



The University of Fiji



Umanand Prasad School of Medicine & Health Sciences

Department of Clinical Sciences

Semester 2 Year 2020

5th November, 2020

FINAL COURSE EXAMINATION PAPER

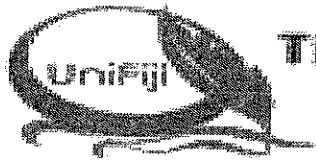
IMED601: INTERNAL MEDICINE

Important Instructions to Students:

1. Read the questions, instructions carefully and answer the questions.
2. You are allowed an **extra 10 minutes reading time** (during this time, you are not allowed to write with pen) and **180 minutes (3 Hours) to complete this paper**.
3. Silent, non-programmable calculators are allowed, but not supplied.
4. Write all your answers in the answer booklet provided. If you need extra sheets, please ask from the supervisor. Write your name, course code and student identification number in the answer booklet and in the attendance sheet.
5. **This Final Course Examination Paper is worth 200 marks contributes 40% of the total course assessments.** Students must **at least score 50%** in this final exam to pass the course.
6. Write all your answers legibly. The marker has the right to award zero for answers that are not legible.
7. This is a **Closed Book Examination**. The University views plagiarism, cheating and dishonest practice as serious offences and if found, offenders are penalized.

Examination Paper Content (Format):

Section	Question	Content	Marks	Suggested Time
A	1-50	Multiple Choice	50	45 minutes
B	51-74	Enumeration	24	22 minutes
C	75-200	Long and short answers	126	113 minutes
		TOTAL	200	180 minutes



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IMED601

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Allowed time: 3 hours

Number of questions: 200

A. Multiple choice questions: Choose the correct answer and write it in CAPITAL LETTERS in the answer sheet provided for.

A 65 y/o Fijian female not a known medical case came in with history of fever, vomiting and diarrhea for the past 1 week. Patient is very sick looking, drowsy, dehydrated with slight tenderness on all quadrants of the abdomen, no organomegaly. FBC revealed that the WCC is elevated at 25,000, predominantly neutrophils with Hgb of 8g/dl, MCV of 80 fl. The other abnormality in the laboratory is a low K⁺ of 2.5, TSH is ↓, T3 and T4 ↓.

1. Low TSH, T3 and T4 means:

- A. Patient is hypothyroid.
- B. Patient is hyperthyroid.
- C. She must be on some drugs that caused it.
- ☒ D. She has sick euthyroidism.

2. Refer to case #1. What is the treatment of choice in this case?

- A. Thyroxine 50ug OD.
- B. Carbimazole 20 mg BD.
- C. Remove the drug that must have caused it.
- ☒ D. Treat the underlying condition/ infection and repeat the TFT later.

3. Refer the case #1. The elevated WCC which is predominantly neutrophils means that:

- A. She has septicemia most likely due to a fungal infection.
- B. She has underlying hematologic malignancy.
- C. She has overwhelming TB.
- ☒ D. She has septicemia secondary to a bacterial infection.

4. Refer to case #1. The following are the most likely cause of normocytic anemia of this patient, EXCEPT:

- A. Septicemia
- B. Acute blood loss. ✓
- C. Chronic disease ✓
- D. Folate deficiency. ✓

A 68 y/o Indian female came in with history of syncope. According to the relatives she has been having dizziness for the past 3 days which resolves when she rests and would at times have shortness of breath and chest pain. A few hours PTA condition persisted and she fainted hence, was rushed to ED. BP is 120/80, HR 60 / min. and RR 20/ min. There is a systolic ejection murmur heard over the right 2nd ICS radiating to the neck.

5. What is the most likely cause of syncope?

- A. Vertebrobasilar insufficiency.
- B. Carotid artery stenosis
- C. Heart block
- D. Aortic stenosis

6. Causes of syncope EXCEPT:

- A. Dehydration ✓
- B. Severe anemia ✓
- C. Hypoxia ✓
- D. Aortic regurgitation

7. For CVA hemorrhage with a very high BP. You need to control the blood pressure. What is the target BP?

- A. 180/90
- B. 170/90
- C. 150/90
- D. 140/90

8. Major criteria for rheumatic fever are the following, EXCEPT:

- A. Carditis ✓
- B. Arthritis ✓
- C. Subcutaneous nodules. ✓
- D. Raised ESR/CRP.

9. Criteria used for infective endocarditis:

- A. Jones criteria
- B. Well's criteria
- C. CHADS2
- ☒ D. Duke's criteria

A 65 y/o Indian male known smoker has been in and out of ED for the past 6 months because of shortness of breath and is relieved with nebulization. However a few days PTC, his shortness of breath worsened and has been more frequently going to ED, until a day PTC he is more short of breath with productive cough and fever.

On examination he has wheezing on both lung fields and bronchial breath sounds on the right base.

10. What is the most likely diagnosis?

- ☒ A. Asthma with superimposed pneumonia.
- B. COAD overlap with asthma with pneumonia.
- C. Chronic bronchitis with pneumonia.
- ☒ D. Emphysema with superimposed pneumonia.

11. Refer to case #10. What do you expect to see in the CXR?

- A. Increased vascular markings with cardiomegaly and opacity on the right base.
- B. Blunting of the right costophrenic angle.
- C. Honey combing pattern on the right lower zone.
- ☒ D. Hyperinflation, tubular heart, flattening of the hemidiaphragm and opacity or haziness on the right lower zone.

12. Refer to case # 10. The best management for this patient is:

- A. Antibiotics
- B. Nebulization
- C. Steroids
- ☒ D. Stop smoking.

13. What is the cause/s of Interstitial Lung disease?

- A. Drugs- Methotrexate, amiodarone
- B. Rheumatoid arthritis
- C. Industrial exposure to fumes.
- ☒ D. All of the above.

14. QRS complex in ECG signifies:

- A. Atrial depolarization.
- ☒ B. Ventricular repolarization.
- C. Atrial repolarization.
- ☒ D. Ventricular depolarization.

15. P wave signifies:

- ☒ A. Atrial depolarization.
- B. Ventricular repolarization.
- C. Atrial repolarization.
- D. Ventricular depolarization.

A 42 y/o male known case of Asthma came to see you because of "drooping of the right eye" for the past 1 week. On examination there is ptosis of the right eye, no facial asymmetry.

16. What is the most likely diagnosis?

- A. Bell's Palsy
- B. Stroke
- C. Malignancy
- ☒ D. Myasthenia gravis

17. Refer to case #16. Tests that you can do for this patient, **EXCEPT:**

- A. Ice test
- B. Acetyl choline receptor antibody.
- C. CT Scan of the head.
- ☒ D. Edrophonium test

18. Complication of AMI, **EXCEPT**:

- A. Chordae rupture
- B. Dressler's syndrome
- ☒ C. Ventricular septal defect
- D. Atrial septal defect

19. Interpret the result: TSH very↓, T3 and T4↑:

- A. Pituitary disease.
- B. Sick euthyroidism
- C. Hypothyroidism
- ☒ D. Hyperthyroidism.

20. Refer to case #19. What symptoms do you expect to see in this patient?

- A. Thinning of hair
- B. Weight gain and constipation
- C. Somnolence
- ☒ D. Tremors and palpitation

21. Refer to case # 19. What medication should you give this patient?

- A. Thyroxine
- B. Radiation therapy
- C. Carbamazepine
- ☒ D. Carbimazole

22. A patient was rushed to ED with life threatening asthma. You have given ventolin and atrovent nebulization, hydrocortisone and she was hooked on oxygen. What is the next best treatment to give?

- A. Aminophylline infusion
- B. Another dose of hydrocortisone.
- C. Use dexamethasone.
- ☒ D. Give Magnesium sulfate.

23. What is the management of choice for Diabetic Ketoacidosis?

A. Sodium bicarbonate and Insulin infusion.

☒ B. Hydration with normal saline and insulin infusion.

C. Antibiotic, sodium bicarbonate, insulin infusion and hydration with normal saline.

D. Hydrate with normal saline, insulin infusion and antibiotic.

24. What is the management of choice for a patient with CBG of 1.4?

A. Dextrose 5%

B. Dextrose 10%

C. Dextrose saline.

☒ D. Glucose 50% 50 mls.

25. What signifies an ECG with a prolonged PR interval?

☒ A. Delayed AV conduction.

B. Atrial conduction defect.

C. Left atrial hypertrophy

D. Ventricular conduction defect.

26. An absent P wave with an irregular R to R interval on ECG means:

A. Atrial flutter

B. Heart block

C. Premature ventricular contraction

☒ D. Atrial fibrillation

27. Saw tooth appearance on ECG means:

☒ A. Atrial flutter

B. heart block

C. Premature atrial contraction

D. Atrial fibrillation

28. The following are indications for dialysis, **EXCEPT**:

A. Uremia ✓

☒ B. Acidemia ✓

C. Pericarditis ✓

D. Fluid overload ✓

29. The most common cause of normocytic anemia secondary to chronic disease is:

- A. Malignancy
- B. Rheumatoid arthritis
- C. TB
- ☒ D. Chronic Renal Impairment

30. What is the most common cause of Nephrotic syndrome in children?

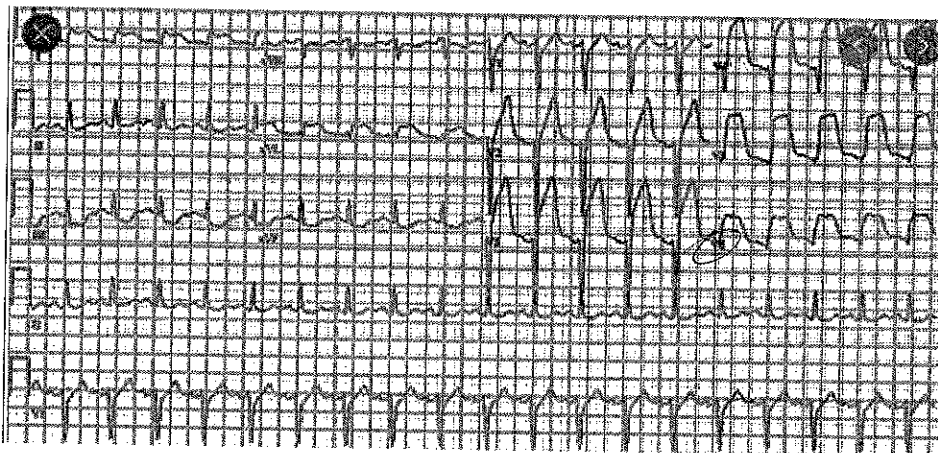
- A. Membranous Nephropathy
- B. Mesangiocapillary
- C. Focal Segmental Glomerulosclerosis
- ☒ D. Minimal Change Disease.

31. Which of the following is a secondary cause of Nephrotic syndrome?

- A. Membranous GN
- B. Minimal Change Disease
- C. Mesangiocapillary
- ☒ D. SLE

A 60 y/o Indian male came in with history of severe chest pain with diaphoresis and shortness of breath 6 hours PTA. You requested an ECG as shown below. Significant PE findings: JVP is elevated with bibasilar crackles.

32. Interpret the ECG.



- A. Anterolateral STEMI
- B. Inferolateral STEMI
- C. Anterior STEMI
- D. Inferior STEMI

S - V1, V2
A - V3, V4
L - V5, V6, I, aVL
I = II, III, aVF

33. Refer to case #32. What should you give for acute management of this case, EXCEPT:
- A. Clopidogrel
 - B. Frusemide
 - C. Streptokinase
 - D. Simvastatin
34. Refer to case # 32. What are the take home medications for these patients?
- A. Enalapril, Metoprolol
 - B. Simvastatin
 - C. Frusemide
 - D. All of the above
35. Which of the following is a shockable rhythm?
- A. Ventricular tachycardia
 - B. Torsades de pointes
 - C. Atrial flutter
 - D. Flat line
36. A conscious patient with ventricular tachycardia with BP of 100/60. What is the next best thing to do?
- A. Give amiodarone
 - B. Give Magnesium sulfate.
 - C. Give adenosine.
 - D. Shock the patient with 300 joules.
37. What is a disorder that is caused by malignant proliferation of lymphocytes; these accumulate in the lymph nodes causing lymphadenopathy but may also be found in peripheral blood or infiltrate organs?
- A. Leukemia
 - B. TB
 - C. Lymphadenitis
 - D. Lymphoma

38. Presence of Auer rods in microscopy is typical of:

- A. AML
- B. CLL
- C. ALL
- D. CML

39. A myeloid proliferative disorder characterized by uncontrolled clonal proliferation of myeloid cells. Which of the following conditions has a WCC↑↑ with massive splenomegaly and presence of Philadelphia chromosome?

- A. CML
- B. CLL
- C. ALL
- D. AML

40. Refer to case #39. What is the management of choice?

- A. ABVD
- B. R-CHOP
- C. Methotrexate with Daunorubicin
- D. Glivec

41. What is the chemotherapeutic drug of choice for Hodgkin's lymphoma?

- A. ABVD
- B. R-CHOP
- C. Methotrexate with daunorubicin.
- D. Glivec

42. Chemotherapeutic drug of choice for Non- Hodgkin's Lymphoma:

- A. ABVD
- B. R-CHOP
- C. Methotrexate with daunorubicin.
- D. Glivec

43. Presence of Reed- Sternberg cell is typical of:
- A. CML
 - B. CLL
 - C. Non- Hodgkin's Lymphoma
 - D. Hodgkin's Lymphoma
44. What is the gold standard for the treatment of Parkinson's disease?
- A. Levodopa+ carbdopa (Sinemet)
 - B. MAO inhibitors (Selegiline)
 - C. Bromocriptine
 - D. Benztropine
45. Which of the following characterize myasthenic crisis?
- A. Paralysis of the diaphragm.
 - B. Ascending paralysis
 - C. Descending paralysis
 - D. Paralysis of the respiratory muscles.
46. What is the condition for rapid loss of brain function due to disturbance in the blood supply to the brain?
- A. Meningitis
 - B. Space occupying lesion
 - C. Hypoglycemia
 - D. Stroke
47. A 58 y/o European male was referred to you. He has fibula fracture of the right leg a few days PTC. He is now consulting you because of chest pain and shortness of breath, CXR is normal. ECG showed S1Q3T3 with tachycardia. What is the most likely diagnosis?
- A. Pulmonary embolism
 - B. Costochondritis
 - C. Left Ventricular failure
 - D. Acute Myocardial Infarction

48. Refer to case#47. What is the next best thing to do?

- A. Request for chest ultrasound.
- B. Request for D-Dimer.
- C. Request for plain CT scan of the chest.
- D. Request for CT chest with contrast.

49. Refer to case # 47. Management for this case, **EXCEPT**:

- A. Clexane
- B. Warfarin
- C. Dabigatran
- D. Aspirin

50. The most common cause of mitral stenosis is:

- A. Congenital heart disease.
- B. Severe Annular calcification
- C. SLE
- D. Rheumatic heart disease

B. Enumeration. Write your answer in the answer sheet provided

1. Criteria for diagnosing Nephrotic syndrome (51- 54)
2. Give 5 causes of syncope (55 -59)
3. Give 5 causes of chronic cough (60-64)
4. Give 6 causes of chest pain (65-70)
5. Give 4 causes of hemoptysis (71-74)

BATTLE CAMP

W. Dool L. Lorenz

C. Long and short answers

1. Algorithm for anemia **(30 points)**

2. A patient with Na+ of 120, K+ of 4, RBS of 6 with Urea of 8. Patient is a known case of CCF secondary to IHD. She came in with history of fever, diarrhea and vomiting for 2 days. She looks dry, JVP is ↓, breath sounds is clear, S1 S2 is regular, tachycardic, (-) edema. **Total 30 points**

A. Give the algorithm of Hyponatremia. Show your computation **(20 points)**

B. What is the cause of this patient's hyponatremia and what is the management? **(10 points)**

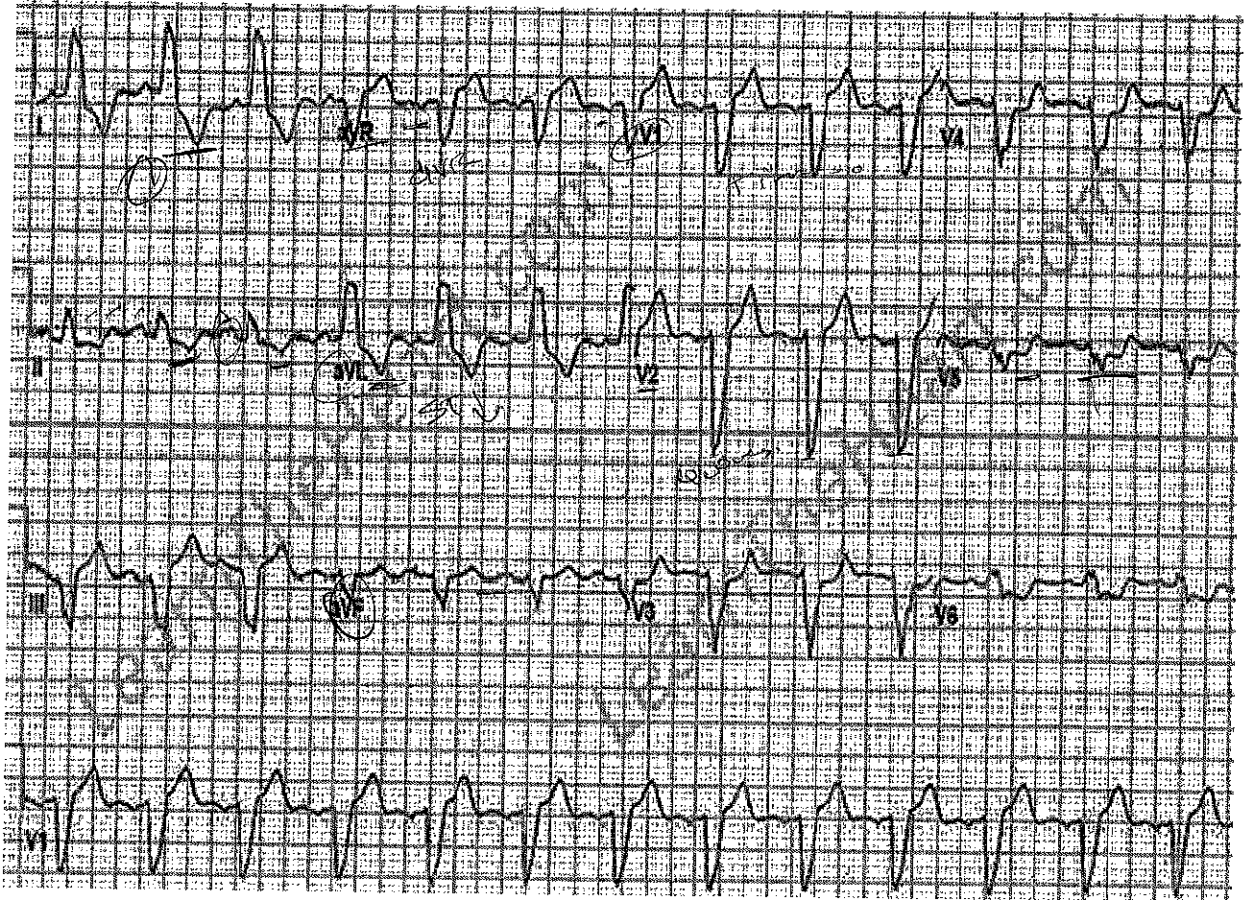
$$\begin{array}{r} 240 \\ - 14 \\ \hline 226 \end{array}$$

12

$$135 - 145$$

$$\begin{aligned} & 2(120 + 4) + 6 + 8 \\ & = 240 + 18 \\ & = 240 + 6 + 8 \\ & = \underline{\underline{262}} \end{aligned}$$

3. This 55 y/o female known case of DM came in with severe chest pain. 3 hours PTA with diaphoresis.
TOTAL 25 points



- A. Interpret the ECG (5 points) ✓
- B. What is the acute management of this patient in ED? Include the laboratory work ups that you need to request. (10 points)
- C. Management of this patient in CCU. (10 points)

S-V1V2
 A V3V4
 I - aVL
 II - aVF

4. A 20 y/o Fijian female came in with history of facial puffiness and generalized body swelling for the past 2 weeks. There is no fever or shortness of breath. There is no orthopnea, paroxysmal nocturnal dyspnea or easy fatigue. She went to different doctors and was given unrecalled medications but still the same hence, the mum decided to bring her to you for further evaluation and management. **TOTAL 25 points**

- A. What is the most likely diagnosis? (1 point)
- B. Give 3 differential diagnosis (3 points)
- C. Parameters that you would request for to arrive at a diagnosis and find the cause (10 points)
- D. Treatment of this case. (6 points)
- E. Pathogenesis of the case. (5 points)

5. A 20 y/o female came in with history of headache, dizziness, palpitation and weakness for the past 2 week. She denies bleeding from anywhere. Her menses are normal and not heavy. Her LNMP was last month and is regular. A day PTC she fainted; hence, she was rushed to the Emergency room and was later referred to you. RBS, UEC's, were all normal. Hgb of 5 g/dl, WCC of 3,000 PLT of 110,000 MCV 100
TOTAL: 16 points

- A. Give 5 causes of pancytopenia. (5 points)
- B. Parameters that you need to request to find the cause of pancytopenia of this patient. (5 points)
- C. Treatment for this case and advise you should give to patient/family. (6 points)

50
21/6