Reg No: | | | | | | | | |

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1

SEMESTER EXAMINATIONS

NOVEMBER - 2016 CBT5B

INDUSTRIAL BIOTECHNOLOGY

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Time: 3 Hrs **Max.Marks: 75**

SECTION-A (10 x 2 =20)

Answer ALL the questions.

1. Define fermentation.
2. Explain briefly about upstream processing.
3. Define turbidostat.
4. What is a complex medium?
5. Name the microbes used for producing citric acid.
6. What are antibiotics?
7. What are bio fertilizers?
8. What is SCP?
9. Mention about activated sludge.
10. What are bio fuels?

SECTION-B (5 x 5 =25)

Answer any FIVE of the following questions.

11. Describe the historical aspects of industrial fermentation.
12. What are the steps involved in downstream processing? Discuss.
13. Write about the growth of microorganism in continuous and batch culture.
14. Describe the various carbon and nitrogen sources needed for fermentation process.
15. Mention the role of primary and secondary metabolites in industrial fermentation.
16. Discuss the fermentation process involved in the production of citric acid.
17. What is yoghurt? How yoghurt is produced industrially?
18. Explain the steps involved in biogas production.

SECTION-C (3 x 10 =30)

Answer ALL the questions.

19. (a) What is bioreactor? Discuss in detail the various bioreactors used in fermentation process.

    (Or)

    (b) Briefly explain about the isolation, preservation and improvement of industrially important microorganism.

20. (a) Discuss in detail the production of vitamin B_{12} through microbial fermentation.

    (Or)

    (b) What are the steps involved in wine production? Explain briefly with flow chart.

21. (a) Give an elaborate note on the methods involved in cultivation of mushroom.

    (Or)

    (b) What is bioremediation? Write about the role of microorganism in the degradation of industrial wastes.

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