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MULTIPLE CHOICE QUESTIONS:TEST SERIES

1. The centrifugation is based on the principle of when a force is less than the gravity desired.
a) True
b) False

2. In 500 × g, what does g represent in accordance to centrifugation?
a) Gravitational force
b) Centrifugal force is 500 times greater than earthly gravitational force
c) Centrifugal force is 500 times less than earthly gravitational force
d) Centrifugal force is 500 times same as that of earthly gravitational force

3. Which of the following is not a type of centrifugation?

a) Hydro cyclone
b) Tubular centrifuge
c) Microfiltration
d) Disk stack separator

4. By increasing the feed rate of the liquid in tubular centrifuge the performance is increased.
a) True

b) False

5. At what speed do you centrifuge blood?
a) 2200-2500 RPM
b) 3000-3200 RPM
c) 1000-1500 RPM
d) 4000 RPM

6. Which of the following centrifugation is used to separate certain organelles from whole cell?
a) Rate-zonal centrifugation
b) Normal centrifugation
c) Differential centrifugation
d) Isopycnic centrifugation

7. A viscous solution contains particles with a density is to be clarified by centrifugation. The solution density is and its viscosity is 80 cp. The centrifuge

has a bowl with and 3 1200 / p ρ = kg m^3 ρ = 850 / kg m^2r m = 0.02 1 r = 0.01 m and height b=0.25 m. Calculate the critical particle diameter of the largest particles in the exit stream if N=15000 rpm and flow rate q=0.002 m^3 /hr?
a) 2.9 μm
b) 2.66 μm
c) 3.15 μm
d) 2.57 μm

8. Which of the following is used as a media for density gradient?
a)Agarose
b)Ficoll
c)Luriabroth
d) Propylene glycol

9. From the following which is the type of filtration centrifuge?

a)Screen/scrollcentrifuge
b)Tubularcentrifuge
c)Decanter
d) Separator centrifuge

11. What is the applied centrifugal field at a point equivalent to 5 cm from the centre of rotation and an angular velocity of 3000 rad s^{-1}?

a) 4.5 × 10^{-7} cm s^{-2}
b) 5.4 × 10^{-7} cm s^{-2}
c) 3.4 × 10^{-7} cm s^{-2}
d) 6.5 12. × 10^{-7} cm s^{-}

12. For the pelleting of the microsomal fraction from a liver homogenate, an ultracentrifuge is operated at a speed of 40000 rpm. What is the angular velocity, ω, in radians per second?
a) 3888.8 rad s^{-1}
b) 5680.8 rad s^{-1}
c) 4188.8 rad s^{-1}
d) 4288.8 rad s^{-12}

13. What is rate-zonal centrifugation?
a) Based on separation of particles by mass
b) Based on separation of particles by density
c) Based on separation of particles on solubility
d) Based on separation of particles on size.

14. Microfiltration can be used to remove viruses.
a) True
b) False

15. What type of filter does not come under the Membrane filters?
a) Ultra filtration
b) Microfiltration
c) Precoat (filter aid) filtration
d) Nanofiltration

THANKYOU