

Department of Biochemical Engineering & Biotechnology

I Semester, 2016 – 17; Major Test

BEL 701: Biotechnology Resource planning and IPR issues

Time: Two Hours

Max. Marks: 40 x 3 = 120 = 2 hours

4 marks - 12 minutes

1. Give two examples of products / activities based on bioprocessing in each of the following categories:
✓ (a) Low volume - High cost products
✓ (b) Bulk health-care products
✓ (c) Bioprocess services
✓ (d) Environmental applications (4)
2. Identify any four parameters for the selection of raw material for a bulk industrial product based on bioprocessing and illustrate your answer with microbial production of ethanol. (4)
3. List various categories of inventions that are specifically excluded from the grant of patents. (3)
4. What are the key sections (typical architecture) of a patent document? Identify various functions that are usually served by the patent documents. (4)
5. Explain the provisions of IPR as facilitated by the following international agreements:
✓ (a) Paris Convention (1983)
✓ (b) Patent Cooperation Treaty (PCT) (4)
6. Distinguish between 'Venture Capital' and 'Long Term Loan from a Financial Institution' as means of financing a new commercial project. (4)
7. Identify and list various factors that should be considered for assessing the potential health risk from genetically modified organisms. (4)
8. What are the typical steps associated with the risk - management process for a new r-DNA product? (4)
9. What is the regulatory mechanism followed in India (as required by GOI) for implementing environmental safety from a new genetically modified organism? (4)
10. Briefly outline various ethical criteria to assess the social acceptance of a new biotechnology development. (5)