

امتحانات الفرقة

الثالثة

( الترم الاول )

سنوات سابقة



Course name (code)	General pathology (311)
Program	BVSc
Date	March 2021
Time allowed	2 hours
Total score	25 Marks

**All quistions should be answered:**

**(20 marks)**

**Part I: Choose the correct answer**

- Q1. Pathology is the study of the structural, biochemical, and functional changes in cells, tissues, and organs that underlie disease:  
 (A) True (B) False (C) True if the word structural removed (D) True if the word functional removed
- Q2. ....are reversible functional and structural responses to changes in physiologic states and some pathologic stimuli allowing the cell to survive and continue to function.  
 (A) Apoptosis (B) Necrosis (C) Adaptations (D) Anthracosis
- Q3. ....one of the four final common biochemical mechanisms leading to cell injury.  
 (A) karyolysis (B) Damage to DNA (C) Lipidosis (D) Amyloidosis
- Q4. The influx of water along with sodium ions to the cell when the Na<sup>+</sup>/K<sup>+</sup> pumps fail called .....  
 (A) Hydropic degeneration (B) Hypertrophy (C) Ischemia (D) Healing
- Q5. ....is a local decrease in blood supply to tissue with decreased delivery of oxygen, glucose, and other nutrients to the cell, as well as decreased removal of metabolic wastes  
 (A) Hyperemia (B) Edema (C) Congestion (D) Ischemia
- Q6. Glycolysis leads to an accumulation of lactate with decreased intracellular pH, and produces heat  
 (A) True (B) False (C) True if lactate replaced by glucose (D) True if decreased replaced by increased
- Q7. liver affected with Hydropic degeneration increased in weight, pale and swollen with rounded edges.  
 (A) True (B) False (C) True if pale replaced by bright red (D) True if increased replaced by decreased
- Q8. Disruption of the intracellular.....balance is integral to the transition from potentially reversible acute cell swelling to irreversible injury and cell death.  
 (A) Vitamin C (B) Sodium ion (C) MS222 (D) Calcium ion
- Q9. EM examination of acute swollen epithelia showed loss of cilia & microvilli & develops cytoplasmic blebs  
 (A) True (B) False (C) True if loss replaced by increasing (D) True if "blebs" replaced by inclusions
- Q10. Normal endothelium is prothrombotic and antifibrinolytic.  
 (A) True (B) False
- Q11. Necrotic cell death elicits an inflammatory reaction because of the release of cell contents into the ECM.  
 (A) True (B) False (C) True if elicits replaced by doesn't elicit (D) True if necrotic replaced by apoptotic
- Q12. If cell fails to restore mitochondrial function, acute cell swelling becomes irreversible causing cell death.  
 (A) True (B) False (C) True if irreversible replaced by reversible
- Q13. .... is a gross lesion for the myocardial and skeletal muscle necrosis in white muscle disease.  
 (A) Anthracosis (B) Calcification (C) Icterus (D) edema
- Q14. Soon after cell death, necrotic tissue may have the same macroscopic features of acute cell swelling.  
 (A) True (B) False
- Q15. Dead cells tend to have intense cytoplasmic eosinophilia due to the denatured protein and loss of ribosomes  
 (A) True (B) False



جامعة المنوفية  
كلية الطب البيطري - قسم الطفيليات



Final 1<sup>st</sup> term parasitology exam

Time allowed: 2 hours

Total marks: 25 Marks

Date: 11 /1/2020

**Write on the following with illustration:**

**I-write short notes on:**

**(7 marks)**

- A-snail control ..... (2 Marks)  
B- Pathogenicity of blood flukes..... (2 Marks)  
C-Development of nematodes in their final hosts.  
..... (2 Marks)  
D-Cysticercosis..... (1 Mark)

**II-With diagram illustrate the life cycle of:- (1X4=4 Marks)**

- Cecal fluke of birds.                      -*Dipylidium caninum*.  
-*Strongylus vulgaris*.                      -The most pathogenic *Raillietina* species.

**III- in a table mentions the diagnostic stage and the infective stage of the following: (1X8=8 Marks)**

- Hymenolepis nana*.                      - *Taenia saginata*.  
- Rumen helminth.                      - *Moniezia pallida*.  
-Heart worm.                      -Rat tail.  
-Gape worm.                      -*Dipetalonema evansi*.

**IV- In a sheep farm. Some were suffering from icteric signs, bottle jaw and cachexia..... (6 Marks)**

What is your suspected helminth diagnosis? (1 Mark)

Write fully on one of each helminth type? (3 Marks)

How could you diagnose them? (2 Marks)

**GOOD LUCK**

**Prof. Dr. Eman Bazh**

يتم إجراء الامتحان الشفوي عقب الانتهاء من النظري مباشرة بالقسم





Menoufia University  
Faculty of Veterinary Medicine  
Pharmacology Department



Date: 28 / 12 / 2019

Third Year Exam (1<sup>st</sup> term)

Time allowed: 2 Hours

Please answer the all of following questions

First part the objective questions (60 questions / 15 marks) الاجابة فى نموذج الاجابة الالكترونى

Choose the correct answer

1- If an agonist can produce maximal effects and has high efficacy it's called:			
A. Partial agonist	B. Antagonist	C. Agonist-antagonist	D. Full agonist
2- What phenomenon can occur in case of using a combination of drugs?			
A. Tachyphylaxis	B. Tolerance	C. Synergism	D. Accumulation
3- The type of drug-drug interaction which is the result of interaction at receptor, cell, enzyme or organ level			
A. Pharmaceutical	B. Pharmacokinetic	C. Pharmacodynamic	D. Physical
4- Local anesthetics are:			
A. Weak bases	B. Weak acids	C. Salts	D. None of them
5- The more lipophylic drugs:			
A. Are more potent	B. Have longer action	C. Bind more to proteins	D. All of them
6- Which of the following barbiturates is an ultra-short-acting drug			
A. Thiopental	B. Phenobarbital	C. Secobarbital	D. None of them
7- Which of the following analgesics is a phenanthrene derivative			
A. Fentanyl	B. Morphine	C. Methadone	D. Narcotine
8- Which of the following inhalants is a gas anesthetic			
A. Ether	B. Nitrous oxide	C. Chloroform	D. None of them
9- Which of the following glucocorticoids is a long-acting drug			
A. Prednisolon	B. Cortisone	C. Dexamethasone	D. None of them
10- Which of the following NSAIDs is a propionic acid derivative?			
A. Flunixin	B. ibuprofen	C. Diclofenac	D. Both 'B' and 'A'
11- Which of the following NSAIDs is a selective COX-2 inhibitor?			
A. Celecoxib	B. Phenylbutazone	C. Diclofenac	D. None of them
12- The most powerful antihistaminic is			
A. Antazoline	B. Diphenhydramine	C. promethazine	D. Chlorpheniramine
13- Ketamine mode of action is			
A. GABA agonist	B. Glutamate antagonist	C. GABA antagonist	D. None of them
14- Picrotoxin mode of action is			
A. aspartate agonist	B. GABA agonist	C. GABA antagonist	D. None of them
15- Metoclopramide act as antiemetic's drug by			
A. Dopamine antagonist	B. Dopamine agonist	C. 5-HT3 blocker	D. H2 blocker
16- Select the drug that cause addiction			
A. Amphetamine	B. Retaline	C. Morphine	D. Both 'B' and 'C'





*[Handwritten scribble]*

17- Select the most powerful analeptic - has wide safety margin			
A. Bemegride	B. Doxapram	C. Coramine	D. something else
18- The maximum non-lethal dose is			
A. LD100	B. LD0	C. LD50	D. something else
19- Select the specific antidote in strychnine toxicity			
A. Trimethadione	B. Primidone	C. Mephensin	D. something else
20- Select the drug that is used in obstetrical analgesia			
A. Morphine	B. Amidone	C. Pethidine	D. Etorphine
21- Select the most potent drug in reducing pain			
A. Hydrocodeine	B. Heroin	C. Morphine	D. Hydromorphone
22- Select the drug that act as central emetic in dog			
A. Apomorphine	B. Papaverine	C. Narcotine	D. something else
23- The dangerous bad effect caused due to administration of a large dose of a drug			
A. Toxic action	B. Side action	C. Reflex action	D. Therapeutic action
24- Select the drug which inhibit hepatic microsomal (cytochrome P450) enzyme			
A. phenylbutazone	B. rifampin	C. penicillin	D. something else
25- A decrease in responsiveness to a drug which develops in a few minutes or hours			
A. Tolerance	B. Idiosyncrasy	C. Acute Tolerance	D. something else
26- when sudden symptoms of sensitivity happen immediately after drug administration			
A. Allergy	B. Anaphylaxis	C. Idiosyncrasy	D. something else
27- What kind of substances can't permeate membranes by passive diffusion			
A. Hydrophilic	B. Lipid-soluble	C. Hydrophobic	D. Non-ionized
28- Parkinson's disease appear due to deficiency in			
A. Adrenaline	B. serotonin	C. histamine	D. Dopamine
29- The convulsion that is characterized by spontaneous, coordinating, Asymmetric properties			
A. Epileptic	B. Tonic	C. Clonic	D. something else
30- Drugs which calming the animals, without or loss of consciousness even with large dose			
A. Hypnotic	B. Tranquilizers	C. analgesics	D. something else
31- This type of drug suppress cough reflex			
A. Antitussive	B. Antiviral	C. Bronchodilator	D. Antibiotic
32- Which one of the following used for treatment of moist cough.			
A. Noscapine	B. Potassium iodide	C. Codeine	D. Morphine
33- Select the drug acts as non-opioid antitussive			
A. Benzonatate	B. Noscapine	C. Oxeladine	D. Gauifensen
34- All of the following except.....are bronchodilators			
A. Salbutamol	B. Terbutaline	C. Theophylline	D. Ciprofloxacin
35- Drugs reduce viscosity of sputum to be easily eliminated.			
A. Antivirals	B. Expectrant	C. Antitussive	D. Bronchodilators
36- Used for conversion of frothy bloat to free gas bloat			
A. Dimethocone	B. Pilocarpine	C. Acetylcholine	D. B & C
37- Which one of the following used in case of paralytic ileus			
A. Curare	B. Hemicholium	C. Bethanechol	D. All of them





Menoufia University  
Faculty of Veterinary Medicine

Nutrition and Clinical Nutrition. Second Year Exam, 2019/2020

020

time allowed: 2



Please answer the all of following questions

First part the objective questions (60 questions/15 points) الاجابة فى نموذج الاجابة الالكتروني

### Choose the correct answer

1- A dietary protein is not degraded in the rumen is referred to .....			
A. RUP	B. RDP	C. Microbial protein	D. Protected protein
2- Sweet clover disease is associated with .....deficiency			
A. Vitamin E	B. Vitamin K	C. Vitamin A	D. Thiamin
3- Manganese plays an important role in the synthesis of.....			
A. Bone	B. Osteoclast	C. Chondroitin sulphate	D. Osteoblast
4- Acid detergent fiber (ADF) are.....			
A. cellulose & hemicelluloses	B. Cellulose & lignin	C. Hemicellulose & lignin	D. All of them
5- The ideal DCAD in dairy cattle is ..... to increase their production.			
A. +50	B. -50	C. -250	D. +250
6- Trace element is expressed in .....			
A. Percent %	B. g\ kg	C. part per million	D. part per thousand
7- Crazy chick disease is due to deficiency of.....			
A. Vitamin E	A. Selenium	B. Vitamin E & Selenium	C. Thiamin
8- The ..... is rich in polyunsaturated fatty acids			
A. soybean oil	B. coconut oil	C. peanut oil	D. Palm oil
9- ..... essential for collagen formation.			
A. Vitamin E	D. Vitamin A	E. Manganese	F. Vitamin C
10- High level of calcium carbonate, iron, zinc and molybdenum reduce the absorption of .....			
A. Copper	B. Iron	C. Manganese	D. Cobalt
11- ..... Is the chief cation of blood plasma and extracellular fluids of the body.			
A. sodium	B. chlorine	C. calcium	D. sulpher
12- Chicks reared on a riboflavin-deficient diet develop.....paralysis			
A. nerve degeneration	B. curled toe	C. beri-beri	D. jerky
13- ..... when rumen pH is below 5,5 associated with weak rumen motility			
A. acute acidosis	B. SARA	C. ketosis	D. Downer cow syndrome
14- .....are 18- to 20-carbon unsaturated fatty acids having at least two double bonds			
A. EAAs	B. Vitamin F	C. VFAs	D. Lecithins
15- .....is a metabolic disorder mainly of dairy cows close to calving due to Ca deficiency			
A. Parturient paresis	B. ketosis	C. pregnancy toxemia	D. SARA
16- .....sum of all organic digestible nutrients			
A. Digestible nutrients	B. Nutrients	C. NR	D. TDN
17- Zinc deficiency in cattle results in .....			

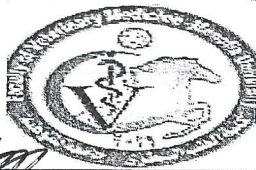


الفيروسات

الفيروسات

الفيروسات

قسم الفيروسات



DEPARTMENT OF VIROLOGY  
First Semester Exam, BVSc, third year.

21<sup>th</sup> Jan, 2020

General virology course (25 Marks)

Time: 2 hour

Please Answer All the Following Questions

Group (A)

(10 marks)

Although viruses are obligate intracellular parasites and rely entirely on the metabolic machinery of the host cell, they usually do not cause much harm, the main reason is that our body is not defenseless but makes use of numerous measures to keep viruses at bay.

- How the immune system succeeds to eliminate the virus infected cell? (2 M)
- Describe the mechanism of interferon action? (3 M)
- Mention the symmetry and function of viral capsid? (2 M)
- Mention the mechanism of antiviral and virucidal agents? (2 M)
- Complete the following sentences (1 M)
  - Virus infection induces interferon types .....&.....
  - The viral genome contain genes for .....&.....proteins

Group (B)

(6 marks)

- Differentiate between Haemagglutination and haemadsorption? (2 M)
- Classify HA viruses? (1 M)
- Mention viral tropism and virus variation? (2 M)
- Complete the following sentences (1 M)
  - Viruses directly produce toxic product that exaggerate viral pathogenesis as...  
(a. Rota viruses – b. Pox viruses – c. Adenoviruses – d. Herpes viruses)
  - The process by which viral infection leads to disease is .....  
(a. Viral pathogenesis – b. Immune tolerance – c. Shedding – d. Viral tropism)

Group (C)

(9 marks)

The viral replication cycle begins with virus entry and ends by shedding. All viruses must have ways of entering target cells to replicate. Two phases have developed after penetration; the eclipse phase represents the intervals between uncoating and assembled virion within the cell and the latent phase extends from assembly until the appearance of infectious extracellular virus

- Correct the false in the above mentioned paragraph? (2 M)
- Design the strategies of RNA viruses' replication and translation? (2 M)
- Discuss subunit vaccine? (3 M)
- Difference between re-combination and re-assortment? (2 M)



Please answer the all of following questions

First part the objective questions (60 questions/15 points) الاجابة في نموذج الاجابة الالكتروني

Choose the correct answer

1- A dietary protein is not degraded in the rumen is referred to .....	A. RUP	B. RDP	C. Microbial protein	D. Protected protein
2- Sweet clover disease is associated with .....deficiency	A. Vitamin E	B. Vitamin K	C. Vitamin A	D. Thiamin
3- Manganese plays an important role in the synthesis of.....	A. Bone	B. Osteoclast	C. Chondroitin sulphate	D. Osteoblast
4- Acid detergent fiber (ADF) are.....	A. cellulose & hemicelluloses	B. Cellulose & lignin	C. Hemicellulose & lignin	D. All of them
5- The ideal DCAD in dairy cattle is ..... to increase their production.	A. +50	B. -50	C. -250	D. +250
6- Trace element is expressed in .....	A. Percent %	B. g\kg	C. part per million	D. part per thousand
7- Crazy chick disease is due to deficiency of.....	A. Vitamin E	A. Selenium	B. Vitamin E & Selenium	C. Thiamin
8- The ..... is rich in polyunsaturated fatty acids	A. soybean oil	B. coconut oil	C. peanut oil	D. Palm oil
9- ..... essential for collagen formation.	A. Vitamin E	D. Vitamin A	E. Manganese	F. Vitamin C
10- High level of calcium carbonate, iron, zinc and molybdenum reduce the absorption of .....	A. Copper	B. Iron	C. Manganese	D. Cobalt
11- ..... Is the chief cation of blood plasma and extracellular fluids of the body.	A. sodium	B. chlorine	C. calcium	D. sulphur
12- Chicks reared on a riboflavin-deficient diet develop.....paralysis	A. nerve degeneration	B. curled toe	C. beri-beri	D. jerky
13- ..... when rumen pH is below 5,5 associated with weak rumen motility	A. acute acidosis	B. SARA	C. ketosis	D. Downer cow syndrome
14- .....are 18- to 20-carbon unsaturated fatty acids having at least two double bonds	A. EAAs	B. Vitamin F	C. VFAs	D. Lecithins
15- .....is a metabolic disorder mainly of dairy cows close to calving due to Ca deficiency	A. Parturient paresis	B. ketosis	C. pregnancy toxemia	D. SARA
16- .....sum of all organic digestible nutrients	A. Digestible nutrients	B. Nutrients	C. NR	D. TDN
17- Zinc deficiency in cattle results in .....				





**Menoufia University**  
**Faculty of Veterinary Medicine**

**Nutrition and Clinical Nutrition. Second Year Exam, 2019/2020**

**020**

**time allowed: 2**



A. Swollen hock syndrome	B. Alopecia	C. Osteomalacia	D. 6 Rickets
18- Ruminant don't have ..... enzyme			
E. cellulase	F. sucrase	G. lactase	H. protease
19- .....is the first limiting A.A in soybean			
A. L-lysne	B. DL- methionine	C. lysine	D. Methionine
20- Micelles are combination of bile salts, .....& fatty acids			
A. Diglyceride	B. Monoglyceride	C. Triglyceride	D. A, B & C
21- ..... is phosphatidylcholines, Important in fat metabolism			
A. Glycolipids	B. Cephalins	C. Lecithins	D. phospholipids
22- .....is essential amino acids in poultry diets.			
E. Tyrosine	F. Cystine	G. Alanine	H. Histidine
23- ..... can destroy vitamins during storage			
A. ultraviolet light	B. sodium chloride	C. PUFA	D. choline chloride
24- Vitamin ..... Deficiency lead to Embryo mortality reaches a peak between 18 to 20 days of incubation			
A. Cyanocobalamin	B. Thiamin	C. Piroxidine	D. Riboflavin
25- .....supplementation in poultry diets save about 100 LE/ ton feed.			
A. bacillus lechiniformis	B. Enzymes	C. probiotics	D. BHT

**Identify the true (A) or false (B) sentences**

26- Antimicrobial agents can suppress intestinal synthesis of vitamin A
27- Saturated fatty acids affect rumen fermentation less than do unsaturated fatty acids
28- Metabolism of fat produces approximately 60 % of its weight water
29- Water requirement of lactating dairy cow is 60 L
30- Hypomagnesimia in young calves occurs when calves reared on milk
31- Microbes in the rumen can't consume ingested protein to build their own bodies
32- Deficiency in phosphorous only causes Pica in cattle
33- Butyric acid metabolized into ketone bodies
34- Deficiency of Nicotinamide causes "black tongue " in poultry
35- Cellulose hydrolyzed into VFA in large intestine of equine and rabbit
36- Crude protein content important factor governing the bulk of ration
37- Wide nutritive ratio (NR) is rich in protein
38- VFA is short chain from fatty acid produced by microbes in rumen only
39- Micelles are combination of bile salts, monoglyceride& fatty acids
40- Cats don't obtain vitamin D by exposure to sunlight
41- Presence of blood spots in egg due to deficiency of vitamin A
42- Fish most need all vitamins supplementation through feed





- 43- Metabolic faecal protein consists of undigested fat which Consider the lipids that not absorbed
- 44- Wool is rich in methionine and contains about 4%of sulphur
- 45- In positive DCAD, more cations in feed results in more production of blood buffers.

**Connect the correct answer from column A to column B**

Column A	Column B
46- Amylase	A- Acidification of the gut, helps in reduction of colonisation by Salmonella, Campylobacter and Clostridium.
47- Saccharomyces cerevisiae	B- A starch digesting enzyme that helps to digest more of the starch found in corn
48- Milk fever	C- Scavenge oxygen in the rumen, maintain anaerobic conditions and favoring the growth of cellulolytic bacteria
49- Allicin	D- Defined as a condition where rumen fluid pH is below 6,0
50- Fructooligosaccharides	E- Added for the stabilization of fats and to prevent the destruction of vitamin by oxidation
51- Bacillus subtilis	F- Releases energy from the fibrous portion of grains and grain byproducts.
52- Calcium formate	G- create acidic conditions and increase lactic acid formation, which are detrimental to the cellulolytic bacteria
53- Zinc bacitracin	H- Help Monogastrics digest about 60-70% of the organic phosphorus(P) found in feedstuffs of vegetable origin
54- Phytase	I- Physical adsorbents to feeds widely applied way of protecting animals against mycotoxins
55- Butylated hydroxy anisole	J- Biological adsorbents to feeds to protecting animals against mycotoxins
56- Xylanase	K- Has antibacterial, antioxidant, antiviral, antiparasitic and insecticidal functions.
57- HSCAS	L- Controlled by DCAD from -50 to -100 mEq/kg DM
58- B-glucan	M- Adhesion to the digestive tract wall to prevent colonization by pathogenic microorganisms
59- SARA	N- Effective in releasing protein anti-nutrients found in ingredients like soybean meal
60- Proteases	O- Subtherapeutic levels added to the food to enhance the rate of growth in poultry
	P- Non-digestible ingredients that beneficially affect the host by selectively stimulating the growth of bacteria





Second part subjective questions (10 points) الاجابة في كراسة الاجابة

A- Briefly illustrate each of followings (5 points only)

- 1- Effect of lipid on rumen fermentation
- 2- Factors affecting microbial digestion of C.f
- 3- Use of urea in ruminants animals.
- 4- Nutrients interrelations with examples.
- 5- Nutritional strategy to Control of milk fever.
- 6- Digestion of protein in ruminants (diagram only)

Good luck

Dr. Hamada. Ahmed

د/ حمادة عبد العزيز السيد  
أستاذ.م التغذية  
والتغذية الاكلينيكية



**Menoufia University**  
**Faculty of Veterinary Medicine**  
**Nutrition and Clinical Nutrition. Second Year Exam, 2020/2021**  
**Date: 14.3.2021      model A      time allowed: 2 Hours**



**Please answer the all of following questions**

**I-First part the objective questions (50 questions/12.5 points) الاجابة في نموذج الاجابة الالكتروني**

**A-Choose the correct answer**

1- A dietary protein is not degraded in the rumen is referred to .....			
A. RUP	B. RDP	C. Microbial protein	D. Protected protein
2- Sweet clover disease is associated with .....deficiency			
A. Vitamin E	B. Vitamin K	C. Vitamin A	D. Thiamin
3- Manganese plays an important role in the synthesis of.....			
A. Bone	B. Osteoclast	C. Chondroitin sulphate	D. Osteoblast
4- Acid detergent fiber (ADF) are.....			
A. Cellulose & hemicelluloses	B. Cellulose & lignin	C. Hemicellulose & lignin	D. All of them
5- Acetic and butyric acids in VFA in ruminants are used in.....			
A. sources of energy	B. synthesis of milk fat	C. converted to glucose	D. A&B
6- Trace element is expressed in .....			
A. Percent %	B. g\ kg	C. part per million	D. part per thousand
7- Crazy chick disease is due to deficiency of.....			
A. Vitamin E	A. Selenium	B. Thiamin	C. Vitamin E & Selenium
8- The ..... is rich in polyunsaturated fatty acids			
A. soybean oil	B. coconut oil	C. peanut oil	D. Palm oil
9- ..... essential for collagen formation.			
A. Vitamin E	D. Vitamin A	E. Vitamin C	F. Manganese
10- High level of calcium carbonate, iron, zinc and molybdenum reduce the absorption of .....			
A. Copper	B. Iron	C. Manganese	D. Cobalt
11- Methionine can be replaced partially by.....			
A. Glycine	B. tyrosine	C. cystine	D. Lysine
12- Chicks reared on a riboflavin-deficient diet develop..... paralysis			
A. nerve degeneration	B. curled toe	C. beri-beri	D. jerky
13- The lipids of grasses and clovers are.....			
A. Phospholipids	B. Glycolipids	C. Phosphoglycerides	D. Triacylglycerol
14- .....are 18- to 20-carbon unsaturated fatty acids having at least two double bonds			
A. EAAs	B. VFAs	C. Vitamin F	D. Lecithins
15- .....is a metabolic disorder mainly of dairy cows close to calving due to Ca deficiency			
A. Milk fever	B. ketosis	C. pregnancy toxemia	D. SARA
16- ..... are produced when unsaturated plant oils are hydrogenated in ruminant			
A. VFA	B. steric acids	C. short chain fatty acids	D. trans-fatty acids
17- Phosphorus deficiency in cattle results in .....			





Menoufia University

Faculty of Veterinary Medicine

Nutrition and Clinical Nutrition. Second Year Exam, 2020/2021

Date: 14.3.2021

model A

time allowed: 2 Hours



Please answer the all of following questions

I-First part the objective questions (50 questions/12.5 points) الإجابة في نموذج الإجابة الإلكتروني

A-Choose the correct answer			
1- A dietary protein is not degraded in the rumen is referred to .....			
A. RUP	B. RDP	C. Microbial protein	D. Protected protein
2- Sweet clover disease is associated with .....deficiency			
A. Vitamin E	B. Vitamin K	C. Vitamin A	D. Thiamin
3- Manganese plays an important role in the synthesis of.....			
A. Bone	B. Osteoclast	C. Chondroitin sulphate	D. Osteoblast
4- Acid detergent fiber (ADF) are.....			
A. Cellulose & hemicelluloses	B. Cellulose & lignin	C. Hemicellulose & lignin	D. All of them
5- Acetic and butyric acids in VFA in ruminants are used in.....			
A. sources of energy	B. synthesis of milk fat	C. converted to glucose	D. A&B
6- Trace element is expressed in .....			
A. Percent %	B. g\ kg	C. part per million	D. part per thousand
7- Crazy chick disease is due to deficiency of.....			
A. Vitamin E	A. Selenium	B. Thiamin	C. Vitamin E & Selenium
8- The ..... is rich in polyunsaturated fatty acids			
A. soybean oil	B. coconut oil	C. peanut oil	D. Palm oil
9- ..... essential for collagen formation.			
A. Vitamin E	D. Vitamin A	E. Vitamin C	F. Manganese
10- High level of calcium carbonate, iron, zinc and molybdenum reduce the absorption of .....			
A. Copper	B. Iron	C. Manganese	D. Cobalt
11- Methionine can be replaced partially by.....			
A. Glycine	B. tyrosine	C. cystine	D. Lysine
12- Chicks reared on a riboflavin-deficient diet develop..... paralysis			
A. nerve degeneration	B. curled toe	C. beri-beri	D. jerky
13- The lipids of grasses and clovers are.....			
A. Phospholipids	B. Glycolipids	C. Phosphoglycerides	D. Triacylglycerol
14- .....are 18- to 20-carbon unsaturated fatty acids having at least two double bonds			
A. EAAs	B. VFAs	C. Vitamin F	D. Lecithins
15- .....is a metabolic disorder mainly of dairy cows close to calving due to Ca deficiency			
A. Milk fever	B. ketosis	C. pregnancy toxemia	D. SARA
16- ..... are produced when unsaturated plant oils are hydrogenated in ruminant			
A. VFA	B. steric acids	C. short chain fatty acids	D. trans-fatty acids
17- Phosphorus deficiency in cattle results in .....			





**Menoufia University**  
**Faculty of Veterinary Medicine**  
**Nutrition and Clinical Nutrition. Second Year Exam, 2020/2021**  
**Date: 14.3.2021      model A      time allowed: 2 Hours**



A. Swollen hock syndrome	B. Pica	C. Osteomalacia	D. Rickets
18- Ruminant don't have ..... enzyme			
A. cellulase	B. sucrase	C. lactase	D. protease
19- ..... is the first limiting A.A in soybean			
A. L-lysine	B. DL- methionine	C. lysine	D. Methionine
20- Micelles are combination of bile salts, ..... & fatty acids			
A. Diglyceride	B. Monoglyceride	C. Triglyceride	D. A, B & C
21- ..... is phosphatidylcholines, Important in fat metabolism			
A. Glycolipids	B. Cephalins	C. Lecithins	D. phospholipids
22- ..... is essential amino acids in poultry diets.			
A. Lysine	B. Cystine	C. Alanine	D. Histidine
23- ..... can destroy vitamins during storage			
A. ultraviolet light	B. sodium chloride	C. PUFA	D. choline chloride
24- Vitamin ..... Deficiency led to Embryo mortality reaches a peak between 18 to 20 days of incubation			
A. Cyanocobalamin	B. Thiamin	C. Riboflavin	D. Piroxidine
25- ..... supplementation in poultry diets save about 100 LE/ ton feed.			
A. bacillus lechiniformis	B. Enzymes	C. probiotics	D. all of them
<b>B-Identify the true (A) or false (B) sentences</b>			
26- Saturated fatty acids affect rumen fermentation less than do unsaturated fatty acids.			
27- Oxidation of fat produces approximately 60 % of its weight water.			
28- High fibrous diet like dry roughages decrease water requirement than less fibrous diet.			
29- Animal can't live for at most three days if not provided with drinking water.			
30- Animal body was analyzed by Slaughter and chemical analysis techniques.			
31- Sodium is important part of an enzyme glutathione peroxidase.			
32- Water requirement of lactating dairy cow is 40 L per day.			
33- Most of the feed and forages are poor source of sodium.			
34- All enzymes and hormones are protein in nature.			
35- Microbes in the rumen can't consume ingested protein to build their own bodies			
36- Deficiency in Zinc only causes Pica in cattle			
37- The NDF consist of cellulose, hemicellulose, lignin, silica and cutins			
38- Deficiency of Nicotinamide causes "black tongue " in poultry			
39- Biotin is important in hair health.			
40- Crude protein content important factor governing the bulk of ration			
41- Antimicrobial agents can suppress intestinal synthesis of vitamin A.			
42- VFA is short chain from fatty acid produced by microbes in rumen only			





**Menoufia University**  
**Faculty of Veterinary Medicine**

**Nutrition and Clinical Nutrition. Second Year Exam, 2020/2021**

**Date:14.3.2021**

**model A**

**time allowed: 2 Hours**



- 43- Carbohydratase are effective in releasing protein anti-nutrients found in ingredients like soybean meal.
- 44- Cats don't obtain vitamin D by exposure to sunlight
- 45- Fish most need all vitamins supplementation through feed.
- 46- Chylomicron is responsible for transportation of dietary fat to various tissues in the body
- 47- Metabolic faecal protein consists of undigested fat which Consider the lipids that not absorbed
- 48- Crud fiber content in the diet causes impaired absorption of calcium
- 49- Wool is rich in methionine and contains about 4%of sulphur
- 50- In ruminant, strains of Lactobacilli and Streptococci have been used as probiotics.

**II- Second part subjective questions (12.5 points) الاجابة فى كراسة الاجابة**

**A- Connect the correct answer from column A to column B (4 marks)**

Column A	Column B
1- Amylase	A- Acidification of the gut, helps in reduction of colonisation by Salmonella, Campylobacter and Clostridium.
2- Saccharomyces cerevisiae	B- Adhesion to the digestive tract wall to prevent colonization by pathogenic microorganisms
3- Calcium formate	C- Scavenge oxygen in the rumen, maintain anaerobic conditions and favoring the growth of cellulolytic bacteria
4- Xylanase	D- A starch digesting enzyme that helps to digest more of the starch found in corn
5- Fructooligosaccharides	E- Releases energy from the fibrous portion of grains and grain byproducts.
6- Bacillus subtilis	F- Inhibit the growth of certain intestinal pathogenic species by increasing the concentration of lactic acid which will decrease the pH in the lower gut.
	G- Effective in releasing protein anti-nutrients found in ingredients like soybean meal
Column A	Column B
7- Lysine	A- Reduce oxidative stress in the body by increasing glutathione. Important in muscle mass and feather development
8- Methionine	B- Was chosen as the reference amino acid for the "ideal protein" concept.
9- Threonine	C- Effect on the gene expression and the synthesis of the ghrelin hormone which regulate the appetite.
10- Tryptophan	D- Involved in maintenance processes, like the renewal of intestinal mucus and the synthesis of immune proteins.
	E- Regulates key metabolic pathways to improve health, survival, growth, development, lactation and reproduction.

فرقة الثالثة  
مادة :- التغذية

Menoufia University  
Faculty of Veterinary Medicine



Nutrition and Clinical Nutrition. Second Year Exam, 2020/2021

Date: 14.3.2021

model A

time allowed: 2 Hours



Column A	Column B
11- Zinc bacitracin	A. - Help Monogastrics digest about 60-70% of the organic phosphorus(P) found in feedstuffs of vegetable origin
12- Phytase	B- Physical adsorbents to feeds widely applied way of protecting animals against mycotoxins
13- Butylated hydroxy anisole	C- Biological adsorbents to feeds to protecting animals against mycotoxins
14- HSCAS	D- Has antibacterial, antioxidant, antiviral, antiparasitic and insecticidal functions.
15- Allicin	E- Added for stabilization of fats and to prevent the destruction of vitamin by oxidation
16- B-glucan	F- Subtherapeutic levels added to the food to enhance the rate of growth in poultry.
	G- Non-digestible ingredients that beneficially affect the host by selectively stimulating the growth of bacteria.

**H- Briefly illustrate each of the followings (8.5 marks) 7 points only.**

- 1- Factors affecting microbial digestion of C.f
- 2- Use of urea in ruminants animals.
- 3- Nutrients interrelations with examples.
- 4- Food fat and nature of milk and body fat in ruminants.
- 5- Calcium only supplements.
- 6- Digestion of protein in ruminants (diagram only if possible).
- 7- Nutritional disorders in poultry.
- 8- Role of vitamins in animal nutrition.

Good luck

Prof. Dr. Hamada. Ahmed





**Total marks: 25**

1-The capsule are polysaccharide in all bacteria except in *Brucella* are polypeptide.

- II- Each questions below contains suggested answers choose the one best response to each question (5 Marks)**

- 1

- a- Adjuvans                      b- Haptan                      c- Carrier                      d- Antibody
- 5- Which of the following antibodies cross through placenta
- a- IgG                      b- IgA                      c- IgM                      d- IgE
- 6- All the following are true concerning pili except
- a- They mediate bacterial adherence                      b- They may be involved in bacterial conjugation
- c- Their antigen is called H- antigen                      d- They are important virulence factors
- 7- Treatment of bacterial culture with gentamycin, an inhibitor of protein synthesis, would have maximal effect on
- a- Lag phase                      b- Log phase                      c- Stationary phase                      d- Decline phase
- 8- The characteristic shape of the bacteria is maintained because of
- a- Cell wall                      b- Capsule                      c- Pili                      d- Mesosome
- 9- Which of mentioned are present on the place of infection by worm
- a- Basophil                      b- Eosinophil                      c- Monocyte                      d- Neutrophil
- 10- Non specific immune mechanism do not include
- a- Complement                      b- Chemokine                      c- Memory cell                      d- Interferon

### III- Define of the following (3 marks):

- 1- Psychrophilic bacteria                      2- Haptan                      3- Bacterial plasmid
- 4- Microaerophilic bacteria                      5- Immunogene                      6- Bacterial toxoid

### IV- Give the reason for (3marks):

- 1- Oxygen is toxic to some bacteria and how bacteria detoxify toxic oxygen metabolites
- 2- The number of viable bacteria decreases during the decline phase
- 3- The intact skin is consider first line of defense

### V- Compared on the following (3marks):

- 1- Cell wall of Gram positive and Gram negative
- 2- Innate and adaptive immunity

### VI- Explain on the following (6marks):

- 1 Virulence factors of bacteria
- 2- Laboratory diagnosis of dermatophytes
- 3- Humeral immune response
- 4- Second line of defense

Good Luck  
*Ashraf Awaad*  
 Prof. DR. Ashraf Awaad





Menoufia University  
Faculty of Veterinary Medicine  
Pharmacology Department



Date: 28 / 12 / 2019

Third Year Exam (1<sup>st</sup> term)

Time allowed: 2 Hours

38- Act as aldosterone antagonist			
A. Acetazolamide	B. Metolazone	C. Furosemide	D. Spironolactone
39- Contraindicated to be given with furosemide in case of ototoxicity.			
A. Sulphonamide	B. Penicillins	C. Aminoglycoside	D. both B& C
40- Urea acts as diuretic by			
A. Block Na channel	B. Block NCCtransport	C. Block K channel	D. Osmosis
41- Amiloride what type of diuretic?			
A. K sparing diuretic	B. Ca sparing diuretic	C. Na sparing diuretic	D. Both B & C
42- Furosemide induce metabolic acidosis while acetazolamide induce metabolic alkalosis			
A. True		B. False	
43- Calcium carbonate evacuate			
A. Salt +H <sub>2</sub> O+ CO <sub>2</sub>	B. Salt +H <sub>2</sub> O	C. H <sub>2</sub> O	D. None of them
44- This type of drug acts as purgative			
A. Nicotine	B. Lactulose	C. Muscarine	D. Atropine
45- Nicotine in small dose stimulate			
A. $\beta$ receptors	B. $\alpha$ receptors	C. Autonomic ganglia	D. smooth muscle
46- One of the side effect of thiazide diuretics			
A. Hyperlipidemia	B. Hypercalcemia	C. Hyperuricemia	D. All of them
47- Type of drug would not increase sympathetic activity.			
A. Noradrenaline	B. Phenylephrine	C. Amphetamine	D. Pilocarpine
48- All preganglionic neuron secrete			
A. Adrenaline	B. Acetylcholine	C. Atropine	D. Dopamine
49- The synthesis of noradrenaline is prevented by			
A. Reserpine	B. Pilocarpine	C. Alpha methyl Dopa	D. Ephedrine
50- Which of the following drug would not increase sympathetic activity			
A. Pilocarpine	B. Amphetamine	C. Phenylephrine	D. Norepinephrine
51- Used as long acting bronchodilator			
A. Propranolol	B. Salmeterol	C. Salbutamol	D. Timolol
52- The drug of choice for anticholinergic drug toxicity.			
A. Succinyl choline	B. Acetylcholine	C. Methacholine	D. Both A& B
53- Propranolol act on what type of receptor?			
A. $\beta_1$ & $\beta_3$	B. $\alpha_1$ & $\alpha_2$	C. $\beta_1$ & $\alpha_2$	D. $\beta_1$ & $\beta_2$
54- This type of drug act as specific antidote of organic phosphorus compound toxicity			
A. Neostigmine	B. Amphetamine	C. Pilocarpine	D. Pralidoxime
55- What effect does clonidine have?			
A. Vasodilation	B. Bronchodilation	C. Hypoglycemia	D. All of them
56- Dobutamine act on what type of receptor?			
A. $\beta_1$ & $\beta_2$	B. $\beta_1$	C. $\alpha_1$ & $\alpha_2$	D. $\beta_2$ & $\beta_3$
57- Curare is usually given before surgical operation to			
A. Induce bronchodilation	B. Prevent bronchial secretion	C. Relax skeletal muscle	D. All of them

58- Contraindications for adrenergic blockers.			
A. Hypotension	B. Diabetes	C. bronchial asthma	D. Both B & C
59- This type of drug is an example of cholinergic agonist.			
A. Atropine	B. Hyoscine	C. Neostigmine	D. Succinylcholine
60- Which one of the following used to treat paralytic ileus?			
A. Dopamine	B. Hemicholinum	C. Atropine	D. Bethanechol

Second part subjective questions (10 marks) الاجابة فى كراسة الاجابة

1. Briefly describe each of the followings (5 marks)
  - a. Corticosteroids side effects. (2.5 m)
  - b. Therapeutic uses of barbiturates. (2.5 m)
  
2. In table compare between the following according to mechanism of action of (5 marks)
  - a. Cimetidine and omeprazole as anti-acid drug. (1 m)
  - b. Spironolactone and Furosemide as diuretic. (1 m)
  - c. Phentolamine and reserpine as sympatholytic. (1 m)
  - d. Magnesium sulphate and bran as purgative. (1 m)
  - e. Na acetyl cysteine and Bromhexine as mucolytic. (1 m)

**Good luck**

**Dr. Mohamed El-Hewaity**

**Dr. Amany El-Mleeh**





Faculty of Veterinary Medicine  
Department of Bacteriology, Immunology and Mycology  
Exam of General Bacteriology 2020  
Third year Time: Two hours Total marks: 25

**I- Write (a) for true and (b) for false for following statements : ( 5 marks)**

1-The capsule are polysaccharide in all bacteria except in Brucella are polypeptide.

a- True

b- False

2- Microaerophilic bacteria are grow in high amount of oxygen and 5-10 % of CO<sub>2</sub>

a- True

b- False

3- In anaerobic bacteria oxygen is not toxic

a-True

b- False

4- The bacteria can be isolated from very hot weather are called Psychrophilic

a- True

b- False

5 - The first antibody appear in blood is IgG

a- True

b- False

6- Plasmid is essential structure of bacteria

a- True

b- False

7- Spore of bacteria occur in unfavorable condition

a- True

b- False

8- Spore formation in bacteria is one of the methods of reproduction

a- True

b- False

9- There is no change in the size of bacteria during lag phase

a- True

b- False

10-Organ of respiration in bacteria is mitochondria

a- True

b- False

**II- Each questions below contains suggested answers choose the one best response to each question (5 Marks)**

1- Zero growth rate is observed during one of the phase bacterial growth curve

a- Lag phase

b- log phase

c- Stationary phase

d- Decline phase

2- One of the following methods is an example of negative stain to detect of capsule

a- Gram s stain

b- Zeihl Neelson

c- India ink stain

d- Fontana s stain

3- Characterizes of exotoxins include all except

a- Heat labil

b- Highly toxic

c- Highly antigenic

d- Lipopolysaccharide

4- Synthetic molecule that bind the receptors on B cell, but does not stimulate their production antibodies unless it is conjugated with bigger immunogenic molecule is

- a- Adjuvans                      ~~b- Haptan~~                      c- Carrier                      d- Antibody  
 5- Which of the following antibodies cross through placenta  
~~a- IgG~~                      b- IgA                      c- IgM                      d- IgE

- 6- All the following are true concerning pili except  
 a- They mediate bacterial adherence                      b- They may be involved in bacterial conjugation  
~~c- Their antigen is called H- antigen~~                      d- They are important virulence factors  
 7- Treatment of bacterial culture with gentamycin, an inhibitor of protein synthesis, would have maximal effect on  
~~a- Lag phase~~                      ~~b- Log phase~~                      c- Stationary phase                      d- Decline phase  
 8- The characteristic shape of the bacteria is maintained because of  
~~a- Cell wall~~                      b- Capsule                      c- Pilli                      ~~d- Mesosome~~  
 9- Which of mentioned are present on the place of infection by worm  
 a- Basophil                      ~~b- Eosinophil~~                      c- Monocyte                      d- Neutrophil  
 10- Non specific immune mechanism do not include  
~~a- Complement~~                      b- Chemokine                      ~~c- Memory cell~~                      d- Interferon

### III- Define of the following (3 marks):

- 1- Psychrophilic bacteria                      2- Haptan                      3- Bacterial plasmid  
 4- Microaerophilic bacteria                      5- Immunogene                      6- Bacterial toxoid

### IV- Give the reason for (3marks):

- 1- Oxygen is toxic to some bacteria and how bacteria detoxify toxic oxygen metabolites  
 2- The number of viable bacteria decreases during the decline phase  
 3- The intact skin is consider first line of defense

### V- Compared on the following (3marks):

- 1- Cell wall of Gram positive and Gram negative  
 2- Innate and adaptive immunity

### VI- Explain on the following (6marks):

- 1- Virulence factors of bacteria  
 2- Laboratory diagnosis of dermatophytes  
 3- Humeral immune response  
 4- Second line of defense

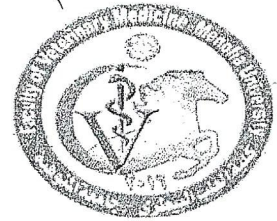
Good Luck

*Ashraf Awaad*

Prof. DR. Ashraf Awaad



الفريق الثالث



Faculty of Veterinary Medicine

Department of Bacteriology, Immunology and Mycology

Exam of General Bacteriology 2021

Third year

Time: Two hours

Total marks: 25

1- Each questions below contains suggested answers choose the one best response to each question (25 Marks)

- 1- The toxoid is formed by adding
  - a- 0.3% formalin to endotoxin
  - b- 0.3% formalin to exotoxins
  - c- 0.3% phenol to endotoxin
  - d- 0.3% phenol to endotoxin
- 2- In anaerobic bacteria
  - a- Oxygen is not toxic
  - b- Oxygen is toxic
  - c- Catalase enzyme present
  - d- Peroxidase enzyme present
- 3- The capsule are polysaccharide in all bacteria except in ..... are polypeptide.
  - a- E.coli
  - b- Salmonella
  - c- Brucella
  - d- Bacillus anthracis
- 4- The bacteria can be isolated from very hot weather are called
  - a- Psychrophilic
  - b- Mesophilic
  - c- Thermophilic
- 5- Teichoic acid is present in cell wall of
  - a- Gram positive bacteria
  - b- Gram negative bacteria
  - c- Fungi
  - d- Archaea
- 6- Stationary phase of the bacterial growth curve
  - a- is a time in which cells do not divide
  - b- is a time in which cells increase in number
  - c- is a time in which cells susceptible to antibiotic
  - d- is a time in which cells equilibrate
- 7- Which of the following bacteria can grow in acidic pH
  - a- Vibrio
  - b- Lactobacillus
  - c- Shigella
  - d- Salmonella
- 8- The structure of bacteria which play primary role in respiration and secondary role in cell division
  - a- Mesosomes
  - b- Ribosome
  - c- Chromosome
  - d- Cell membrane
- 9- Virulence factor of bacteria is
  - a- Cell wall
  - b- Mesosomes
  - c- Ribosome
  - d- Capsule
- 10- A tuft of flagella arise from each poles of bacterial cell is
  - a- Monotrichous
  - b- Amphitrichous
  - c- Lophotrichous
  - d- Peritrichous
- 11- Zero growth rate is observed during one of the phase bacterial growth curve
  - a- Lag phase
  - b- log phase
  - c- Stationary phase
  - d- Decline phase
- 12- One of the following methods is an example of negative stain to detect of capsule
  - a- Gram's stain
  - b- Zeihl Neelson
  - c- India ink stain
  - d- Fontana's stain

- 13- Characterizes of exotoxins include all except  
 a- Heat labile      b- Highly toxic      c- Highly antigenic      d- Lipopolysaccharide
- 14- Toxoid are  
 a- Antigenic part and toxic part      b- Antigenic part and non toxic part  
 c- Non antigenic part and toxic part      d- Non antigenic part and non toxic part
- 15- Mesophilic organism are that grow best temperature of  
 a: -20C – 70C      b: 55C- 80C      c: 20C - 40C      d: 10C – 70C
- 16- Bacterial cells lyse, releasing many new bacteriophage particles to infect other bacteria  
 a- Lytic cycle      b- Lysogenic conversion      c- Lysogenic cycle      d- Conjugation
- 17- All the following are true concerning pili except  
 a- They mediate bacterial adherence      b- They may be involved in bacterial conjugation  
 c- Their antigen is called H- antigen      d- They are important virulence factors
- 18- Treatment of bacterial culture with gentamycin, an inhibitor of protein synthesis, would have maximal effect on  
 a- Lag phase      b- Log phase      c- Stationary phase      d- Decline phase
- 19- The characteristic shape of the bacteria is maintained because of  
 a- Cell wall      b- Capsule      c- Pili      d- Mesosome
- 20- The association of endotoxin in gram negative bacteria is a result of the presence of  
 a- Peptidoglycan      b- Lipopolysaccharide      c- Steroid      d- Calcified protein
- 21- The fine filamentous appendages arising from basal bodies in cytoplasmic membrane are known as  
 a- plasmid      b- Flagella      c- Mesosome      d- Ribosome
- 22- Protoplasm may possess the following  
 a- Cell membrane      b- Mesosome      c- Ribosome  
 d- All above structure
- 23- Extra-chromosomal, circular, double stranded and self-replication DNA molecule in bacteria is called  
 a- Cosmid      b- Plasmid      c- Phagemid      d- Phasmid
- 24- All bacteria have cell wall except  
 a- Mycoplasma      b- Mycobacterium      c- Brucella      d- Pasteurella
- 25- Sex pili play role in  
 a- Transduction      b- Transformation      c- Conjugation      d- Mutation

**II- Write (T) for true and (F) for false for following statements : ( 25marks)**

- 26- Organ of respiration in bacteria is mitochondria  
 a- True      b- False
- 27- The capsule and flagella of bacteria can be observed in Gram stained smears  
 a- True      b- False
- 28- Spore formation in bacteria is one of the methods of reproduction  
 a- True      b- False
- 29- Lipid A is present in cell wall of Gram negative bacteria  
 a- True      b- False
- 30- In lag phase of bacterial growth, the bacteria increase in number  
 a- True      b- False
- 31- *Staphylococcus aureus* appeared as golden yellow colonies when grown in solid media due to produce exopigment  
 a- True      b- False





Departement of pathology  
Faculty of veterinary medicine  
Menoufia university



Course name (code)	General pathology (311)
Program	BVSc
Date	March 2021
Time allowed	2 hours
Total score	25 Marks

**All questions should be answered:**

**Part I: Choose the correct answer**

**(20 marks)**

Q1. Pathology is the study of the structural, biochemical, and functional changes in cells, tissues, and organs that underlie disease:

- (A) True (B) False (C) True if the word structural removed (D) True if the word functional removed

Q2. ....are reversible functional and structural responses to changes in physiologic states and some pathologic stimuli allowing the cell to survive and continue to function.

- (A) Apoptosis (B) Necrosis (C) Adaptations (D) Anthracosis

Q3. ....one of the four final common biochemical mechanisms leading to cell injury.

- (A) karyolysis (B) Damage to DNA (C) Lipidosis (D) Amyloidosis

Q4. The influx of water along with sodium ions to the cell when the Na<sup>+</sup>/K<sup>+</sup> pumps fail called .....

- (A) Hydropic degeneration (B) Hypertrophy (C) Ischemia (D) Healing

Q5. ....is a local decrease in blood supply to tissue with decreased delivery of oxygen, glucose, and other nutrients to the cell, as well as decreased removal of metabolic wastes

- (A) Hyperemia (B) Edema (C) Congestion (D) Ischemia

Q6. Glycolysis leads to an accumulation of lactate with decreased intracellular pH, and produces heat

- (A) True (B) False (C) True if lactate replaced by glucose (D) True if decreased replaced by increased

Q7. liver affected with Hydropic degeneration increased in weight, pale and swollen with rounded edges.

- (A) True (B) False (C) True if pale replaced by bright red (D) True if increased replaced by decreased

Q8. Disruption of the intracellular.....balance is integral to the transition from potentially reversible acute cell swelling to irreversible injury and cell death.

- (A) Vitamin C (B) Sodium ion (C) MS222 (D) Calcium ion

Q9. EM examination of acute swollen epithelia showed loss of cilia & microvilli & develops cytoplasmic blebs

- (A) True (B) False (C) True if loss replaced by increasing (D) True if "blebs" replaced by inclusions

Q10. Normal endothelium is prothrombotic and antifibrinolytic.

- (A) True (B) False

Q11. Necrotic cell death elicits an inflammatory reaction because of the release of cell contents into the ECM.

- (A) True (B) False (C) True if elicits replaced by doesn't elicit (D) True if necrotic replaced by apoptotic

Q12. If cell fails to restore mitochondrial function, acute cell swelling becomes irreversible causing cell death.

- (A) True (B) False (C) True if irreversible replaced by reversible

Q13. .... is a gross lesion for the myocardial and skeletal muscle necrosis in white muscle disease.

- (A) Anthracosis (B) Calcification (C) Icterus (D) edema

Q14. Soon after cell death, necrotic tissue may have the same macroscopic features of acute cell swelling.

- (A) True (B) False

Q15. Dead cells tend to have intense cytoplasmic eosinophilia due to the denatured protein and loss of ribosomes

- (A) True (B) False