



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICAL
LABORATORY SCIENCES
BMLS12MMID

AML 4455: FORENSIC SCIENCE

SPECIAL/SUPPLEMENTARY EXAMINATION

OCTOBER 2013 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **TWO** sections A and B

Section A –Contains MCQS. Answer **ALL** questions in **Section B**.

SECTION A – MCQs – (30marks)

1. The study of death in all its aspects is known as
 - a) Tharatology
 - b) Tricology
 - c) Dactylography
 - d) Histology
 - e) None of the above
2. Cyanide poisoning causes
 - a) Histotoxic anoxia
 - b) Anoxic anoxia
 - c) Anemic anoxia
 - d) Stagnant anoxia
 - e) None of the above
3. All of the following cause accdarated decomposition except
 - a) Hot environment
 - b) Overweight decedent
 - c) Lack of clothes
 - d) Sepsis
 - e) Hyperthermia

4. Cherry red lividity is common in carbon monoxide poisoning it can also be seen in
 - a) Hyperthermia
 - b) Hypothermia
 - c) Electrocution
 - d) Arsenic poisoning
 - e) Ethanol toxicity

5. Suspended animation may be seen in all except
 - a) Electrocution
 - b) Drowning
 - c) Poisoning
 - d) Epilepsy
 - e) Hanging

6. Postmortem lividity is useful to assess
 - a) Time since death
 - b) Weapon that was used to cause death
 - c) Position of body after death
 - d) All of the above
 - e) Temperature of body

7. Decomposition process include the following except
 - a) Autolysis
 - b) Putrefaction
 - c) Rigor mortis
 - d) Mummification
 - e) Adipocere

8. What substance is commonly used for preservation of viscera for toxicological analysis
 - a) 10% formalin
 - b) Saturated solution of salt
 - c) 40% formation
 - d) Alcohol
 - e) All of the above

9. Total number of teeth in a female at 4 years of age is
 - a) 4
 - b) 32
 - c) 20
 - d) 36
 - e) 6

10. The anterior fontanel usually closes approximately between
- 2 - 3 months
 - 12 - 18 months
 - 4 - 5 years
 - 12 - 18 years
 - 5 - 6 months
11. The following tests are done on blood excepts
- Benzidine test
 - Acid phosphates test
 - Teichmann's test
 - Luminol test
 - None of the above
12. The test that is used to differentiate human blood from animal blood is :-
- Benzidine test
 - Takayama test
 - Precipitin test
 - Teichmann's test
 - Acid phosphate test
13. If a father has blood group B, and mother AB the children are not likely to be
- Blood group O
 - Blood group A
 - Blood group B
 - Blood group AB
 - None of the above
14. An old blood stain in a cotton fiber can be best identified by
- Haemin test
 - Precipitin test
 - Benzidine test
 - Leucomalachite test
 - Acid dilution test
15. Sex of a person can be determined by
- Urinary epithelial cells
 - Bone marrow
 - Buccal mucosa epithelial cells
 - Nerve cells
 - None of the above

16. Stature of a person is more at
- Evening
 - Early morning
 - Mid-day
 - Morning
 - None of the above
17. The following can be used for laboratory analysis of alcohol except
- Breath
 - Stool
 - Saliva
 - Blood
 - Urine
18. The following factors affect absorption and distribution of alcohol except
- Speed of consumption
 - Percentage of alcohol content
 - Quantity of alcohol consumed
 - Quantity and type of food present in stomach
 - Temperature of alcohol consumed
19. Which is not a psychophysical test which a police officer may give to an individual suspected of being under the influence of alcohol
- Walk and turn test
 - Field urine test
 - Horizontal gaze nystagmus
 - One-leg stand test
 - Running
20. After a screening test has been used to determine the identity of an abused drug, the confirmation test of choice is
- Thin layer chromatography
 - Gas chromatography /mass spectrometry
 - Thin layer chromatography
 - Immunoassay
 - Immunohistochemistry
21. Age lunation is best done by examination of
- Pubic hair
 - Dental x-ray
 - X-ray maxilla
 - Eyes
 - Nose

22. Algor mortis is
- Cadaveric spasm
 - Hypastosis
 - Cooling of the body
 - Rigar morh's
 - Decomposition
23. Which is not a constiment of embalming fluid
- Formaldohde
 - Methanol
 - Ethanol
 - Glycerin
 - Powder
24. From vitreous humour leshmaition of time since death is done by
- K^+ level
 - Na^+ level
 - Glucose level
 - Urea level
 - Ethanol level
25. Molecular death is
- Complete and Reversible cessation of brain, heart and lungs function
 - Death of individual tissues and cells after somatic death
 - Total loss of EEG activity, but heart is functioning
 - Vital functions are at how pitch that cannot be detected by clinical examination
 - None of the above
26. Entomology of cadaver helps in determining
- Time since death
 - Mechanism of death
 - Manner of death
 - Identify the disease causing death
 - None of the above
27. Which of the following is not true of blood evidence
- Blood should be kept refrigerated
 - When collecting blood, clean the area with non-alcoholic disinfectant
 - Utilize a preservative when possible
 - Collect postmortem blood from one specific site on the body
 - All the above

28. Which is not important in brain death

- a) EEG
- b) ECG
- c) Absence of brain stem reflex
- d) Body temperature
- e) Papillary response

29. The intentional killing by act or omission of a dependent human being for his/her alleged benefit is

- a) Euthanasia
- b) Tharatology
- c) Dactylography
- d) Lividity
- e) Mummification

30. All the following are tests for stoppage of circulation except

- a) Magnus test
- b) Winslow's test
- c) Icard's test
- d) Diaphanous test
- e) Precipitin test

SECTION B

1. (a) Describe FIVE decomposition processes
(b) List FOUR settings that accelerate decomposition and 2 that delay decomposition **(20marks)**
2. Describe common methods for identification of a dead person **(20marks)**