

QUESTION 2 (5.00%)

Answer the following question by selecting the correct answer.

The diagram illustrates the light path in a microscope. Light from a specimen is collected by the objective lens, passes through the eyepiece lens, and is directed towards the viewer's eye. The diagram is divided into two main sections: the objective and the eyepiece.

Objective Section:

- Specimen:** The object being observed.
- Objective Lens:** The lens closest to the specimen.
- Objective Image:** The first image formed by the objective lens.
- Objective Image Distance:** The distance from the objective lens to the objective image.
- Objective Image Height:** The height of the objective image.
- Objective Image Distance:** The distance from the objective lens to the eyepiece lens.
- Objective Image Distance:** The distance from the objective lens to the eyepiece lens.

Eyepiece Section:

- Eyepiece Lens:** The lens closest to the viewer's eye.
- Final Image:** The image formed by the eyepiece lens.
- Final Image Distance:** The distance from the eyepiece lens to the final image.
- Final Image Height:** The height of the final image.
- Final Image Distance:** The distance from the eyepiece lens to the final image.

The diagram shows that the objective lens forms a real, inverted image of the specimen. This image then acts as the object for the eyepiece lens, which forms a virtual, upright image of the objective image. The final image is seen through the eyepiece.