Unit 5 - Week 3:

Assignment 3

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2019-02-20, 23:59 IST.

1) A parallel plate air capacitor is connected with a DC source. Now with battery remains connected, a dielectric slab is inserted in air gap between the plates. Then:

(a) Capacitance of capacitor will decrease.

(b) The electric field between the plates will decrease.

(c) The charge, stored in capacitor will decrease.

(d) All of (a), (b) and (c) are wrong.

   - (a)
   - (b)
   - (c)
   - (d)

No, the answer is incorrect.
Score: 0
Accepted Answers:
- (b)

2) An inductor is suitable to use as

(a) Resistance in DC circuit.

(b) Resistance in AC circuit.

(c) Resistance for both of AC and DC circuit.

(d) Not suitable to use as resistance in any of AC and DC circuit.

   - (a)
   - (b)
   - (c)
   - (d)

No, the answer is incorrect.
Score: 0
Accepted Answers:
- (b)
Round 24.8514 to three significant figures

(a) 24.8
(b) 24.9
(c) 25.0
(d) None of those

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)

4) How many significant figures will the answer to $3.10 \times 4.520$ have?

(a) 1
(b) 2
(c) 3
(d) 4

No, the answer is incorrect.
Score: 0
Accepted Answers:
(c)

5) An ideal capacitor offers

(a) Zero resistance in DC circuit
(b) Infinite resistance in DC circuit
(c) Low resistance for AC circuit
(d) Both of (b) and (c) are correct

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d)
A galvanometer is converted into an ammeter by connecting a low resistance in parallel with the resistance of the galvanometer. Now if another low resistance is connected in parallel with combination then

(a) The sensitivity of the ammeter will increase but range (the maximum current needed for full deflection) will decrease.

(b) The range of the ammeter will increase but sensitivity will decrease.

(c) Both of sensitivity and range of ammeter will increase.

(d) Both of sensitivity and range of ammeter will increase.

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)

7) Express the following sum with the correct number of significant figures: 1.80 m + 142.5 cm
5.34 × 10^3 μm.

(a) 3.76 m
(b) 3.759 m
(c) 4.201 m
(d) 5.23 m

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)

8) The density of an object is defined as its mass divided by its volume. Suppose the mass and volume of a rock is measured to be 8 g and 2.8325 cm³. To the correct number of significant figures, determine the rock’s density.

(a) 3.72 gm/cm³
(b) 3 gm/cm³
(c) 4.42 gm/cm³
(d) 7.21 gm/cm³
9) Multiply $2.079 \times 10^5$ m by $0.082 \times 10^{-1}$ taking into account significant figures.

(a) 1.7 m
(b) 4.9 m
(c) 1.9 m
(d) 2.9 m

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)
(b)
(c)
(d)

10) There are ........ fixed points of thermometer.

(a) 6
(b) 4
(c) 3
(d) 2

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)
(b)
(c)
(d)

11) The upper fixed point on Kelvin scale is:

(a) Boiling point of water
(b) Triple point of water
(c) Boiling point of alcohol
(d) Absolute zero

No, the answer is incorrect.
12) A thermocouple thermometer consists basically of

(a) 1 wire
(b) 2 wires
(c) 4 wires
(d) 3 wires

Score: 0
Accepted Answers: (a)
No, the answer is incorrect. Score: 0
Accepted Answers: (b)