

11. Stopping potential for a metal surface in case of photoelectric emission depends on
- A. the threshold frequency for the metal surface
 - B. the intensity of incident light
 - C. the frequency of incident light and work function of the metal surface
 - D. all of the above

Answer: Option **C**

12. Select an alternative from of uncertainly principle from the following
- A. $\frac{?}{?} = h/m?c(1-\cos ?)$
 - B. $?E \cdot ?t = h$
 - C. $mc^2 = hv$
 - D. any of above

Answer: Option **B**

13. The existence of Ether wind was experimentally rejected by
- A. equal to its rest mass
 - B. double of its rest mass
 - C. infinite
 - D. zero

Answer: Option **C**

14. If a material object moves with speed of light its mass becomes
- A. equal to its rest mass
 - B. double of its rest mass
 - C. infinite
 - D. zero

Answer: Option **C**

15. As the temperature of black body is raised the wavelength corresponding to maximum intensity
- A. shifts towards longer wavelength
 - B. shifts towards shorter wavelength
 - C. remain the same
 - D. shifts towards longer as well as shorter wavelengths

Answer: Option **B**

16. Rest mass of a photon is
- A. infinite
 - B. zero
 - C. very small
 - D. 1.67×10^{-27} kg

Answer: Option **B**

17. The name of the photon for quantum of light was proposed by

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|-------------------|--------------------|
| <u>A.</u> Ampere | <u>B.</u> Plank |
| <u>C.</u> Thomson | <u>D.</u> Einstein |

Answer: Option **D**

18. Einsteins photoelectric equation is given by

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|---|---|
| <u>A.</u> $\frac{1}{2} mv_{max}^2 = hf + ?$ | <u>B.</u> $\frac{1}{2} mv_{max}^2 - hf = ?$ |
| <u>C.</u> $\frac{1}{2} mv_{max}^2 = hf - ?$ | <u>D.</u> all of above are correct |

Answer: Option **C**

19. In Compton scattering the change in wave length is max if

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|---------------------------------------|---------------------------------------|
| <u>A.</u> angle of scattering is 90? | <u>B.</u> angle of scattering is 60? |
| <u>C.</u> angle of scattering is 180? | <u>D.</u> angle of scattering is zero |

Answer: Option **C**

20. Davison Germer experiment indicates

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|--------------------------------|------------------------|
| <u>A.</u> interference | <u>B.</u> polarization |
| <u>C.</u> election diffraction | <u>D.</u> refraction |

Answer: Option **C**