



<u>PROGRAM</u>	: BACCALAUREUS TECHNOLOGIAE PODIATRY
<u>SUBJECT</u>	: PODIATRIC MEDICINE II
<u>CODE</u>	: HPMA211
<u>DATE</u>	: DECEMBER 2014
<u>DURATION</u>	: 180 Minutes
<u>WEIGHT</u>	: 50:50
<u>TOTAL MARKS</u>	: 196

<u>EXAMINER</u>	: MR S NTULI
<u>MODERATOR</u>	: MS F CASSIM
<u>NUMBER OF PAGES</u>	: 5 PAGES INCLUDING THE COVER PAGE

INSTRUCTIONS

1. PLEASE HAND BOTH YOUR QUESTION PAPER AND ANSWER SHEET TO THE INVIGILATOR
2. PLEASE ANSWER ALL QUESTIONS.
3. WRITE NEATLY AND LEGIBLY AND CLEARLY MARK QUESTIONS.
4. LEAVE A LINE SPACE BETWEEN QUESTIONS.
5. NUMBER QUESTIONS CLEARLY.
6. MARKS WILL BE ALLOCATED FOR LOGICAL EXPOSITION OF ANSWERS. PLEASE ENSURE THAT YOU READ THE QUESTIONS CAREFULLY.

QUESTION 1

Read the case study carefully and answer the questions which follow.

A chubby thirteen (13) year old female presents to the Podiatry Clinic with a chronically infected onychocryptosis that is failing to heal. This has been ongoing for a few months and the patient has had a few courses of antibiotics which have not cleared up the infection completely. The patient's favourite past-time is bonding with her Playstation. There is no familial Medical History of note. Your history taking reveals that over the last few months the patient has had a frequent desire to wee and is always thirsty. On clinical assessment you measure the patient's weight as 70 kg and her height as 154cm.

- 1.1 What would your differential diagnosis of this patient's condition be? Justify your answer. (5)
- 1.2 What diagnostic criteria would you use to confirm your diagnosis (3)
- 1.3 Tabulate between the clinical features of *Type I* and *Type II Diabetes Mellitus* (10)
- 1.4 The patient's parents ask you, why despite the fact that she has had numerous courses of antibiotics her onychocryptosis has not healed. What will you tell them? (6)
- 1.5 What practical advice would you give to the patient regarding her condition? (6)

[30]

QUESTION 2

Read the case study carefully and answer the questions which follow.

Mrs. Halls is a 62 year old female who presents with a very painful ulcer on her hallux of the left foot. The ulcer is 'punched out' in appearance with a black base and has a foul odour.

You are instructed to perform a wound assessment on this patient. Discuss how each of the following factors are important in your assessment of the wound:

- 2.1.1 Wound bed (8)
- 2.1.2 Ulcer characteristics (8)
- 2.2.1 What is your diagnosis of this patient's ulcer? (2)
- 2.2.2 Describe five characteristic features of the ulcer identified in 2.2.1 above. (10)
- 2.2.3 Discuss the pathophysiology of the ulcer identified in 2.2.1 above. (14)
- 2.2.4 Discuss how the ABPI assessment findings will influence your management of this ulcer. (6)

[48]

QUESTION 3

Read the case study carefully and answer the questions which follow.

A 31 year old male patient attends the Podiatry clinic for dressing of his "sores". The patient has had both his legs amputated above his knees. His mother indicates to you that his blood "went bad". History reveals that there has been no traumatic episode in the patient's life which necessitated the removal of his limbs. The patient is a chronic smoker.

- 3.1.1 Provide a diagnosis for this patient's condition. (4)
 - 3.1.2 Justify your answer in 2.1.1. (4)
 - 3.2 Describe the pathology of this condition (5)
 - 3.3 What are the clinical features of this condition? (5)
- [18]**

QUESTION 4

Read the case study carefully and answer the questions which follow.

A 50 year old man presents to your practice complaining of a painful foot. The patient is overweight and leads a sedentary lifestyle. The affected foot is red, hot and swollen and is acute in onset. The patient does not really remember if he injured the area. On careful examination you discover that the patient's hallux is in fact the affected area and the surrounding tissue has swollen as a result of the acute inflammatory reaction. Further history reveals that the patient had attended a party and had over-indulged. There is no great temperature difference to note between the two feet. The patient indicated that as a young child he remembers his grandfather having a similar condition.

- 4.1 What would your diagnosis for this patient's condition be? (3)
- 4.2.1 What could a possible differential diagnosis for this condition be? (3)
- 4.2.2 Why? (4)
- 4.3 How would you confirm your diagnosis? (4)
- 4.5 What would your first line medical management for this patient be (2)
- 4.6 What advice would you give this patient pertaining to his condition (4)

[20]

QUESTION 5

Read the case study below and answer the questions which follow

A 60 year old female patient presents to the clinic complaining of pain in her right calf. The symptoms started insidiously 2 days prior to her visit to the clinic. The pain has been getting progressively worse and the limb is becoming mildly cyanotic. The patient is hypertensive and is currently taking Prexum®. She has recently undergone surgery on her hip.

- 5.1.1 Based on the case study above, what is your likely diagnosis? (2)
- 5.1.2 Provide reasons for your answer in 3.1.1 above. (3)
- 5.2 Describe the clinical features and associated symptoms of this condition. (6)
- 5.3 List possible differential diagnoses of this condition. (0.5 marks each x 6= 3)
- 5.4 What action should you take in this instance? (2)
- 5.5 What are the potential complications of this condition? (4)
- 5.6 Discuss the aims of treatment in this condition. (10)
- 5.7 Name the group of drugs Prexum® belongs to and describe its mechanism of action. (5)

[35]

QUESTION 6

Read the case study below and answer the questions which follow.

A 14 year old male patient from a rural area is referred to the Podiatry clinic by the nurses at a Primary Health Care (PHC) Centre. The patient presents with a large open area where there is exposure of his metatarsal bones. The nurses indicate that the problem started approximately two years previously when the patient's family noticed hypopigmented patches on the lad's legs and face. The patient's family consulted a traditional healer who was treating the condition. The patient walks barefoot most of the time and his parents indicated that he developed a blister a few months ago which was treated by the traditional healer. Over a period of time the condition deteriorated as the blister became larger and suddenly according to the family he loss of most of his foot's integrity. When the area failed to heal the family sought the advice of the nurses at the PHC Centre. On examination the hypopigmented lesions were numb. The contra-lateral limb displayed loss of sensory neurological function on the plantar aspect. The affected foot presented as an open lesion with exposure of the metatarsal bones and exposure of the underlying soft tissue. The bandage applied by the nurses was soiled and wet. The area was highly exudative and malodorous.

- 6.1 Based on the case study what would your likely diagnosis of this patient's condition be? Give reasons for your answer. (6)

- 6.2 Explain in your own words what you believe has happened to the patient that has resulted in him losing the integrity of his foot. (10)
- 6.3 Provide a description of the secondary complications which may follow ulceration in this condition. (6)
- 6.4 Discuss the principles of management for this patient's condition. (8)
- [30]**

QUESTION 7

Read the case study below and answer the questions which follow.

A 52 year old Caucasian woman presents to the Podiatry Clinic with plantar callus and fissuring, which had arisen following plantar fasciotomy to correct "clubbed feet." The patient stated that she had been born with normal feet, but by the time she was 6 years old she could not run or jump properly and by the time she reached adolescence her feet had become high-arched and inverted. She noticed a gradual increase in her arms and legs and was more prone to dropping things. She had a recent history of several falls, with her ankle "going over." She also experienced aching joint pain in her feet, knees and hips. Her 27 year old son was similarly affected. Orthopaedic Range of Motion showed limited dorsiflexion and eversion. The foot was pes-cavoid with a high-stepping gait. All the neurological tests were normal except for vibration perception. Deep tendon reflexes were absent. Muscle power was reduced in all limbs and muscle wasting of the hands, feet, and calf muscles was noted.

- 7.1.1 Based on the case study above what is your diagnosis of this patient's condition. (3)
- 7.1.2 Give reasons for your answer in 2.1.1 above. (4)
- 7.2 How is this condition diagnosed? (3)
- 7.3 What are the principles of management of this condition? (5)

[15]

Total Marks: 196