## Aptitude

1) A farmer used 1034 acres of land for growing rice, wheat and corn in the ratio of 5:2:4 respectively. How many acres were used for growing corn?
A) 188 acres
B) 258 acres
C) 376 acres
D) 470 acres
2) How many times should the keys of a keyboard be pressed in order to type the first $\mathbf{3 0 0}$ counting numbers? (i.e. to type 1, 2, 3 ... 300)
A) 362
B) 1448
C) 1504
D) 792
3) The more she learnt $\qquad$ the American Civil War, the more fascinated she became.
A) About
B) From
C) Off
D) With

## Chemical Engineering

4) The specific reaction rate constant of a first order reaction $k=0.01$. What is the time required for $\mathbf{6 0 \%}$ conversion in a batch reactor?
[Note: In $0.4=\mathbf{- 0 . 6 7 ]}$
A) 37 minutes
B) 47 minutes
C) 57 minutes
D) 67 minutes
5) A cold fluid flowing on inner pipe of a DPHE is heated from 32.5 to $75^{\circ} \mathrm{C}$ by steam condensing on the outer pipe at $100^{\circ} \mathrm{C}$. What is Log Mean Temperature Difference, LMTD?
[Note: In 2.7 = 1]
A) $52.5^{\circ} \mathrm{C}$
B) $42.5^{\circ} \mathrm{C}$
C) $32.5^{\circ} \mathrm{C}$
D) $67.5^{\circ} \mathrm{C}$
6) Pillows and mattresses belong to which category of plastics/ polymers?
A) Foamed plastics
B) Thermosetting plastics
C) Synthetic polymers
D) Ladder polymers
