

**M.MED.FAMILY MEDICINE**  
**FIRST YEAR THEORY EXAM– AUG 2015**  
**PAPER I - MEDICAL AND ALLIED SCIENCES**

*Q.P. 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 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 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?

**PART – A**  
**DESCRIPTIVE QUESTIONS**

**(ANSWER ALL QUESTIONS)**

1. Mr. Shyam Sunder, a 55-year-old clerk comes to your clinic with frequent episodes of chest pain on exertion. He gets retro-sternal pain while walking upstairs and lifting weights which is often associated with sweating and palpitations. He is a smoker for the last 25 years

**(TOTAL: 20 MARKS)**

- A. What is Acute Coronary Syndrome? Define Unstable angina and NSTEMI **(5 marks)**
- B. Mention the symptoms and the important requisites in terms of ECG changes and cardiac enzymes for diagnosing STEMI **(5 marks)**
- C. Describe the 5 steps in the management for stable angina **(5 marks)**
- D. Write a prescription for this patient. **(5 marks)**

2. Here are some patients who presented to your clinic with edema:

**(TOTAL: 20 MARKS)**

- A. Mr. Murugesh has presented to you with ascites. How will you classify ascites in any patient biochemically? Give 2 examples for each. **(4 marks)**
- B. Mr. Kandan has presented to you with generalized edema. Classify generalized edema according to its causes and give 2 examples for each. **(4 marks)**
- C. Draw an algorithm for the approach to edema in a patient. **(4 marks)**
- D. You have diagnosed 5 year old Nitish to have angioedema. How will you treat him? **(4 marks)**
- E. Mr. Santosh presented to you with ascites. You have diagnosed that he has cirrhosis with portal hypertension. How will you treat his ascites? **(4 marks)**

**PART – B**  
**EXTENDED MATCHING QUESTIONS**

(ANSWER ALL QUESTIONS)

**1. THEME: HEADACHE [ 1 (i) –1 (vi)]**

**(TOTAL: 6 MARKS)**

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

**Options:**

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

**Questions**

*Mrs. Jyothi has 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 Mrs Jyothi?

*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) The drug that is used as a prophylaxis for Mrs. Shyamala is:

*Mrs. Sumathy has 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, odors. 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. Seethalaksmi 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*

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

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

2. **THEME: SEIZURES -2 (i) – 2 (vi)]**

**(TOTAL: 6 MARKS)**

**From the options ‘A to K’ given below, choosethe best answer for the 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: Choose the appropriate type of seizure from the options above for the patient description given below:**

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) 22 year old Pratishis brought with the history of seizure, which started abruptly, without warning, in the school. 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 lefthand 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: CHEST PAIN [3 (i) –3(vi)]**

**(TOTAL: 6 MARKS)**

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

**Options:**

- |                          |                        |
|--------------------------|------------------------|
| A. Myocarditis           | G. Dissection of aorta |
| B. Pneumothorax          | H. Pulmonary edema     |
| C. Pneumonia             | I. Pericarditis        |
| D. Pulmonary embolism    | J. Costochondritis     |
| E. Aortic stenosis       | K. Acid Peptic Disease |
| F. Myocardial infarction | L. Pleural Effusion    |

**Questions: Choose the correct diagnosis from the options above for the following patients:**

3. (i) 45 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.
3. (ii) Mr. Sanathan, a known case nephrotic syndrome, is brought to the casualty with complaints of sudden onset of chest pain and difficulty in breathing. He 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.
3. (iii) Mr. Abdul, a known hypertensive has come with retrosternal chest pain radiating to back, both the thighs and legs.
3. (iv) 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.
3. (v) 17 year old Eileen 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.
3. (vi) 49 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.

**4. THEME: BREATHING DIFFICULTY [4 (i)–4(vi)]**

**(TOTAL: 6 MARKS)**

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

**Options:**

- |                                       |                                 |
|---------------------------------------|---------------------------------|
| <b>A.</b> Myocarditis                 | <b>H.</b> Myocardial infarction |
| <b>B.</b> Traumatic cardiac tamponade | <b>I.</b> Dissection of aorta   |
| <b>C.</b> Mitral regurgitation        | <b>J.</b> Pulmonary edema       |
| <b>D.</b> Congestive cardiac failure  | <b>K.</b> Pericarditis          |
| <b>E.</b> Aortic stenosis             | <b>L.</b> Aortic regurgitation  |
| <b>F.</b> Tricuspid regurgitation     | <b>M.</b> Pulmonary edema       |
| <b>G.</b> Mitral stenosis             |                                 |

**Questions: Choose the correct diagnosis from the options above for the following patients:**

- 4 (i).** Mrs. Jayalakshmi comes to you with the complaint of fatigue, palpitations, exertional dyspnea and tachypnea. On examination pan systolic murmur loudest over the apex with radiation to the left axilla present. What is the probable diagnosis?
- 4 (ii).** Mr. Sujanis 33 years old and he has come with complaints of palpitations and breathlessness on exertion for the past 9 months. Your new OPD assistant hesitantly comes and tells you that she is not able to measure the blood pressure because, though she is clearly able to make out the systolic pressure as 130 mm of Hg, the diastolic blood pressure is going below 10 mm of Hg! What cardiac lesion you can suspect in Mr. Sujan?
- 4 (iii).** 23 year old Madan is brought to you after a road traffic accident. Madan is conscious, oriented but not able to talk. He makes a sign that he is not able to breathe. On examination, he is dyspneic, respiratory rate is 42/ minute; blood pressure is 80 / 70 mm of Hg. His JVP is raised. His respiratory system is normal. You find his cardiac sounds are softer than normal. What is your diagnosis?
- 4 (iv).** 55 year old Mr. Rangad presents to your clinic with a recent new onset dyspnea for the past 6 weeks. He has been a diabetic for 8 years and has recently been diagnosed to have stage I hypertension, on drugs. On examination, he is comfortable at rest and his blood pressure is 140/90 mmHg. He has crepitations in both lung bases. What is the most probable diagnosis?
- 4 (v).** Mr. Somu has exertional dyspnea, angina pectoris and syncope – these are the three cardinal symptoms of which condition?
- 4 (vi).** 31 year old Mrs. Madhavi has come to you with progressive onset of difficulty in breathing for the past two years. She says even walking to toilet has become very difficult for her for the past two months. On examining her, you find that her pulse rate is irregularly irregular, blood pressure is 96/ 80 mm of Hg, JVP is raised. There is a loud S1, and a mid-diastolic murmur in the left second intercostal space P2 is loud; there are scattered crepitations in both the lung bases. What is your clinical diagnosis?

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

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

**Options :**

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

**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: HYPERTENSION [QUESTIONS. 6(i) – 6(vi)]**

**(TOTAL: 6 MARKS)**

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

**Options**

- A. Normal Blood Pressure
- B. Stage I hypertension
- C. Stage 2 hypertension
- D. Stage 3 hypertension
- E. Malignant hypertension

- F. Pre-eclampsia
- G. Chronic hypertension in pregnancy
- H. Pregnancy induced hypertension

**Questions:**

- 6 (i)** Mr. Kamal is a known hypertensive on treatment. Today his BP is 170/105 mm Hg. Mr. Kamal has
- 6 (ii)** 35 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 mm Hg. Mrs. Ranjitham has
- 6 (iii)** Mr. Sekar is a known hypertensive on treatment. His BP today is 150/95 mm Hg. Mr. Sekar has
- 6 (iv)** Mr. Rajasekar is a hypertensive on treatment. Today his BP is 160/100 mm. Hg. His fundus examination shows papilloedema. Mr. Rajasekar has
- 6 (v)** Mrs. Saroja is a primigravida at 24 weeks gestation. Her BP today is 146/96 mm. Hg and her urine albumin is 2+. Mrs. Saroja has
- 6 (vi)** Mrs. Kothai is a hypertensive on treatment. Today her BP is 138/85 mm. Hg. Mrs. Kothai has

**7. THEME – NAUSEA / VOMITING AND ASSOCIATED CONDITIONS [QUESTIONS. 7(i) – 7(vi)] (TOTAL: 6 MARKS)**

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

**Options:**

- |                          |                          |
|--------------------------|--------------------------|
| A. Peptic ulcer          | F. Cholera               |
| B. Hepatitis A infection | G. Bacillary dysentery   |
| C. Acute appendicitis    | H. Acute cholecystitis   |
| D. Ureteric colic        | I. Diabetic Ketoacidosis |
| E. Viral gastroenteritis | J. Acute Pancreatitis    |

**Questions: Mark the most likely diagnosis for the following patients:**

- 7 (i) 40 year old Mr.Ramesh a smoker presented to you with epigastric pain and vomiting. He also told you that the pain used to be severe on empty stomach. The most likely diagnosis is
- 7 (ii). 2 year old Malathi was brought by the mother with the history of loose stools and vomiting for the past 2 days. Mother told that she had blood in the stools and Malathi has fever also. The most likely diagnosis is
- 7 (iii). 10 year old Ganesh was brought with a history of low grade fever with vomiting and abdominal pain on and off for the past 10 days. On examination he has icterus. The most likely diagnosis is
- 7 (iv).17 year old Sankar has been unwell since yesterday. He had low grade fever with central abdominal pain to start with. Today the abdominal pain is localized in the right lower quadrant of abdomen. He continues to have vomiting. The most likely diagnosis is
- 7 (v).8 months old Vani was brought by mother with a history of loose stools and vomiting approximately 4 times each for the past 2 days. On examination the infant was lethargic and has some dehydration. The most likely cause of illness in Vani is
- 7 (vi).18 months old Gopi has been brought with history of many episodes of vomiting and diarrhea over the last 6 hours. On examination he is severely dehydrated. The most likely cause of illness in Gopi is

**8. THEME: DYSPEPSIA [QUESTIONS 8(i) – 8(vi)]**

**(TOTAL: 6 MARKS)**

**From the options ‘A to J’ given below, choose the best answers for the questions 8(i) – 8(vi):**

**Options:**

- |   |                                  |
|---|----------------------------------|
| <b>A.</b> Functional dyspepsia              | <b>F.</b> Drug induced gastritis |
| <b>B.</b> Gastric ulcer                     | <b>G.</b> Gastric malignancy     |
| <b>C.</b> Duodenal ulcer                    | <b>H.</b> Chronic pancreatitis   |
| <b>D.</b> Gall bladder disease              | <b>I.</b> Pancreatic malignancy  |
| <b>E.</b> Gastro-oesophageal reflux disease | <b>J.</b> Chronic Hepatitis      |

**Questions:**

- 8 (i).** Mr. Ratnam has dyspepsia with retrosternal burning sensation during postprandial period. His symptoms are worse at night when he lies down. The most likely diagnosis is
- 8 (ii)** 55 year old Mrs. Malathi who is obese presents with dyspepsia with recurrent attacks of upper abdominal pain, often at night after a heavy fatty meal. The most likely diagnosis is
- 8 (iii)** 60 year old Mr. Rakesh presents with dyspepsia for the past 3 months. Initially he had vague mild epigastric pain but of late it is severe and constant. He has lost 6 kgs over the past 3 months. The most likely diagnosis is
- 8 (iv)** Mr. Xavier presented to you with localized epigastric pain which occurs 15-20 minutes after eating. The pain is relieved by vomiting and made worse by eating. The most likely diagnosis is
- 8 (v)** Mr. Gopal is a 40 year old Bank Manager who presented to you with dyspepsia and peptic ulcer symptoms for the past 3 months but investigation did not detect an ulcer in the upper GI tract. The most likely diagnosis is
- 8 (vi)** Mr. Obed presented to you with boring type of epigastric pain, He says that the pain increases 2-3 hours after meals and is relieved by eating. The most likely diagnosis is

**9. THEME – LOOSE STOOLS IN ADULTS [QUESTIONS. 9(i) – 9(vi)]**  
**(TOTAL: 6 MARKS)**

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

**Options:**

- |                         |                         |
|-------------------------|-------------------------|
| A. Chronic diarrhea     | E. Large bowel diarrhea |
| B. Small bowel diarrhea | F. Acute diarrhea       |
| C. Autonomic neuropathy | G. Bacillary Dysentery  |
| D. Functional diarrhea  | H. Cholera              |

**Questions:Choose the appropriate answers for the following conditions:**

- 9 i).** 22 year old Ms. Ramya, a MBA student has come to you with diarrhea. While taking history she told you that she gets such diarrhoea before every semester exams. Ms.Ramya most likely has
- 9 (ii).**Mr. Aram has come to you with large volume stools around 4times/day associated with periumbilical pain and on examination he has some dehydration. Mr. Aram most likely has
- 9 (iii).**Mrs. Kamatchi has come to you with history of diarrhoea for the past 7 days. There is no blood or mucus or fever or tenesmus. Mrs. Kamatchi has
- 9 (iv).**Mrs. Lakshmi has come to you with small volume stools around 8-10 times/day with mucus in it. She also has tenesmus. Mrs. Lakshmi most likely has
- 9 (v).**Mr. Ramanathan has diarrhoea for the past 3 weeks. He has
- 9 (vi).**Mr. Loganathan is a diabetic for the past 15 years. For the past 2 months he has nocturnal diarrhoea. The most likely cause of his diarrhoea is

**10. THEME: LAXATIVES [QUESTIONS. 10(i) – 10(vi)]**

**TOTAL: 6 MARKS)**

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

**Options**

- A. Bulk laxative
- B. Proctolytic agent
- C. Osmotic laxative
- D. Stool softener
- E. Stimulant and irritant
- F. Rectal suppository

**Questions:**

**10(i).** You have prescribed Ispaghula to Mrs. Lakshmi for her constipation. This is a

**10(ii).** You have prescribed saline as a laxative for Mr. Sundar. This is a

**10(iii)** You have prescribed liquid paraffin as a laxative for Mrs. Kanaga. This is a

**10(iv).** You have prescribed bisacodyl as a laxative for Mr. Raman. This is a

**10(v).** You have prescribed lactulose as a laxative for Mr. Abdul. This is a

**10(vi).** You have prescribed bran as a laxative for Mr. Sudhakar. This is a

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