PHYSICAL PHARMACY

1. **Dilatant flow is exhibited by**
   (A) Flocculated suspensions
   (B) Natural gums
   (C) Suspensions consisting of more than 50% solid phase
   (D) All the above
2. **Surface tension of water**
   (A) 75.6 dynes/cm at 0^{o} C
   (B) 72.8 dynes/cm at 20^{o} C
   (C) 63.5 dynes/cm at 75^{o} C
   (D) All the above
3. **The concentration of surfactant at which micelles are formed is called**
   (A) Critical surfactant concentration
   (B) Critical micellar concentration
   (C) Kraft point
   (D) Cloud point
4. **Which potential is responsible for stabilization of disperse systems**
   (A) Zeta potential
   (B) Electrokinetic potential
   (C) Nernst potential
   (D) Both A & B
5. **Protective property of colloids is expressed in terms of**
   (A) Coacervation
   (B) Stabilization
   (C) Gold number
   (D) Solubilization
6. **The change is specific rotation of polarized light is termed as**
   (A) Faradays effect
   (B) Cotton effect
   (C) Resonance effect

(D) Refractive effect

7. Class-I method of adjusting tonicity explains

(A) Addition of NaCl or some other agents to the solution of the drug to lower vapour pressure

(B) Addition of NaCl or some other agents to the solution of the drug to lower osmotic pressure

(C) Addition of NaCl or some other agents to the solution of the drug to lower freezing point of the solution to -0.52^{o} C

(D) Sufficient quantity of water is added to the drug to make it isotonic

8. The internal reference electrode of glass membrane electrode is

(A) Silver – Silver chloride electrode

(B) Calomel electrode

(C) Sodium chloride electrode

(D) Both A & B

9. Units of zero order reaction rate constant

(A) Moles lit^{-1} sec^{-1}

(B) Moles^{-1}sec^{-1}

(C) Sec^{-1}

(D) Lit sec^{-1} mole^{-1}

10. Which of the below colligative property is applicable in the formulation of aerosols

(A) Lowering of vapour pressure

(B) Elevation of boiling point

(C) Depression of freezing point

(D) Osmotic pressure

11. Solid plug is one of the potential disadvantages of

(A) Cone and Plate viscometer

(B) Cub and Bob viscometer

(C) Creep viscometer

(D) Hoepller viscometer

12. Kinematic viscosity is expressed as

(A) η/ρ (B) ρ/η (C) $1/\eta$ (D) $\eta/c\rho$

13. Velocity of sedimentation of a suspension is expressed by

(A) $\upsilon = [d^2(\rho_s - \rho_o)g] / 18\eta$

(B) $\upsilon = [d(\rho_s - \rho_o)g] / 18\eta$

(C) $\upsilon = [d^2(\rho_s - \rho_o)] / 18\eta$

(D) $\upsilon = [d^2(\rho_o - \rho_s)g] / 18\eta$

14. Surface active agents can

(A) Reduce surface tension

(B) Form monomolecular layer

(C) Form multimolecular layer

(D) All the above

15. Natural shrinking of a gel is referred as

(A) Bleeding

(B) Syneresis

(C) Oozing

(D) Swelling

MYBO's GPAT/ NIPER/ PGECET BOOSTER PACK-1 is provided by
MYBO Team member:
Dr. NAGAMANI BOLLA, Associate Professor,
VISWANADHA Institute of Pharmaceutical Sciences (VNIPS), Visakhapatnam.
www.vnips.edu.in

NOTE:

1. **Key** for the above Physical Pharmacy bits is available with MYBO's GPAT/ NIPER/ PGECET BOOSTER PACK-2
2. If you are interested to help the GPAT/ NIPER/ PGECET Aspirants, you can send 15 bits each with four options (correct answer underlined) to mybogroup@gmail.com After verification, we will publish them on your name at www.mybogroup.com