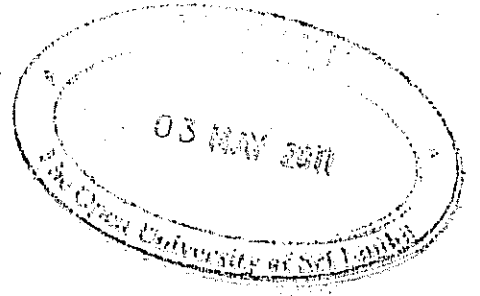


AL/systems

04/05/2011



**The Open University of Sri Lanka
Advanced Certificate in Laboratory Technology
Laboratory Techniques in Biology (PSC 2321)**

Open Book Test – I – 2010/2011

Duration: 01 hour

Registration No:

Date: 23.04.2011

Time: 3.00pm – 4.00 pm

ANSWER ALL QUESTIONS IN BOTH PARTS (A) AND PART (B).

PART (A) consists of **twenty (20)** multiple choice questions. Answer all the questions. The answers should be indicated in the annexed sheet by placing a cross (X) in the relevant cage.

PART (B) consists of **two (02)** structured essay type questions for which answers should be written in the space given in the question paper itself.

Please hand over Part A question paper along with part B.

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Advanced Certificate in Laboratory Technology
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Registration No:

Answer sheet for Part . A

Q. No.	a	b	c	d
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
1.10				
1.11				
1.12				
1.13				
1.14				
1.15				
1.16				
1.17				
1.18				
1.19				
1.20				

PART B

Structured Essay Question

1)

1.1) List the components used in preparation of Nutrient Agar.

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1.2) Distinguish the terms 'Selective medium' and 'Differential medium' giving an example for each type of culture medium.

Selective medium	Differential medium

1.3) Using a flow diagram, briefly outline the procedure to be followed when sampling *Bacillus subtilis* from a stock culture on an agar slope.

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2.5. Name two commonly used mordant in histological techniques.

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2.

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2.6. Generally in the laboratory, Eosin is used to stain the cytoplasm of cells. What is the main reason for using this chemical?

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2.7. What is the chemical composition of absolute alcohol? What is the purpose of using it in tissue preparation?

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2.8. How do you prepare 10% formalin using the raw stock solution of formalin?

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02.

2.1. What is the composition of Bouin's fixative?

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2.2 How can you determine the edges of the microtome knives used in section cutting are in perfect condition?

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2.3. If you have been asked to prepare a stained permanent slide of a bunch of salivary gland of cockroach, what is the stain that you would use to stain the specimen?

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2.4. What is meant by tissue mordant?

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2.9. Distinguish the following

a. Numerical Aperture of a microscope (NA) and lens power.

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b. Resolution power and magnification

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c. Polarized light and non-polarized light

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d. Transmission and scanning electron microscope

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e. Analyzer and Polarizer in a Polarizing Microscope.

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f. Phase contrast microscope and fluorescence microscope

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g. Fixative and preservative

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h. Mordant and stain

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i. Coagulating fixative and non- Coagulating fixative

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j. Progressive staining and retrogressive staining

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