

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2024

B.Tech-VI Semester (BT)

COURSE CODE (CREDITS): 20B1WBT631 (03)

MAX. MARKS: 35

COURSE NAME: Manufacturing Processes and Industrial Products

COURSE INSTRUCTOR: Dr. Garlapati Vijay Kumar

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

1. What are endophytes? Write about the rationale of plant selection in isolation of endophytic microbes and its usual biological niches? (CO V) (5 M)
2. Discuss in detail about the "Agrobacterium Rhizogenes transformation" & "metabolite engineering" approaches towards the higher secondary metabolites production? (CO V) (5 M)
3. Write in detail about the bioreactor systems utilized for cultivation of "Hairy Root cultures" and "stem cells"? (CO II & CO III) (5 M)
4. Emphasize the blood clotting and fibrinolytic mechanisms with a neat sketch, a causative phenomenon in case of CVD'S? Write about the different thrombolytic agents utilized/utilizing to handle the fibrinolysis and explain the positive attributes of nattokinases over the other thrombolytic agents? (CO I) (5 M)
5. What are the different inputs and its importance in the beer making process? Discuss about the different types of yeasts utilized in brewing and spontaneous fermentation towards beer production? (CO IV) (5 M)
6. What are different basic wine characteristics and how it contributes towards the palatability of the wine? How is red wine making different from white wine, explain in detail?(CO IV)(5 M)
7. Write about the following one's (CO IV & CO V) (2 x 2.5 = 5 M)
 - (a) Endophytic Fungal Products as Anti-cancer agents
 - (b) Large-scale production of secondary metabolites using bioreactor systems

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