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POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

POSTGRADUATE DIPLOMA IN TUBERCULOSIS & CHEST DISEASES EXAMINATION – MAY 2017

PAPER I

CASE HISTORIES

Date : 8th May 2017 **Time:** 9.00 a.m. – 11.00 a.m.

Index No. .....

All **five (05)** questions should be answered.
All questions carry equal marks.

Question 1

A German national holidaying in Sri Lanka with complains of intense itching of body with flushing and redness. She also had periorbital swelling facial puffiness and swelling of lips. She complained of cramping abdominal pains and loose stools. She was otherwise well and had been stung by wasps on an excursion to Sigiriya.

1.1. What is the likely diagnosis? (10 marks)

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1.2. What is your immediate management? (40 marks)

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Few minutes later patient complains of difficulty in breathing , a " tightening " sensation in throat , BP 70/40 , Polyphonic " wheeze " is auscultated over the chest

1.3. What the diagnosis of the evolving clinical symptoms? (10 marks)

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1.4. Name four (04) steps in further management? (40 marks)

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Contd..../3-

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Question 2

A 54 year old diabetic female is being investigated for a left sided pleural effusion.
Pleural fluid aspirate is as follows
pH, 7.168
Protein, 3.9 g/dL;
Glucose, 76 mg/dL
LDH, 4470 IU/L
RBC, 10000/mm3
WBC, 8300/mm3 with 70% neutrophils and 30% lymphocytes,
Adenosine Deaminase (ADA) 81 U/L.

Tuberculin Sensitivity Test (TST) 07 mm induration

2.1. What is your interpretation of pleural fluid full report? (20 marks)

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2.2. What is your interpretation of her Adenosine Deaminase (ADA) value? (20 marks)

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2.3. Name three (03) investigations that would help you in planning further management? (30 marks)

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2.4. Name three (03) steps in the management of this patient? (30 marks)

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Contd..../4-

Question 3

A 40 year old painter with 15 pack year of smoking developed cough of insidious onset over the last 6 months and he had lost 2kg during that period. During painting he experienced chocking sensation when he kept his hand raised above the head for a long time. During the day he developed progressive generalized weakness and double vision.

Physical examination revealed variable diplopia and proximal muscle weakness and respiratory examination showed a clear patch of bronchial breathing just lateral to the 3rd thoracic vertebral spine on right side.

3.1. Give three (03) different diagnoses you would consider in this patient (30 marks)

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3.2. Name five (05) physical signs you would elicit? (30 marks)

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3.3. Name five (05) investigation you would perform to arrive at a diagnosis? (40 marks)

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Contd ... /5-

Index No. .....

Question 4

A 40 year old patient came with cough and lethargy for 6 months and he also complained of thirst.
On examination he was of average built and the rest of the examination was normal except for a few supraclavicular lymph nodes.
CXR showed prominent hilar

Na^+ 140 mmol/L, K^+ 4 mmol/L Ca^{++} 3 mmol/l (2.2-2.7)
$HCO3^+$ 25 mmol/l
Mantoux negative ESR 25 full blood count normal CRP 5mg/l

4.1. Name three (03) possible diagnoses. (30 marks)

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4.2. Name five (05) investigation you would do. (50 marks)

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4.3. What is the cause of thirst? (20 marks)

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Question 5

A 42 year old female with a diagnosis of bronchial asthma is referred to you clinic for review of poorly controlled asthma. She has had asthma for over 15 years, has associated diagnosis of allergic rhino-sinusitis and nasal polyps. She is also being treated for diabetes and hypertension which are sub-optimally controlled. She has a BMI of 35.

She complains of increased day time somnolence, low mood and lack of energy. Her Epworth Sleepiness Score was 14/ 24.
Her current asthma medication includes an inhaled corticosteroid + long acting beta agonist MDI via spacer device, oral montelukast 10 mg nocte.
In recent years she has received repeated courses of oral steroids and antibiotics for asthma exacerbations.

During exacerbations she has had expectoration of brownish mucous plugs and fever with myalgia. Her investigations during these episodes have shown blood eosinophilia with radiological changes of "flitting" pulmonary infiltrates, bronchial wall thickening.

She has following investigations available.

FBC Hb 13.5g/I , WBC 7.29 x 10 9 /l ,eosinophils 3.21 x 10 9 /L
Total IgE >1000 ng/ml (5-120)

Sputum examinations were negative for Acid Fast Bacilli.
Sputum examination showed an eosinophilia of more than 5 % and was positive for filamentous fungi.

Test	Predicted	Bronchodilator		Change
		Before	After	
FVC	3.2	1.54	2.3	
FVC %		48%	71 %	
FEV 1	2.75	0.95	1.94	990 ml 104 %
FEV 1 %		34	72	
FEV 1 / FVC		61%	84%	

Contd..... /7-

5.1. What is the complete interpretation of Spirometry? (20 marks)

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5.2. What other four (04) asthma associated comorbidities would you consider in this patient? (40 marks)

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5.3. Name five (05) investigations that you would do to arrive at a diagnosis? (25 marks)

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5.4. What is the likely diagnosis? (15 marks)

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POSTGRADUATE DIPLOMA IN TUBERCULOSIS & CHEST DISEASES EXAMINATION – MAY 2017

PAPER II

DATA INTERPRETATION

Date: 8th May 2017 **Time:** 1.00 p.m. – 2.00 p.m.

Index No. .....

All **five (05)** questions should be answered.
All questions carry equal marks.

Index No. .....

Question 1

A 52 year old gentleman, heavy smoker with 40 pack year presented with sudden onset Right sided pleuretic chest pain and difficulty in breathing.

1.1 Write five (05) physical signs which help to arrive clinical diagnosis
(25 marks)

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1.2 Write five (05) essential investigations to arrive at a specific diagnosis.
(25 marks)

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Contd...../3-

Index No. .....

1.3 Write five (05) clinical causes for this presentation. (25 marks)

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1.4 Write five aetiological causes for one of the condition mentioned in 1.3. (25 marks)

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Index No. .....

Question 2

A 38 year old known asthmatic patient presented to respiratory unit with progressive breathlessness of MRC dyspnoea scale 4 over two month duration. She is a house wife with H/O exposure to biomass fuels. She is a mother of three school going kids. She had two fetal loses in the past. Examination revealed BMI of 35, near normal system examination.

2.1 Write five (05) essential investigations to arrive at a diagnosis. (25 marks)

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2.2 Write five (05) possible aetiologies for this presentations. (25 marks)

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Index No. .....

2.3 Write principles of management of the most probable diagnosis. (25 marks)

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2.4 Write five (05) long term complications of the most probable diagnosis. (25 marks)

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Contd...../6-

Index No. .....

Question 3

A 60 yr old farmer presented to respiratory outpatient department with history of dry cough over six months which was progressive over the last month with productive cough and blood stained sputum.

He is a known case of uncontrolled diabetes mellitus and essential hypertension. He gives 20 pack year history of smoking. He is a father of six school going children and a monthly income of fifteen thousand rupees. His wife is unemployed. He is a part time employee as a carpenter. On examination, he is pale pigmented, cachectic with a BMI of 15, has grade I finger clubbing and is drowsy.

CVS - Pulse 90/min, BP 90/60, dual rhythm with no murmur.
RS - RR 30/min, Trachea shifted to right side with stony dullness to percussion with absent breath sound on right mid and lower zones.
ABD - soft and distended.

3.1. Write most appropriate four investigations/group of investigations to arrive at complete diagnosis. (25 marks)

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3.2. Write five (05) complications related to the main pathology present in this patient. (25 marks)

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Contd...../7-

Index No. .....

3.3. Write the complete diagnosis. (25 marks)

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3.4. Write five (05) management steps. (25 marks)

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Contd...../8-

Index No. .....

Question 4

A 30-year-old pregnant lady was admitted to hospital because of fever, cough, respiratory distress, and chest pain. The patient had been well until 8 days before admission, when she develop cough, red and watery eyes, and a temperature of 37.2°C. Two days later, she vomited and did not want to talk and became irritable. The temperature rose to 38.9°C, and she became increasingly lethargic and confused.

4.1. Write five (05) investigations for diagnosis/assessment of the patient.
(25 marks)

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4.2. Write five (05) possible differential diagnoses for this presentation.
(25 marks)

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Index No. .....

4.3. Write four (04) possible causes for confusion. (25 marks)

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4.4. Write principles of management for most probable diagnosis mentioned in 4.2. (25 marks)

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Contd...../10-

Index No. .....

Question No. 5

A 55 year old female with right middle lobe fibrosis became sputum positive for AAFB . She was stared on CAT 1 anti TB treatment but she continued to be sputum positive at the end of 2 months of therapy. Sputum culture sent at that point became positive for micobacteria and the gene X pert was negative for MTB.

5.1. What is your interpretation? (40 marks)

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5.2. What three (03) steps would you take for further evaluation of this patient? (30 marks)

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5.3. Name five (05) long term complications that may be encounted. (30 marks)

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