

V. P. & R. P. T. P. Science College  
B.Sc. (Fifth Semester)  
Saturday 5<sup>TH</sup> October, 2013  
Subject code: US05CICH05  
Industrial Chemistry

Time: 03:30 am to 05:00 pm

Total Marks: 30

- Q-1 Select right option from given in the following questions. (06)**
- I In early stage of filtration, the rate of filtration is \_\_\_\_\_  
(a) High (c) low  
(b) Medium (d) constant
- II Addition of filter aid to the slurry before filtration is done to \_\_\_\_\_  
(a) Increase the porosity of cake (c) decrease the porosity of cake  
(b) Increase the mass of cake (d) for high yield.
- III The settling rate of a particle depends upon its  
(a) Size (c) density  
(b) Concentration of solid (d) all of these
- IV The material when placed in a magnetic field are repelled is called  
(a) Diamagnetic (c) paramagnetic  
(b) ortho magnetic (d) none of these
- V Paddle impeller consists of \_\_\_\_\_ blades.  
(a) One (c) two  
(b) Three (d) more than four
- VI Propeller impeller consists of \_\_\_\_\_ blades  
(a) One (c) two  
(b) Three (d) more than four
- Q-2 Answer any three of the following: (06)**
- I Explain constant rate filtration and constant pressure filtration.  
II Define filtration.  
III What is sedimentation?  
IV Explain terminal & hinder settling velocity.  
V Sketch the type of impellers.  
VI State various types of mixing.
- Q-3 Write note on plate & frame filters. (06)**  
OR  
**Q-3 Write the construction and working of rotary drum filter. (06)**
- Q-4 Write note on double cone classifier (06)**  
OR  
**Q-4 Write note on hydraulic jig. (06)**
- Q-5 Discuss the general construction and mixing operation for ribbon blender (06)**  
OR  
**Q-5 Discuss giving details the various designs of impellers (06)**



ALL THE BEST