

SEAT No. _____

No. of Printed Pages : 2

[28-A]

SARDAR PATEL UNIVERSITY
M.Sc. (SEMESTER-D) EXAMINATION

Monday, 17th April 2018.

TIME: 10.00 A.M. to 01.00 P.M.

APPLIED AND INDUSTRIAL CHEMISTRY: PS01ECHE02

Note:- Figure to the right indicate full marks.

Total marks: 70

Q. 1. Choose the correct answers from the options given below. [8]

1. Sodium hypochlorite (NaOCl) in basic condition, act as a _____ agent.
(a) Chlorinating (b) Reduction (c) Oxidizing (d) none of above
2. Milk is the bad source for vitamin _____.
(a) A&B (b) B&E (c) D&C (d) None of above
3. Portland cement is made by heating _____ with small quantities of other materials in Kiln.
(a) Stones (b) Calcium carbonate (c) Metals (d) All of above
4. In medicinal chemistry term, "Starting material" is called as _____ for drug discovery.
(a) New Prescribed (b) Lead metal (c) Starting (d) Lead compound
5. Heat flow mechanism through liquid is known as _____.
(a) Conduction (b) Convection (c) Condensation (d) Radiation
6. The Driving force of Distillation operation is _____ difference.
(a) Boiling Point (b) Pressure Point (c) Vapor- pressure (d) Reflux
7. Rich Source of vitamin D is _____.
(a) Milk (b) Egg (c) Sun light (d) a & c
8. Lindane is also known as _____.
(a) γ -HCH (b) DDT (c) Alum (d) none of above

Q. 2. Answer the following. [Any seven]

[14]

- (1) Write a note on Thermal Insulators
- (2) Explain the principle and driving force of Filtration.
- (3) List down the methods for achieving super saturation for Crystallization.
- (4) What is the difference between sulfonation and Sulfation?
- (5) Write the synthesis of Phthalic anhydride.
- (6) Write the ideal characteristics of steel.
- (7) Explain the difference between unit process and unit operation.
- (8) Draw and label the figure of Rota meter.
- (9) Explain effect of heat on milk.

C.P.T. O.)

- Q. 3. [A] Draw the figure of Rotary Dryer and explain its advantages and disadvantages. [6]
[B] Explain the methods of super saturation. [6]

OR

[B] Answer the following.

- (i) Explain the mechanism of crystallization and also explain its principle. [3]
(ii) Explain the characteristics of filter media. [3]
- Q. 4. [A] Write a note on continuous nitration of benzene by unit process. [6]
[B] Explain the manufacturing of BHC by unit process. [6]

OR

[B] Answer the following

- (i) Explain the advantage of continuous process compare batch to process in brief. [3]
(ii) Describe unit process of p-nitro acetanilide. [3]
- Q. 5. [A] Write Brief note on mixing of additives to cement. [6]
[B] Explain the manufacturing of cement. [6]

OR

[B] Explain the manufacturing of glass. [6]

- Q. 6. [A] Brief note on composition of ice cream, Cheese, Ghee. [6]
[B] Discuss important method which can be used for lead identification. [6]

OR

[B] Write a short note on composition of milk and ice-cream. [6]

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