

UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualifications:-

B.Eng. *B.Sc.* *M.Eng.*

Biochemical Eng E127: Evaluation and Planning of Business Opportunities in Bioprocessing and Life Sciences

COURSE CODE : **BENGE127**

UNIT VALUE : **0.50**

DATE : **18-MAY-06**

TIME : **10.00**

TIME ALLOWED : **3 Hours**

Answer 4 out of 6 questions. ALL questions carry a total of 25 MARKS each, distributed as shown []

1.

You are the lead researcher of a team working on a novel method for producing a known therapeutic macromolecule. Your employer is a large pharmaceutical company. Owing to a new process you have used, the recovery of the desired product is several times greater than has been achieved before. To date, the low yield of this product has made it very expensive to produce and as a result it has not been very competitive on the market. You have also discovered that the new process modifies a constituent of the product and you believe this will enhance its activity. You believe this new method has commercial importance.

- a) Is there an intellectual property worth protecting? Describe? [5]
- b) Who would own these rights in the event that they are worth protecting? [5]
- c) You are invited to represent your findings at an international conference in Mexico next month. What considerations arise and what safeguards need to be put in place if any? [5]
- d) What advice would you give the company on the regulatory implications of the above new method of processing [10]

2.

What is a virtual (non-integrated) company and how does it operate in the biotechnology sector? [10]

What are the advantages and disadvantages and why? [15]

3.

A newly formed company has obtained enough funding to undertake 'proof of concept' for their biotherapeutic molecule. They are, however, uncertain as to subsequent steps required to bring such a molecule to market. Describe the major steps this company needs to undertake [20] and the probability of failure at each step. [5]

4.

What are the differences between pharmaceutical and biopharmaceutical industries and markets? [25]

5.

In a start-up biotechnology company, what are the most important attributes and why? [25]

6.

Discuss the relative importance of the various key factors currently influencing the direction of healthcare industrial sector. [25]

END OF PAPER