Mark Sheet

Question 1

Total Marks Awarded: 3

Rubric Evaluation:

- **Point 1:** 1 marks — Correct: Stomach is correctly identified as an Organ.
- **Point 2:** 1 marks — Correct: Man is correctly identified as an Organism.
- **Point 3:** 0 marks — Incorrect: Cylocose is not a valid molecule. The correct term is Glucose.
- **Point 4:** 1 marks — Correct: Ribosome is correctly identified as an Organelle.

Feedback:

The student correctly identified the organization levels for the Stomach, Man, and Ribosome. However, the term 'Cylocose' is incorrect; it should be 'Glucose'. Ensure to use the correct terminology in future responses.

Question 2

Total Marks Awarded: 3.5

Rubric Evaluation:

- **Point 1:** 1 marks — The student correctly identified the cell type as mostly unicellular and eukaryotic, which aligns with the answer key.
- **Point 2:** 1 marks — The student correctly mentioned that the nuclear envelope is present, matching the answer key.
- **Point 3:** 0.5 marks — The student mentioned that the cell wall is either absent or made of materials other than cellulose, which is partially correct but lacks the detail about various types as mentioned in the answer key.
- **Point 4:** 1 marks — The student did not specify the mode of nutrition, but the description aligns with the possibility of being photosynthetic, heterotrophic, or a combination, so partial credit is given.

Feedback:

The student provided a mostly accurate description of the characteristics of the Kingdom Protista. However, the description of the cell wall was partially correct and lacked detail about the various types. Additionally, the mode of nutrition was not explicitly mentioned, which is a minor oversight. Overall, the answer is quite good but could benefit from more specific details.

Question 3

Total Marks Awarded: 2

Rubric Evaluation:

- **Point 1:** 1 marks — Correctly identified the radiation type as beams of electrons.
- **Point 2:** 1 marks — Correctly identified the type of lenses as magnetic.
- **Point 3:** 0 marks — Incorrect magnification value. The correct value is 100 times greater than light, not 2 million times.
- **Point 4:** 0 marks — Incorrect description of images. TEM shows 2D images while SEM shows 3D images.

Feedback:

The student correctly identified the radiation type and the type of lenses used. However, the magnification value provided is incorrect, and the description of the images produced by TEM and SEM is also incorrect. The student should focus on providing accurate details as per the answer key.

Question 4

Total Marks Awarded: 2

Rubric Evaluation:

- **Point 1:** 2 marks — Correct definition of turgor, although it could be more detailed.
- **Point 2:** 0 marks — Incorrect importance. 'Maintains plant rigidity and structure' is partially correct but does not mention support to plants or stomata function.

- **Point 3:** 0 marks — Incorrect importance. 'Aids in growth by cell expansion' is partially correct but does not mention the role in stomata function or flower movement.

Feedback:

The student provided a correct definition of turgor but missed several key points in the importance section. The importance of turgor in maintaining plant structure, supporting young tissues, aiding in stomata function, and facilitating flower movement was not fully addressed.

Question 5

Total Marks Awarded: 1

Rubric Evaluation:

- **Point 1:** 1 marks — Correctly identified that prokaryotic cells lack a nucleus while eukaryotic cells have a nucleus.
- **Point 2:** 0 marks — Incorrectly stated that prokaryotic cells have membrane-bound organelles, while they actually lack them.
- **Point 3:** 0 marks — Incorrectly described the cell wall composition for both cell types. Prokaryotes have peptidoglycan, and eukaryotes have cellulose or chitin.
- **Point 4:** 0 marks — Incorrectly described the size comparison. Prokaryotic cells are smaller (0.5 µm) compared to eukaryotic cells (10–100 µm).

Feedback:

The student correctly identified the difference in the nucleus between prokaryotic and eukaryotic cells. However, several key points were incorrect: membrane organelles are absent in prokaryotic cells, the cell wall composition was incorrectly described, and the size comparison was inaccurate. Reviewing the differences in cell structure and size is recommended.

Question 14

Total Marks Awarded: 5

Rubric Evaluation:

- **Point 1:** 3 marks — Correctly described mitochondrial enzyme as intracellular, explaining it functions inside mitochondria.
- **Point 2:** 1 marks — Correctly described the synthesis of ATP.
- **Point 3:** 0 marks — Did not provide a correct diagram for the synthesis of ATP. The provided diagram does not match the expected representation.
- **Point 4:** 1 marks — Correctly described the breaking of ATP.
- **Point 5:** 0 marks — Did not provide a correct diagram for the breaking of ATP. The provided diagram does not match the expected representation.

Feedback:

The student correctly described the mitochondrial enzyme as intracellular and provided correct descriptions for the synthesis and breaking of ATP. However, the diagrams provided for both synthesis and breaking of ATP were incorrect and did not match the expected representations. The student should focus on accurately representing the chemical processes in the diagrams.

Question 15

Total Marks Awarded: 3

Rubric Evaluation:

- **Point 1:** 1 marks — Correctly identified frequent, loose stools, and pain as symptoms of diarrhea.
- **Point 2:** 0 marks — Did not specify bacterial, viral, or parasitic infections as causes of diarrhea.
- **Point 3:** 0 marks — Did not provide correct prevention methods for diarrhea.
- **Point 4:** 1 marks — Correctly described atherosclerosis as involving fatty deposits and narrowing of arteries.
- **Point 5:** 1 marks — Correctly described arteriosclerosis as hardening of the arteries due to calcium deposition.

Feedback:

The student correctly identified some symptoms and provided a partial description of atherosclerosis and arteriosclerosis. However, the causes and prevention methods for diarrhea were not correctly stated. Additionally, the diagram did not provide any useful information as it was empty.