has failed to respond first and second line DMARDs, and the illness is severe, the DMARD that can be used
- 7. (iii) 54years old Mrs. Lakshmi has come with bilateral knee pain which worsens with use of the joints. The oral pharmacologic agent that is used if the first line non opioids fail to control the pain

- 7. (iv) Mr. Jonas has come with pain both great toes, right ankle and heel. The pain is severe, burning and the overlying skin is red. He has had three or four similar episodes in the past. He has evidence renal stones in USG. The drug of choice for him will be
- 7. (v) 24 years old Ram has come with low grade fever, fatigue, early morning stiffness of extremities and severe pain and stiffness of back. On examination the movements of spine and sacroiliac joints are restricted. After confirmation with investigations, the ideal drug for Ram is
- **7.** (vi) Ms. Kala, a 24 year old primary grade teacher has presented with fatigue, fever, joint pain, malar rash and discoid lesions. The DMARD of choice if there is evidence of severe glomerulonephritis is

*DMARD – Disease Modifying Anti – Rheumatic Drugs

8. THEME: SLEEP DISORDERS [8(i) –8 (vi)]

From the options 'A to M' given below, choose the best answer for the questions 8 (i) - 8 (vi):

Options:

- **A.** Psychophysiological insomnia
- **B.** REM related myoclonus
- **C.** Periodic limb movements of sleep
- **D.** Restless leg syndrome
- E. Akathisia
- **F.** Night mares
- G. Circadian rhythm disorders

H. Confusional arousals

(Total: 6 Marks)

- **I.** Night terrors
- J. Hypersomnia
- **K.** Narcolepsy
- L. Somnambulism
- M. Behavioral insomnia

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

- **8.** (i) Mrs. Sujatha has episodes of sudden jerky movements which involve the extension of big toe and partial flexion of ankle, knee and hip during sleep. It is observed by her husband and she is not aware of the movements. The frequency of movements is around 15 times per a period of sleep.
- **8.** (ii) Mr. Nageshwaran, a diabetic for 12 years comes with complaints of urge to move legs and unpleasant sensation in the legs which increases in the night which is relieved by walking. He does not have any other complaints
- **8.** (iii) Mrs. Parvathi has episodes of excessive daytime sleepiness with a tendency to fall asleep uncontrollably even when talking to her children. She says that they occur

without warning and sometimes she has even very vivid 'dreams' during that period.

- **8.** (iv) 12 year old Radha has complaints of very vivid dreams and she refuses to sleep and starts crying when the night approaches
- **8.** (v) Mrs. Geetha has brought her husband saying that she is finding him in the night walking around the house, opening and closing the cupboards. He has no memory of it in the morning.
- **8.** (vi) 8 years old Heera has complaints of prolonged night time arousals and goes back to sleep only when her mother comes and comforts her

9. THEME: OPPURTUNISTIC INFECTIONS IN HIV INFECTION 9 (i) -9 (vi)] (Total: 6 Marks)

From the options 'A to L' given below, choose the best answer for the questions 9(i) - 9(vi):

Options:

- A. Co-Trimoxazole
- B. Erythromycin
- C. Fluconazole 200 mg daily for 14 days
- **D.** Fluconazole 400 mg daily for 14 days
- E. Co-Trimoxazole with Prednisolone
- **F.** IV Amphotericin B for 2 weeks followed by Itraconazole 200 mg 2 times daily for 8 weeks
- **G.** IV Acyclovir
- **H.** Anti-Retroviral Therapy(ART)
- **I.** IV Amphotericin B for 2 weeks followed by Itraconazole 400 mg orally daily for 8–10 weeks
- **J.** Erythromycin 14 days
- K. Co-Trimoxazole with Prednisolone
- L. Cloxacillin

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

- **9.** (i) HIV positive Mr. S, develops dry cough, shortness of breath, fever, night sweats over a month; chest x ray shows bilateral interstitial infiltrates. The drug of choice is
- **9.** (ii) HIV positive Mrs. K presents with oral candidiasis, dysphagia and retrosternal chest pain. The drug of choice is
- **9.** (iii) HIV positive with presents with severe headache, meningeal irritation, photophobia, fever, confusion with papulonecrotic skin lesions resembling molluscum contagiosum associated with fever and pulmonary infiltrates. The drug of choice is
- **9.** (iv) HIV positive Mr. H presents with meningeal irritation with clusters of typical blisters in face. Which drug would you choose to treat him?

- **9.** (v) HIV positive Mr. L presents with chronic diarrhea, cramps, vomiting, right upper quadrant pain and stool specimen stained with modified AFB stain shows typical protozoa. Which drug would you choose to treat him?
- **9. (vi)** HIV positive Mrs. D presents with papulo necrotic skin lesions associated with systemic features of fever, lung involvement, cough, weight loss, anemia and lymphadenopathy. Typical organism is demonstrated with wright or cotton blue stain. The drug of choice is

THEME: 10. CHANGES IN ELDERLY [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. Stress Incontinence
- **B.** Urge Incontinence
- **C.** Depression
- **D.** Overflow Incontinence
- **E.** Dementia
- **F.** Delirium

- **G.** Urinary Retention
- H. Psychosomatic illness
- **I.** Anxiety
- **J.** Obsessive Compulsive disorder
- **K.** Schizophrenia

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

- **10.** (i) 72 year old Mr. Somu, comes with complaints of sudden urge to urinate but is often not able to inhibit the passing of urine long enough to get to the toilet.
- **10.** (ii) 68 year old Mrs. D complains leaking of urine as a result of maneuvers such as coughing, sneezing or laughing.
- **10.** (iii) 75 year old Mr. Abdul complains of difficulty in passing urine but has dribbling of urine on which he is not able to control.
- **10.** (iv) Mr. Sinha presents with memory disturbances; progressively severe loss, more so for recent events; attention is impaired; progressive downhill course over months to years; not much response to drugs; depression may be superimposed; there is change in psycho motor status.
- **10.** (v) Mrs. Sujatha presents with memory disturbances; fluctuating loss, attention is normal; fluctuating over hours and days; resolves once the precipitating factors are treated; mood is agitated or calm; there is no change in psycho motor status.
- **10.** (vi) Mr. Menon presents with memory disturbances; loss is often acute, attention is normal; mild memory loss; progressive course over weeks or months with Resolution with therapy; mood is depressed. There is no change in psychomotor status.
