

6) In high speed drawing machines, creels rollers are driven by

- ☒ a) Chain drive
- ☐ b) Spur gears
- ☐ c) Round belt
- ☒ d) Toothed belt

7) To absorb more vibrations and shock loads, the belts should be

- ☒ a) Thinner and rectangular in cross section
- ☐ b) Thinner and shorter in length
- ☐ c) Inelastic and longer in length
- ☒ d) Elastic and longer in length



8) Clutching mechanism using flat belt usually has

- ☐ a) Driving shaft mounted with loose pulley and driven shaft mounted with fast pulley
- ☒ b) Driven shaft mounted with both loose and fast pulleys and driver shaft mounted with fast pulley
- ☐ c) Both driver and driven shafts are mounted with both loose and fast pulleys
- ☐ d) Driven shaft mounted with loose pulley and driver shaft mounted with fast pulley

9) A flat belt is running at low speed (the effect of centrifugal force is negligible on power transmission). The coefficient of friction between the pulley and belt is 0.3. The angle of wrap of belt over the driving pulley is 180° . What will be the maximum possible tension ratio (output tension over input tension) that the belt will not slip?

- ☒ a) 2.57
- ☐ b) 2.67
- ☐ c) 2.77
- ☐ d) 2.87

$$\frac{T}{F} = e$$

10) Idler tension pulley must be located

- ☒ a) Next to driving pulley on loose side of belt
- ☐ b) Next to driven pulley on loose side of belt
- ☐ c) Next to driving pulley on tight side of belt
- ☐ d) Next to driven pulley on tight side of belt

TIL 321 Mechanics of Spinning Machines
Minor-1 29-08-2013; 1-2 pm; IV L.T-1

Roll No: 20111096

Answer ALL the questions

Part I [1 mark for RIGHT answer & (-) 0.5 marks for WRONG answer]

- 1) Chain drive with idler sprocket in Flexi cleaner is used to drive
 - a) Beater, feed rollers and plain roller
 - b) Feed rollers, plain roller and perforated roller
 - c) Feed rollers, beater and perforated roller
 - d) None of the above combinations
- 2) Pivoted motor drive is used to drive
 - a) Feed apron and bottom apron in bale opener
 - b) Feed roller and opening roller in bale opener
 - c) Extender roller and take-off roller in bale opener
 - d) Opening roller and evener roller in bale opener
- 3) In chain drive, more and odd number of teeth on sprocket and even number of chain links are preferred to obtain
 - a) High power transmission
 - b) Uniform wear on sprocket teeth and rollers of chain
 - c) High speed
 - d) None of the above
- 4) Round belt is used in
 - a) Air-jet texturing machine
 - b) Bale opener
 - c) Friction spinning machine
 - d) Ring spinning machine
- 5) Stepped pulleys are usually found in
 - a) New ring spinning machine
 - b) Carding machine
 - c) Drawing machine
 - d) Air-jet texturing machine

7 7 6 5
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