

Candidate number.....



AFRICA
UNIVERSITY
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COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES

DEPARTMENT OF HEALTH SCIENCES

SLS 405 HISTOPATHOLOGY

END OF SECOND SEMESTER SUPPLEMENTARY EXAMINATIONS

APRIL/MAY 2019

LECTURER: DR MACHALAGA

DURATION: 3 HOURS

INSTRUCTIONS

Write your candidate number on the space provided on top of each page

Answer **all** questions in section A on the question paper.

Answer any **2** questions in section B on separate answer sheets provided

Credit will be given for logical, systematic and neat presentations in sections B

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SECTION A

Answer all questions by indicating T for TRUE or F for FALSE in front of each of the statements (a) to (d) in all the questions

1. The following are small round blue cell tumours
 - A CLL/SLL
 - B Ewing's sarcoma/PNET
 - C neuroblastoma
 - D nephroblastoma
 - E renal cell carcinoma

2. The histological picture of asthma includes
 - A non caseating granulomata
 - B Langerhans cells
 - C gummas
 - D Charcot Leiden crystals
 - E bronchodilatation

3. Wilm's tumour
 - A. Is also known as neuroblastoma
 - B. Is a small round blue cell tumour
 - C. Has genetic alterations on chromosome 15
 - D. Has genetic alterations on the X chromosome
 - E. May be triphasic in histological appearance

4. Concerning displaying and photography of tissues in histopathology
 - A good fixation is key
 - B use of Keiserling's fluid retains natural colour
 - C background colour is unimportant
 - D lighting is unimportant
 - E labelling of the specimen with a hospital number is unimportant

5. Carcinoid syndrome
 - A. Is associated with small round blue cell tumours
 - B. Is caused by serotonin by-products
 - C. Involves diarrhoea and wheezing

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- D. VMA may be found in the urine
- E. Is exacerbated by drinking alcohol

6. Congenital lesions of the urinary system include

- A. Hypospadiasis
 - B. Renal cysts
 - C. Horseshoe kidney
 - D. Bifid ureters
 - E. Agenesis of the kidney
7. Schistosomal infections

- A may include a hypersensitivity type 3 reaction
- B may cause swimmer's itch
- C ova may be found in brain
- D commence in the liver
- E predispose to transitional cell carcinoma of the bladder

8. Prions

- A contain RNA as an agent
- B are derived from the words infection and protein
- C induce abnormal protein folding
- D induce amyloid formation
- E cause kuru

9. Concerning cervical carcinoma

- A histological variants include adenocarcinoma and squamous cell carcinoma
- B is associated with HPV subtypes 6 and 11
- C is one of the leading causes of mortality in Zimbabwean women
- D is amenable to prevention through screening by PAP smears for precursor lesions
- E is a benign tumour

10. Paraneoplastic syndromes may clinically present as

- A wheezing
- B diarrhoea
- C bleeding from tumour
- D anaemia
- E tetany

11. The following may compose an embolus

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- A fat
- B nitrogen
- C thrombus
- D amniotic fluid with foetal squamous (skin) cells
- E air

12. Malaria in tissues

- A. Is seen as calcified eggs
- B. Leaves a pigment homogentisic acid
- C. Leaves a pigment haemazoin
- D. Has a human sexual phase
- E. Has a human asexual phase

13. *Helicobacter* induced ulcers of gastric mucosa

- A. Show disruption of the epithelium down to the basement membrane
- B. Organisms are stained with Giemsa stain
- C. May be tested for using a urea breath test
- D. Are strongly associated with MALT lymphoma
- E. Are strongly associated with adenocarcinoma of the stomach

14. Barrett's oesophagitis

- A. Is caused by *Candida* infection
- B. Is a type of dysplasia
- C. Is a type of metaplasia
- D. Grossly is a red velvet colour
- E. Is pre malignant

15. Tumours of the pituitary

- A. May cause signs of raised intracranial pressure
- B. May cause blindness of peripheral vision
- C. Adenoma is the commonest primary tumour
- D. Tumour cells may be null cells ie hormonally silent
- E. Are a part of the MEN 1 (Wermer's syndrome)

16. Parathyroid gland

- A. Is normally located in the mediastinum
- B. Is normally located in the sellaturcica (Turkish saddle)
- C. Function to produce calcitonin
- D. Regulate calcium function
- E. Adenomata are the commonest primary tumour
- F. Histopathology is a great subject

17. Concerning melanoma

- A. Is a benign tumour

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- B. Occurs more commonly in dark skinned individuals on acral surfaces
- C. Is commoner in males
- D. Is commoner in females on the legs ((below skirt distribution)
- E. Mutations in BRAF genes are implicated

18. Myasthenia gravis is

- A. caused by activation of the polyol pathway
- B. autoimmune
- C. commoner in females
- D. affects cholinesterase function
- E. treated using antibiotics

19. Epidural haematomata at post mortem are

- A. located in the brain parenchyma
- B. commonly caused by venous bleed
- C. associated with blunt force trauma to the head
- D. common in the elderly
- E. may cause subfalcine herniation of the brain

20. Malignant mesothelioma

- A is MART1 positive
- B is caused by smoking
- C is caused by asbestos exposure
- D encases the lungs and results in suffocation
- E histologically ferruginous bodies are seen

PART B

Select two (2) essays from the three essays to write. You are advised to spend approximately 30 minutes on each. Each essay scores 20 marks each. Use of annotated diagrams is strongly encouraged.

1. Discuss the different types of cell death, using diagrams to highlight differences.
2. Malaria affects all the organ systems of the body. Discuss
3. a) Abnormal calcification- define, describe subtypes and give examples.
b) Describe granulomatous inflammation with examples of the various aetiological factors (15).
4. Carcinoma of the cervix is an epidemiologically important disease in Zimbabwe. Discuss.

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