Question Bank for 1ˢᵗ unit test

Class:CH3G

Sub:MOP(17313)

Chapter 1(20marks)

1. Define Rittinger's law. Give the mathematical expression and explain the terms.

2. Define work index. Give the mathematical expression and explain the terms.

3. Define critical speed of ball mill .What happens when the ball mill is centrifuging?

4. Draw the diagram of jaw crusher and mark the parts.

5. A certain roll crusher accepts a feed of rock having diameter 50 mm and reduce it to product having 20mm.Angle of nip is 30^0 .Find the diameter of rolls?

6. Find the operating speed of ball mill from the following data.

    Diameter of the mill – 500mm

    Diameter of balls   – 50mm

    Operating speed is 40% of critical speed

7. Give the classification of size reduction equipments. Write the principle involved? Give one eg of each.

 8. Compare blake type and dodge type jaw crusher with respect to

        1. position of movable jaw 2. Blocking of outlet by product

9. Explain closed circuit grinding.

10. Explain the working of hammer mill.

Chapter 2(16marks)

11. Define oversize and under size in screening.

12. Define ideal screen and actual screen.

13. Derive overall effectiveness of screen.

14. Define mesh and screen aperture.

15. State the factors affecting the performance of the screen.

16. Draw the 2 graphs for reporting screen analysis.

17. Explain the working of vibrating screen with diagram.

18. Draw the various trammel arrangements for separating particles of 50 mesh,

    100 mesh and 150 mesh.

Chapter 3(16marks)

19. State the laws of classification.

20. State the principle of hydraulic jig and draw the diagram of a jig.

21. Explain working of cyclone separator.

 22. Explain working of spiral classifier.

23. Give the function of collectors and modifiers in froth floatation.

24. Explain the working of electrostatic separator?

25. Draw the diagram of Ball-Norton machine.

Question Bank for 2nd unit test

Class:CH3G

Sub:MOP(17313)

Chapter 4(20 marks)

THREE marks question

1. Define cake filtration and deep bed filtration.

2. Give the classification of filter on the basis of a) driving force b)mode of filtration

3. What is the significance of cake resistance? How is it denoted?

4. Define constant rate and constant pressure filtration.

5. Define pressure filtration and vacuum filtration.

FOUR marks question

6. Filters are neither operated under constant pressure nor under constant rate. Give

   reason?

7. Why hot liquids are not filtered in rotary drum vacuum filters?

8.   Draw the diagram of rotary drum vacuum filter and mark the parts.

9.   Draw the diagram of top suspended batch centrifuge and mark the parts.

10. Explain the role of coagulants in filtration.

11. Explain the factors affecting the rate of filtration.

12. Explain the role of filter aids in filtration.

13. Explain the construction and working of pressure sand filter.

14. What are the factors to be considered while selecting a filter medium.

15. Write the equation for constant pressure filtration and explain the terms.

Chapter 5(12 marks)

THREE marks question

16. Define free settling and hindered settling.

17. Give the function of thickeners.

FOUR marks question

18. Draw the diagram for batch Sedimentation test.

19. Differentiate between sedimentation and filtration.

Chapter 6(16 marks)

THREE marks question

20. Draw the flow pattern while mixing takes place in an unbaffled tank

21. Name the different types of impellers. Draw the diagram of each.

22. State the importance of mixing in process industries(3 points)

FOUR marks question

23. What is vortexing ? Why is it undesirable? .

24. What are the different ways by which vortexing can be avoided?

25. Explain working of ribbon blender.