

(LM 0218)

M.MED. FAMILY MEDICINE

(Sub: Code: 4001)

**FIRST YEAR THEORY EXAM– FEBRUARY 2018
PAPER I - MEDICINE AND ALLIED SCIENCES**

QP. CODE: 434001

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. 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. Fluphenazine deconate
- 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(ii)	
3(iii)	
3(iv)	
3(v)	
3(vi)	

❖ Each option may be used more than once. Some options may not be used at all.

PART – A
DESCRIPTIVE QUESTIONS
(ANSWER ALL QUESTIONS)

1. Forty year old Mr. Dinesh has come to your clinic with severe epigastric pain for the fourth time in the last two months. You observe that he looks tired and untidy; his eyes are blood shot and there is mild tremor of hands. **(Total: 20 Marks)**
- A. Name 4 scales used for screening of problem drinking. What are the symptoms and signs in a patient that suggest screening for problem drinking? **(4 Marks)**
- B. Discuss CAGE questionnaire. **(4 Marks)**
- C. What are the stages of decision making? As a family physician, how will you specifically support your patient in every stage of decision making? **(5 Marks)**
- D. What are the pharmacological agents used in problem drinking? Discuss their indications and doses. **(3 Marks)**
- E. How will you manage a patient coming with delirium tremens in primary care? **(4 Marks)**
2. 58 year old Mr. Thiagu, a businessman, comes to your clinic with complaints of loose stools 5 - 6 times a day for the last four weeks. He has lost weight 4 Kg over the last two months. He was treated in a nearby hospital and it has not given him any relief. **(Total:20 Marks)**
- A. Mention the common conditions causing chronic diarrhea in adults. **(4 Marks)**
- B. How will you differentiate small bowel and large bowel diarrhoea? **(2 Marks)**
- C. How will you differentiate organic or functional cause of chronic diarrhoea? **(4 Marks)**
- D. How will you evaluate a patient with chronic diarrhea? **(6 Marks)**
- i) History **(2 Marks)**
- ii) Clinical examination **(2 Marks)**
- iii) Investigations **(2 Marks)**
- E. How will you manage a patient with Chronic Diarrhoea in primary care? Explain with an algorithm. **(4 Marks)**

PART – B
EXTENDED MATCHING QUESTIONS
(ANSWER ALL QUESTIONS)

1. **Theme: Management of Headache [1(i) – 1(vi)]** **(Total: 6 Marks)**
From the options ‘A to N’ given below, choose the best answer for questions 1(i) –1(vi):

Options:

- | | |
|-----------------------|------------------|
| A. Verapamil | H. Nitrous oxide |
| B. Carbamazepine | I. Mirtazapine |
| C. Propranolol | J. Olanzapine |
| D. Haloperidol | K. Phenobarbital |
| E. Narcotic analgesic | L. Phenytoin |
| F. Amitriptyline | M. Nifedipine |
| G. Inhaled oxygen | N. Labetalol |

Questions:

Mrs. Kamala has recurrent episodes of right sided facial pain which is sharp and stabbing which usually lasts for less than a minute.

1. (i) What will be the drug of choice for treating her?

Mrs. Shyamala suffers from episodes of very severe unilateral pain which is deep, excruciating, burning or stabbing in nature over the orbital, supraorbital and temporal region, which often awakens her from sleep.

1. (ii) What is the agent that can stop the acute episode of headache in such patient?

1. (iii) What is the drug which can be given as a prophylaxis for Mrs. Shyamala?

Mrs. Sumathy has 7 episodes of headache for the past one year. The headaches are severe, lasts for around 6 hours. Pain is often unilateral, throbbing, worse with exertion, and accompanied by symptoms such as nausea and sensitivity to light, sound, odours. Her T4 level is 3.0 ng/ml and TSH is 0.0 U/ml.

1. (iv) If Sumathy needs a prophylaxis, what will be the first drug that you would use?

Mrs. Seetha has complaints of headache for the past 3 months; it lasts for around 2-3 hours. The headache is bilateral; non-pulsating; not aggravated by routine physical activity and there is no vomiting /nausea or photophobia. Her headache becomes more towards evening.

1. (v) Which drug will you prescribe her?

1. (vi) The drug that you will avoid in Mrs. Seetha is:

2. Theme : Seizures [2(i) – 2(vi)]

(Total: 6 Marks)

From options ‘A to K’ given below, choose the best answer for questions 2(i) – 2(vi):

Options:

- | | |
|----------------------------------|----------------------------|
| A. Absence seizure | G. Tonic seizure |
| B. Primary generalized seizure | H. Atonic seizure |
| C. Secondary generalized seizure | I. Pseudo seizure |
| D. Infantile spasms | J. Complex Partial seizure |
| E. Neonatal seizure | K. Simple Partial seizure |
| F. Myoclonic seizure | |

Questions: What is the type of seizure in the following scenarios?

2.(i) 2 months old Sanita has abrupt movements of head, trunk or limbs which occur in a cluster of 10 to 20 movements per episode. Sometimes there is associated sudden flexion of the neck and abdomen with extension of the limbs.

2.(ii) 18 year old Prakash is brought with the history of seizure, which started abruptly, without warning. His friend describes the episode as “Suddenly he fell on the floor; his muscles became stiff and then started jerking. After a few minutes he became quiet and when he woke up after 2 minutes, he was kind of confused”

2.(iii) 2 year old Mani has episodes of seizures characterized by sudden loss of postural tone lasting for 1 to 2 seconds associated with brief loss of consciousness.

2.(iv) 22 year old Harish has episodes of rigid, violent muscular contraction, fixing the limbs in some strained position, with usually deviation of the eyes and of the head towards the opposite side.

2.(v) 22 year old Swetha has episodes of seizures that start with jerky movements of the left hand which then spreads to the entire body and ends with violent jerking of the whole body

2.(vi) 7 year old Swati has episodes of sudden, brief lapses of consciousness without loss of postural control, which lasts for only few seconds and occurs more than 50 times a day. She has been performing poorly in school

3. Theme: Dyspepsia [3(i) – 3(vi)]

(Total: 6 Marks)

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

Options:

- | | |
|-------------------------------|-------------------------------|
| A. Inflammatory bowel disease | F. Chronic pancreatitis |
| B. Hyperthyroidism | G. Hyperadrenalism |
| C. Autonomic neuropathy | H. Chronic cholecystitis |
| D. Malignancy | I. Gastric outlet obstruction |
| E. Irritable bowel syndrome | |

Questions: What is the most likely diagnosis for the following scenarios?

3.(i) 50 years old Mrs. Leela is diabetic and has dyspeptic symptoms; she has episodes of nocturnal diarrhea and occasional giddiness.

3.(ii) 60 years old Mr. Giri has dyspeptic symptoms, but vomiting is more pronounced. He has lost weight around 5 Kgs and Virchow's node is palpable.

3.(iii) 29 years old Mrs. Daisy presents with increased appetite, dyspepsia and anxiety. Her pulse rate is 102/ minute.

3.(iv) 45 years old Mr. Kannan presents with dyspepsia, with persistent abdominal pain and steatorrhea.

3.(v) 65 years old Mr. Johan presents with dyspepsia with examination revealing succussion splash.

3.(vi) Mr. Sekhar, a 28 year old business man presents with dyspepsia; pain, and nausea on waking up in the morning. He also gives the history of passing pellet-like stools and sensation of incomplete rectal evacuation. He looks otherwise well.

4. Theme: Nausea and Vomiting [4(i) – 4 (vi)]

(Total: 6 Marks)

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

Options:

- | | |
|------------------|---------------------|
| A. Dexamethasone | E. Prochlorperazine |
| B. Pyridoxine | F. Ondansetron |
| C. Esomeprazole | G. Domperidone |
| D. Promethazine | H. Ranitidine |

Questions: What is the appropriate treatment for the following case scenarios?

4.(i) Mrs. Devi is asking for an anti emetic for her son who is suffering from motion sickness when he travels.

- 4.(ii) Drug of choice for Mr. Kannan who has developed severe vomiting after getting a dose of an opioid analgesic for his Inter-Vertebral Disc Prolapse.
- 4.(iii) Drug of choice for Mrs. Rani who has severe vomiting because of her chemotherapy.
- 4.(iv) Drug of choice for Mr. John who is vomiting on his first post-operative day.
- 4.(v) The drug of choice for Mrs. Fazia who is in her 8th week of pregnancy, has vomiting.
- 4.(vi) Mrs. Fazia is not responding to the drug you gave her. She continues to vomit and now she is dehydrated, acidotic and her sensorium is not clear. In addition to correcting the dehydration and electrolyte disturbances, what is the drug now you will give?

5. Theme: Constipation [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. Osmotic agents | F. Calcium supplements |
| B. Stimulants | G. Ranitidine |
| C. Bulk agents | H. Plenty of fluids, high fiber diet |
| D. Codeine | I. Omeprazole |
| E. Antidepressants | J. Rectal suppositories and Enema |

Questions:

Mr. Chockalingam, a 70 year old gentleman presents with constipation. He is active, ambulant and takes care of himself. His constipation is not better even after modifying his diet habits for the past 1 week.

5. (i) What will be your first choice of drug for Mr. Chockalingam?
5. (ii) Second choice of drug for Mr. Chockalingam if he does not respond to the first drug:

Shalini, a 4 year old girl, has just started going to the school. She has developed constipation for the past two months.

5. (iii) Apart from the behaviour modification, if you have to use a pharmacological agent, what will you prefer?

Mrs. Banumathi is 80 years old and confined to bed after she had Cerebrovascular accident, a year ago. She has troublesome constipation for the past 2 months.

5. (iv) What is the laxative of choice in her case?
5. (v) Which laxative, you will avoid in her?
5. (vi) If she develops impacted stools. How will you manage her?

6. Theme: Psychiatric Disorders [6(i) – 6 (vi)]

(Total: 6 Marks)

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

Options:

- | | |
|-------------------------------|---------------------|
| A. Haloperidol | G. Disulfiram |
| B. Olanzapine | H. Carbamazepine |
| C. Risperidone | I. Amitriptyline |
| D. Fluoxetine | J. Fluphenazine |
| E. Promethazine hydrochloride | K. Sodium Valproate |
| F. Benzodiazepines | L. Lithium |

Questions: Choose the appropriate treatment for the patient descriptions given below:

6. (i) Mrs. Sonali who alternates between pathological bursts of energy, excessive talkativeness, sleeplessness and periods of remorse and apathy.
6. (ii) 20 year old Durai 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.
6. (iii) Gowthami who presents with psychotic symptoms and marked agitation. She is not violent.
6. (iv) Suresh 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.
6. (v) Mr. Sultan who has come with psychotic symptoms and coronary artery disease.
6. (vi) Doris who has come with tardive dyskinesia following antipsychotics treatment.

7. Theme: Chest Pain [7 (i) –7 (vi)]

(Total: 6 Marks)

From options 'A to J' given below, choose the best answer for questions 7(i) – 7(vi):

Options:

- | | |
|--------------------------|-------------------------|
| A. Pneumothorax | F. Pulmonary embolism |
| B. Pneumonia | G. Aortic regurgitation |
| C. Aortic stenosis | H. Bronchiectasis |
| D. Myocardial infarction | I. Chronic bronchitis |
| E. Dissection of aorta | J. Acute pancreatitis |

Questions: Choose the correct diagnosis for the following patients:

7. (i) Forty five year old Mr. Khan has come to casualty with sudden onset of severe chest pain in the retrosternal area and diaphoresis. He is a smoker and a known diabetic.
7. (ii) Mr. Abdul, a known hypertensive has come with retrosternal chest pain radiating to back, both the thighs and legs.
7. (iii) Mrs. Sukumari presents with recurrent episodes of syncope, angina and dyspnea. She has Grade III or IV Ejection systolic murmur in aortic area which is conducted to carotids.
7. (iv) Seventeen year old Mala has come with chest pain and fever. On examination, she has bronchial breath sounds and crepitations in the right scapular area and that area is dull on percussion.
7. (v) Forty year old Mr. Sunil, a known patient of COPD, is rushed to casualty with sudden onset of dyspnea and chest pain and on examination you find that his trachea is shifted to left side while the right side of the chest is hyper resonant on percussion with absent breath sounds.
7. (vi) Mr. Kanthan, a known case nephrotic syndrome, is brought to the casualty with complaints of sudden onset of chest pain and difficulty in breathing. He is coughing continuously and the sputum is blood stained. His heart rate is 112/minute and there is a friction rub over the site of pain.

8. Theme: Hypertension [8 (i) – 8 (vi)]

(Total: 6 Marks)

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

Options:

- | | |
|--------------------------|--------------------------------------|
| A. Stage I hypertension | E. Isolated systolic hypertension |
| B. Stage 2 hypertension | F. Malignant hypertension |
| C. Stage 3 hypertension | G. Pre-eclampsia |
| D. Normal Blood pressure | H. Chronic hypertension in pregnancy |

Questions: Choose the correct diagnosis for the following patients:

8. (i) Mr. Kamal is a known hypertensive, on treatment. While examining him, you found that his Blood pressure is 170/105 mmHg.
8. (ii) Thirty five year old Mrs. Ranjitham is a known hypertensive for the past 5 years on treatment. Now she is 12 week pregnant and her BP is 150/95 mmHg.
8. (iii) Mr. Sekar is a known hypertensive, on treatment. While examining him, you found that his Blood pressure is 150/95 mmHg.
8. (iv) Mr. Raja is a hypertensive on treatment. While examining him, you found that his Blood pressure is 160/100 mmHg. His fundus examination shows papilloedema.
8. (v) Mrs. Saroja is a primigravida at 24 weeks gestation. While examining her, you found that her Blood pressure is 146/96 mmHg and her urine albumin is 2+. She doesn't have a past history of high blood pressure.
8. (vi) 45 years old Mrs. Kothai is a hypertensive, on treatment. While examining her, you found that her Blood pressure is 138/85 mmHg.

9. Theme: Diagnosis of Sleep Disorders [9 (i) – 9(vi)]

(Total: 6 Marks)

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

Options:

- | | |
|--------------------------------------|-------------------------------------|
| A. Circadianrhythm sleep disorders | G. Parasomnias |
| B. Sleep related breathing disorders | H. Insomnia due to medical reasons |
| C. Restless leg syndrome | I. Drug induced insomnia |
| D. Sleep Myoclonus | J. Hypersomnias of central origin |
| E. Central hyposomnia | K. Normal variant |
| F. Peripheral hypersomnia | L. Periodic Limb Movements Syndrome |

Questions:

9. (i) Mr. Jasper is brought by his wife saying that, some nights he walks around the house in the night, opening the fridge and switching the bathroom lights on and off. In the morning, he does not recall any on these. What category does this diagnosis come under?
9. (ii) Mr. Subhani suffers from sleeplessness whenever he travels across the countries, which he cannot avoid because of his work. What category does this diagnosis come under?
9. (iii) Mrs. Jacinta, a known case of mitral heart disease is not able to sleep in the nights. What category does this diagnosis come under?

9. (iv) Somu, a 6-year-old boy is brought to you for counseling. His mother complains that he has not stopped bed-wetting till this age. She thought it will stop by the end of the 5th year and it has been an embarrassment recently in the family. What category does this diagnosis come under?

9. (v) Sankar, a 35 year old male, comes to you with a history of urge to move the legs, accompanied by unpleasant sensation in the legs. It worsens during the periods of rest, in the evenings and the nights. His father also had similar complaints. What category does this diagnosis come under?

9. (vi) Mr. Arumugam works in a factory where he has to do eight hours of shift. After working there for 2 years, now he is not able to sleep in the nights whenever he has day duty. What category does this diagnosis come under?

10. **Theme: Syncope [10 (i) –10 (vi)]**

(Total: 6 Marks)

From options 'A to H' given below, choose the best answer for questions 10(i) – 10(vi):

Options:

A. Cardiac Syncope

E. Pulmonary syncope

B. Psychogenic Syncope

F. Auditory syncope

C. Orthostatic Syncope

G. Pre syncope

D. Neurally-mediated Syncope

H. Senile syncope

Questions: Choose the appropriate treatment for the patient descriptions given below:

10. (i) 55 year old Mr. Kumar laughed a lot while seeing a funny movie and suddenly fainted

10. (ii) 60 year old Mr. Bharghav was drinking coffee and he suddenly became very pale and collapsed and had bradycardia but recovered within a few minutes.

10. (iii) 53 year old Mr. Sudhakar while shaving, suddenly turned to one side, after which he fainted and fell down

10. (iv) 16 year old Sowmya is brought Hyperventilating into your OPD and her mother says she fainted twice on the way.

10. (v) 67 year old Mr. Ratan had a fainting episode last night when he got up urgently to urinate in the middle of the night.

10. (vi) 62 year old Mr. Sehkar has Parkinsonism and he had syncope last night.
