AL AMAL LEARNING CENTER

Federal Board SSC-I Examination

BIOLOGY CHAPTER QUIZ

Class 9 | Unit 2

BIODIVERSITY

Time Allowed: 1:00 hour **Total Marks:** 25

Roll Number	Paper Version

Candidate Sign. _____ Invigilator Sign. _____

SECTION A (Marks 10)

Note: Section A is compulsory. Fill the correct bubble for each question. Each question carries 0.5 mark.

Q#	Question	A	B	C	D
1.	Which statement best defines “biodiversity”?	The study of living organisms and their environment	The grouping of organisms based on similarities	The variety of living organisms found on Earth	The identification and naming of organisms
2.	The scientific study of the diversity of organisms and their evolutionary relationships is called:	Taxonomy	Ecology	Systematics	Classification
3.	Which of the following is NOT an aim of classification?	To find similarities and differences between organisms	To arrange organisms on the basis of similarities	To study organisms systematically	To give every organism a different common name in each region
4.	The third kingdom, Protista, was proposed by:	Ernst Haeckel	Carolus Linnaeus	R.H. Whittaker	Carl Woese
5.	In the five-kingdom system, bacteria and archaea were placed together in Monera because:	Both have a prokaryotic cell structure	Both live only in extreme environments	Both have peptidoglycan in their cell walls	Both are autotrophs
6.	The three-domain system (1990) is based mainly on differences in:	Cell wall colour	Mode of reproduction	Body size	rRNA nucleotide sequence, membrane lipid structure and antibiotic sensitivity
7.	Which pair is MISMATCHED?	Methanogens – produce methane	Halophiles – live in high salt concentration	Thermoacidophiles – live in high temperature and acidity	Halophiles – live in high temperature and acidity
8.	The cell wall containing peptidoglycan is a characteristic of domain:	Archaea	Eukarya	Bacteria	Archaea and Eukarya
9.	Which kingdom has chitin in its cell wall and is mostly saprotrophic?	Plantae	Protista	Fungi	Animalia

Q#	Question	A	B	C	D
10.	If two organisms belong to the same order, they must also belong to the same:	Family	Genus	Class	Species
11.	Which is the correctly written binomial name of pea?	*pisum Sativum*	*Pisum sativum*	*Pisum Sativum*	*pisum sativum*
12.	A mule (cross of male donkey and female horse) is not regarded as a species because:	It is a hybrid of two genera	It has no chromosomes	It is a plant	It is infertile due to an odd number of chromosomes
Scenario for MCQs 13–16 A student observes three unicellular organisms. **Organism X:** lives in pond water, has a nucleus and chloroplasts, but feeds heterotrophically in darkness and has no cell wall. **Organism Y:** has no nucleus, has peptidoglycan in its cell wall and is sensitive to traditional antibiotics. **Organism Z:** has no nucleus, has no peptidoglycan and lives in a hot spring.					
13.	Organism X should be placed in kingdom:	Monera	Protista	Fungi	Plantae
14.	Organism Y belongs to domain:	Eukarya	Archaea	Bacteria	Not classified in any domain
15.	Organism Z belongs to domain:	Bacteria	Eukarya	Archaea	Fungi
16.	Which feature shows that Z is closer to eukaryotes than Y?	It has peptidoglycan	It is sensitive to some antibiotics that affect Eukarya	It lives in hot springs	It is unicellular
Scenario for MCQs 17–20 The table shows the classification of human and pea.					
17.	The rank “Division” in plants is equivalent to which rank in animals?	Class	Order	Phylum	Genus
18.	The largest taxon shared by human and pea is:	Kingdom	Phylum	Domain	Class
19.	Which kingdom in the table contains multicellular heterotrophs with an ingestive mode of nutrition?	Plantae	Animalia	Fungi	Protista
20.	The correct scientific name of pea is:	*Pisum sativum*	*Fabaceae sativum*	*Magnoliopsida pisum*	*Pisum Fabaceae*

Taxa	Human	Taxa	Pea
Kingdom	Animalia	Kingdom	Plantae
Phylum	Chordata	Division	Magnoliophyta
Class	Mammalia	Class	Magnoliopsida
Family	Homonidae	Family	Fabaceae
Genus	*Homo*	Genus	*Pisum*

SECTION B (3 × 3 = 9 Marks)

Note: Attempt all questions. Each question has an internal choice (OR).

Q1	Define biodiversity. Write two ways in which biodiversity is important for the natural ecosystem.	**1+2**	**OR**	Define classification and taxonomy. Write any one advantage of classification.	**1+1+1**
Q2	Differentiate between domain Archaea and domain Bacteria by giving THREE differences.	**3**	**OR**	Differentiate between kingdom Fungi and kingdom Plantae by giving THREE differences.	**3**
Q3	Define species. Why is a mule not regarded as a species?	**1+2**	**OR**	Define binomial nomenclature. Write the scientific name of one animal and one plant, and state one rule for writing them.	**1+1+1**

SECTION C (1 × 6 = 6 Marks)

Note: Attempt the question below. It has an internal choice (OR).

Q4	Describe the three domains of life (Archaea, Bacteria, Eukarya). Write the characteristics of each domain and state on what basis life is classified into domains.	**2+2+2**	**OR**	Give an account of the history of classification. Compare the two-kingdom, three-kingdom and five-kingdom systems.	**3+3**

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