

PITHAPUR RAJAH'S GOVERNMENT COLLEGE (AUTONOMOUS), KAKINADA**VI-SEMESTER END EXAMINATIONS-MARCH-2019****III YR B.Sc., SUBJECT/ PAPER: MICROBIOLOGY- CLUSTER -IA/PAPER-8****INDUSTRIAL MICROBIOLOGY****DATE: 18.03.2019 (MONDAY), TIME: 09.00 AM****Marks: 70****Reg. No.**

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Duration: 3 H**PART-A**Answer All the following questions .**5X2=10M**

1. Yeast
2. Biopesticides
3. Fermentation media
4. Agitation
5. SCP

PART-B**5X4=20M**Answer any FIVE of the following. Draw labelled diagram wherever necessary.

6. Actinomycetes
7. Submerged fermentation
8. Production of antibiotics
9. Biogas
10. White button mushroom
11. Strain improvement
12. Probiotics
13. Biofuels

PART-C**4X10=40M**Answer any FOUR of the following. Draw labelled diagram wherever necessary.

14. Describe the characteristic features of any four industrially importance of microorganisms?

(OR)

Write about biofertilizers with respect to rhizobium?

15. Describe briefly about screening and isolation technique?

(OR)

Describe various methods involved in strain improvement?

16. Define fermentation? Describe briefly the various types of fermentation process?

(OR)

Write about design of a stirred fermentor?

17. Explain commercial production of industrial alcohol using molasses as raw materials?

(OR)

Discuss various steps involved in industrial production of vitamin B12?