## B. Sc. (Industrial Chemistry) Examination ゆくか 2015 Semester-V

## Paper- IC-503: Chemical Process Industries – I Subject Code: 4302

Time: 2.30 Hours Total Ma			<u>rks: <b>70</b></u>	
Que.1	• ,	Explain production of $C_2H_5OH$ by fermentation process. What do mean by herbicides?	10 04	
Que.1	(A)	What is sea bittern? How industrially MgCO <sub>3</sub> is obtained from bittern?	10	
	(B)	Which chemicals are directly obtained from sea water?	04	
Que.2	(A)	Explain industrial production of ammonium sulphate with flow diagram.	10	
	(B)	Which chemicals are indirectly obtained from sea water?  OR	04	
Que.2	(A)	Discuss industrial production of butanol by fermentation process.	10	
	(B)	Give industrial application of butanol.	04	
Que.3	(A) (B)	Describe industrial production of potassium chloride. Which requirements are essential for fertilizer? OR	10 04	
Que.3	(A) (B)	Write a brief note on fermentation of wine. What is bagasse? Give its application.	10 04	
Que.4	(A) (B)	Discuss industrial production of sodium silicate. Write a short note on fungicides. OR	10 04	
Que.4	(A)	Discuss manufacture of industrial acetic acid with flow sheet diagram.	10	
	(B)	What is an enzyme? Give examples of enzymes.	04	
Que.5		Discuss industrial production of ammonium phosphate.  Give brief accounts on plant regulators.  OR	10 04	
Que.5		How industrially urea was manufactured? What is molasses? Give its application.	10 04	