



University of Technology
Department of Applied Sciences
Final Examination 2014/2015



Subject: Antibiotics & Pharmacognosy
Branch: Biotechnology Division
Examiner: Assist. Prof. Arieg A.W. Mohammed

Class: 4th year
Time: 3 Hours
Date: 1/6/2015

ملاحظة / اجب عن اربعة اسئلة فقط

Q1/ A: Compare between mechanism of action of β -lactam and trimethoprim. (9 marks)

B: Define the following:

(a) First-pass metabolism (b) Echinocandins (c) Chemotaxonomy (6 marks)

Q2/ A: According to the mechanism of action, classify antibacterial drug with examples.

(9 marks)

B: Discuss (Saponin thought to contribute to the health and efficiency of the immune system)

(6 marks)

Q3/ A: Explain major metabolic pathways.

(6 marks)

B: Compare between oral administration and I.V. injection of the drug.

(9 marks)

Q4/ A: Fill the blanks with suitable words

(5 marks)

1. Digitalis used in the treatment of
2. Trimethoprim used in the treatment of
3. The main side effect of streptomycin is
4. Gray baby syndrome caused by
5. The active compound of glycyrrhiza is

Q5/ B: How chloramphenicol cause a plastic anemia and bone marrow suppression? (10 marks)

Q5/ A: Numerate medical uses of ciprofloxacin.

(6 marks)

Q5/ B: Define metabolites. Compare between primary and secondary metabolites. (9 marks)

GOOD LUCK

مدير الامتحانات
1/6/2015



University of Technology
Department of Applied Sciences
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Subject: Bioreactors
Branch: Biotechnology
Examiner: Dr. ALI A TAHA

Class: Fourth
Time: 3 hours
Date: May 26 / 2015

Please answer six questions .

Q1) How we can eliminate foam in bioreactor .(10 marks) ✓

Q2) How we can control temperature in laboratory bioreactors . (10 marks) ✓

Q3) What are the advantages and disadvantages of batch reactors. (10 marks) ✓

Q4) In bioreactors , Agitation system include the agitator , please count the components of agitator with drawing .(10 marks) ✓

Q5) What are the main components of Oxygen delivery system in bioreactors . (10 marks) ✓

Q6) Foam is typically detected using two conductivity or "level" probes , explain these two probes with drawing . (10 marks) ✓

Q7) Draw the PH control system in the standard geometry stirred tank bioreactor , and explain the neutralizing agents that used in the system . (10 marks) ✓

Good luck