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Code No. : B-2234(A)

Roll No.....

Total No. of Section : 03

Total No. of Printed Pages : 04

OR

wałq £3qAĀa Sjl ZaSjua w cySj Equatāp Sja Ełvñ Sjlāk¥ ñ

Give the process of steam generation and its uses.

ZaTĀa-4. āāvaān qĒq qĒ ā'ñq/āā āvāh¥ ñ

Write a note on vacuum pump.

OR

i qSñāā qĒq Sñācytl āc¥ ñ

Explain centrifugal pump.

ZaTĀa-5. Āāv mñā 'ñā ZaSjāE Sñ māq āvāātusj Sñācytl āc¥ ñ

Explain what is shell and tube type heat exchanger.

OR

ZaTāamSj j Sñ yç; āq 'uā ytl mçñā āSjyā ¥Sj ZaTāamSj j Sñ Sja w/āā Sjlāk¥ ñ

What is refrigeration cycle? Describe any one cycle.

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Code No. : B-223(A)

Annual Examination - 2017

B.Sc.-I

INDUSTRIAL CHEMISTRY

Paper -III

UNIT OPERATION IN CHEMICAL INDUSTRY AND UTILITIES,

FLUID FLOW AND HEAT TRANSPORT IN INDUSTRY

Max.Marks : 33

Time : 3 Hrs.

Min Marks : 11

ñāq B h'ñp'; ' tĀāā; āmvi āāEā ZaTĀa ñā ākñññv SñEāā; āāvaueññ h'ñp'r' tĀvi āāEā ZaTĀa h'ñp'y' tĀāi ēEāEāu ZaTĀa ññ h'ñp'; ' Sñācyryçqññvñv SñEñ

Note : Section 'A' is objective type, containing 9 questions, is compulsory. Section 'B' consists of short answer type questions and Section 'C' consists of long answer type questions. Section 'A' has to be solved first.

S.I.

h'ñp-'j '(Section-'A')

āāEāāāSjym i ām vi EāEāu ZaTĀāāp Sñ EāE ¥Sj uā āāç wā' uāp tĀ āp ñ
(Answer the following very short-answer-type questions in one or two sentences) (1x8=8)

ZaTĀa-1. 95.6% Āñāāñ i āē 4.3% kv Sja ātōvā EāāñEñā ñē..... ñ
95.6% Ethanol and 4.3% water is a well known example of a

ZaTĀa-2. ĀāSj SñEñā Sñ āv¥ Zauñj ñāāç wāvç āSññā māā Eç SñEñā Sñ āāt āvāh¥ ñ
Give only name of any three type of dryer.

ZaTĀa-3. ñāy w ōw çōāā Sja ¥Sj-¥Sj EāāñEñā āāāç¥ ñ
Give one example of solid and liquid fuel each.

ZaTĀa-4. SñvāEā Sñ tāā Sja S.I. tāāSñ ñē..... ñ
unit of calorific value is

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ZaTAA-5. j wTaaX/a Sg avY ZauDy NaaC wawvç EqSjE/Vaa Sg Aaat avahY n

Write names of equipments used in absorption.

ZaTAA-6. kv Eqj aE yç; j aq ``ua ytl mçN

What is water treatment?

ZaTAA-7. raçvE Sg avasAAa ZaSjaEç Sja Aaat avahY n

Write the names of types of boiler.

ZaTAA-8. Avag E Sjl qaEsaxa avahY n

Define blower.

h/p-r' (Section-'B')

alaAaasjym vi a EbaEau ZaTAAap Sg EbaE 150-200 TaA-yata tA A n
(Answer the following short-answer type questions with word limit
150-200) (2x5=10)

ZaTAA-1. rg j nwa alaEmE ; aywla Sjacytl acY n

Explain batch or continuous distillation.

OR

BZacDmbs Sjacytl acY n

Describe spray column.

ZaTAA-2. Avacoprop »puE Sja wZaa SjlakY n

Give explanation of fluid bed dryer.

OR

avasAAa ZaSjaE Sg YwacacE Sja Aaat avahY ; aE asjya YSj Sja wZaa SjlakY n

Give the name of different types of evaporator and explain any one in detail.

ZaTAA-3. CoAa Sjl qaEsaxa avahY n CoAa Sja w'alSjE/a ytl acY n

Define fuel and explain classification of fuels.

OR

kv Sg Eqj aE Sjl asjya YSj avao Sja wZaa SjlakY n

Explain any one method used for water treatment.

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ZaTAA-4. SjZayE yç; j aq ``ua ytl mçN

What is compressor?

OR

aai E qEç qE ybOalm a'pç/a avahY n

Write short note on gear pump.

ZaTAA-5. maç avalatUsj yç; j aq ``ua ytl mçN

What is heat exchanger in brief.

OR

Avçp maç avalatUsj Sja ybOalm wZaa SjlakY n

Explain plate heat exchanger in brief.

h/p-y' (Section-'C')

alaAaasjym Aai e EbaEau ZaTAAap Sg EbaE 300-350 TaA-yata tA A n
(Answer the following long-answer type questions with word limit
300-350) (3x5=15)

ZaTAA-1. qe »pDmbs ; aE AvçpDmbs Sjl ma/Aaa SjlakY n

Compare packed column and plate column.

OR

Yakuac'pocSj atO/a Sg qae ``SjE/a Sjacytl acY n

Explain the separation of azeotropes.

ZaTAA-2. Eac'ea »pt aAyl 'E Sja wZaa SjlakY n

Explain rotatory drum filter.

OR

Taaep 'Ua Ywacac' E Sja wZaa SjlakY n

Describe short tube evaporator.

ZaTAA-3. j ac'aaSj Equaca Nma kv Sg avata 'p'aa Sjl luac'ua SjlakY n

Give specification of water for industrial use.