

# GREENLAWNS HIGH SCHOOL

## TERMINAL EXAMINATION 2020

Subject: Physics  
Standard: X  
Paper)

Marks: 20  
Time: 2 Hours (Including Subjective

\* Required

\* This form will record your name, please fill your name.

1. Name: \*

2. Roll No. \*

3. Which of the following statements is false? \*  
(1 Point)

- The centre of gravity of a body must be as low as possible to achieve stable equilibrium.
- The position of the centre of gravity of a body of given mass changes if the body is deformed.
- The centre of gravity always be within the material of the body.
- At the centre of gravity the algebraic sum of moments of weights of all the particles constituting the body is zero.

4. The direction of rotation of a body can be changed \_\_\_\_\_ \*

(1 Point)

- Neither by changing the point of application of force nor by changing the direction of force.
- Only by changing the direction of force.
- Both ,by changing the point of application of force and by changing the direction of force.
- Only by changing the point of application of force.

5. \_\_\_\_\_ is not a unit of energy. \*

(1 Point)

- kilowatt hour.
- Calorie.
- Electron volt.
- watt.

6. A microphone converts \_\_\_\_\_ into \_\_\_\_\_. \*

(1 Point)

- Electrical energy into sound energy.
- Sound energy into electrical energy.
- Chemical energy into sound energy.
- Sound energy into Chemical energy.

7. If an ideal machine is a force multiplier then its \_\_\_\_\_ \*  
(1 Point)

- M.A. = 0
- M.A. = 1
- M.A. < 1
- M.A. > 1

8. The mechanical advantage of a lever can be increased by \_\_\_\_\_ \*  
(1 Point)

- Both of these.
- Decreasing its effort arm.
- None of these.
- Increasing its effort arm.

9. When a ray of light travels from a water to air it \_\_\_\_\_ \*  
(1 Point)

- bends away from the normal.
- passes undeviated.
- bends towards the normal.
- None of these.

10. A ray of light suffers refraction through an equilateral prism. The deviation produced by the prism does not depend on the \_\_\_\_\_, \*
- (1 Point)
- Colour of the light used.
  - Angle of incidence.
  - Angle of a prism.
  - Size of a prism.
11. Choose the correct statement: \*
- (1 Point)
- The critical angle for a given pair of media decreases with the increase in wavelength of light.
  - None of these.
  - The critical angle for a given pair of media increases with the decrease in wavelength of light.
  - The critical angle for a given pair of media increases with the increase in wavelength of light.
12. \_\_\_\_\_ of a thin lens is the point on the principal axis of a lens such that a ray of light directed towards it, passes undeviated through it. \*
- (1 Point)
- Centre of curvature.
  - Principal Focus 1.
  - Optical Centre.
  - Principal Focus 2.

13. For the object placed at focus of a convex lens, the image is: \*

(1 Point)

- Real and Diminished.
- Virtual and magnified.
- Virtual and Diminished.
- Real and magnified.

14. On increasing the focal length of a lens, its power: \*

(1 Point)

- Decreases.
- Does not change.
- First decreases then increases.
- Increases.

15. When a ray of white light falls on a prism the dispersion of white light occurs

\_\_\_\_\_.\*  
(1 Point)

- Only at the second surface of a prism.
- None of these.
- On both the surfaces.
- Only at the first surface of a prism.

16. An electric arc- lamp is a source of \_\_\_\_\_ \*  
(1 Point)

- Visible light.
- Gamma radiations.
- Infra-red radiations.
- Ultraviolet radiations.

17. The quantity of heat energy absorbed to increase the temperature of a body depends on \_\_\_\_\_ \*  
(1 Point)

- the material of the body.
- the mass of the body.
- the increase in temperature of the body.
- All of these.

18. Choose the correct expression: \*  
(1 Point)

- $C' = \frac{c}{m}$
- $m = C' \times c$
- $c = \frac{C'}{m}$
- $c = C' \times m$

19. At high altitudes, water boils at \_\_\_\_\_ - \*

(1 Point)

- temperature lower than 100° C.*
- 100° C.
- temperature higher than 100° C.*
- 0° C.

20. Isotopes are \_\_\_\_\_. \*

(1 Point)

- the atoms of same element, having same atomic number but different mass number.
- the atoms having different number of protons but same number of neutrons.
- the atoms of different elements which have the same mass number, but different atomic number.
- the atoms of same element, having different atomic number but same mass number.

21. Which of the following substances is not an internal source of back-ground radiation? \*

(1 Point)

- Radon -222.
- Potassium -40.
- Carbon -14.
- Radium.

22. Choose the incorrect statement: \*

(1 Point)

- Alpha particles produces X-rays when they are stopped by tungsten.
- Alpha particle, Beta particle and gamma radiations, all affect a photographic plate.
- Beta particle causes fluorescence on striking a fluorescent material.
- Gamma radiations are diffracted by crystals.

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