



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

SEPTEMBER-DECEMBER 2020 TRIMESTER

SCHOOL OF NURSING

REGULAR PROGRAMME

UNUR/NUR 100: HUMAN ANATOMY

Date: DECEMBER 2020

Duration: 3 Hours

INSTRUCTIONS:

- (5 All questions are compulsory
- (6 Indicate the answers in the answer booklet provided

PART -I: MULTIPLE CHOICE QUESTIONS (MCQs)

(20 MARKS):

1. When structure and function coordinates the body gets a relative stability. This phenomenon is called:

- a) Anatomical integrity
- b) Physiological stability
- c) Hemostasis
- d) Homeostasis

2. Successive flexion, abduction, extension and adduction is known as:

- a) Rotation
- b) Circumduction
- c) Angulation
- d) Eversion

3. An ultrasound of a 35-year-old pregnant woman reveals that she is carrying conjoined twins, a condition caused by incomplete division of embryonic discs. The most common location where conjoined twins (1/200 monozygotic conceptions) connects is:

- a) Thoracopagus
- b) Dicephalus
- c) Craniopagus
- d) Hydrocephalus

4. Primordial germ cells migrate to the gonads from the:

- a) Intermediate mesoderm
- b) Wall of the yolk sac
- c) Lateral plate mesoderm
- d) Endoderm of the bilaminar disc

5. From fertilization to implantation:

- a) Morula is the immediate product of fertilization.
- b) Initial penetration of the endometrium by the developing embryo is by the inner cell mass.
- c) Implantation normally starts in the fallopian tube.
- d) Fertilization occurs when the spermatozoon penetrates the zonapellucida but not the corona radiata.

6. Ovulation:

- a) Can occur at any stage of the maturation of the graafian follicle.
- b) Results in the release of the oocyte leaving behind a corpus luteum.
- c) The corpus luteum produces oestrogen and androgens.
- d) Ovulation is followed by the proliferative phase of the endometrium during the menstrual cycle.

7. The hormone of pregnancy is:

- a) Oestrogen
- b) Luteinising hormone
- c) Progesterone

- d) Follicle stimulating hormone
8. The commonest site of ectopic implantation is:
- a) Uterus
 - b) Ovary
 - c) Rectouterine pouch
 - d) Uterine tubes.
9. The human somatic cell:
- a) Contains a haploid number of chromosomes.
 - b) Has 23 chromosomes.
 - c) Has a diploid number of chromosomes.
 - d) Has only autosomes.
10. The following are found attached to the surface of rough endoplasmic reticulum:
- a) Ribosomes
 - b) Mitochondria
 - c) Golgi apparatus
 - d) Glycogen
11. During meiosis:
- a) Somatic cells take part.
 - b) The haploid number of chromosomes is attained.
 - c) Cleavage never occurs.
 - d) The chromosomal number in daughter cells is equal to that of the parent cells.
12. DNA is found mainly in the:
- a) Ribosomes
 - b) Lysosomes
 - c) Nucleus
 - d) Mitochondria
13. The mitochondria:

- a) Carry out synthesis of protein in the cytoplasm
- b) Form the mitotic spindle
- c) Contain the cell's hereditary material.
- d) Are sites of energy production in the cytoplasm.

14. Which of the following epidermal cells form a protective barrier against Ultra Violet radiation?

- a) Langerhans
- b) Melanocyte
- c) Merkel
- d) Keratinocyte

15. Damage to the facial nerve at the stylomastoid foramen would affect:

- a) facial expression
- b) salivation
- c) taste sensation on the anterior 2/3 of the tongue
- d) lacrimation

16. After a car accident the driver was noted to have clear fluid (cerebral spinal fluid) draining from his nose. The bone which is most likely fractured is the:

- a) frontal
- b) nasal
- c) ethmoid.
- d) lacrimal

17. 56-year-old woman complains of diplopia (double vision) when walking down stairs. A lesion of which of the following nerves is most likely responsible for this patient's complaint?

- a) Optic
- b) Oculomotor
- c) Abducens
- d) Trochlear

18. Mwendu 18-year-old female presented with periorbital edema, headache and fever. With a history of squeezing an infected pustule on the nose a diagnosis of cavernous sinus thrombosis was made. Infection from this area was carried by the facial vein to the cavernous sinus through the

- a) Retromandibular vein
- b) Angular vein
- c) Superficial temporal vein
- d) Superior ophthalmic vein

19. A nurse palpates the mastoid process of an adolescent complaining of pain behind the ear. Which bone is the nurse palpating?

- a) Occipital
- b) Zygomatic
- c) Temporal
- d) Parietal

20. The glossopharyngeal nerve leaves the skull by passing through the:

- a) Carotid foramen
- b) Hypoglossal foramen
- c) Foramen ovale
- d) Jugular foramen

PART-II: SHORT ANSWER QUESTIONS (SAQs)

(40 MARKS):

1. Outline the levels of structural organization in human body (5 marks)
2. Describe the cell cycle (8 marks)
3. Outline 5 characteristics of connective tissue (5 marks)
4. Outline the embryonic development of the lungs (5 marks)
5. Describe the embryonic development of the kidneys (6 marks)

6. Draw and label a cross-section of spinal nerve diagram showing the ascending and descending tracts (5 marks)
7. Describe formation, flow and absorption of cerebral spinal fluid (6 marks)

PART III: LONG ANSWER QUESTIONS (LAQs)

(40 MARKS)

1. 20-year-old woman conceives and a zygote is formed.
 - a) Describe the process of fertilization (8 marks)
 - b) Describe the process of gastrulation (12 marks)
2. Concerning the nervous system;
 - a) Outline the anatomical organization (4 marks)
 - b) Describe the development of the brain (8 marks)
 - c) Describe developmental anomalies associated with the central nervous system (8 marks)

END