

Time: 20 Minutes

OBJECTIVE Code: 8476

Marks: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

1. Using spectroscopy the helium was identified in the
(A) Earth (B) Sun (C) Stars (D) all of these
2. The induced emf is primarily produced at the cost of
(A) internal energy (B) mechanical energy (C) chemical energy (D) electrical energy
3. The reactance of an inductor at 50Hz is 10Ω . Its reactance at 100Hz is
(A) 2.5Ω (B) 5Ω (C) 10Ω (D) 20Ω
4. Threshold wavelength for metal having work function 40 is λ_0 . What is the threshold wavelength for metal having work function 240 is
(A) 2λ (B) 4λ (C) $\lambda/2$ (D) $\lambda/4$
5. The emf induced in 1mH inductor in which current changes from 5A to 3A in 1s is
(A) 2×10^{-6} V (B) 8×10^{-6} V (C) 2V (D) 8V
6. Two metallic spheres of radius 1cm and 2cm get equal quantity of charge. Which has greater surface charge density?
(A) 1st sphere (B) 2nd sphere (C) both get equal surface (D) none of these
7. The voltage gain of an amplifier having $r_{ie} = 1\Omega$, $\beta = 100$, $R_c = 20\Omega$ is
(A) 2000 (B) 1000 (C) 500 (D) 5
8. If the length of conductor is doubled and its cross sectional area is halved, its conductance will be
(A) increased four times (B) become one fourth
(C) become one-half (D) remained un-changed
9. The capacity of condenser is 4×10^{-6} Farad and its potential is 100 Volt. The energy released on discharging it fully will be
(A) 0.02 J (B) 0.04 J (C) 0.025 J (D) 0.05 J
10. Circulation of blood can be studied by
(A) Sodium – 24 (B) Strontium – 90 (C) Carbon – 14 (D) Iodine – 131
11. If a wire is stretched to double of its length then strain will be
(A) zero (B) 1 (C) $1/2$ (D) double
12. Unit of decay constant λ is
(A) ms (B) m^{-1} (C) m (D) s^{-1}
13. The term transistor stands for
(A) transfer of resistance (B) transfer of voltage
(C) transfer of current (D) all of these
14. Force on a current carrying conductor per unit length is given by
(A) $IL \sin\theta$ (B) ILB (C) IB (D) $IB \sin\theta$
15. For a current carrying solenoid the term “n” has unit as
(A) no unit (B) m (C) m^{-1} (D) m^{-2}
16. When applied potential difference is increased; capacitance of parallel plate capacitor
(A) increases (B) decreases (C) remains same (D) reduces to zero
17. In photoelectric effect the intensity of light made twice than initial value. The maximum K.E of photoelectron becomes
(A) same (B) double (C) half (D) four times