

ٹیسٹ سے پہلے کم از کم تین بار درود شریف پڑھ لیں۔

Student Name:	Roll No:	Date: / /
سوچ بدلیں، معاشرہ بدلیں	Class 2nd Year	Ch#19
T- Marks - 40	Subject: Physics	Time: 45 - M
Objective Type		
Q#1	Encircle the Correct Option	10X1=10

1. Momentum of photon is given by?

- a** hf/λ **b** hf/c **c** $f\lambda$ **d** $H\lambda$

2. Compton effect is observed with ?

- a** X-rays **b** Visible light **c** Radio waves **d** All of these

3. Photon with energy greater than 1.02 MeV can matter with matter as?

- a** Photo electric effect **b** Compton effect **c** Pair production **d** All of these

4. Maximum Compton shift in the wavelength of scattered photon will at?

- a** 180° **b** 90° **c** 45° **d** 60°

5. The rest mass of X-ray photon is?

- a** Infinite **b** Zero **c** $9.1 \times 10^{31} \text{kg}$ **d** None

6. Photo electric current depend on?

- a** Frequency of light **b** Intensity of light **c** Speed of light **d** Polarization of light

7. Electron is an anti-particle of ?

- a** Proton **b** Photon **c** Positron **d** Deuteron

8. The minimum energy required by a photon to produce electron positron pair is?

- a** 2MeV **b** 1.02MeV **c** 0.51MeV **d** Zero

9. Due to annihilation of electron and positron the number of photons produced is?

- a** 1 **b** 2 **c** 3 **d** 4

10. Plat num wire becomes yellow at temperature?

- a** 500°C **b** 900°C **c** 1100°C **d** 1300°C

Q # 2

Short Questions

10 x 2 = 20

1. What is Modern Physics?
2. Define thermal Radiations?
3. What is photo cell?
4. What are the measurement on which two observes in relative motion will always agree upon?
5. As a solid is heated and begins to glow, why does it first appear red?
6. What happen to total radiation from a blackbody if its absolute temperature is doubled?
7. Is it possible to create a single electron from energy? Explain
8. Why don't we observe a Compton effect with visible lights?
9. When does light behave as a wave as a practical?
10. What advantage on electron microscope as over an optical microscope?

Q # 3

Long Questions

2 X 5 = 10

- 1 State and explain Heisenberg UNCERTANTY Principle.
- 2 What is the de Broglie wavelgth of an electron whose kinetic energy is 120ev?