

Medicine - Paper II

Date: 22.09.2025	Time: 03 hours
Answer All Ten Questions	
Index Number:	

Question 01

A 45-year-old bank officer is referred to medical clinic for further evaluation of abnormalities detected in investigations during a routine medical check-up. He is a non-alcoholic and a non-smoker. His weight is 88 kg, height 160 cm and the waist circumference 106 cm. Blood pressure in the clinic is 140/95 mmHg, and pulse rate 88/min. The remainder of the systemic examination is unremarkable. Investigations from the medical check-up are as follows:

WBC- $6000/ \text{mm}^3$

Hemoglobin-13g/dL

Platelets-270000/mm³(150000-450000 mm³)

ALT- 85 IU/L (0 - 45 IU/L)

AST-45 IU/L (0 - 35 IU/L)

ALP-120IU/L (40 -129 U/L)

GGT- 50 IU/L (5 - 40 U/L)

Albumin-4.5g/L (3.4–5.4 g/dL)

Globulin-3.0g/L (2.0–3.9 g/dL)

Total bilirubin-0.9mg/dL (0.1 to 1.1 mg/dL)

HbA1C-6.0%

Serum Triglycerides- 240mg/dl (<150 mg/dL)
LDL-150mg/d1 (100-129 mg/dL)
HDL-30mg/d1 (> 40 mg/dL)
Serum creatinine-0.8mg/dl (0.7 to 1.1 mg/dL)
Sodium-138mmol/1 (135 to 145 mmol/L)
Potassium-4.0mmol/l (3.5 to 5.0 mmol/L)
TSH- 2.8mIU/L (0.5 to 4.0 mIU/L)
1.1 List down four (04) abnormalities detected in this patient's clinical examination and blood investigations? (20 marks)
1.2 What is the most likely cause for his abnormal liver profile? (10marks)
1.3 What further investigations would you arrange to exclude other causes of liver disease? (15marks)

1.4	Outline the non-pharmacological management of the condition identified in
	question 1.2. (35 marks)

1.5	List two (02) hepatic and two (02) non-hepatic complications that could	develop in
	future due to the condition identified in question 1.2?	(15marks)
		• • • • • • • • • • • • • • • • • • • •
1.6	Write down one medication that can be used to treat the condition identified	ed in
	question1.2. (05marks)	



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Question 02	
A 27-year-old female who is recently married, presents to medical clinic variety painful swelling of multiple joints. She is a mathematics teacher and concouldn't write on the white board forthe past three months, especially at the Clinically she is suspected to have rheumatoid arthritis.	erned that she
2.1 List clinical features of inflammatory arthritis in this patient? (10	•••••
2.2 List thecriterianeeded to fulfill the diagnosis of Rheumatoid arthriti (20 marks)	s?

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2.3	3 She presents with the left-hand X-ray on her follows	ing visit, what are the early
	changes you would expect in the X-ray?	(10 marks)
	.4 Describe the typical deformities you will expect to	see in her hands, if she is
untrea	ted?(10 marks)	

2.5 How will you manage this patient? (30 marks)

2.6 How will you monitor the treatment response in this patient on her subsequent
visit?(20marks)



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Question 03	
A 36-year-old female is transferred from a regional hospital for further lasting for 2-weeksduration. She has high grade intermittent fever with frontal headache and a non-productive cough. She also has right lower intermittent watery diarrhea. On examination, she is febrile, and her he blood pressure is 128/72 mmHg. Her initial full blood count is as follows;	n chills, associated with r abdominal pain and
WBC- 5600/ mm ³ (N 45%, L 42%, M 8%) Hemoglobin-11.2g/dl Platelets-208000/mm ³ (150000-450000 mm ³)	
CRP 165 mg/L.(<6mg/L)	
3.1List initial investigations you will arrange for this patient. Give re (20 marks)	easons.

3.3. (On examination, you recognizemacular spots over her upperthoracic area. List three
	(03)possible infections present with this clinical picture?(15 marks)
3.4. I	Mention the diagnostic tests to confirmeach infection stated on question 3.3?
	(15 marks)
. . .	
3.5.	The aspiratetaken from her macular spot grows a gram-negative bacterium. What
	is the most likely diagnosis? (10 marks)

3.6. How will you manage this patient? (25 marks)	
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3.7. What are the complications you will expect to see if this patient isuntreated?
(15marks)



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Question 04	
A 40-year-old male with hypertension presents with a difficulty withright face, arm and leg weakness of one-had expressivedysphasia and evidence of right hemipa completely resolved in half an hour.	hour duration.On admission he
4.1 Mention the clinical diagnosis described above? (10 mark	
4.2 Mention a score you will use to assess the prognosis of th question 4.1.(10 marks)	e condition mentioned in

4.3 List t	he specific examination findings you will expect in this patient toidentify the
aetiology	of the diagnosis mentioned in question 4.1 (20 marks)
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4.4 Discu	ass the investigations you will perform in this patient with the expected
abnormal	lities(35marks)
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4.5 O	utline the treatment of the condition mentioned in question 4.1. (25 marks)



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Question 05	
A 25-year-old female presents with right leg swelling of 1-wee anyhistory of fever, wound or trauma. Examination reveals a sare no evidence of infection noted. Her inflammatory markers range	wollen right calf, there
5.1 What is the likely diagnosis? (10 marks)	
5.2 How will you confirm the above diagnosis? (10 marks)	
5.3 How will you treat the condition mentioned in question 5.1? (20 n	narks)

5.4 Di	scuss the investigations you will perform in this patient to identify the
aetiolo	ogy?(40marks)

	She becomes acutely breathless on the day following admission. Her pulse rate is
	120bpm, blood pressure80/50mmHg,respiratory rate 28/min and SpO2 84% on room
	air.
5.5 WI	nat is the likely complication she has developed? (10 marks)
5.6 Me	ention the immediate treatment of the condition mentioned in 5.5?
	(10 marks)



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Question 06	
A 55-year-old farmer presents to the medical emergency unit with a histor hours prior to admission. On examination his vital parameters are stable a ptosis and bleeding from gums are observed.	
6.1 Name the likely offending snake? (10 marks)	
6.2 What immediate bed side test should be performed for further manage (10 marks)	ment?

6.3 V	What is the specific treatment indicated? How would you administer?
(15 1	marks)
6.4 v	What immediate complication you would anticipate during the above treatment
6.4 V	What immediate complication you would anticipate during the above treatment mentioned in question 6.3 treatment? How will you manage it? (15 marks)
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6.4 V	mentioned in question 6.3 treatment? How will you manage it? (15 marks)
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6.4 \	mentioned in question 6.3 treatment? How will you manage it? (15 marks)

6.5 Few hours following admission patient passes dark colored urine. Name two (02)
possible complications that could give rise to dark colored urine? (10 marks)
6.6Name Three (03) life threatening complications he could develop during the stay in
the ward? (15 marks)
6.7 If you are a newly posted medical officer in charge of a peripheral medical unit, wha
steps you would take to minimize the snake bite related mortality among the farmers
of the region? (25 marks)

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Question 07

A 46- year-old female admits with bilateral loin pain, nausea and vomiting for 2 days and unable to eat or drink normally. She is recently discharged home following total abdominal hysterectomy (TAH) 5 days prior. Her past medical history is significant for diabetes mellitus and hypertension.

Her medications on discharge are as follows,

Paracetamol 1g TDS – 5 days

Celecoxib 200mg daily for 5 days

Metformin 500mg TDS

Gliclazide 80 mg BD

Losartan 50mg BD

Atorvastatin 20 mg Nocte

Her investigation following admission are as follows,

 $FBC - \ HB \ 10.9 \ g/dL \ WBC - 11.7 \ x10^9/L$

Platelets 420000 mm³(150000-450000 mm³)

CRP-	24mg/L (<6 mg/L)
ESR –	- 40mm/hour
Serum	creatinine – 4.7 mg/dl (on discharge serum creatinine 0.8mg/dL)
UFR -	- Pus cell 12-20 (HPF)
	RBC 2-4 (HPF)
	Protein +
	Nitrate – Negative
7.1 Li	st three (03) possible causes for acute kidney injury in this patient? (20 marks)
7.2 lis	t one investigation each to support the aetiology mentioned above in question 7.1?
	(15 marks)
	(15 marks)
	ow would you follow up the patient during ward stay as a house officer?
7.3 Ho	ow would you follow up the patient during ward stay as a house officer?
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7.4Wh	nat are the indications for initiating haemodialysis in the above patient?
(15 ma	arks)

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7.5 L19	st three (03) haemodialysis cathe	ter related complication?	(13 marks)



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Question 08	
A 70-year-old man who is working as a manager at a private firm presents cough, fever and worsening of shortness of breath for 4 days. He has a 40 p smoking history. On direct questioning, he also has effort intolerance which progressive over the last 6 months. He has never been evaluated in the past	oack year
Examination findings are:	
He is tachypnoeic with a respiratory rate of 30/min. He is also cyanosed wire pitting oedema, but no clubbing. His pulse rate is 100 bpmwith good volumblood pressure is 140/60 mmHg. Lung examination reveals generalized red breath sounds bilaterally with wheeze and coarse crackles in the right mid z	e, and luction of
8.1 What are the three acute problems identified in this patient?(15marks)	

8.2 How will you manage the patient in following settings?					
	A- His acute problems at accident and emergence	ey (35 marks)			
	B- Step-down management in the ward (20 mar	rks)			
	C- Follow up management in future	(30marks)			
A - H	Iis acute problems at accident and emergency		(35 marks)		
			•••••		

B- Step	p-down management in the ward	(20 marks)

C-	Follow up management in future	(30marks)



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Question 09	
Part A	
A 35- year-old female presents with lethargy and generalized ill headuration. She also complains of headache and visual impairment ov duration. On examination she is pale and has dry skin. Her pulse is pressure 90/60mmHg. Heart sounds are normal. Fundus examination there is a bitemporal hemianopia.	er the same 56 bpm and blood
9.1 What is the most likely cause for the above presentation? (10marks)	
9.2 Discuss the investigations you will perform in this patient?(30 marks)	

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9.3 Br	ief out the management of this patient?(30 marks)	
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Part B
A 13- year-old boy on vacation from Canada is newly diagnosed to have type 1
diabetes mellitus. His father wants to know about the different regimens of insulin
treatment for his son. Discuss.(30 marks)

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Answer All Ten Questions					
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Question 10					
A 56-year-old previously healthy man presents to discapable center) with severe central tightening cassociated with diaphoresis, shortness of breath and shows ST segment elevation in V1, V2, V3, V4 and V3	chest pain of 3 hours duration dipalpitation. ECG taken at A&E				
10.1 What is the ECG diagnosis and name the culprit artery	occluded? (10 marks)				
ECG diagnosis:					
Culprit artery:					

10.2 Name two most important pathological mechanisms involved in condition mentioned				
question 1	0.1	(05 marks)		
10.3 List t	two well validated scores/tools use	ed as risk stratification	(10 marks)	
10.4 Nam dose.	ne oral medications you will adm	ninister immediately and	give the recommended	
(15 marks)				
•••				
•••				
10.5Name	e a medication you would choose fo	or reperfusion? (05 marl	ks)	
•••				
10.6 What	t are the indicators of inadequate re	eperfusion? (15 mark	cs)	
•••				

10.7	List three mechanical complications anticipated if reperfusion is failed
	(15 marks)
	Echocardiogram done on day5 shows hypokinesia with a left ventricular Ejection
	Fraction (EF) of – 35%
10.8	Name four medications you will prescribe to improve the survival in this patient in
addii	tion to answer mentioned in10.4 (10 Marks)
adan	tion to answer mentioned into.4 (10 iviaixs)
10.9	If symptoms persist despite above measures what further interventional treatments
avail	lable, briefly discuss.(15 marks)
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