

- Q.28 Write about properties of petroleum products.
- Q.29 Explain about NPK with examples.
- Q.30 Explain the manufacturing of ammonia nitrate.
- Q.31 Difference between setting process and filtration.
- Q.32 Describe about Crystallization process with example.
- Q.33 With Flow sheet, discuss about the saponification.
- Q.34 Write about the Pretreatment of crude oil.
- Q.35 Discuss about sugar industry with the help of flow chart.

### **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions.  $(2 \times 10 = 20)$

- Q.36 Discuss the manufacturing of Urea with neat and clean flow sheet.
- Q.37 Explain the manufacturing of Portland cement with neat and clean flow sheet process and also explain major engg problems.
- Q.38 Write short note on any three:-
- Nitrogenous fertilizers
  - Viscosity index.
  - Topping
  - Refining & distillation

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### **4th Sem / Chemical Engg. (P&P) Subject:- Process Industries**

Time : 3Hrs.      M.M. : 100

### **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory  $(10 \times 1 = 10)$

- Q.1 Which of the following is not a measure component necessarily to be present in fertilizers?
- Nitrogen
  - Potassium
  - Phosphorus
  - Sulphur
- Q.2 The reaction is carried in small intervals in batch reactor.
- True
  - False
- Q.3 LPG stands for
- Liquid petroleum gas
  - Liquefied petrol gas
  - Liquid petrol gas
  - Liquefied petroleum gas
- Q.4 What is the percentage of cement produced in dry process?
- 80%
  - 58%
  - 75%
  - 85%

- Q.5 Bio-fertilizers are cheaper, renewable and pollution free. They improve the \_\_\_\_\_ of the soil.
- Nutrient supply
  - Texture
  - Water holding capacity
  - All (a)(b) & (c)
- Q.6 Which one mentioned below is not a raw material used in the Portland cement production?
- Clay
  - Limestone
  - Quicklime
  - Gypsum
- Q.7 Sour crude means the \_\_\_\_\_ bearing crude.
- Asphalt
  - Sulphur compounds
  - Wax
  - Nitrogen compounds
- Q.8 Indian oil has Refinery at:-
- Gujarat
  - Jamnagar
  - Panipat
  - None of above
- Q.9 How many types of Portland cement are there
- 4
  - 5
  - 3
  - None of the above
- Q.10 Urea is a better fertilizer than ammonium sulphate , because
- It is cheaper
  - Nitrogen content is higher
  - It is not poisonous
  - It is easy to manufacture

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## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Draw the diagram of filtration.
- Q.12 Define Dehydration?
- Q.13 Write formula for Ammonia.
- Q.14 What is Molasses?
- Q.15 Write full form of ssp
- Q.16 Write formula of Viscosity.
- Q.17 Name any two nitrogen Fertilizer.
- Q.18 Define Hydrogenation?
- Q.19 What is micronutrients?
- Q.20 Defines Drying?

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write about cracking, also explain its types.
- Q.22 With flow sheet, explain manufacturing of ammonia.
- Q.23 Write properties and uses of SSP.
- Q.24 Explain fractional distillation with its types.
- Q.25 Differentiate between organic acidity and Inorganic acidity?
- Q.26 Describe Cracking with its types.
- Q.27 Discuss the effect of catalyst.

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