

الفقه الأول



Assiut University
Faculty of Science
Zoology and Entomology
Department



General Zoology Exam
(Nano-Science Students)
Exam /June/2023



Time: 2 hour
Level: First
Course Code: 100Z

Answer the following questions (50 marks)

First question: Choose the best single correct answer (11 marks)

- The bone forming cells are.....
a) Chondrocytes b) Fibrocytes c) Plasmacytes d) Osteocytes
- The similarities of individuals increase from species to the class taxon:
a) True b) False
- Which one of the following is not related to bone tissue?
a) Store fats b) Solid matrix and store calcium
c) Less vascularized d) Produce blood
- The SER is a membranous organelle that functions in the process of.....
a) Protein synthesis b) Phospholipid synthesis
c) Cellular respiration d) Carbohydrate synthesis
- Blood is a (an).....tissue.
a) Connective tissue b) Muscular c) Nervous d) Epithelial
- A scientific name contains information about its.....
a) Family and species b) Genus and Species
c) Phylum and Order d) Class and family
- The circulatory system is absent in
a) *Hirudo* b) Insects c) *Fasciola* d) Earthworm
- The elephant has bigger cells than mouse.
a) True b) False
- In nervous tissue the only.....cells can divide.
a) Myelin b) Nerve c) Glial d) Both b and c
- The nervous system appeared firstly in phylum.....
a) Platyhelminthes b) Porifera c) Protozoa d) Cnidaria

11. The first name of an epithelial tissue refers to.....
a) No. of layers b) No. of cells c) Shape of cells d) Underlying C.T.
12. Which organelles modify, sort and package proteins in the cell?
a) Mitochondria b) Ribosomes c) Golgi complex d) Lysosomes
13.attach bone to bone.
a) Tendons b) Ligaments c) Elastic C.T. d) Dense irregular C.T.
14. The entrance of liquid materials across the cell membrane is called.....
a) Phagocytosis b) Pinocytosis
c) Passive transport d) Plasmolysis
15. What glands secrete its product directly into the blood?
a) Endocrine b) Unicellular c) Exocrine d) Goblet cell
16.are the excretory cells in nematodes.
a) Flame cells b) Nephridia c) Protonephridia d) Contractile vacuoles
17. Which one of the following is highly vascularized?
a) Cartilage b) Simple epithelium
c) Stratified epithelium d) Areolar C.T.
18. Connective tissue originates from.....
a) Endoderm b) Mesoderm c) Ectoderm d) All
19. Which of the following is the correct scientific name of the honey bee?
a) *Apis Mellifera* b) *apis Mellifera*
c) *apis mellifers* d) *Apis mellifera*
20. The tail of a phospholipid molecule is.....
a) Hydrophobic b) Hydrophilic
c) Neutrophil d) Hydrostatic
21. Rank the following terms from simplest to most complex.
a) Cells, organelles, organs, tissues, organism
b) Tissues, cells, organelles, organs, organism
c) Organs, cells, organelles, tissues, organism
d) Organelles, cells, tissues, organs, organism
22. What is the correct sequence of an animal embryonic development?
a) Cleavage, zygote, fertilization, morula, blastula, gastrula
b) Fertilization, cleavage, morula, zygote, blastula, gastrula
c) Fertilization, zygote, blastula, morula, cleavage, gastrula
d) Fertilization, zygote, cleavage, morula, blastula, gastrula

Second question: Match column 1 with column 2 (7 marks)

(A) Match each of the following muscle types with its <u>description</u>.		
Column 1	The answer	Column 2
1. Skeletal		(A) Involuntary, uninucleated, attached to heart
2. Cardiac		(B) Multinucleated, voluntary and unstriated
3. Smooth		(C) Multinucleated, voluntary and striated
		(D) Involuntary, uninucleate and found in stomach
(B) Match each of the following types of epithelium with its <u>description</u>.		
1. Simple columnar		(A) Multiple cell layers whose apical cells are cuboidal.
2. Pseudostratified columnar		(B) Single layer of flattened cells.
3. Simple squamous		(C) Multiple cell layers whose apical cells are flattened.
4. Stratified squamous		(D) Single layer of cells those are taller than they are wide.
5. Simple cuboidal		(E) Single layer of cells that vary in height, with nuclei at different levels.
		(F) Single layer of cells those are equally wide as they are tall.
(C) Match the following types of connective tissue with the appropriate <u>function/description</u>		
1. Bone tissue		(A) Non-living material located between the cells of a connective tissue
2. Reticular C.T.		(B) Produces blood cells
3. Blood		(C) Most atypical connective tissue and with liquid matrix
4. Chondrocyte		(D) Cartilage producing cell
5. Extracellular matrix		(E) Supports and protects body structures; stores fat; synthesizes blood cells
6. Hematopoietic stem cell		(F) Bone producing cell
		(I) Found in bone marrow, spleen, and lymph nodes

Third question: Write the scientific expression of the following: (7 marks)

1. A membrane bound vesicle with hydrolyzing and digestive enzymes.
(.....)
2. A science of biology deals with the structure and function of tissues.
(.....)
3. A group of the same kind of tissues that perform a job in the animal's body.
(.....)
4. A rapid mitotic division in zygote to form morula. (.....)
5. Pseudocoelomate animals with unsegmented bodies. (.....)
6. A type of cells having both nuclear membrane and membranous
organelles in their cytoplasm. (.....)
7. A type of neurons that transmits the nerve impulse from the brain to muscles
or glands. (.....)
8. Strong, unbranched bundles of fibers and are made of collagen protein.
(.....)
9. The place where a signal passes from one neuron to another.
(.....)
10. The movement of molecules or ions from high to low concentration across
the lipid bilayer of the cell membrane. (.....)
11. A component of a cell membrane that is formed of both glycolipids and
glycoproteins. (.....)
12. A type of cytoskeleton that is formed mainly of myosin proteins.
(.....)
13. A hollow ball of cells that is formed by mitotic rapid of morula cells.
(.....)
14. A type of connective tissue concerned with heat insulator. (.....)

Fourth question: Answer Five only of the following: (15 marks)

1. List Three general characters only of Phylum Cnidaria.

- a).....
- b).....
- c).....

2. What are the main characteristics of epithelial tissue? (Three only)

- a).....
- b).....
- c).....

3. List Three characters only of *Amoeba* sp.

- a).....
- b).....
- c).....

4. Complete the following table about cartilages:

Type of cartilage	1-.....	2-.....	3-.....
Dominant fibers	Elastic		Has less fibers and the matrix is glassy
Location		Intervertebral disc	

5. Draw with labels only types of neurons according to structure.

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6. What is the purpose of Gametogenesis? With a labeled diagram only explain the different steps of oogenesis.

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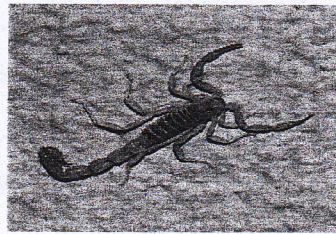
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Fifth question: Answer the following:

(10 marks)

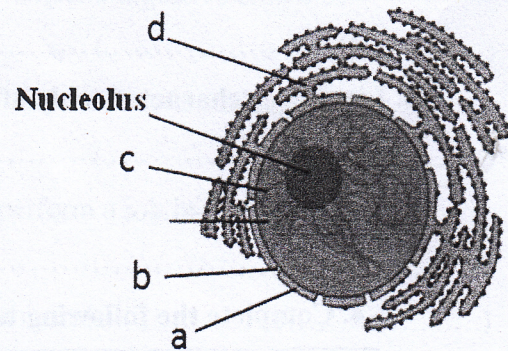


(A) Identify the type of symmetry

Is it an insect?

Why?

This animal belongs to phylum



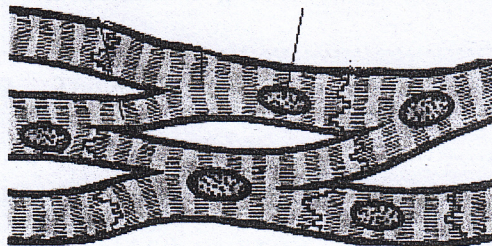
(B) Structure name:

Write the labels:

a).....

c).....

d).....Mentione one function of label B.....

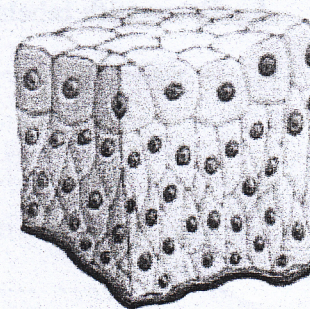


(C) Identify the type of muscle.....

Location.....

Description.....

Function.....



(D) Identify the epithelial tissue

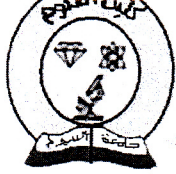
Location:

Function (1 only):.....

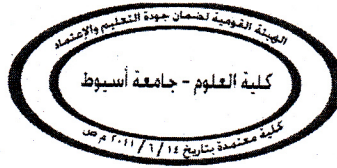
(E) Draw with labels mitochondria structure and mention one function of this organelle

By Drs. Ahmed M And Ali M A

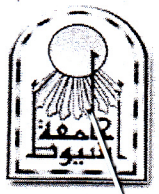
With our best wishes



Assiut University
Faculty of Science
Zoology Department



Final exam General Zoology
9/6/2023
(6) Pages



Time: 2 hours
Level: First
Course Code: 1002
Marks: 50

(Q1): Choose the best single correct answer (30 marks, one mark for each)

1	Golgi receives newly made proteins and lipids from
	a) microtubules b) cytosol c) ER d) mitochondria
2	The DNA in prokaryotic cells is
	a) linear b) circular c) cluster d) patch
3	Before cell division, the centrioles Themselves
	a) duplicate b) triplicate c) divide d) migrate
4	On the outside of the cell membrane, attached to some proteins and lipid
	a) cholesterol b) receptors c) channels d) chain of sugar
5	The membranous organelles participate in cellular metabolism
	a) directly b) indirectly c) internally d) all of them
6	The cell membrane is made of mix of proteins and
	a) carbohydrates b) glycoproteins c) lipids d) lipoproteins
7	The transport in which larger materials are enter or exit from the cells is called
	a) diffusion b) massive transport c) passive transport d) active transport
8	The lipid give the cell membranes their
	a) conductivity b) permeability c) movement d) flexibility
9	cells are modified to contract.
	a) Plasma b) Lymphatic c) Myoepithelial d) Neuroglial
10	 connective tissue contains all types of C. T. fibers and C. T. cells.
	a) Areolar b) Adipose c) Mucous d) Fibrous
11	adipose tissue contains primarily many small lipid droplets.
	a) White b) Yellow c) Brown d) Red
12	cells are responsible for bone resorption during ossification.
	a) Osteocyte b) Osteoclast c) Osteoblast d) Chondrocyte

13	 are responsible for muscle contractions. a) Microtubules b) Microfilaments c) Myofibrils d) Intermediate filaments
14	muscles contract spontaneously. a) Cardiac b) Smooth c) Skeletal d) none of them
15	The axon is surrounded with a membrane known as. a) axoplasm b) axolemma c) sarcolemma d) sarcoplasm
16	There is no connective tissue in the central nervous system; instead, there are the..... a) neurons b) osteoplast c) reticular fibers d) neuroglia
17	Which of the following is characterized by the presence of ladder form nervous system a) Arthropoda b) Annelida c) Mollusa d) Platyhelminthes
18	Which of the following is the correct scientific name for a house cat? a) <i>felis domesticus</i> b) <i>Felis Domesticus</i> c) <i>felis Domesticus</i> d) <i>Felis domesticus</i>
19	Polyp and medusa are forms of..... a) Poriferans b) Cnidarians c) Protozoans d) Nematodes
20	If two organisms are in the same order, they must also be in the same: a) Species b) Genus c) Family d) Class
21	Segmented worm with closed circulatory system a) Cestoda b) Oligochaeta c) Hirudinea d) Trematoda
22	A long flexible, rod-like supporting structure found at all chordates. a) Spinal cord b) Notochord c) Nerve cord c) Gill pouches
23	In phylum Porifera the outer layer consists of a) Pinacocytes b) Archaeocytes c) Sclerocyte d) Choanocytes
24	 plays a vital role in puberty and fertility, as well as influences the behavior. a) Growth hormone b) FSH c) Testosterone d) Thyroxine
25	One of the following is considered as steroid hormone. a) Insulin b) Thyroxin c) Progesterone d) Epinephrine
26	It causes development of female secondary sex characteristics at puberty. a) LH b) Estrogen c) Progesterone d) FSH
27	Specialized cells present in Islets of Langerhans and responsible of secreting glucagon. a) Alpha cells b) Beta cells c) Delta cells d) F cells

28	Cretinism is a disorder results from a) Decrease in GH secretion b) Decrease in Thyroxin secretion c) Increase in GH secretion d) Increase in Thyroxin secretion
29	helps in maintaining immune system health and virus protection. a) Thyroxin b) Adrenaline c) Growth hormone d) Melatonin
30	Which of the following about anterior pituitary gland is <u>CORRECT</u>? a) Secrets hormones less than posterior pituitary. b) It releases the antidiuretic hormone (ADH). c) It secretes gonadotropins. d) It releases oxytocin hormone.

(Q2): Choose the best single correct answer (20 marks, 1/2 mark for each)

31	Glycoproteins make as on the cell membrane a)pores b)receptors c)skeleton d)fibers
32	The nucleus is surrounded by two membranes, together known as a) nuclear membranes b)nuclear body c) nuclear envelope d) nucleolus
33	The ribosomes are formed in: a) nucleolus b) nucleus c) cytoplasm d) endoplasm
34	The proteins that stay in the cytosol are made by: a) bound ribosomes b) free ribosomes c) RER d) SER
35	The membrane of mitochondria form folds which are called cristae: a) inner b) outer c) ATP d) intermediate
36	The tales of phospholipid molecules are known as: a) hydrophilic b) lipophilic c) hydrophobic d) lipophobic
37	Both glycolipids and glycoproteins together form what is called: a) cell membrane b) mitochondrial membrane c) phospholipid bilayer d) cell coat
38	The molecules make the cell membrane less permeable and decrease flexibility. a) cholesterol b) carbohydrate c) lipid d) glycoproteins
39	In the liver, are responsible for neutralizing toxins. a) RER b) SER c) Golgi bodies d) lysosomes
40	Lysosomes contain to breakdown waste materials. a) glycoproteins b) ATP energy c) digestive enzymes d) all of them

41	 is formed of many layers of cells one above the other. a) Simple epithelium b) Stratified epithelium c) connective tissue d) ner
42	According to changes in the secretory cells, glands classified into..... a) Merocrine, Apocrine, Holocrine glands b) Endocrine, Exocrine, mixed glands c) Serous, Mucous, Fatty secretory glands d) Tubulo, Acinar, Tubulo-acinar glands
43	Thetissue is formed of cells, fibers and matrix. a) connective b) muscular c) nervous d) epithelial
44	cells have the ability to secrete antibodies for immunity. a) mast b) adipose c) lymphatic d) Plasma
45	No are in the cytoplasm of the nerve cells. a) mitochondria b) centrioles c) Golgi d) rough endoplasmic reticulum
46	Epithelium rests on awhich may be clear or non-clear. a) endothelium b) mesothelium c) peritoneum d) basement membrane
47	Inepithelium, the superficial cells may change temporarily into squamous cells. a) transitional b) simple c) stratified d) pseudostratified
48	The cell membrane of muscle fibers is known as..... a) sarcoplasm b) sarcolemma c) sarcomere d) axolemma
49	is a firm, rigid, flexible and dense type of connective tissue poor in blood supply. a) Cartilage b) Bone c) Mesothelium d) Endothelium
50	Inepithelium all the cells reach the basement membrane but some of them may fail to reach the surface. a) simple b) Pseudostratified Ciliated Columnar c) stratified d) transitional
51	Apicomplexans are..... a) Autotrophic b) Saprozoic c) Endoparasites d) Ectoparasites
52	Inthe oral end of the animal develops from a second opening on the dorsal surface of the animal. a) Annelids b) Arthropods c) Molluscs d) Echinodermata
53	Insects are a) Tetrapods b) Pentapods c) Hexapods d) Heptapoda
54	The three-domain system of classification includes a) Protista, Plantia, and Fungia b) Plantia, Fungia, and Animalia c) Archaea, Bacteria, and Eukarya d) Archaeobacteria, Bacteria, and Protista

55	The nerve cord is hollow and dorsal in ... a) Chordates b) invertebrates c) Annelids d) Mollusca
56	Includes lancelets and are marine with elongated body a) Vertebrates b) Tunicata c) Urochordata d) Cephalochordates
57	In insects the 1st pair of wings is a) Prothoracic b) Mesothoracic c) Metathoracic d) all the previous
58	<i>Wuchereria bancrofti</i> which causes Elephantias belongs to Phylum a) Annelida b) Nematoda c) Platyhelminthes d) Arthropoda
59	The structural unit of the excretory system of <i>Fasciola</i> is a) Cnidocytes b) Nematocysts c) Nephridia d) Flame cell
60	In chordates the blood flows in the dorsal blood vessel a) Forward b) Backward c) From tail to head d) Ventrally
61	Which is the following age has the highest level of testosterone? a) 20 years b) 30 years c) 40 years d) 50 years
62	Which one of the following hormones has anti-inflammatory actions? a) Glucagon b) Thyroxin c) Aldosterone d) None of them
63	the most important hormones in calcium hemostasis. a) Thyroxin b) Calcitonin c) PTH d) Both (b & c)
64	It increases blood sugar and blood flow to heart and lungs during stress or fight. a) Cortisol b) Thyroxin c) Adrenaline d) Melatonin
65	Aldosterone is regulating the body's water and electrolyte balance secreted from..... a) Anterior pituitary b) Adrenal cortex c) Adrenal medulla d) Thyroid gland
66	 is associated with weight loss, bulging eyes and enlargement of the gland. a) Mixdema b) Cretinism c) Exophtahlmic goiter d) Tetany
67	 is the final stage in spermatogenesis. a) Maturation phase b) Differentiation phase c) Spermiogenesis d) Both (b & c)
68	Mammalian eggs belong to.....type. a) Isolecithal b) Centrolecithal c) Telolecithal d) None of them
69	Daughter cells resulting from are haploid and genetically divers. a) Miosis b) Mitosis c) Both (a & b) d) None of them

70 Twins with higher risk of complications during pregnancy

a) Dichorionic twins

b) Fraternal twins

c) Monoamniotic twins

d) Monochorionic twins

With Our best wishes

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Assiut University
Faculty of Science
Zoology Department



University required
All levels
Time: two hours

Second term Final Exam 2022/1023 (June 2023)

Course title: Healthy feeding. (URO13)

Answer all the following questions: (50 Marks)

First question: - Second term (25 Marks: ½ mark each): -

a-Only answer by $\sqrt{}$ or X for these sentences:-

- 1-Carbohydrates are the main source of energy and the end product glucose with oxidation gives CO_2 , acetone and water (Safed energy). ().
- 2-In sickle cell anaemia, the abnormal sickle haemoglobin is less soluble than normal and found only in Negrosis. ().
- 3-Vit B12 is necessary for the development and maturation of RBCs at the pronormoblast stage. ().
- 4-Antibrowning agents of non enzymatic browning of some foods is prevented by adding sulphur dioxide which in turn, may kept vitamin B in the foods. ().
- 5-Muscle glycogen (may reach 800 g of 1% concentration) is mainly a local energy substrate for exercise, concentration. ().
- 6-Body mass index BMI over 40 is morbid obesity but 25 consider average obesity. ().
- 7-Fats enter in synthesis of some hormones. Ex. sex hormones, adrenocortical hormones (aldosterone and cortisol.). ().
- 8-When the body increase the dependence on body fat to produce energy leading to increase the level of keto bodies (acetone , acetoacetic acid, B-hydroxy buterate) which are very toxic. ().
- 9-Chromoprotein is a conjugated protein that contains a pigmented prosthetic group (or cofactor) which acts as respiratory pigment. ().
- 10-The increased plasma protein leads to leakage of water from blood to different tissues (called edema disease). ().
- 11-Monosaccharides are the most prevalent and there are several types, such as glucose, fructose and galactose. ().
- 12-Excess intake of vitamin A leads to the deposition of calcium salts in soft tissues such as kidney and ureter forming stones. ().
- 13-Vitamin A participates in epithelial glycoprotein synthesis and this protects the mucosa of urogenital tract, respiratory tract... ect. ().
- 14-Cones of the retina, are responsible for vision in bright and colored light and contain a photosensitive pigment called iodopsin. ... ().
- 15-Vitamin A deficiency causes hemorrhagic manifestation in skin and mucous membranes due to defect in some blood coagulation factors mechanism. ().

- 16-Some of vitamin such as K, E and B complex are synthesized in intestine by the help of some micro-organisms and can be affected by antibiotic drugs. ().
- 17-Vitamin D enhances the reabsorption of Ca^{2+} and phosphate in kidney..... ().
- 18-Vitamin C deficiency causes scurvy disease with easy bruising and haemorrhages under the skin due to increased capillary fragility. ().
- 19-Vitamin B1 deficiency leads to weak Krep's cycle, where decarboxylation of pyruvic into acetyl CoA is stopped.
- 20-The forth group contains vegetarian foods, cheese and fruits, to supply the body with vitamins, minerals and fiber. ().
- 21-The physical activity of the person must be done daily as in new food pyramid, which is walking movement for 2 hours for adult and 90 min for children. ().
- 22-The second group of old food pyramid contains meat, birds, fish, dried beans and eggs which is mostly animal sources and is an important source of protein, calcium, iron and zinc. ().
- 23-Ghrelin is a hunger hormone that acts counter to the hormone leptin, which helps to satiate the body.
- 24-leptin decreases the fatty acid oxidation and reducing the fat tissue in muscles and liver. ().
- 25-Obesity may due to genetics, environmental, metabolic, behavioral and social factors. ().
- 26-Drug therapies have been associated with obesity as metabolic rate slows down, leading to gain weight increases. ().
- 27-In man of 100 Kg body weight and length of 165 Cm is consider as severe obesity. ().
- 28-Dietary fibers Prevents coronary heart disease by improving blood protein profiles and reduces disorders of haemorrhoids and atherosclerosis. ().
- 29-Additives can increase nutritive value and provide a wider variety of foods. ().
- 30-Some Additives act as emulsifiers and stabilizers of foods as preservatives and prevent fats from rancidity. ().
- 31-Several organizations participated in adopting or putting the international numbering system for additives such as World Health Organization (WHO). ().
- 32-Although additives and preservatives are essential for food storage, they can not give rise to certain health problems. ().
- 33-Vitamin C can prevent Antibrowning agents of enzymatic browning for some fruit or vegetables. ().
- 34-If mother +ve RH and father +ve RH then erythroblastosis foetalis will take place leading to haemolytic anemia. ().
- 35-Leptin increases metabolic rate and decreases appetite in humans.().

- 36-Sodium nitrite is used not only as an antimicrobial, but also to fix the color of meat. ().
- 37-Lycopene red dye from Beets: provide food with red color which used as national food coloring. ().
- 38-There are some artificial coloring agents such as quinoline Yellow carmoisine and Lycopene used as additives and consider less safe than the natural ones. ().
- 39-Vit B12 deficiency leads to pernicious anemia (large, fragile, immature erythrocytes, megaloblasts and degeneration of the spinal cord. ().
- 40-The artificial flavoring which used for giving butter flavor is carried out by adding of acetylpropionyl (Acetoin) with plant oil for Buttery. ().
- 41-The excess of body cholesterol transformed into cholate salts add to faeces. ().
- 42-Where Oddi muscle relax at the arrival of food from the stomach to duodenum facilitating the secretion of bile juice from gallbladder. ().
- 43-Bile salts also did not act as bactericides, destroying many of the microbes that may be present in the food. ().
- 44-Obstructive jaundice (*cholestasis*.) leads to decrease blood conjugated (direct) bilirubin and Stool is Pale. ().
- 45-Fatty acid oxidation (β -Oxidation) is carried out in several stages and in each stage two carbon atoms are separated with energy. called beta-oxidation of the carbon atom β -Oxidation. ().
- 46-Vitamin B₁₂ play an important role in maturation of RBCs: antipernicious anemia factor. ().
- 47-Disadvantages of additives include that Uses of natural Sweeteners led to side effects such as saccharine and aspartame. ().
- 48-Vit B12 deficiency leads to pernicious anemia (large, fragile, immature erythrocytes, megaloblasts) and degeneration of the spinal cord. ().
- 49-Iodine deficiency leads to rickets, osteomalacia, muscle spasms and delay the clot formation. ().
- 50-leptin stimulates the secretion of all reproductive hormones such as gonadotropin. ().

Second question MCQ (25 Marks: one mark each):-

51-Usually liver glycogen stored after each meal sufficient blood glucose control:-

- A: For 24 hours.
- B: For about 5-6 hours. Only between meals.
- C: For 12 hours.
- D: For 18 hours.

52- Taking of excess of certain vitamins in food may increase the probability of clot formation particularly in blood-disease patient and example of this vitamin is:-

- A: Vitamin K
- B: Vitamin C.
- C: Vitamin D

- D: Not the above.
- 53- Preservatives are additives such as:-
 A: Antioxidants, Antibrowning agents and antimicrobials.
 B: Sweeteners,
 C: Coloring agent.
 D: All the above except C.
- 54- Edema disease can be induced in the case of a decrease of:-
 -A: Plasma fats.
 -B: plasma protein
 -C: RBCS.
 -D: All the above except C.
- 55- There are factors affecting basal metabolic rate BMR such as:-
 A: Diet - Severe calorie restriction reducing BMR.
 B: Increased body temperature will elevate basal metabolic rate.
 C: Food type - carbohydrates increase BMR.
 D: All the above except C.
- 56- In the digestive system of Human, the vermiform Appendix is found at:
 -A: The left side of large intestine.
 -B: The right side of large intestine and participate in food digestion.
 -C: The right side of large intestine and not participate in food digestion.
 -D: The above B & C.
- 57- The small intestinal part which contains villi and has the ability to absorb digested foods:
 -A: Duodenum.
 -B: Jejunum.
 -C: Ilium.
 -D: All the above.
- 58- Enzyme activity needs some factors such as:
 -A: Specificity.
 -B: Kinases.
 -C: Enzyme and substrate concentration.
 -D: All the above.
- 59- The examples of conjugated or compound proteins include:
 -A: Albumin, globulin, collagen gelatin
 -B: Nucleoprotein, Chromoprotein, heparin and Phosphoprotein
 -C: Collagen, Gelatin, heparin and Phosphoprotein
 -D: All the above.
- 60- The smallest group (servings) in the old food pyramid in size and weight is:
 A: Vegetables and fruits
 B: Bread, cereals, rice and pasta
 C: Butter, cream, margarine, sugars, sweets
 D: Meat, birds, fish,

- 61- Some groups of the food pyramid group can be replaced by another group and eaten without leaving a harmful effect, such as:
- A:Vegetables and fruits.
 - B:Bread, cereals, rice and pasta.
 - C:Butter, cream, margarine, sugars, sweets.
 - D:Not all the above.
- 62- Snacks cause obesity due to:-
- A:Its higher energy content.
 - B:Its reduced complex carbohydrates & fiber .
 - C:Its greater saturated fat.
 - D: All the above.
- 63- Ghrelin hormone:-
- A:Helps to satiate the body.
 - B:Ghrelin is a hunger hormone.
 - C:Acts counter to the hormone leptin
 - D:All the above except A.
- 64- Dietary proteins provide the body with certain amino acids which can not be synthesized in the body, and these amino acids are:-
- A: Both essential and non-essential amino acids.
 - B: Essential amino acids.
 - C: Non-essential amino acids.
 - D: All the above.
- 65- Skeletal muscles are unable to release glucose into blood , because muscles lack of:-
- A: Lipase enzyme.
 - B : Glucose-6-phosphatase enzyme
 - C: Amylase enzyme.
 - D: Maltase enzyme.
- 66- Enzymatic browning is due to:-
- A:addition of some vitamin D to the food products.
 - B:Reaction between an amino acid and a sugar, usually requiring heat.
 - C:Presence of enzyme. ex. poly phenol oxidase in some fruits and vegetables.
 - D:Not the above.
- 67- The main functions of dietary lipids include:-
- A: The second source of energy (25% of body needs).
 - B: Act as thermal insulator and synthesis of some hormones.
 - C: The sources of some enzymes.
 - D: All the above except C.
- 68- Function of rennin enzyme of stomach juice is:
- A:Coagulate and digestion of milk in stomach of children and young animals.
 - B: Enzyme has ability to coagulate milk in stomach of children and young animals.
 - C: Digestion of milk in stomach of children and young animals.

- D: All the above except A.
- 69- Leptin hormone:-
 - A: Control of food consumption.
 - B: Decrease energy expenditure.
 - C: Increases body weight.
 - D: All the above except C.
- 70- Causes of Obesity include:-
 - A: Over-eating than body requirement of energy.
 - B: Increase energy expenditure in the body.
 - C: Avoid taking snacks and Junk food.
 - D: All the above.
- 71- Examples of simple proteins are:-
 - A: Albumin Globulin and glycine.
 - B Albumin Globulin, Collagen and Gelatin.
 - C: Albumin Globulin, Collagen and cephaline.
 - D: Albumin Globulin, Collagen and glycerin.
- 72- HCL stimulate duodenal mucosa to secrete hormone called:
 - A: Gastrin.
 - B Secretin hormone which reach to the gall bladder to be stimulated to secrete bile juice.
 - C: Secretin hormone which reach to the pancreas to be stimulated to secrete pancreatic juice.
 - D: All the above.
- 73- Simple lipids are esters of fatty acids with fatty alcohol , such as:
 - A: Globulin and oils
 - B: :Oils, and butter
 - C: Wax of honey bees
 - D: B & C.
- 74- After depletion of stored liver glucose, blood sugar kept its level by:-
 - A: Breakdown of muscle glycogen.
 - B: Lowering glucose consumption..
 - C: Gluconeogenesis process in the liver.
 - D: Not all the above.
- 75- The largest group in the old food pyramid in size and weight is:
 - A: Vegetables and fruits.
 - B: Bread, cereals, rice and pasta.
 - C: butter, cream, margarine, sugars, sweets.
 - D: meat, birds, fish.

With my best wishes and great success,
Professor Dr. Mohamed Bassam Elbradei