ABOKER PREPARATORY SCHOOL, HARAR

PHYSICS WORK-SHEET (UNIT-1) FOR GRADE-12

1. An absorption or emission of electromagnetic radiation by electrons or atomic nuclei in response to the application of certain magnetic fields.

A. Magnetic resonance B. Hyper echoic C. Anechoic D. Radar technology

2. ----------is a branch of physics that deals the applications of principles of physics to medical diagnosing and treating abnormal tissues.

A. Radar technology B. Medical physics C. Geo physics **D**. Astrophysics

3. Astronomers use light to:

A. Measure distance between astronomical objects.

B. studies the properties of astronomical objects from the properties of the light they emit.

C. The energy emitted by the astronomical objects

D. Temperature of the astronomical objects E. all of the above.

4. At the end of communication system, the signal is converted from radio to

A. sound B. mechanical energy C. kinetic energy D. potential energy

5. Loss of energy of an electron results in

A. absorption of photon B. emission of photon C. destruction of photon D. formation of photon

6. Like viscosity, equation of continuity and turbulent flow, is very important in understanding the circulation of blood and blood pressure in the multicellular organisms in

A. The physics of fluid mechanics B. The physics of Newtonian mechanics

C. The physics of sound wave D. Physics of electricity

7. Light is the electromagnetic radiation in the wavelength region between about----- and ------.

A. 400 nm and ------700 nm B. 400 mm and ------700 mm

C. 400Mm and ------700 Mm D. 400 Km and ------700 Km

8. Supports biology by providing optical instruments, like microscopes, which are important to study biological properties.

A. fiber-optics B. Optical physics C. Astrophysics D. Geo physics

9. A rocket-propelled or jet-propelled weapon designed to deliver an explosive weapon with great accuracy at high speed is called----------

A. Infra-red wave B. missile C. Anechoic D. Radar

10. These areas bounce back many sound waves. They appear as light gray on the ultrasound image.

A. Hypo echoic B. Hyper echoic C. Anechoic D. fiber-optics

11. Soft-bodied animals such as the earthworm that lack limbs utilize ----------principle to produce body motion.

A. echo‘s B. Archimedes‘s C. Pascal‘s D. Newtonian‘s

12.Sound is:

a) electromagnetic wave motion with low frequency c) mechanical wave motion

b) electromagnetic wave motion with high energy d) best audible in a vacuum

13.Sound phenomena, which originate in the flow of blood in blood vessels:

a) have to do with the turbulent flow of blood b) have nothing to do with the way of flow

c) have to do with the laminar flow d) are called Reynolds phenomena

14.Why the Bones look white in x-ray photograph?

A. they are bad absorbers of x-rays B. they reflect x-rays

C. they are good absorbers of x-rays D. they are bad absorbers of ultraviolet rays

15.A sound wave which has frequency higher than the upper limit of human hearing is

A. infra sonic B.ultrasonic C. supersonic D. megasonic

16. Night vision camera uses (a) X – rays (b) Infrared rays (c) Gamma rays (d) UV rays

17.What is the use of rays lying beyond X ray region in electromagnetic spectrum

a) used to kill microbes b) used to detect heat loss in insulated systems

c) used in standard broadcast radio and television

d) used In oncology, to kill cancerous cells.

18. Astronomers use light to measure distance of astronomical objects.

A. meter B. kilometer C. mile D. light

19. ---------- concerns designing and building skyscrapers, roads, bridges, dams, and railways using our physics knowledge of forces, fluid pressure, gravity, and others.

A. Chemical engineering B. Civil engineering

C . Mechanical engineering D. Electrical engineering

20. Comparing X-rays and gamma rays

a. gamma rays have more energy than X –rays

b. gamma rays have larger wave length then X – rays

c. gamma rays has more speed then X- rays

d. gamma rays are less penetrating then X-rays

PART-II

21. What physics concepts are used in exploring minerals and study the nature of rocks within the earth?

22. What is the basic difference between?

a. conventional X-ray and CT scan?

b. ballistic and cruise missile?

c. x-rays and gamma rays?

23. Explain working principle of

a. radar and infrared wave detection devices.

b. stethoscope and ultrasound.

c. Magnetic Resonance Imaging (MRI)

24. Descibe the three sound spectrum?

25. Why it is difficult to stand on one foot than the two feet? Why we are more stable when we sleep than we are standing?

26. What are the major physics concepts used in Radar and infra-red night vision?

27. Do you know any mechanisms that enable us to see objects at dark night without available light Source?

28.If a radio wave sent to the target from a radar takes 1.5 ms to return back, how far is the target?

29. What physics know ledges are important in

(a) Civil engineering (b) mechanical engineering

(c) electrical engineering (d) electronics Engineering.

30. What physics concept is used in ultrasound and stethoscope?