

(LE 0214)

M.MED.FAMILY MEDICINE

Sub. Code: 4011

SECOND YEAR THEORY EXAM– FEB 2014

PAPER I - MEDICINE AND ALLIED SCIENCES

Q.P. CODE: 434011

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. 28 year old Madhavi , a mother of two children has come with complaints of excessive tiredness, breathlessness on exertion, palpitations and dizziness. On examination, she is pale.

(TOTAL: 20 MARKS)

- A. How do you elicit the history in a patient with anemia? **(5 Marks)**
- B. What are the clinical features you look for in a patient with anemia? **(5 Marks)**
- C. How will you investigate a patient with anemia? **(6 Marks)**
- D. How will you treat a patient with iron deficiency anemia? **(2 marks)**
- E. How will you treat a patient with B12 deficiency anemia? **(2 marks)**

2. 75 year old Mr. Rajan, a retired teacher, has come with complaints of tremor, rigidity, paucity of movement and speech which is worsening for the past 6 months. You are suspecting Parkinson's disease.

(TOTAL: 20 MARKS)

- A. What are the clinical features of Parkinson's disease? **(5 Marks)**
- B. What are the drug options available for a patient with Parkinson's disease? **(5 Marks)**
- C. Considering the age of Mr. Rajan, discuss the treatment options for him. **(5 Marks)**
- D. What are the indications for referral to a specialist in a patient with Parkinsonism? **(5 Marks)**

PART – B
EXTENDED MATCHING QUESTIONS
(ANSWER ALL QUESTIONS)

1. THEME: DYSPNEA [QUESTIONS. 1(i) - 1(vi)] (TOTAL: 6 MARKS)

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

Options :

- | | |
|---|---|
| A. One major and 2 minor criteria | J. Bronchial breath sounds & bronchophony heard below the angle of the left scapula. |
| B. Viral fever | K. Moderate VSD |
| C. Mild VSD | L. Valve area < 1.5 cm ² in symptomatic patients |
| D. Aortic Stenosis | M. Insert a needle in the 2 nd space |
| E. Valve area < 1.0 cm ² in symptomatic patients | N. ACE inhibitors |
| F. Follow up with Echo every 12 months & endocarditis prophylaxis. | O. Probable myocarditis |
| G. Pulmonary Hypertension | P. Digitalis & endocarditis prophylaxis |
| H. Aortic regurgitation | Q. Digoxin & loop diuretics |
| I. Two major and 1 minor criteria | R. Refer to a higher centre |
| | S. Paradoxical increase in venous distension and pressure during inspiration. |

Questions 1(i) – 1(vi)

Mr. Kaushal, a known patient of chronic kidney disease on regular dialysis came to you with sudden onset of breathlessness on exertion. On examination, he has tachycardia, tachypnea and Ewart's sign is positive.

- 1(i)** What is Ewart's sign?
1(ii) How will you treat Mr.Kaushal's condition?

Mrs. Fathima, a multiparous mother developed breathing difficulty 1 month after delivery of her twin babies. On clinical evaluation, she is found to be in cardiac failure.

- 1(iii)** How will you treat her?

74 year old Mr. Karthik comes to you with a history of breathing difficulty on walking which has been increasing in severity for the past 2 months. On cardiac examination, you hear an ejection systolic murmur at the 2nd right intercostal space.

- 1(iv)** What is your diagnosis?
1(v) What is the indication for surgery in this condition?

Four year old Rahul had a 4-5 day history of fever and some nasal discharge. He was feeling very weak & was brought to you for evaluation. On examination, his heart rate was 152/min, B.P was normal with slightly increased respiratory rate. Rest of the examination was normal.

- 1(vi)** What do you suspect?

2. THEME: SYNOVIAL FLUID FINDINGS IN JOINT PAIN [QUESTIONS 2 (i) TO 2 (vi)]

(TOTAL: 6 MARKS)

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

Options :

- A. Trauma
- B. Crystal arthropathy
- C. Septic arthritis
- D. Rheumatoid arthritis
- E. Non inflammatory arthritis (e.g. Osteoarthritis)
- F. Normal

Questions: Choose the correct diagnosis from the options above for each of the synovial fluid analysis results given below:

2 (i) Synovial fluid turbid, yellow, WBC-2000 to 100,000, culture sterile.

2 (ii) Synovial fluid bloody, red-brown, clot present, WBC- 50 to 10,000, culture sterile.

2 (iii) Synovial fluid slightly turbid, yellow, WBC- 0 to 2000, culture sterile.

2 (iv) Synovial fluid turbid, yellow-milky, WBC- 500 to 200,000, culture sterile, crystals present.

2 (v) Synovial fluid turbid, gray-green, WBC-50,000 to 200,000, culture positive.

2 (vi) Synovial fluid clear, yellow, WBC-0 to 200, culture sterile.

3.THEME: TESTS FOR HIV[(QUESTIONS 3 (i)to 3 (vi)] (TOTAL: 6 MARKS)

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

Options : you can use the options more than once.

A.ELISA

F. Urine test

B. Salivary test

G. MBC culture

C. Particle Agglutination

H. DNA PCR assay

D. Western blot

I. HIV RNA detection

E. P24 assay

Questions: Choose from the options given above , the answers for the questions related to tests for HIV given below

3 (i). This test is useful during early stage of disease

3 (ii). This is used as a confirmatory test

3 (iii). This test is used in microtitre plate format

3 (iv). This is a rapid test

3 (v). This is a non-serological test

3 (vi). This is a readily available and inexpensive test. Sensitivity and specificity >99.9%

4.THEME: DIAGNOSIS OF COMMON SKIN INFECTIONS [(QUESTIONS 4 (i) TO 4 (vi)]
(TOTAL: 6 MARKS)

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

Options :

- | | |
|--------------------------|--------------------------------------|
| A. Impetigo | H. Herpes Simplex gingivo stomatitis |
| B. Candidiasis | I. Condyloma acuminata |
| C. Scabies | J. Tinea capitis |
| D. Herpes Zoster | K. Tinea cruris |
| E. Pityriasis Versicolor | L. Erythrasma |
| F. Tinea Corporis | M. Trichomycosis axillaris |
| G. Common Wart | |

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

4 (i). 7 year old Sukumar has come with the complaint of itching interdigital regions of both hands and genital area which is more in the night.

4 (ii). 30 year old Mr. Balu presents with oral lesions which are more on the hard palate and resemble curdy precipitates.

4 (iii). 18 year old Mr. Faizal has come with itchy circular lesions in the back which have a central clear area.

4 (iv). 72 year old Govind is presenting with vesicular lesions on one sided chest wall, which are burning and intensely painful.

4 (v). 21 year old Mr. Subhhan has asymptomatic , brown scaly well defined macules in both axillae

4 (vi). 10 year old Babu who lives in a school hostel presents with a hypo-pigmented coalesced macules over his chest and upper back. He says that many of his hostel-mates also have similar lesions.

5.THEME: TREATMENT OF COMMON SKIN INFECTIONS [QUESTIONS 5 (i)TO 5 (vi)] (TOTAL: 6 MARKS)

From the options 'A to M' given below , choose the best answers for the questions '5 (i) to 5 (vi)

Options :

A.Terbinafine

B.Cryotherapy with liquid nitrogen or carbon dioxide

C.Permethrin

D.Acyclovir

E.Topical antifungals

F.Amitriptyline

G.Topical tretinoin 1%

H.20% salicylic acid

I.Clindamycin

J.Coal Tar

K.Oral macrolides or tetracyclines

ZPenicillin

M.Fluconazole

Questions: Choose from the list of options given above, the correct treatment for the conditions listed below

5 (i) Pediculosis

5 (ii) Recurrent episodes of erythrasma

5 (iii) Herpes zoster

5 (iv) Tinea faciei

5 (v) Erysipelas

5 (vi) Pityriasis Versicolor

6. THEME: EFFECTS OF AGEING ON THE HUMAN BODY [(QUESTIONS 6 (i) TO 6 (vi)](TOTAL: 6 MARKS)

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

Options :

- | | |
|---|--------------------------------|
| A.Diastolic dysfunction | G.Closed angle glaucoma |
| B.GFR declines to nearly 40% | H.Small sulci and widened gyri |
| C.Open angle glaucoma | I.Systolic dysfunction |
| D.Widened sulci and small gyri | J.GFR declines to nearly 50% |
| E.BMD of < 2.5 SD below the young adult | K.Atrophic vaginitis |
| F.BMD of < 1.5 SD below the young adult | L.Urethral curuncle |

Questions:

Mrs. Sahana, a 70 year old retired teacher comes to your clinic for a routine checkup.

1. At what 'Bone mass' will you make a diagnosis of osteoporosis on Mrs. Sahana?
2. What changes do you expect to happen in her renal system?
3. If she has cardiovascular changes, what kind of dysfunction will she have?
4. If she has eye changes, what kind of dysfunction will she have?
5. What changes do you expect to see in her Central Nervous System?
6. If she complains of dyspareunia and dysuria, what is she likely to have?

7.THEME: CHEST X-RAY FINDINGS [QUESTIONS 7 (i) to 7 (vi)] (TOTAL: 6 MARKS)

From the options 'A to I' given below , choose the best answers for the questions '7 (i) to 7 (vi)':

Options :

- | | |
|-----------------------|----------------------|
| A.Pneumo thorax | F.Pleural effusion |
| B.Pulmonary fibrosis | G.Lung abscess |
| C.Tuberculous cavity | H.Bronchiectasis |
| D.hyperventilation | I. Broncho pneumonia |
| E.Hydro pneumo thorax | |

Questions: Choose the correct diagnosis from the above options for each of the Xray findings given below:

(7 i) . Homogenous opacity in the left lower zone with 'Ellis curve' pattern.

(7 ii) . Homogenous opacity with the straight upper border.

(7 iii). Hypertranslucent lung with absent normal broncho-vascular markings; mediastinal shift to the contra lateral side.

(7 iv) .Bilateral diffuse reticulo nodular pattern.

(7 v) .Lungs with normal landmarks and translucency bilaterally

(7 vi). Translucent area within the lung parenchyma, with irregular margins that is surrounded by an area of nodular or fibrotic densities

8.THEME: TYPES OF ANEMIA [QUESTIONS 8 (i)to 8 (vi)](TOTAL: 6 MARKS)

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

Options :

- A. Iron deficiency anemia
- B. Megaloblastic anemia
- C. Hemolytic anemia

Questions:

8 (i) 5 year old Sundar with Malnutrition and anemia.

8 (ii) Pamela has anemia and pigmentation over knuckle and tongue.

8 (iii) Pratap has anemia with icterus and frontal bossing.

8 (iv) Mannar is brought to you sick and anemic and he lives in a malaria-prone area.

8 (v) Christina is suffering from Rheumatoid arthritis for many years.

8 (vi) Swati with Plummer Vinson syndrome.

9.THEME: INVESTIGATIONS IN ANEMIA [QUESTIONS 9 (i) TO 9 (vi)](TOTAL: 6 MARKS)

From the options 'A to H' given below, choose the best answers for questions 9 (i) to 9 (vi) given below:

Options :

A.Iron deficiency anemia

G.Anemia in Hypothyroidism

B.B12 Deficiency

H.Autoimmune Hemolytic anemia

C.Anemia of Chronic disease

I.G6PD deficiency

D.Sickle cell anemia

J.Elliptocytosis

E.Thalassemia

H.Pyruvate kinase deficiency

F.Spherocytosis

Questions: Choose the correct diagnosis from the above options for each of the LAB RESULT SETS given below:

9 (i) MCV normal, Serum Iron low, Ferritin normal, TIBC low, Electrophoresis normal.

9 (ii) MCV low, Serum Iron low, Ferritin normal, TIBC high, Electrophoresis normal.

9 (iii) MCV low, Serum Iron normal, Ferritin normal, TIBC normal, Electrophoresis abnormal.

9 (iv) MCV high, Reticulocyte count normal, B12, folate levels low, Intrinsic factor low.

9 (v) MCV high, Reticulocyte count high, B12, folate levels normal, Intrinsic factor normal.

9 (vi) Reticulocyte count high, Osmotic Fragility test positive.

10.THEME: IDENTIFICATION OF TYPE OF BLEEDING DISORDER [QUESTIONS 10 (i) to 10 (vi)] (TOTAL: 6 MARKS)

From the options 'A to C' given below , choose the best answers for the questions 10 (i) to 10 (vi) :

Options:

- A. Platelet disorder
- B. Clotting factor disorder
- C. Vessel wall disorder

Questions

10 (i) . 5 year old Jeevan has come with complaints of pain left hip following a trivial fall from his play cycle. On examination, the clinical features are suggestive of hemarthrosis. On questioning, his minor injuries like small cuts he had before never used to bleed profusely.

10 (ii) . 3 year old Samuel fell down and dislodged her teeth and had to be removed by the dentist. On the first day there was no bleeding, but on the second day the bleeding started which was not controllable.

10 (iii) . 7 year old Gautham is brought with history of continuous bleeding from the dental extraction site. The bleeding started immediately after the extraction.

10 (iv) . 10 year old Mala is brought to you with complaints of frequent episodes of nose bleeds and profuse bleeds if cut. On examination, there are few petechiae and purpura in the body.

10 (v) . 17 year old Meena has come with history of two days duration of fever which was followed by tender palpable purpuric rashes in the lower limbs.

10 (vi) . Mala has come with hemetemesis. In the disorders listed above, in which disorder ,GI bleeding is uncommon?
