



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELLOR OF SCIENCE (BIOCHEMISTRY AND BIOTECHNOLOGY)

SBC 355: FORENSIC PATHOLOGY

DATE: Friday 30th March 2012

TIME: 4.30p.m – 6.30p.m

INSTRUCTIONS

Answer All Questions in Section A and B and Any TWO questions in section C

Section A: Compulsory (20 marks) (Each question is one mark)

1. The following are morphologic characteristics used in the identification of both the living and the dead except
 - a) Hair colour
 - b) Surgical scars and old injuries
 - c) DNA
 - d) Skin pigmentation
2. The following samples are suitable for DNA analysis except
 - a) Red blood cells
 - b) Hair shaft
 - c) Muscle
 - d) Spermatozoa
3. Regarding abrasions
 - a) Brush abrasions are common in accidental burns
 - b) They are caused by sharp force trauma
 - c) They commonly have bridging vessels
 - d) They affect only the epidermis
4. The following statements are NOT true
 - a) Lacerations typically result from blunt force trauma
 - b) Incised wounds are always deeper than they are wide
 - c) A double edge weapon will produce a stab wound that is sharp on both edges
 - d) Presence of clothing affects the depth of a stab wound
5. True of defence wounds
 - a) They are usually self inflicted
 - b) They are most commonly found on the upper limbs
 - c) They are always fatal
 - d) They are always lacerations
6. True of lacerations of the scalp except
 - a) May occur following road traffic accidents
 - b) Examination usually reveals bridging vessels
 - c) Usually bleed profusely
 - d) Are always associated with skull fractures
7. Concerning skull fractures
 - a) They are always caused by sharp force trauma
 - b) Occur more easily in adults than children

- c) They are a marker of application of severe force to the head
 - d) Depressed skull fractures are always fatal
8. Contra coup injuries
- a) Occur on the side opposite to the side of application of force
 - b) Result from sharp force trauma to the brain
 - c) Are always fatal
 - d) Only occur in the very young and the elderly
9. Regarding short gun injuries
- a) Long range injuries are always fatal
 - b) Contact wounds usually produce a muzzle impression
 - c) Always produce a single entry wound
 - d) Always produce death by carbon monoxide poisoning
10. True about wounds from rifled weapons
- a) Entry wounds typically have everted margins
 - b) At close range, a circular entry indicates that the discharge was at right angles to the skin
 - c) Exit wounds are always larger than entry wounds
 - d) All the above
11. NOT true of road traffic accidents
- a) Secondary injuries are often more serious than primary injuries
 - b) Primary injuries are caused by direct contact with the vehicle
 - c) Primary injuries often form recognizable patterns and are always fatal
 - d) The point of contact is determined by the orientation of the victim
12. Regarding samples required for toxicologic analysis
- a) Only arterial blood samples are useful
 - b) Blood samples from the general body cavity are always needed for suspected narcotic overdose
 - c) Bile has no role in toxicologic analysis
 - d) Hair and nail clippings are important in suspected heavy metal poisoning
13. The following statements are true about ligature strangulation
- a) A constricting band is tightened around the neck
 - b) The ligature mark rarely has any value as evidence
 - c) Air passages are obstructed by a soft cloth pushed into the mouth
 - d) There is entry of food into the air passages
14. Regarding injuries due to heat
- a) Charring of the skin is always present with scalds
 - b) First degree burns may involve exposure of muscle and bone
 - c) The prognosis of first degree burns is not influenced by the percentage of burned skin surface
 - d) Finding of soot in the trachea implies that the person was breathing after the fire began
15. The following describe cardiovascular causes of sudden death
- a) Hypertensive heart disease
 - b) Cerebrovascular accident
 - c) Ruptured berry aneurysm
 - d) b and c

16. The following statements are true about forensic examination of victims of sexual offences
- An informed consent should be obtained only in persons over the age of 18
 - Anal examination must always be performed for both male and female victims
 - Absolute confidentiality should be confirmed to the patient
 - Sexual history is only relevant in victims who are sexually active
17. Some of the reasons why it may be important to prove or disprove a recent pregnancy include all the following except
- In an alleged criminal abortion
 - In an expectant mother facing capital punishment
 - In disposition of property of a dead husband
 - None of the above
18. The following are recognized causes of intra uterine death except
- Fetal hypoxia
 - Placental insufficiency
 - Birth trauma
 - Congenital abnormalities
19. Regarding consent to undergo medical examination
- An implied consent always requires the patient to sign a pre-designed form
 - Consent is only legally valid if the patient understands what it is about
 - May not be given by a parent or guardian in respect to a child
 - Adults with mental disorders may give an informed consent
20. True of injuries due to heat
- Immersion into hot liquid will usually result in an upper fluid level
 - First degree burns involve the entire thickness of the skin
 - Age of the burnt individual is not an important determinant of prognosis
 - The pattern of scalds cannot provide a marker to the orientation of the victim at the time of exposure to the hot fluid

Section B: Answer all questions (30 marks)

- Describe the early changes after death (5 marks)
- Discuss morphologic characteristics used to identify the living and the dead (5 marks)
- Compare and contrast; lacerations and incised wounds (5 marks)
- Give an account of the features of exit wounds from rifled weapons (5 marks)
- Explain the fatal effects of criminal abortions (5 marks)
- Describe the features that would make a one suspect that he/she is dealing with injuries resulting from child abuse (5 marks)

Section C: Answer any TWO questions (10 marks each)

1. Give a detailed account of the structure and context of a medical report that would be used as evidence at a court of law
2. Discuss the relevant tests in forensic examination of a victim of sexual assault and their significance
3. Give a detailed account of samples that would be required for toxicologic analysis in cases of poisoning