ZàÎÂà-2. §ýàv §ý £°jmàqãu §ýàrà¹Âàã§ýÊ½à HTC §ýà w½àÂà §ýLâk¥ ñ

Describe high temperature carbonisation (HTC) of coal.

OR

q¹¦àâvut t¦ áÊÄýàât¹ª à ZàâS§ýuà ¨uà¦ §ýL kàmã Ñ? ytlà¢¥ ñ

Explain why reforming process is done in petroleum?

ZàÎÂà-3. ÎàãÊ¦ y¦ ¥Ì§ýàÑv §ýà âÂàtà½à âvâh¥ ñ

Write manufacture of alcohol from molasses.

OR

Ð¹¦àj¦ §ý ZàâS§ýâm§ý dàãm §ý Âàãt rmà¢¥ ¥w¦ t¨§ý y¦ Ð¹¦àj¦ rÂàãÂà¦ §ýL âwâo §ýà w½àÂà §ýLâk¥ ñ

Name natural sources of starch. Discuss preparation of starch from maize.

ZàÎÂà-4. §ýàãtut §ý âÂàÏ§ýx½à §ýL ªàã¦Ì»¦0Ît¹¦ ntà¢¹¦ âwâo §ýà w½àÂà §ýLâk¥ ñ

Discuss Goldshmidt thermite method of extraction of chromium.

OR

ªà¦vÂàã ¦uÐ§ý y¦ v»¦ §ý âÂàtà½à t¦ ZàªàvÂà ZàâS§ýuà ytlà¢¥ ñ

Explain the smelting process in the extraction of lead from Galena.

ZàÎÂà-5. âyâv§ýà §ý âwâsÂÂà Ûýqà¦ §ý Âàãt, ªà½à ¥w¦ £quàªàã¦ §ýà w½àÂà §ýLâk¥ ñ

Discribe name, properties and uses of various forms of silica.

OR

¨v¦ §ýà âwâsÂÂà £ùàªàã¦ t¦ tÑÙw ytlà¢¥ ñ

Explain importance of clay in various industries.

----x----

Roll No.....

Total No. of Section : 03

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Annual Examination - 2017

B.Sc.-I

INDUSTRIAL CHEMISTRY

Paper - I

INDUSTRIAL ASPECTS OF ORGANIC AND INORGANIC CHEMISTRY

Max.Marks : 34

Time : 3 Hrs. **Min Marks : 11**

¹¦äq ß h½»¦ 'ï' t¦ Âàã¦ ïâmvi¦ÙàÊã ZàÎÂà Ñ¦, âkâÑ¦ Ñv §ýÊÂàã¦ ïâÂàwàu¦ Ñ¦ ñ h½»¦ 'r' t¦ vi¦ÙàÊã ZàÎÂà h½»¦ 'y' t¦ Àãi¦ £ÙàÊãu ZàÎÂà Ñ¦ ñ h½»¦ 'ï' §ýà yry¦ qÑv¦ Ñv §ýÊ¦ ñ

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.

h½»¦-'ï'(Section-'A')

âÂàÈÂàãâ§ým ïâm vi¦£ÙàÊãu ZàÎÂàã¦ §ý £ÙàÊ ¥§ý uà Àà¦ wà¨uà¦ t¦ À¦ ñ

(Answer the following very short-answer-type questions in one or two sentences) **(1x9=9)**

ZàÎÂà-1. IUPAC §ýà âwÐmm Âàãt ¥w¦ §ýàu¦ âvâh¥ ñ

Write full name and function of IUPAC.

ZàÎÂà-2. ªàã¦rÊ ªà¦y §ýà yi¹¦Âà Àãâk¥ ñ

Give composition of Gobar gas.

ZàÎÂà-3. q¹¦àâvut ¢nÊ §ý £quàªà ytlà¢¥ ñ

Explain uses of petroleum ether.

ZàÎÂà-4. sàÊm t¦ q¹¦àâvut §ýÑà¦ qàuà kàmà Ñ¦ ?

Where is petroleum found in India?

ZàÎÂà-5. ytàwuwã§ýÊ½à §ýL £ÀàÑÊ½à yâÑm qáÊsàxà Àãâk¥ ñ

Define isomerisation with example.

ZàÎÀà-6. §ýàv §ý §ýà¢ À à ªà½àà §ýà w½àÂà §ýLâk¥ ñ

Discuss any two properties of coal.

ZàÎÀà-7. Ð¹àj ¥w yvvàk §ý £quàªà âvâh¥ ñ

Write uses of starch and cellulose.

ZàÎÀà-8. âk¡àvà¢¹y §ýà yÊjÂàà yØà ..... Ñ ñ

Structural formula of zeolites is ..... .

ZàÎÀà-9. ¥vtâàÂàut ¥w yàâ»ut §ý £quàªà âvâh¥ ñ

Write uses of Aluminium and sodium.

h½»-'r' (Section-'B')

âÂàÈÂàà§ým vi £ÙàÊàu ZàÎÀà §ý £ÙàÊ 150-200 Î£À-yàtà t À ñ
(Answer the following short-answer type questions with word limit 150-200) **(3x5=15)**

ZàÎÀà-1. yàwk ªày ¨uà Ñ? uÑ §ýy rÂàmà Ñ? ¢y§ý £quàªà âvâh¥ ñ

What is sewage gas? How is it formed? Give its uses.

OR

âÂàÈÂà §ý yÊjÂàà yØà âvâh¥ :

i) qÂ¹-2-¢Âà ii) ZààqàÂà

iii) Ñ¨y-15-»à¢¡à¢Âà iv) ¢nà¢v ¥yà¹¹

Write structural formula of following :

i) Pent-2-ene ii) Propene

iii) Hexa-1, 5-diyne iv) Ethyl acetate

ZàÎÀà-2. màqàu skÂà t ZàuQý yuØà, £¾ZàÊ§ý, ¥w §ýàuâwâo §ýà w½àÂà §ýLâk¥ ñ

Describe mechanism, catalyst and plant used in thermal cracking.

OR

§ýàv t §ýàrÂà ¡àÊ Ñà¢»àkÂà §ýL ZàâmÎàm tàØàà §ýà âÂàoàÊ½à §ýy §ýÊªà?

How will you determine percentage of carbon and hydrogen in coal?

ZàÎÀà-3. skÂà t ÑàÂà wàvà §ýà¢ 4 ÊàyàuâÂà§ý ¡âsâ§ýuà¥ âvâh¥ ñ

Write any four chemical reactions during cracking.

OR

v§ý»à y yvvàk âÂàtà½à §ýL âwâo âvâh¥ ñ

Write manufacture of cellulose from wood.

ZàÎÀà-4. ¡àuÊÂà §ý oàm§ýt t ZàuQý rytÊ qàÊwm§ý §ýà ÂààtàâàÂà§ým ¡àÊh âjØà rÂàà¢¥ ñ

Draw labelled diagram of Bessemer converter used in metallurgy of Iron.

OR

âwùm ¡qi¹ÂÀà âwâo õàÊà âk§ý §ýy ZààÂm §ýÊªà?

How zinc is obtained by electrolysis?

ZàÎÀà-5. ¥vàtÂàà (¥vàtâÂàut ¹à¢ ¡à¨yà¢») §ý âwâsÂÂà Ûýqà §ý Âààt âvh§ýÊ âS§ýyà ¥§ý §ýà w½àÂà §ýLâk¥ ñ

Write various forms of Alumina (Aluminium trioxide) and describe any one in detail.

OR

tà¢§ýà qÊ yàÕàÂm à¹Âq½àà âvâh¥ ñ

Write short note on mica.

h½»-'y' (Section-'C')

âÂàÈÂàà§ým Àà i £ÙàÊàu ZàÎÀà §ý £ÙàÊ 300-350 Î£À-yàtà t À ñ
(Answer the following long-answer type questions with word limit 300-350) **(5x5=25)**

ZàÎÀà-1. q¹àâvut §ý ZàsàkÂà ¡àywÂà t ZàuQý yuØà §ýà ÂààtàâàÂà§ým âjØà rÂàà¢¥ ñ

Draw labelled diagram of plant used for fractional distillation of petroleum.

OR

q¹àâvut §ýL £¾qàÙà §ý §ýà¢ À à ây÷àm ytlà¢¥ ñ

Explain any two theories of origin of petroleum.