

الدرجة العظمى
(٦٠)

الدرجة الصغرى
(٣٠)

جمهورية مصر العربية
وزارة التربية والتعليم
نموذج إجابة امتحان شهادة إتمام الدراسة
الثانوية العامة عام ٢٠١٧
الفيزياء (بالإنجليزية - طلاب الدمج)

الدور الأول - رقم المادة (١٤٦)

عدد الصفحات (٢)

Four questions are requested to answer × 15 marks for each questions = 60 marks

First Question: (15 Marks) = a mark for each item x 15 items

- 1- Sensitivity of the galvanometer.
- 2- The resistance of the conductor.
- 3- The electric resistivity of the wire material.
- 4- The wavelength associating the electron or De Broglie equation.
- 5- The potential difference between two points.
- 6- The ideal transformer.
- 7- AND gate or coincidence
- 8- Fraunhofer lines
- 9- The shunt resistance
- 10- Stimulated emission
- 11- Planck's distribution or Planck's curve or blackbody radiation curve
- 12- Magnetic flux density
- 13- Hologram
- 14- Reverse (backward) connection.
- 15- Spontaneous emission.

Second Question: (15 Marks) = a mark for each item x 15 items

First:

a) Monochromatic	(5)
b) Moving coil ammeter	(3)
c) Within visible light region	(1)
d) Electromagnetic induction	(6)
e) Amplifying the laser beam	(2)
f) Eddy currents	(4)
g) Imaging bones in the human body	(8)
h) Define the direction of the magnetic flux at the center of a circular coil carrying a current	(7)

Second :

a) Electrical conductivity	(3)
b) Fleming's right hand rule	(7)
c) Weber	(1)
d) Five spectral series	(2)
e) $\varepsilon = - N \frac{\Delta\phi_m}{\Delta t}$	(6)
f) npn	(4)
g) $\varepsilon = - BLv \sin \theta$	(5)

Third Question: (15 Marks) = a mark for each item x 15 items

- | | | | | |
|---------|---------|---------|---------|---------|
| 1- (Y) | 2- (Y) | 3- (Y) | 4- (×) | 5- (×) |
| 6- (Y) | 7- (×) | 8- (×) | 9- (Y) | 10- (Y) |
| 11- (×) | 12- (×) | 13- (Y) | 14- (×) | 15- (Y) |

Fourth Question: (15 Marks) = a mark for each item x 15 items

- 1- Electrons or charges
- 2- Amplifying the current (or any correct answer)
- 3- Surface potential barrier
- 4- Complex
- 5- amplifier NOT or inverter
- 6- Does not change
- 7- Equal
- 8- Direct current ammeter
- 9- Does not change
- 10- Magnify the extremely minute objects or that cannot be magnified by optical microscope.
- 11- smaller than
- 12- Fleming's left hand rule
- 13- Attract
- 14- Perpendicular to
- 15- Decreases

Fifth Question: (15 Marks) = a mark for each point x 15 points

- 1- Current intensity – number of turns – cross sectional area
(Only two are requested)
- 2- Diffract through crystals – ionize gases
(Or any two correct answers)
- 3- To determine the direction of magnetic flux lines around a straight wire carrying an electric current.
- 4- equals.
- 5- Inertia
- 6- N.m - Ohm (Ω)
- 7- Melt metals
- 8- Photon – Electron
- 9- Solenoid length
- 10- as a switch or current rectifier or converts AC current into DC current
- 11- Frequency

(انتهى نموذج الإجابة)

