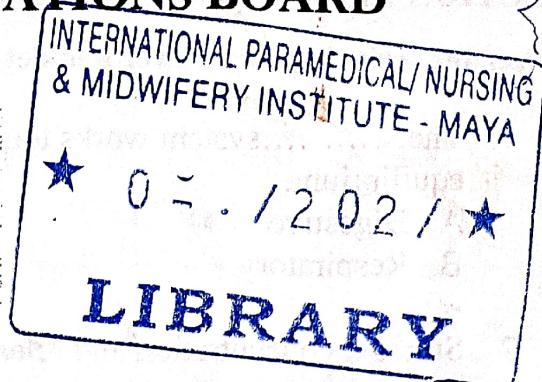


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UGANDA ALLIED HEALTH EXAMINATIONS BOARD



SEMESTER II 2018/2019 EXAMINATIONS

Programme: DIPLOMA IN CLINICAL MEDICINE AND COMMUNITY HEALTH

Course Code: DCM 1201

Course Name: APPLIED ANATOMY AND PHYSIOLOGY II

Time: 9:00AM – 12:00NOON

Date: MONDAY 20TH MAY, 2019

Instructions to Candidates:

1. Read Instructions carefully.
2. Mobile phones even when switched off are prohibited in the examination room.
3. Write your Index number **ONLY** on all pages of your answer booklet(s).
4. Do not write on the question paper.
5. Write all your answers in the answer booklet provided.
6. Do not take any paper outside the examination room.
7. All rough work should be done in the answer booklet and then crossed out. Pages must not be removed from the answer booklet.
8. Use a blue/black pen for writing and a pencil for drawing where necessary.
9. Candidates must not take into the examination hall or have in their possession any unauthorized apparatus, books, notes or paper of whatever nature or size.
10. The Paper is divided into three sections: A Multiple-Choice questions, B Short Answer Questions and C Essay questions. Attempt all questions

SECTION A: MULTIPLE CHOICE QUESTIONS (20 MARKS)

Select and write in your answer booklet the letter representing the correct answer

1. The system works together with the endocrine system to maintain the body's equilibrium.
 - Digestive
 - Respiratory
 - Nervous
 - Reproductive
 2. Storage, concentration and release of bile is a function of:
 - Liver
 - Gall bladder
 - Pancreas
 - Small intestines
 3. The best vision in dim light is aided by:
 - Cones
 - Rods
 - Fovea
 - Sclera
 4. The neurotransmitter released by preganglionic axons at the autonomic nervous system is:
 - Norepinephrine
 - Serotonin
 - Acetylcholine
 - Nitric oxide
 5. During the proliferative phase of spermatogenesis, the transform to
 - Spermatids, Spermatozoa
 - Spermatogonia, Spermatocytes
 - Spermatids, Spermatocytes
 - Spermatocytes, Spermatids
 6. The main stimulant for the production of electrolyte-rich pancreatic juice is:
 - Secretin
 - Gastrin
 - Cholecystokinin (CCK)
 - Gastric inhibitory polypeptide (GIP)
 7. Which one of the following hormones lowers the blood calcium level?
 - Calcitonin
 - Thyroxine
 - Triiodothyronine
 - Parathyroid hormone
 8. The effect of luteinizing hormone in males is to:
 - Stimulate the Leydig cells to convert steroids to testosterone
 - Stimulate the Sertoli cells to form sperms
 - Stimulate the growth spurt at puberty
 - Promote aggressiveness
 9. Taste is mediated by the following cranial nerves, except:
 - Facial
 - Glossopharyngeal
 - Trigeminal
 - Vagus

10. A fracture of the bone would eliminate the sense of smell.
A. Nasal
B. Ethmoid
C. Frontal
D. Sphenoid

11. These are optical components of the eye, except:
A. Lens
B. Humour of the eye
C. Cornea
D. Retina

12. Spermatozoa are to seminiferous tubules as oocytes are to:
A. Fimbriae
B. Corpus albicans
C. Ovarian follicles
D. Corpora lutea

13. The following are conditions for salivary amylase to work longest in the stomach, except:
A. Large meals
B. Weak gastric motility
C. Food bolus taking longer to break up
D. PH lower than 4 – 5 but higher than 2.0

14. The cerebral hemispheres are connected by:
A. Corpus luteum
B. Corpus albicans
C. Corpus callosum
D. Corpus haemorrhagicum

15. Resting membrane potential at a cell:
A. Is dependent on the permeability of the cell membrane to K^+ ions being greater to Na^+ ions
B. Falls to zero if Na^+/K^+ Atpase pump in the membrane is inhibited
C. Is equal to the equilibrium of K^+ ions
D. Is equal to the equilibrium at Na^+ ions

16. The coughing, sneezing, swallowing and vomiting reflexes are controlled by nucleus found in the:
A. Mid brain
B. Brain stem
C. Medulla oblongata
D. Cerebellum

17. Once sperms are produced in the testes they move and mature in the:
A. Seminiferous tubes
B. Vas deferens
C. Epididymis
D. Prostate gland

18. The zone of the prostate gland is commonly affected by Benign prostate hyperplasia:
A. Transitional
B. Central
C. Peripheral
D. Fibro muscular

19. The following hormones work synergistically with growth hormone, except:
A. Adrenalin
B. Testosterone
C. Calcitonin
D. Tri-iodothyronine

20. A person with damage to the visual association area:
- Sees normally but cannot recognize ordinary objects
 - Sees normally and recognizes ordinary objects
 - Cannot see objects not perpendicular to his eyes
 - He/she is completely blind

SECTION B: SHORT ANSWER QUESTIONS (20 MARKS)

21. (a) Define the term "sphincter". (1 mark)
(b) Stating the location of each, name **three (3)** sphincters in GIT. (3 marks)
(c) Give **one (1)** function of any of the sphincters named in 21(b) above. (1 mark)
22. Reflexes occur over neural pathways called reflex arcs.
(a) Define a reflex. (2 marks)
(b) State **three (3)** characteristics of reflexes (3 marks)
23. State **four (4)** structural adaptations of the stomach that enables it to perform its functions. (4 marks)
24. Outline the functions of the following:
i) Reticular activating system (3 marks)
ii) Hypothalamus (3 marks)

SECTION C: ESSAY QUESTIONS (60 MARKS)

25. (a) Define a hormone. (2 marks)
(b) Classify hormones chemically (3 marks)
(c) Naming the target organ, state **two (2)** effects of the following hormones in the human body.
i. Insulin (3 marks)
ii. Triiodothyronine (3 marks)
iii. Aldosterone (3 marks)
(d) Describe the hormonal control of the female reproductive system. (6 marks)
26. (a) What is a nerve plexus? (2 marks)
(b) State **six (6)** examples of nerve plexuses in the human body. (6 marks)
(c) Describe the production and drainage of the cerebrospinal fluid in the central nervous system. (12 marks)
27. (a) Draw a well labeled diagram of the biliary tree (5 marks)
(b) (i) State **five (5)** enzymes secreted in the pancreatic juice. (5 marks)
 (ii) Give **one (1)** function of each of the enzymes stated in 27 (b) above. (5 marks)
(c) State **five (5)** cells of the stomach and their secretion (5 marks)

END