

الجمهورية الجزائرية الديمقراطية الشعبية  
وزارة التعليم العالي والبحث  
معهد التكنولوجيا – جامعة قاصدي مرباح ورقلة  
كلية الهندسة التطبيقية  
تخصص بصريات وميكانيك الدقة

**Correction of the first English exam**

**Part one : Metrology (05p)**

**Answer 01 : (01p)**

Bureau of weights and Measures (BIMP) defines metrology as the science of measurement, embracing both experimental and theoretical determinations at any level of uncertainty in any field of science and technology.

**Answer 02 : (02p)**

A standard is an exact quantity that people agree to use for comparison. (01p)

Inspection involves the measurements, tests, and gauges applied to certain characteristics in regard to an object or activity. (01p)

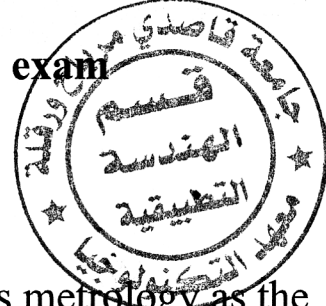
**Answer 03 : (02p)**

Instrumental errors occur due to wrong construction of the measuring instruments. (0.5p)

Environmental errors occur due to some external conditions of the instrument such as pressure, temperature, humidity, and magnetic fields. (0.5p)

Observational errors occur due to wrong observations or reading in the instruments particularly in case of energy meter reading. (0.5p)

Theoretical errors are caused by simplification of the model system. (0.5p)





## Part two : Optics (05p)

### Answer 01 : (2.5p)

**Myopia (near-sightedness)** is a disease called on people that can not see things which are far.

**Hyperopia (far-sightedness)** is a disease called on people that can not see things which are near.

### Answer 02: (2.5 p)

The infrared (IR) and the ultraviolet (UV) represent the two extremities of the visible spectrum (400-700nm). While IR represents electromagnetic radiation with wavelengths **longer** than those of visible light, UV represents wavelengths **shorter** than visible light.

## Part three : Grammar (05p)

- Sara usually **puts** on black shoes but now she **is wearing** white trainers. (01p)
- Jane **had already typed** three pages when her computer crashed. (01p)
- I **have just finished** my homework. (01p)
- While one group **were having** dinner the others **were collecting** wood for the campfire. (01p)
- The teacher **will probably assign** a test to his students next Monday. (01p)

## Part four : Writing ( 05p )