SWL-11-19 Roll No._____ Annual 2019

Physics (New Scheme) (INTER PART - I CLASS 11th)(III) **Time : 20 Minutes**

Paper : I **Marks : 17**

Objective Code : 6475

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 with marker or pen. Cutting or filling two or more circles will result in zero mark in that question.

1. 1. A system does 700 Joules of work and at the same time its internal energy increases to 400 Joules, heat supplied by the source is

(A) 700 Joules (B) 400 Joules (C) 1100 Joules (D) 300 Joules

2. No entropy change takes place in

(A) isothermal process (B) adiabatic process (C) isobaric process (D) isochoric process

3. Microphone converts

(A) electrical signal into sound signal (B) electrical signal into light signal

(C) light signal into electrical signal (D) sound signal into electrical signal

4. When a mirror of Michelson interferometer is moved a distance of 0.5 mm, then 2000 frings are observed, the wavelength of light used is

(A) $5000\times10^{-10}\,m$ (B) $5000\times10^{-9}\,m$ (C) $1000\times10^{-7}\,m$ (D) $5000\times10^{-7}\,m$

5. The waves which do not require any medium for their propagation are called:

(A) mechanical waves (B) matter waves (C) electromagnetic waves (D) longitudinal waves

6. The number of beats produced per sec. in two tuning forks is equal to

(A) sum of two frequencies (B) ratio of two frequencies

(C) the frequency of either of two tuning fork (D) the difference of the frequencies of two tuning forks

7. The frequency of waves produced in microwave oven is

(A) 2850 MHz (B) 2450 MHz (C) 2400 MHz (D) 2750 M Hz

8. The speed of efflux is equal to the velocity gained by the falling fluid under the action of gravity through a certain height is called

(A) Torricelli's theorem (B) Bernoulli's theorem (C) Stoke's theorem (D) Venturi's theorem

9. Formula one racing cars have a

(A) streamlined design (B) turbulented design (C) rectangular design (D) elliptical design

10. In one revolution the angular displacement covered is

(A) 60° (B) 360° (C) 90° (D) 180°

11. When a body moves in a circular path, the angle between its linear velocity and angular velocity is

(A) 180° (B) zero degree (C) 90° (D) 45°

12. The maximum velocity required of an object to go out from the gravitational field in heavenly body is

(A) moon (B) mercury (C) mars (D) earth

13. If a shell explodes in mid air, its fragments fly off in different directions. The total momentum of the fragments

(A) decreases (B) increases (C) becomes zero (D) remains the same

14. If cross product of two vectors $\vec{A}\times\vec{B}$ points along positive z – axis, then the vectors $\vec{A}$ and $\vec{B}$ must lie in

(A) $yz-plane$ (B) $xz-plane$ (C) $xy-plane$ (D) No plane

15. Magnitude of unit vectors $\hat{i}\times\hat{j}$ is

(A) 1 (B) -1 (C) $-\hat{j}$ (D) $+\hat{k}$

16. How many years in one second

(A) $3.1536\times10^{7}\,years$ (B) $3.1536\,years$ (C) $3.1\times10^{-8}\,years$ (D) $3.1\times10^{8}\,years$

17. Light year is the unit of

(A) time (B) distance (C) energy (D) time and distance