



ZIAUDDIN UNIVERSITY
EXAMINATION BOARD

**RESOURCES FOR
“HSC-I BOTANY”**

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)

S#	MCQ'S MATERIAL	KEY	CL	DL
	The term "Cell" was first used by: τ Robert Brown 1965 τ Robert Brown 1865 τ Robert Hooke 1556 τ Robert Hooke 1665	Robert Hooke 1665	U	E
	Oxygen (O ₂) Produced during photosynthesis comes from: τ CO ₂ τ H ₂ O τ Both τ Photorespiration	H ₂ O	R	M
	The primitive vascular plants (Rhynia) were widespread about: τ 300 million year ago τ 400 million years ago τ 500 million year ago τ 600 million year ago	400 million years ago	U	M
	The total stem parasite is: τ Loranthes τ Utricularia τ Viscum τ Cuscuta	Cuscuta	R	E
	In anaerobic respiration how many ATP are produced? τ 36 τ 02 τ 38 τ 04	02	U	E
	Mycelium is a term used for: τ Mass of spores τ Mass of sporangia τ Zoospores τ Mass of hyphae	Mass of hyphae	R	M
	Virus is nutritionally: τ Symbiont τ Facultative parasite τ Saprophyte τ Obligat parasite	Obligat parasite	U	M

Energy is required for: τ Active transport τ Facilitated transport τ Diffusion τ All of these	Active transport	R	E
The primary electron acceptor in PS-II is: τ Plastoquinone τ Phaeophytin τ Plastocyanin τ FeS	Phaeophytin	U	E
Plant like protocists are: τ Algae τ Fungi τ Slime mold τ Protozoa	Algae	R	M
This organelle is known as suicide sac: τ Peroxisomes τ Glyoxisomes τ Lysosome τ Ribosome	Lysosome	U	M
Final tool helping in classifying organism is: τ Homology τ Analogy τ Genetics τ Biochemistry	Genetics	R	E
It is a Heterosporous plant: τ Rhynia τ Selaginella τ Moss τ Lycopodium	Selaginella	U	E
This fungus utilized in Baking industry: τ Yeast τ Mushroom τ Penicillium τ Deutromycota	Yeast	R	M
Virus was discovered in the year: τ 1840 τ 1838 τ 1898 τ 1892	1892	U	M
C4 plant forms_____, a four carbon compound as its first product: τ PEP τ Oxaloacetate τ Malate τ Pyruvate	Oxaloacetate	R	E
Which of the following is an example of liverworts? τ Funaria τ Marchantia τ Adiantum τ Anthoceroce	Marchantia	U	E
New Ribosomes are assembled in the: τ Golgi Apparatus τ Mitochondria τ Nucleolus τ Endoplasmic Reticulum	Nucleolus	R	M
(iv) Among the followings, this one is prokaryote: τ Euglena τ Chlamydomonas τ Nostoc τ Ulva	Nostoc	U	M
This type of Endocytosis involves ingestion of solid materials: τ Phagocytosis τ Pinocytosis τ Exocytosis τ Solidocytosis	Phagocytosis	R	E
Which of the following is the characteristic of all fungi? τ Autotrophic τ Parasitic τ Saprophytic τ Heterotrophic	Heterotrophic	U	E
Site of dark reaction of photosynthesis within dark reaction a. Stroma b. Grana c. Thylakoid d. Fibers	Stroma	R	M
Which of the following is a bacterial disease? a. Leishmaniosis b. Tetanus c. Measles d. Polio	Tetanus	U	M
It is saprophytic plant. a. Monotropa b. Pitcher plant c. Sundew d. None of these	Monotropa	R	E

	The following are involved with plant respiration a. Stomata b. Chloroplasts c. Auxins d. Geotropism	Chloroplasts	U	E
	Upward movement of water from root to leaves against the gravity pull is known as: a. Ascent of sap b. Passive transport c. Diffusion d. Osmosis	Ascent of sap	R	M
	Organism prepared their own food through raw material are termed as a. Autotrophic b. Heterotrophic c. Chemotrophic d. None of these	Autotrophic	U	M
	The light reaction of photosynthesis occurs in the: a. Stroma b. Thylakoid membranes c. Mitochondria d. Nucleus	Thylakoid membranes	R	E
	XVI. A viral reproductive cycle that culminates in death of host cell is known as: a. Lysogenic cycle b. Lytic cycle c. Krebs' cycle d. Glycolysis	Lytic cycle	U	E
	Protein synthesis takes place in . a. Ribosomes b. Mitochondria c. Mesosomes d. Golgi bod	Ribosomes	R	M
	The process in which C3 plants consume oxygen and produce Carbon dioxide during day time without producing energy. a. Photosynthesis b. Photorespiration c. Chemosynthesis d. Respiration	Photorespiration	U	M
	Absorption of water and swelling up of hydrophilic substances is known as a. Diffusion b. Osmosis c. Imbibition d. Active transport	Imbibition	R	E
	Pyruvic acid is the end product of _____ a. Krebs' cycle b. Anaerobic respiration c. Photosynthesis d. Glycolysis	Glycolysis	U	E
	Conifers, such as pine trees, are classified as a. Angiosperm b. Gymnosperm c. Fern d. Mosses	Gymnosperm	R	M
	Plants that have true root, stems, and leaves, as well as flowers and seeds enclosed in fruit are classified as a. Bryophytes b. Tracheophytes c. Gymnosperms d. Angiosperms	Angiosperms	U	M
	Sexual reproduction is absent in _____ a. Zygomycota b. Ascomycota c. Basidiomycota d. Deuteromycota	Deuteromycota	R	E

Mushrooms belongs to: a. Zygomycota b. Ascomycota c. Basidiomycota d. Deuteromycota	Basidiomycota	U	E
All of the following organisms belong to the kingdom Protista EXCEPT: a. Ulva b. Euglena c. Suctoria d. Slime Mold	Suctoria	R	M
All viruses a. Carry DNA b. Cannot reproduce outside cells c. Lack protein d. Carry RNA	Cannot reproduce outside cells	U	M
Another termed referred to _____ is dictyosome. a. Mitochondria b. Plasma membrane c. Golgi apparatus d. Ribosomes	Golgi apparatus	R	E
Proteins float in membrane like ice burg in sea: a. Lock and key model b. Induce fit model c. Fluid mosaic model d. Lokta Volterra model	Fluid mosaic model	U	E
Filament is a part of a. Sepal b. Petal c. Stamen d. Carpel	Stamen	R	M
Cyanobacteria is the typical example of: a. Chlorophyceae b. Bryophytes c. Blue Green algae d. Fungi	Blue Green algae	U	M
The members of which group of fungi contain coenocytic hyphae? a. Zygomycota b. Basidiomycota c. Ascomycota d. Deuteromycota	Zygomycota	R	E
_____ are non vascular plants. a. Psilopsids b. Bryophytes c. Lycopsids d. Pteropsids	Bryophytes	U	E
_____ is a living genus of Psilopsida. a. <i>Temespteris</i> b. <i>Rhynia</i> c. <i>Selagenella</i> d. <i>Equisetum</i>	<i>Temespteris</i>	R	M
Concerning general characteristics of Bryophytes, which statement is correct? A)The male gametangium is archegonuim produces flagellated sperm B)The female gametangium is archegonuim produces only single egg C)The female gainctangum is antheridium produces only single egg D)Fertilization of egg takes place in the antheridium E)All are incorrect	The female gametangium is archegonuim produces only single egg	U	M

	<p>14. Concerning life cycle of Bryophytes:</p> <p>A) Sporophyte is generally larger and long-lived provide nutrients to gametophyte</p> <p>B) Sporophyte is the dominant generation</p> <p>C) Gametophyte is the dominant generation</p> <p>D) Gametophytes depend on the sporophyte for water</p> <p>E) Same as life cycles of vascular plants, gametophyte is the dominant generation</p>	ametophyte is the dominant generation	R	E
	<p>The most common Bryophytes are:</p> <p>A) Mosses B) Club mosses C) Ferns</p> <p>D) Liver worts E) Horn worts</p>	Mosses	U	E
	<p>Gymnosperms have:</p> <p>A) Seed enclosed in fruits because ovules are covered by ovary.</p> <p>B) Naked seeds because ovules are covered by ovary.</p> <p>C) Naked seeds because ovary is covered by ovules.</p> <p>D) Naked seeds because ovules are not covered by ovary.</p> <p>E) Naked seeds because ovary is not covered by ovules.</p>	Naked seeds because ovules are not covered by ovary.	R	M
	<p>34. "Virus could be transmitted from an infected organism to a healthy organism of the same kind", this is discovered by:</p> <p>A) Wendelstaneley B) Schwartz C) Iwanowsky</p> <p>D) Edward Jenner E) Robert Whittaker</p>	Iwanowsky	U	M
	<p>37. The protein coat that encloses the viral genome is called:</p> <p>A) Cell-Wau B) Tail Fibres C) Capsid</p> <p>D) Capsule E) Viral-Envelopes</p>	Capsid	R	E
	<p>36. All viruses consist of:</p> <p>A) DNA only B) RNA only</p> <p>C) DNA & RNA both are present in each virus</p> <p>D) DNA or RNA E) Both are absent in viruses</p>	DNA or RNA E) Both are absent in viruses	U	E
	<p>35. Concerning characteristics of viruses, which statement is correct?</p> <p>A) They are cellular parasitic organisms.</p> <p>B) They can easily live and reproduce outside the living cell.</p> <p>C) They have their own enzyme synthesizing machinery.</p> <p>D) They range in size from 20 nm to 250 nm.</p> <p>E) All viruses are similar in their shape and size.</p>	They range in size from 20 nm to 250 nm.	R	M
	<p>Kingdom Monera includes:</p> <p>A) Viruses B) Bacteria C) Fungi</p> <p>D) Animals E) Plants</p>	Bacteria	U	M

	Capsule present in bacteria is madeup of: A)Glycolipids and proteins B) Polysaccharides and proteins C)Phosphoproteins D) Nucleo-proteins E)Phospho-lipids and proteins	Polysaccharides and proteins	R	E
	Regarding 'PILI' which statement is correct? A)Pili are larger than flagella B) Pili are smaller than flagella C)Pili and flagella are of same size D)Pili and flagella perform same function E)None of the above	Pili are smaller than flagella	U	E
	Structure helpful in motility of bacteria is: A)Flagella B) Pili C) Capsule D)Plasmid E)Mesosomes	Flagella	R	M
	The length of the bacteria measures from: A)0.2 – 2μm B) 2 – 5 μm C) 2 – 3μm D)2 – 10μm E)10 – 12μm	2 – 10μm	U	M
	Microorganisms were first observed by: A)Wendel Stanley B) Shwartz C) Leeuwenhoek D)Iwanowsky E)Robert Whihaker	Leeuwenhoek	R	E



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