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Time taken 5 mins 33 secs

Grade 7.20 out of 10.00 (72%)

Question 1

Partially correct

Mark 2.00 out of 4.00

On a trip to Paris you bought a model of the Eiffel Tower that is 1 cms tall. You decided to take its picture in front of the real Eiffel Tower (324m tall) in such a way that both of them appear to be of the same height in the image. If you know that the model tower is 7.7 meters away from the camera, how far away is the Eiffel Tower in meters?

Answer: ☒

Check the units

The correct answer is: 249480.00

Question 2

Correct

Mark 2.00 out of 2.00

You are trying to photograph a squirrel and you have its eyes in sharp focus. Suddenly the squirrel moves away from you. Which of the following actions (possibly multiple) can get the squirrel back in focus? (Hint: Remember the thin lens equation)

- ☒ a. Move the lens closer to the imaging sensor ✓
- ☒ b. Move the camera closer to the squirrel ✓
- ☐ c. Move the camera farther away from the squirrel
- ☐ d. Do not need to move the lens or camera
- ☐ e. Move the lens farther away from the imaging sensor

Your answer is correct.

The correct answers are:

Move the lens closer to the imaging sensor,

Move the camera closer to the squirrel

Question 3

Correct

Mark 2.00 out of 2.00

Which of the following is **NOT** an artefact caused by the **lens** of a camera?

- ☐ a. Pincushion Distortion
- ☐ b. Chromatic Aberration
- ☐ c. Barrel Distortion
- ☒ d. Skew of the Image
- ☐ e. Lens Flare



Your answer is correct.

The correct answer is:
Skew of the Image

Question 4

Partially correct

Mark 1.20 out of 2.00

For each of the following parameters of a camera, identify it as being part of the internal or external calibration matrix

Image Center	External	✗
Camera Rotation	External	✓
Camera Translation	External	✓
Focal Length	Internal	✓
Skew	External	✗

Your answer is partially correct.

You have correctly selected 3.

The correct answer is:

Image Center → Internal,

Camera Rotation → External,

Camera Translation → External,

Focal Length → Internal,

Skew → Internal

◀ [First Principles of Computer Vision \(YouTube Link\)](#)

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