Sample Questions
S.Y.B.Sc. -Semester -III,
Physics, Paper-III

1) In a good auditorium the sound should be heard equally loudly at all places and successive syllables must be heard …….
A) Collectively B) Equally C) Distinctly and without distortion D) Distinctly and with distortion

2) The time gap between the initial direct note and reflected note of sound up to the minimum audibility level is called…….
A) Acoustics B) Distortion time C) Reverberation D) Reverberation Time

3) The degree of reverberation most suitable for listening music in the auditorium is in the range……second.
A) 1.1 to 1.5 B) 1.8 to 2.0 C) 2.1 to 3.0 D) 3.0 to 4.0

4) The reverberation time is directly proportional to the ……..of the auditorium, inversely proportional to the area of the surfaces and total absorption plus transmission through open surfaces.
A) Rate of propagation B) Volume C) velocity D) Direction

5) The first working laser was built by American physicist ……in 1960.
A) Theodore Maiman B) Albert Einstein C) Max Planck D) Graham Bell

6) A system of mirrors used to obtain the optical feedback in the laser is called…….
A) Prism B) Optical fiber C) Sonometer D) Optical Resonator

7) The process of raising the atoms from lower energy state to the higher energy state by an external energy source is called……
A) Pumping B) Stimulated Emission C) Spontaneous Emission D) Transmission.

8) ……..is a thin flexible pipe made up of a transparent hard glass/plastic which acts as a wave guide for beam of light.
A) Nicol Prism B) Quartz Crystal C) Optical Fibre D) Metal Cable

9) The cover which surrounds the core of the optical fibre is called …….
A) Cladding B) Protective Jacket C) Core D) Pipe

10) ……..is a symmetrical small body of a solid bounded by flat faces,orderly arranged in regular polyhedral form.
A) Crystal B)Amorphous C) Semiconductor D) Superconductor.

11) …… was the first one to introduce the concept of the three dimensional crystal lattice.
A) Maxwell B) Boyles C) Bravis D)Einstein

12) ……is the smallest geometric figure from which we can built a three dimensional crystal.
A) WBC B) RBC D) Unit Cell D) Monomer

13) A……..cell has one lattice point per unit cell.
A) Monoclinic B) Primitive C) Triclinic D) FCC
14) In a Simple Cubic Structure we have……
A) a=r B) a=3r C) a=4r D) a=2r
15) The directions [333] and [555] are identical to line direction……
A) [010] B) [303] C) [111] D) [110]
16) The nucleation process without influence of foreign particles is called……
A) Mutation B) Crystallisation C) Homogeneous D) Heterogeneous
17) The small circles or points in Bravis lattice represents centre of…….
A) gravity B) ions or molecules C) mass D)electrons
18) For gases the distance between neighbouring molecules is of the order of ……Angstrom.
A) 100 B)30 C) 1000 D) 50
19) The ……..microscope permits the observation of individual atoms and molecules.
A) Travelling B) Binocular C) Scanning Probe D) Digital
20) In ……..solids the atoms are stacked in a regular, periodic arrangement of certain pattern units.
A) Monolithic B) Hydroxy C) Amorphous D) Crystalline
21) The characteristics of crystals or grains and the grain boundries between them ……..the properties of materials.
A) Do not affect B) Affect C) Increase D) Decrease
22) Ultra high temperature…… are used for exit gas nozzles of space air crafts.
A) Polymers B) Ceramics C)Metals D)Alloys
23) Ultrasound imaging system make use of ceramics known as ……..
A) FRC B) KRZ C) PZT D) ABD
24) Batteries and fuel cells make use of ceramic materials such as …….and polymers.
A) ZrO_2 B)Fe_2O_3 C) PZT D) YAG
25) ……..is used as a conductive and transparent coating material on glass utilized in touch screen displays.
B) ZrO_2 B)Fe_2O_3 C) ITO D) YAG

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