

12	Cytoplasmic inclusions are components of cytoplasm ○ A) Permanent B) Temporary C) Living D) Structural
13	 cells are responsible for bone resorption during ossification. △ A) Osteogenic B) Osteoclast C) Osteoblast D) Osteocyte
14	 epithelium is a cellular sheet formed of one layer of cells. △ A) Glandular B) Simple C) Stratified D) Transitional
15	 glands that release their secretions through the detachment of the top of their cells? * A) Merocrine glands B) Apocrine glands C) Holocrine glands D) Endocrine glands
16	Myoepithelium cells are modified to..... △ A) secrete B) contract C) absorb D) protect
17	What is the main component of connective tissue? △ A) Cells B) Fibers C) Matrix D) All of the above
18	 cells produce histamine and heparin. △ A) Mast B) Adipose C) Plasma D) Fibroblast
19	 is present in the intervertebral discs. ● A) Elastic fibrocartilage B) White fibrocartilage C) Adipose tissue D) Bone
20	Which type of connective tissue is characterized by many small sized lipid droplets? ◇ A) White adipose tissue B) Brown adipose tissue C) Areolar c.t. D) Dense regular c. t.
21	 forms a smooth firm surface for the articular surfaces of joints. ■ A) Cartilage B) Bone C) Fibers D) Epithelium
22	The cytoplasm of muscle fibers is known as △ A) axoplasm B) plasmalemma C) sarcoplasm D) sarcolemma
23	 are responsible for muscle contractions. ◇ A) Myofibrils B) Microtubules C) Microfilaments D) Microvilli
24	What is the function of neuroglia in the central nervous system? * A) transmit impulses B) contraction C) Act as connective tissue between neurons D) sensation
25	 cells line the central canal of the spinal cord and form the Cerebro Spinal Fluid. △ A) Satellite B) Schwann C) Spongioblast D) Ependymal
26	Who adopted the binomial nomenclature? ■ A) Ray B) Aristotle C) Linnaeus D) Whittaker

27	Family is a group of related◇ A) Species B) Classes C) Families D) Genera
28	<i>Planaria</i> belongs to class△ A) Cestoda B) Trematoda C) Turbellaria D) Platyhelminthes
29	Nerve net is the type of nervous system in△ A) Cnidaria B) Parazoa C) Annelida D) Platyhelminthes
30	The three-domain system is◇ A) Archaea-Bacteria-Protista B) Monera-Protista-Animalia C) Fungi-Plantae-Animalia D) Archaea-Bacteria-Eukarya
31	The outer layer of Porifera body consists of flattened contractile cells called△ A) Archeocytes B) Choanocytes C) Sclerocytes D) Pinacocytes
32	Which one of the following have a closed circulatory system? ■ A) Arthropoda B) Cephalopoda C) Leeches D) Insects
33	Characters of phylum Platyhelminthes includes all the following except△ A) Dorsoventrally flattened B) Incomplete digestive system C) Acoelomate D) With open circulatory system
34	In Invertebrates the direction of blood flow in the dorsal blood vessels is ■ A) Backward B) Forward C) Bilateral D) Lateral
35	The first pair of legs in insects is■ A) Prothoracic B) Mesothoracic C) Metathoracic D) Median
36	The unit of excretory system in Annelida is△ A) Flame cell B) Nephridia C) Ladder form D) Gill-slits
37	Elephantiasis is a disease caused by △ A) <i>Enterobius</i> B) <i>Ascaris</i> C) <i>Wuchereria bancrofti</i> D) <i>Ancylostoma</i>
38	In meiosis, the daughter cells contain△ A) Double chromosome number B) Same chromosome number as mother cell C) Half chromosome number D) No chromosomes
39	Spermiogenesis is the transformation of△ A) Spermatogonia into spermatocytes B) Spermatids into spermatozoa C) Oogonia into ova D) Primary spermatocytes into secondary spermatocytes
40	Parthenogenesis occurs△ A) By fertilization B) Without fertilization C) Only in mammals D) Only in birds

41	Fraternal twins are also called	■
	A) Monozygotic twins B) Identical twins	
	C) Dizygotic twins D) Monoamniotic twins	
42	Hormones are Δ	
	A) Large food molecules B) Chemical compounds released from living cells	
	C) Digestive enzymes only D) Waste products	
43	Growth hormone and thyroxine show ■	
	A) High hormonal specificity B) No biological effect	
	C) Low level of hormonal specialization D) Local action only	
44	ADH mainly regulates ■	
	A) Calcium level B) Blood glucose C) Kidney retention of water D) Growth of bones	
45	Hypoparathyroidism causes ■	
	A) Hyperglycemia B) Tetany C) Gigantism D) Obesity	
46	Mineralocorticoids are secreted from Δ	
	A) Zona fasciculata B) Zona reticularis	
	C) Zona glomerulosa D) Adrenal medulla	
47	Epinephrine causes ■	
	A) Decreased heart rate B) Relaxation of airway smooth muscles	
	C) Reduced blood pressure D) Decreased blood flow to muscles	
48	Type 1 diabetes mellitus is mainly caused by ■	
	A) Obesity only B) Insulin resistance	
	C) Autoimmune destruction of beta cells D) Excess glucagon secretion	
49	One effect of testosterone is Δ	
	A) Decrease muscle growth B) Decrease RBC formation	
	C) Deepening of voice D) Decrease libido	
50	Excess melatonin during winter may cause ■	
	A) Hyperactivity B) Depression and oversleeping	
	C) Increased metabolism D) Hypertension	

End of Exam

Best Wishes

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	Assiut University- Faculty of Science Second Semester- Final Exam 2025-2026 Zoology and Entomology Department	Program: Zoology Level : (1) Date: 2/6/2026 Time: 2h	
Course Title: General Zoology		Code: 100Z	
Instructors: Drs. Safaa Megally, Hanan Salah Waly, and Alshaimaa Ahmed Alghriany		Total Mark: 50 degree	
No. of pages 4	No. Of questions 50		

(Q1): Choose the best single correct answer (50 marks, One mark for each)

1	 molecules restrict the movement of phospholipids and thus modulate the fluidity and movements of all membrane components. Δ	A) Protein	B) Cholesterol	C) Carbohydrates	D) Nucleic acids
2	 is present in great amounts in protein forming cells. ■	A) Rough endoplasmic reticulum	B) Lysosomes	C) Nucleus	D) Mitochondria
3	The inner membrane of the nuclear envelop, is covered with	A) peripheral chromatin	B) RER	C) ribosomes	D) SER
4	Which type of protein is present on both surfaces of the cell membrane? ◇	A) Peripheral protein	B) Integral protein	C) Transmembrane protein	D) Both B and C
5	 contain hydrolytic enzymes for the intracytoplasmic digestion of nutritive substances, and removal of residual and foreign bodies. *	A) Golgi complex	B) Mitochondria	C) Lysosomes	D) Ribosomes
6	Which type of cell is characterized by the absence of a definite nucleus? ■	A) Eukaryotic cell	B) Prokaryotic cell	C) Plant cell	D) Animal cell
7	The nucleus that has a great amount of heterochromatin appears: •	A) pale	B) large	C) small	D) dark
8	 regulates muscular contraction through the release of calcium ions. ◇	A) Mitochondria	B) Smooth endoplasmic reticulum	C) Golgi apparatus	D) RER
9	 transport is the transport of molecules against their concentration gradient. *	A) Active	B) Passive	C) Massive	D) Facilitated
10	The pair of are tubular structures, which are at right angles to one another. •	A) Golgi apparatus	B) cilia	C) centrioles	D) microtubules
11	Ribosomes with the rough endoplasmic reticulum form isolated bodies in nerve cells and are called Δ	A) Neuroglia	B) Schwann cells	C) Nissl's granules.	D) Myelin