

The Open University of Sri Lanka
Department of Zoology
Advanced Certificate in Laboratory Technology
Laboratory Techniques in Biology (PSC 2321)
No Book Test – NBT-I – 2013/2014
Duration: 01 hour



Registration No:

Date: 22.03.2014

Time: 4.00pm – 5.30 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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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				
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1.16				
1.17				
1.18				
1.19				
1.20				

PART A

PART B

Structured Essay Question

1.1. What is the chemical composition of acid alcohol? What is the purpose of using it in slide preparation?

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1.2. How do you prepare 10% formalin using a stock solution of formalin?

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1.3. List the steps involved in preparing a permanent stained slide of an animal tissue using DPX/ Canada balsam.

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1.4. Write the reasons for creating a dull field of view in your microscope?

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1.5. Under what circumstances would you use oil immersion technique?

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1.6. Why is NA (Numerical Aperture) of a lens so important?

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1.7. How does the phenomenon of fluorescence work?

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1.8. How would you turn an ordinary microscope into a polarizing instrument?

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2.1. What is a fluorochrome?

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2.2. List the requirements for a temporary preparation of cheek scrapings using smear technique?

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2.3. List the important factors to be considered in making a permanent slide of a very delicate plant material?

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2.4. Compare your answer in 2.3.above with the previous answer if you are to make a permanent slide preparation using a hard wood tissue

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2.5. Give a name of a common fixative used in cytological examination of plant materials.

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2.6. What is the role of a fixative in preparation of a permanent slide?

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2.7. Distinguish between Analyzer and polarizer.

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2.8. Define the following.

a) Isotropic materials.

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b). anisotropic materials.

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c). birefringence property.

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d). Progressive staining.

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e). Single staining.

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f). Acid stain.

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