Assignment 0

The due date for submitting this assignment has passed. Due on 2020-02-24, 23:58 IST.

1) A gear box has a motor at its input point. The motor is rotating at 1440 rpm. At the output point of the gear box, there is a cutter which should rotate at 1200 rpm. In that case, the gear box may contain:
   - Motor shaft - rotating gear of 300 teeth – meshing with gear of 250 teeth – rotating cutter
   - Motor shaft - rotating worm of 2 starts – meshing with worm gear of 210 teeth – rotating cutter
   - Motor shaft - rotating gear of 350 teeth – meshing with gear of 300 teeth – rotating cutter
   - None of these

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   a. Motor shaft - rotating gear of 300 teeth – meshing with gear of 250 teeth – rotating cutter

2) Rectilinear motion can be obtained from circular motion by:
   - a. Shift gears
   - b. Worm of angle start and worm gear with pitch diameter 40 cm
   - c. Screw-nut mechanism
   - d. None of these

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   c. Screw-nut mechanism

3) Mild steel refers to:
   - a. A type of material with iron – 85% and carbon – 3%
   - b. A type of material with mainly iron and carbon around 0.2 %
   - c. An alloy of iron and Molybdenum
   - d. None of these

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   a. A type of material with iron – 85% and carbon – 3%

4) A non-rigid shaft is rotating at 1200 rpm. It delivers power from a motor to a rotating drill which is drilling a whole in metal.
   - a. The shaft will undergo a twist
   - b. The shaft will not undergo any twist

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   a. The shaft will undergo a twist

5) A point in space can be defined unambiguously as the intersection of:
   - a. Two skew straight lines
   - b. Three planes
   - c. Two planes
   - d. None of these

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   b. Three planes

6) In a worm and worm gear assembly, if it is attempted to rotate the worm by rotating the worm gear:
   - a. The worm will never rotate
   - b. The worm will definitely rotate
   - c. The worm may or may not rotate

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   c. The worm may or may not rotate

7) High speed steel is an alloy used for:
   - a. Structural parts of high speed racing cars
   - b. Structural parts of rocket engines
   - c. Making cutting tools
   - d. None of these

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   c. Making cutting tools

8) In engineering practice, friction between two surfaces is commonly reduced by application of:
   - a. Oil
   - b. Alcohol
   - c. SiC powder
   - d. None of these

   No, the answer is incorrect.
   Score: 0
   Accepted Answers:
   a. Oil