



ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

**RESOURCES FOR
“SSC-I BIOLOGY”**

ZUEB EXAMINATIONS 2021



PREFACE:

The ZUEB examination board acknowledges the serious problems encountered by the schools and colleges in smooth execution of the teaching and learning processes due to sudden and prolonged school closures during the covid-19 spread. The board also recognizes the health, psychological and financial issues encountered by students due to the spread of covid-19.

Considering all these problems and issues the ZUEB Board has developed these resources based on the condensed syllabus 2021 to facilitate students in learning the content through quality resource materials.

The schools and students could download these materials from www.zueb.pk to prepare their students for the high quality and standardized ZUEB examinations 2021.

The materials consist of examination syllabus with specific students learning outcomes per topic, Multiple Choice Questions (MCQs) to assess different thinking levels, Constructed Response Questions (CRQs) with possible answers, Extended Response Questions (ERQs) with possible answers and learning materials.

ACADEMIC UNIT ZUEB:

1: Multiple Choice Questions:

The Multiple-Choice Questions with a stem, correct answer and 3 distractors or plausible wrong answers format is designed to assess the content and thinking of students from; R (Remembering); U(Understanding) and A (Applying, Analyzing, Evaluating, Creating). The questions are also classified into three difficulty levels accordingly; D (DIFFICULT), M (MODERATE), E (EASY)

HOW TO ATTEMPT AN MCQ:

MCQ:

- EACH MCQ HAS FOUR OPTIONS, A, B, C AND D. SELECT ONE OPTION AS THE BEST ANSWER AND FILL IN THE CIRCLE OF THAT OPTION, FOLLOWING THE INSTRUCTIONS GIVEN BY THE INVIGILATOR.
- USE BLACK PEN/PENCIL TO FILL IN THE CIRCLE.

Correct Way	Wrong Ways		
1	1	2	3
(a)	(a)	(a)	(a)
(b)	(b)	(b)	(b)
(c)	(c)	(c)	(c)
(d)	(d)	(d)	(d)

1.	Linnaeus adopted a system of nomenclature called_.			
	Dinomial Monomial Polynomial Binomial	Binomial	K	E

2.	Which of the following kingdoms was not proposed by Whittaker in the five kingdom classification. Fungi Monera Protista Viruses	Viruses	K	E
3.	During Metaphase of Mitosis , the chromosomes, Break and disintegrate Undergo coiling Arrange at equator Gets divided	Arrange at the equator	U	M

4.	During Cell division, the nuclear membrane appears in Metaphase Telophase Anaphase Prophase	Telophase	U	M
5.	The meiotic division takes place in Conductive cells Vegetative cells Reproductive cells Meristematic cells.	Reproductive cells	U	E
6.	Meiosis is a series of how many divisions 2 1 3 4	2	K	E
7.	The special enzymes are released during necrosis lysosomes vacuoles c.cytoplasm d.Golgi bodies	lysosomes	K	E
8.	The apoptosis is classified as programmed cell death non-programmed cell death accidental cell death mitotic cell death	Programmed cell death	K	M
9.	Pancreatic juice contains all except Trypsin Amylase Renin Lipase	Renin	U.K	E
10.	The movement of food from esophagus to stomach is called =Antiperistalsis Peristalsis Mechanical digestion	Peristalsis	K	E

	Ingestion			
11.	The mode of nutrition in which one organism cannot synthesize its own food and depend on other sources is called. symbiosis autotrophic nutrition Photosynthetic nutrition heterotrophic nutrition	Heterotrophic	U	M
12.	Following are the types of teeth present in human oral cavity , except, Canine Molars Incisors Dentine	Dentine	U	E
13.	The rate of transpiration will _if the atmospheric pressure is low Increase Decrease Stay unchanged Can't be determined	Increase	U	M
14.	The main function of guard cells is to help with _____ Transpiration Guttation Transcription None of the above	Transpiration	K	E
15.	The movement of materials from the leaves to other tissues of the plant is called_____. Tropic movement Guttation Transpiration Translocation	Translocation	K,U	M

16.	The deoxygenated blood is collected from all the organs by Arteries Veins Nerves Lymph nodes	Veins	U	M
17.	The hereditary disorder in which the blood fails to clot is Anaemia Angina Haemophilia tetanus	Haemophilia	K	E
18.	The "Power house" of cell is: Cytoplasm Mitochondria Golgi Bodies None of these	Mitochondria	K	M

19.	Which of the following organelle is not present in an animal cell? Ribosome Plastid Mitochondrial Nucleus	Plastid	K	M
20.	Stomach is Expandable I shaped Has 4 parts Connected to anus	Expandable	K	E
21.	The in folding of the inner membrane of mitochondria are known as Stroma Grana Cristae Oxysome	Cristae	U,K	M
22.	INSIDE the vacuole a. a Tonoplast Plasma membrane Cell wall Cell sap	Cell sap		

23.	In the bodies of complex animals, the contractile tissue is Neural Muscular Connective Epithelium	Muscular	K,U	M
24.	Which of the following is not a simple tissue Parenchyma Sclerenchyma Collenchyma Xylem	Xylem	U	M
25.	<p>maximum mechanical strength to the plant is provided by</p> <p>A Sclerenchyma</p> <p>B Parenchyma</p> <p>C Collenchyma</p> <p>D. Phloem</p>	Sclerenchyma	K	D

26.	When hypothesis is tested by repeated experiments and is not proved wrong then it becomes____. Scientific law Theory Experiment All of the above	Theory	U	M
27.	How the hypothesis can be tested? By development of theory By scientific laws By performing experiments Conduct seminars	By performing experiments	U	M
28.	The study of interaction between living organisms A. Sociobiology B. Parasitology C. Taxonomy D. Cell biology	Sociology	K	E
29.	In animals the product of anaerobic respiration is: 25- Lactic acid A. Pyruvic acid B. C. Uracil D. Uric acid	Lactic acid	U	E
30.	Aerobic respiration occurs in the presence of? a) Oxygen Hydrogen Nitrogen Carbon dioxide	Oxygen	U	E
31.	Laws and techniques of physics are applied to explain the living processes of life. (a) Biometry Biostatistics Biophysics Bio-economics	Biophysics	U,K	E

32.	Science of diagnosis and treatment of diseases. Agriculture Medicine Surgery Both B and C	Both B and C	K	E
33.	Select the correct sequence of biological organization			
	Atom → Cell → Tissue → Molecule → Organ Atom → Tissue → Cell → Molecule → Organ Atom → Molecule → Cell → Tissue → Organ Atom → Cell → Molecule → Tissue → Organ	Atom → Molecule → Cell → Tissue → Organ	U	M
34.	Biological method involves all of the following except. (a) hypothesis (b) Observation (c) Experiment (d) Conference	Conference	K	M
35.	Select the correct sequence of biological method. (a) Law → Theory → Reasoning → Hypothesis (b) Hypothesis → Theory → Law → Reasoning (c) Hypothesis → Reasoning → Theory → Law (d) Law → Hypothesis → Reasoning → Theory	Hypothesis → Reasoning → Theory → Law	U	M
36.	What is a hypothesis? Intelligent guess made by a scientist A tentative explanation that can be tested and is falsified. Constant fact of nature A fact based on quantitative data that is falsified.	Intelligent guess made by a scientist	A	E
37.	Scientific reasoning moves from specific to general. Inductive Deductive Observation Both a and b	Inductive	A	M
38.	In five kingdom system virus placed in Monera Protista Plantae Were not included	Were not included	A	E
39.	Members of which kingdom have cell wall and are all heterotrophic (a) Monera Protista Plantae Fungi	Fungi	U	M

40.	Biodiversity is effected with (I) Pollution (II) Deforestation (III) Over hunting (a) I only II only I and II I, II and III	I,II,III	A	E
41.	In the taxonomic hierarchy choose the term which encompasses all other in the list (I) Genus (II) Species (III) Order (IV) Class (a) I and II II II and III IV	Class	A	M
42.	MASS of food rolled up is called Bolus Renin Ball Cyst	Bolus	k	E
43.	What is responsible for the high resolution of the electron microscope? High magnification Short wavelength of the electron beam Use of heavy metals strains Very thin section	Short wavelength of electron beam	U	M
44.	Which processes involve mitosis? (a) Growth, reduction division and asexual reproduction. (b) Growth, repair and asexual reproduction. (c) Growth, repair and semiconservative replication. (d) Growth, reduction division and repair	Growth, repair and asexual reproduction.	U	M
45.	Select the mismatched (a) Anaphase → Chromatids move (b) Prophase → Centriole move (c) Telophase → Nuclear membrane disappear (d) Metaphase → Chromosome line up.	Telophase → Nuclear membrane disappear	U	M
46.	Sequence of physiological changes by which cell commit suicide. (a) Apoptosis (b) Necrosis (c) Autophagy (d) Both "a" and "c"	Both "a" and "c"	U	E

47.	Stage of meiosis in which centromeres shorten and the paired chromatids are pulled away from one another. (a) Anaphase-II (b) Metaphase-II (c) Telophase-II (d) Prophase-II	Anaphase II	K	E
48.	All are characters of enzymes except. (a) Enzyme speed up a biochemical reaction. (b) Enzymes are sensitive to minor change in Ph (c) Enzyme activity enhanced by inhibitors (d) Enzyme portion where substrate attach called active site	Enzyme activity enhanced by inhibitors	U	E
49.	(ii) Enzymes are (a) Steroid in nature (b) Protein in nature (c) Lipid in nature (d) Carbohydrate in nature	Protein in nature	U	E
50.	Rate of reaction will increase when temperature (a) Increases (b) Decreases (c) stays constant (d) Both "a" and "c"	Increases	K	M
51.	Each mole of ATP store energy (a) 7.3 kcal/mole (b) 7.3kj/mole (c)17.3kcal/mole (d) 17.3kj/mole	7.3kcal/mole	U	M
52.	Fundamental molecule produced during photosynthesis is (a)Glucose (b) Amino acid (c) Fatty acid (d) Nucleotide	Glucose	A	E
53.	Splitting of glucose (glycolysis) release small amount of energy which is enough to generate (a) 2ATP (b) 5 ATP (c) 18 ATP (d) 36ATP	2 ATP	A	M
54.	Chlorophyll reflects light which is Blue Green Violet Red	Green	A	E
55.	The formation of ATP is Endergonic process Exergonic process Energy liberating process Both A and C	Endergonic process	U	M

56.	<p>) Light dependent reaction takes place in</p> <p>(a) Stroma (b) Thylakoid (c) Cristae (d) Cisternae</p>	Thylakoid	K	M
57.	<p>In human digestive system Pharynx and oesophagus both connect to the</p> <p>(a) Large intestine (b) Stomach (c) anus (d) Rectum</p>	Stomach	U	M
58.	<p>The movement of organic materials (food) take place through</p> <p>(a) Xylem (b) Vessels (c) Tracheid (d) Phloem</p>	Phloem	A	E
59.	<p>The end products of aerobic respiration are</p> <p>Co₂ only H₂O only CO₂ and H₂O Lactic acid</p>	CO ₂ and H ₂ O	A	M

60.	The last stage of aerobic respiration occurs in Cristae Cisternae Plastids Nucleus	Cristae	K	M
61.	In human heart blood returning from lungs first drains into the (a) Left atrium (b) Left ventricle (c) Right atrium (d) Right ventricle	Left atrium	U	M
62.	Movement of water molecules from the area of higher water potential to the area of lower water potential called (a) Diffusion (b) Osmosis (c) Active transport (d) Water potential	Osmosis	A	E
63.	The study of remote past organic life with the help of fossils is: Entomology Paleontology Histology Genetics	Paleontology	A	M
64.	Animals do not have Plasmodesmata Pits Plastids All of them	All of them	A	E
65.	Correct way of writing a scientific name of an organism is: Rana Tigrina Rana tigrina rana tigrina R. tigrina	Rana tigrina	U	M
66.	In plants molecule degradation occurs by Lysosomes Mitochondria Vacuole Nucleus	Vacuole	K	M
67.	5. The process which requires energy input is: A. Active transport B. Diffusion C. Facilitated Diffusion D. Osmosis	Active transport	U	M
68.	□ 6. Stage of mitosis in which chromatids reach the pole and their movement cease: A. Prophase B. Metaphase C. Anaphase	Telophase	A	E

	D. Telophase			
69.	Part which joins small intestine to large intestine is known as Caecum Rectum Colon Anus	Caecum	A	M
70.	. 9. Splitting of water in the presence of light is: Hydrolysis Glycolysis Photolysis D. Thermolysis	Photolysis	A	E
71.	The stomach has 1 region 2 regions 3 regions 4 regions	3 regions	U	M
72.	11. Blood is a special type of: A. Cell B. Tissue C. Organ D. System	Tissue	K	M
73.	At the end of oesophagus Small intestine is present Spinchter is present Large intestine is present Pyloric end of stomach present	Spinchter is present	U	M
74.	Cofactor is a Non protein substance Protein substance Always organic None of them	Non protein substance	A	E
75.	Removal of water vapours from aerial parts of plant is: Respiration transpiration Guttation Evaporation	Transpiration	A	M
76.	in kingdom Animalia All are prokaryotes All are eukaryotes All Are unicellular All Are autotrophs	All are eukaryotes	A	E
77.	Unicellular algae is kept in Kingdom Animalia Kingdom plantae Kingdom fungi	Kingdom Protista	U	M

	Kingdom Protista			
78.	Bacteria and cyanobacteria is included in Kingdom plantae Kingdom Animalia Kingdom fungi Kingdom monera	Kingdom monera	K	M
79.	The organisms make their own food: Autotrophic Heterotrophic Parasites Symbiotic	Autotrophic	U	M
80.	Result Verifies the hypothesis Verifies the law Verifies the theory None of them	Verifies the hypothesis	A	E
81.	Dry atmosphere Favors transpiration Stops transpiration Favors budding Favors translocation	Favors transpiration	A	M
82.	The blood from right ventricle goes to lungs through Aorta Pulmonary arch Vena Cava Pulmonary vein	Pulmonary arch	A	E
83.	Human heart consists of: Two chambers Three chambers Four chambers Five Chambers	Four chambers	U	M
84.	14. Water and minerals enter the plants through: A. root B. Stem C. leaf D. branches	Root	K	M
85.	15. Cell death caused by external factors is: A. Apoptosis B. Necrosis C. Apomixes D. Diakinesis	Necrosis	U	M
86.	16. Activity of enzyme can be enhanced by: A. Inhibitor	Activators	A	E

	B. Activator C. Cofactor D. Hormones			
87.	Golgi apparatus is Present in eukaryotes and prokaryotes both Present in prokaryotes only Present in eukaryotes only Absent in prokaryotes and eukaryotes both	Present in eukaryotes only	A	M
88.	Membrane bounded nucleus is present in Prokaryotes Eukaryotes Kingdom monera Both a and c	Eukaryotes	A	E
89.	The final section that leads to large intestine is Duodenum Jejunum Ileum Colon	Ileum	U	M
90.	In human, intake of food is: Ingestion propulsion Absorption Egestion	Ingestion	K	M
91.	Elimination of waste products from body is Defecation Egestion Absorption Both A and B	Both A and B	U	M