

14/12/09
Con. 5036-09.
Sem I

Pharm. Engg. I
(2 Hours)

Oct. 09
DY-6065

[Total Marks : 40

2009-10

N.B. : (1) Question No. 1 is **compulsory**.

(2) Attempt any **four** questions from question Nos. 2 to 6.

(3) Draw **neat** well **labelled** diagram wherever **necessary**.

1. (a) Classify pumps with a neat labelled sketch discuss the salient features and advantages of turbine pump over volute centrifugal pump. 5
(b) Explain briefly the principle of working of the Reciprocating pump with an example. 3
 2. (a) With a neat labelled sketch, explain the principle of the Electromagnetic Flowmeter. 5
(b) Explain Reynold's experiment in detail and give significance of Reynold's number. 3
 3. (a) Define pneumatic conveying. Classify the pneumatic conveyors with a neat labelled sketch, explain any one type of pneumatic conveying systems. 5
(b) What is centrifugation ? Write the theory of centrifugation. 3
 4. (a) Explain in brief the sacrificial-anode method of combating corrosion. 4
(b) What are the various methods of purification of water ? Describe reverse osmosis in detail. 4
 5. (a) Write a note on conduction as a mode of heat transfer. 4
(b) Write a note on interfacial mass transfer. 4
 6. (a) What are cooling towers ? Explain their design and operation. 4
(b) Describe the important properties and uses of aluminium and its alloys. 4
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