



HBU-02011153

Seat No. _____

First Year B. P. T. Examination

August – 2017

Fundamental of Electrotherapeutics

Time : **2 Hours]**

[Total Marks : **50**

- 1 Long essay : (any two) 20**
- (1) Explain the electromagnetic spectrum with its uses.
 - (2) Explain types of transformers with its application.
 - (3) What is semiconductor? Write its uses and functions.
- 2 Short essay : (any two) 10**
- (1) Generation of electricity
 - (2) Physiology of pain
 - (3) Diode and triode
- 3 Short answers : (any five) 10**
- (1) Choke coil
 - (2) Plugs and switches
 - (3) Earthing
 - (4) Coupling media
 - (5) Types of magnet
 - (6) Inverse square law.
- 4 Multiple choice questions : 10**
- (1) _____ is the device used to measure the electric current in a circuit.
 - (a) Rheostat
 - (b) Voltmeter
 - (c) Ammeter
 - (d) none of the above
 - (2) The electric line of force enter into any surface at
 - (a) 180° to surface
 - (b) 90° to surface
 - (c) 45° to surface
 - (d) 0° to surface

- (3) Following is not unit of potential difference
(a) Volt (b) joules per colomb
(c) both (a) and (b) (d) none of the above
- (4) Example of intrinsic conductor is
(a) phosphorus (b) boron
(c) indium (d) silicon
- (5) To minimize the skin resistance
(a) skin should be shaved off for hair
(b) skin should be cleaned with alcohol
(c) skin should be made wet
(d) all of the above
- (6) If surface does not allow the ray to pass _____ will occur.
(a) Refraction (b) Penetration
(c) Absorption (d) Reflection
- (7) To get function of transistor, which area is selected for giving current?
(a) Base (b) Emitter
(c) Collector (d) None of the above
- (8) Impedance offered by condenser to flow of current is called
(a) Inductive reactance
(b) Capacitive reactance
(c) Inductance
(d) Resistance
- (9) Fast pain is carried by
(a) $A\alpha$ fibers (b) $A\beta$ fibers
(c) $A\lambda$ fibers (d) $A\delta$ fibers
- (10) Unit of capacitance is
(a) Farad (b) Henry
(c) Watt (d) Volt