Assignment -03

Due on 2019-06-21, 23:59 IST.

As per our records you have not submitted this assignment.

1. For a normal track acceleration of a vibratory bowl feeder more than 1, the parts located on the track of the bowl feeder would:

   (a) have a high impact velocity
   (b) have low impact velocity
   (c) not move up the track
   (d) move up the track

   No. The answer is not correct.

   Assignments Answers: 
   (b) move low impact velocity

   2. If a vibratory bowl feeder, for the backward sliding of a part on the inclined track of the feeder, following condition should satisfy:

   \[ \frac{F}{M} = \frac{F_{o}}{M_{o}} = \frac{g}{g_{o}} = \frac{a}{a_{o}} \]

   No. The answer is incorrect.

   Assignments Answers:
   (d) move up the track

   3. The suspension springs that support the bowl on the base of a vibratory bowl feeder primarily decide the:

   (a) vibration angle of the feeder
   (b) stability of the feeder
   (c) conveying velocity of the feeder
   (d) frequency and amplitude of vibration imparted to the bowl

   No. The answer is incorrect.

   Assignments Answers:
   (d) frequency and amplitude of vibration imparted to the bowl

   4. Maximum and minimum vibration imparted to the bowl are:

   (a) less
   (b) not applicable
   (c) more
   (d) none of the above

   No. The answer is incorrect.

   Assignments Answers:
   (c) more

   5. Highest conveying velocities are achieved when the track angle of the vibratory bowl feeder is:

   (a) between 3 degrees and 4 degree
   (b) 10 degrees
   (c) more

   No. The answer is incorrect.

   Assignments Answers:
   (c) more

   6. Convoying velocity of a vibratory bowl feeder can be increased by:

   (a) decreasing the track inclination angle
   (b) increasing the frequency of vibration
   (c) coating the track with rubber
   (d) all of the above

   No. The answer is incorrect.

   Assignments Answers:
   (d) all of the above

   7. In a reciprocating type hopper feeder, the optimum hopper load is:

   (a) half the volume of the hopper
   (b) one fourth of the volume of the hopper
   (c) three fourths of the volume of the hopper
   (d) none of the above

   No. The answer is incorrect.

   Assignments Answers:
   (a) half the volume of the hopper

   8. In a reciprocating type hopper feeder, to prevent part jamming between the hopper wall and the reciprocating tube, the static stress coefficient of friction between the part and the wall should be:

   (a) \( \mu \) = 0.057
   (b) \( \mu \) = 0.07
   (c) \( \mu \) = 0.03
   (d) more than 0.5

   No. The answer is incorrect.

   Assignments Answers:
   (d) more than 0.5

   9. For a reciprocating type hopper feeder with a static stress coefficient of friction between the parts and the hopper wall of 0.054, the hopper angle in degrees, so that the parts do not jam, should be:

   (a) 05
   (b) 09
   (c) 19
   (d) more than 45

   No. The answer is incorrect.

   Assignments Answers:
   (d) more than 45

   10. For a centrifugal hopper feeder the mean feed rate of the hopper feeder is:

   (a) proportional to the base frequency
   (b) proportional to the maximum angle between track and horizontal
   (c) directly proportional to the length of the track and inversely proportional to the part length
   (d) proportional to the angular acceleration of the track

   No. The answer is incorrect.

   Assignments Answers:
   (c) directly proportional to the length of the track and inversely proportional to the part length