



“Investing in Africa’s Future”

FACULTY OF HEALTH SCIENCES

COURSE CODE: SLS211
COURSE TITLE: Histology Practical Supplementary
DATE: November 2018
TIME: 3 hours

INSTRUCTIONS

Answer **all** questions

The mark allocation for each question is indicated at the end of the question

Credit will be given for logical, systematic and neat presentations.

Section A (one hour)

1a. Using the method provided stain the slide provided then answer the following questions (10)

b. State the name and principle of this test (5)

c. State the results obtained using this method (5)

[Total: 20 marks]

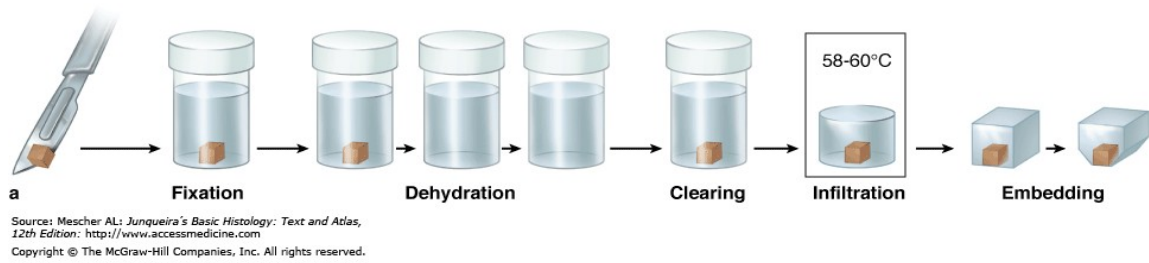
Section B (one hour 30 minutes)

1. The image in Fig 1 shows an optical microscope labelled 1-9. State the labelled parts indicating the number and the name [10]



Fig 1

2. The image shows a tissue being processed.



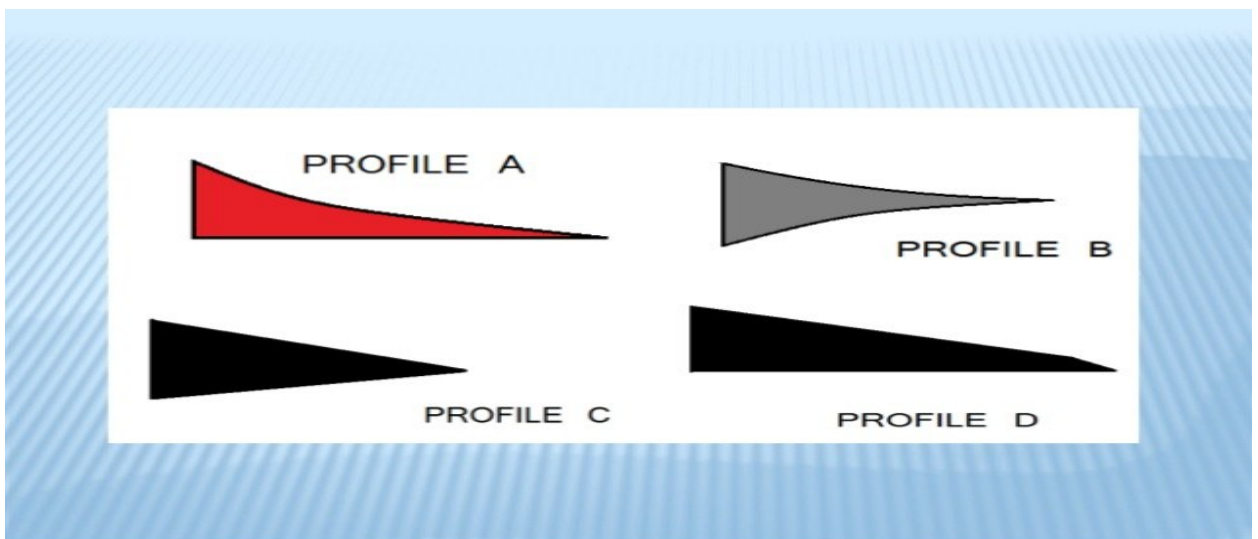
Explain why we

(a) Fix [2]

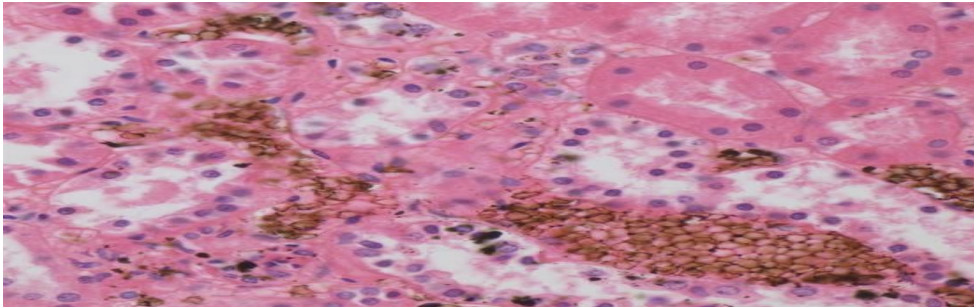
(b) Dehydrate [1]

(c) Clear [2].

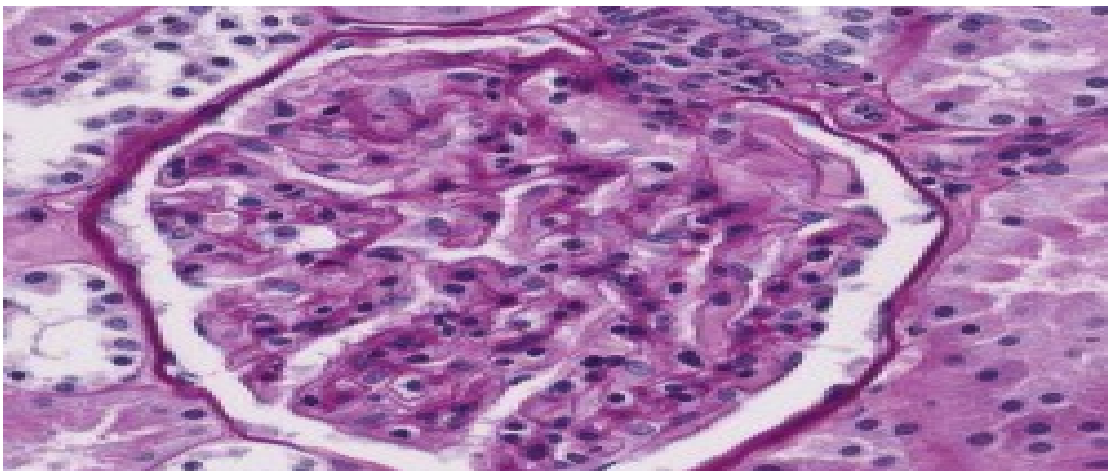
3. microtome knives are classified according to their cross section State what is labelled A-D (5)



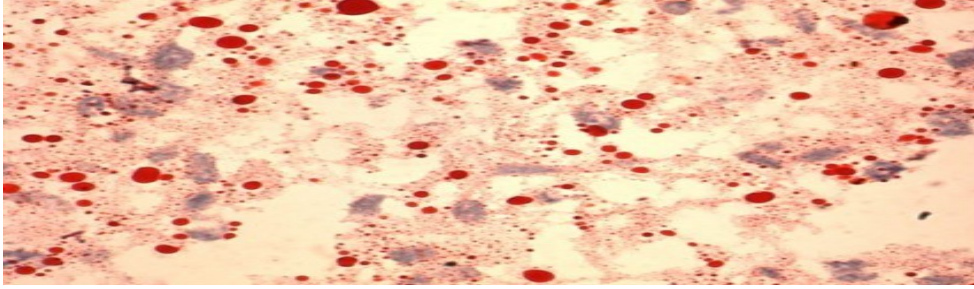
4. This is Formaldehyde pigment. What is a pigment (2)
what is the effect of a pigment (3)



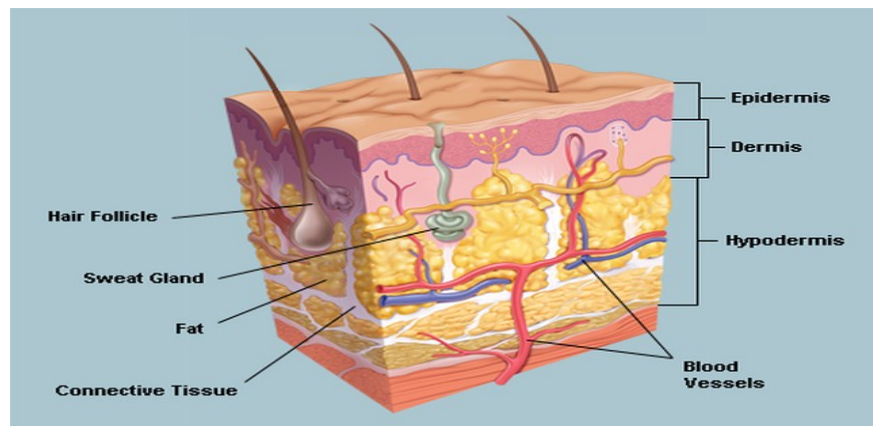
5. The image below shows a stained section where carbohydrates are stain magenta a.
give the full name of the special stain (1)
b. state the principle of the reaction(2)
c. Taking into consideration the above reaction state the diastase digestion principle (2)



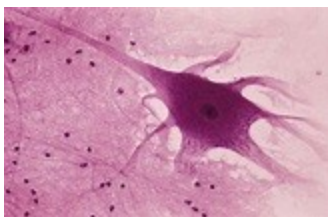
6. The slide below demonstrates lipid
a. what is the principle of lipid stains (3)
b. give three examples of lipid stains (2)



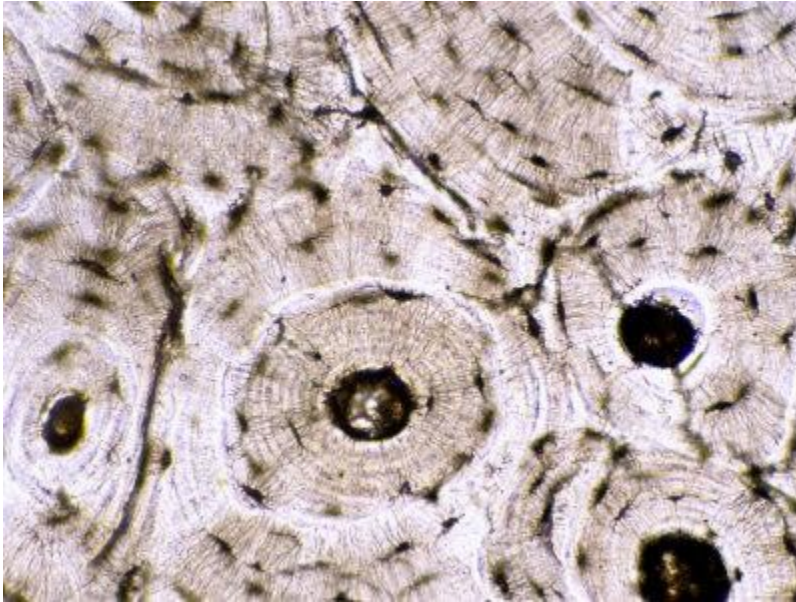
7. The skin is made up of the epidermis and dermis. State the different strata that make up the
- Epidermis (3)
 - dermis (2)



8. The image below shows photomicrograph of a neuron
- what type of neuron is it (2)
 - State any 3 parts of neurons shown (3)



9. The image below shows photomicrograph of a bone
- c. what type of bone is it (2)
 - d. State any 3 parts of bone shown (3)



Holds 60 marks

Section C (30 minutes)

Spots on microscope

1. a. What is the name of the instrument(1)
b. Why is it important in histology (4)
2. The spot shows a microscope lens.
 - a. What is the name of the lens (1)
 - b. There are inscriptions written on the lens explain what they mean (4)
3. Identify organisms on given slide and state the type of stain used (2)
4. Identify organisms on given slide and state the type of stain used (2)
5. What type of tissue is shown on slide and justify your answer (2)
6. What type of stain is indicated on slide and justify your answer (2)
7. What is shown on the picture (1)
8. What is shown on the picture (1)

Holds 20 marks

Procedure for section A

1. Dewax and take sections to water

NOTE: steps 1 have already been done for you

2. Mix equal parts of solution 1 and solution 2Place the slides in ammoniacal silver solution in a coplin jar
3. Cover section with working solution for 20 minutes
4. Rinse gently in distilled water
5. Counter stain lightly with 1% neutral red stain for 5 seconds
6. Blow dry
7. Differentiate if necessary in 95% alcohol
8. Blow dry
9. Mount in DPX