

T.Y.B.Sc. Sem 6 Physical Chemistry Mock Question paper

1)The reaction by which either same or different monomers combine to form polymers is known as

- A).Polymerization
- B).Monomerization
- C).Vulcanization
- D).Bulk polymerization

2)..... Is a natural polymer

- A).Wool
- B).Methyl cellulose
- C).Nylon
- D).Neoprene

3). The polymers, on heating, can be reshaped and reused are known as.....

- A).Thermoplastic
- B).Thermosetting
- C).Thermal polymer
- D).Organic polymer

4).Example of monodisperse polymers is.....

A).Protein

B).Methyl cellulose

C).Nylon

D).Polyethylene

5).When viscosity is to be measured for a number of dilutions of a given solutions thenviscometer is used.

A).Ubbelohde

B).Ostwald

C).Beckmann

D).Nernst

6).The concept of activity and activity coefficient to account for the non ideal behavior of solutes in solution is introduced by

A).Rutherford

B).Lewis

C).Dalton

D).Bohr

7).For NaCl electrolyte ionic strength , μ = -----

A).m

B).2m

C).3m

D).4m

8).If the two ions have the same transport number the junction potential will be reduced to.....

A).One

B).Two

C).Zero

D).Three

9).What does an Eigen Value represent?

A).A number

B).Value of dynamic variable of the system

C).constant

D).all the above

10)The black body is defined as hundred percent _____ of energy

A).absorber

B).emitter

C).absorber and emitter

D).neither absorber nor emitter

11).d/dx is _____ operator

A).linear

B).hamiltonian

C).commutative

D).laplacian

12).Hamiltonian operator is the operator for

A).total energy of the system

B).kinetic energy of the system

C).potential energy of the system

D).translational energy of the system

13).What is the efficiency of a solar cell?

A).40%

B).30%

C).20%

D).10%

14).High temperature fuel cells operate in the temperature range of

A).less than 100°C

B).200-250°C

C).400-900°C

D).1000°C and above

15).Solar cells can be prepared using

A).Aluminium

B).Germanium

C).Tin

D).Silicon

16).All fermions possess _____ spin.

A).zero

B).integral

C).half integral

D).none of the given

17).For the hydrogen nucleus, the spin is $\frac{1}{2}$ then number of orientations will be

A).2

B).0

C).1

D).1/2

18).NMR process does not involve flipping of protons. The statement is

A).correct

B).incorrect

C).partially correct

D).none of the given

19). In ESR

A).spin of electron and nucleus changes

B).both spin of electron and nucleus remains unchanged

C).spin of electron changes and spin of nucleus remains unchanged

D).spin of nucleus changes and spin of electron remains unchanged

20). In ESR, g value for free electron is close to

A).1

B).2

C).3

D).4

Answer Key

1	a
2	a
3	a
4	a
5	a
6	b
7	a
8	c
9	d
10	c
11	a
12	a
13	c
14	c
15	d
16	c
17	a
18	b
19	c
20	b