

**THE OPEN UNIVERSITY OF SRI LANKA
CERTIFICATE OF LABOATORY TECHNOLOGY-2012/2013
PSC 1221- BASIC BIOLOGY LABORATORY PRACTICE
NO BOOK TEST**

Date- 15.03.2013	Time- 4.00 pm-5.30 pm
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Registration number.....

PART B

Answer all the questions.

1. This question is based on organization, safety and general techniques of a biology laboratory.

1.1 Name 03 ancillaries of biological laboratory which are not found in a chemistry laboratory (03 marks).

- a)
- b)
- c)

1.2 Select which glass wear is most suitable for the following purposes (05 marks).

petri dish, round bottom flask, desiccators, coplin jar, conical flask

- a) Titration of a solution-
- b) Removal of moisture-
- c) Staining slides-
- d) Heating a solution-
- e) Preparation of agar culture plates-

1.3 List 4 safety instructions should be followed by every person working in a biology lab (4 marks).

- a.
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- b.
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- c.
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- d.
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1.4 What could be your first action in case of a small fire in the laboratory? (02 marks).

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1.5 Select which solution is used for the following purpose during the preparation of permanent slides (05 marks)

xylene, formalin, alcohol, haemotoxylin, DPX

- a) Fixing -
- b) Dehydrating-
- c) Staining-
- d) Clearing-
- e) Mounting-

1.6 Name 4 types of microscope you will find in a biology laboratory other than the light microscope? (04 marks)

- a)
- b)
- c)
- d)

1.7 Select the suitable collection method/ trap to collect following animals (06 marks)

mist net, Longworth trap, pit fall trap, aspirator, shorter handled net, and sweep net

- a). Butterflies-
- b). Beetles -
- c). Mosquitoes-
- d). millipedes
- c). Birds
- d). Rats

1.8 Fill in the blanks given in the key appropriately using the animals (Arthropods) given below (05 marks)

butterfly, centipedes, millipedes, spider, crab

- 1. Aquatic forms a).....
- Terrestrial forms go to 2

- 2. With wings b)
- Without wings go to 3

- | | |
|-------------------------------------|----------|
| 3. Body divided into three segments | c)..... |
| Body divided into many segments | go to 4 |
| 4. One pair of legs per segment | d) |
| Two pairs of legs per segment | e) |

2) This question is based on the herbarium techniques.

2.1). What are the four (04) main purposes of making a herbarium? (04 marks)

- a)
-
- b)
-
- c)
-
- d)
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2.2). Make lists of equipments that are used for herbarium preparation at each of the stage given below (06 marks).

I. Collecting specimens:

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-
-

II. preserving specimen:

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III. drying and mounting of preserved specimen:

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2.3).What are the details that are written on the label of a herbarium sheet (03 marks).

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2.4). Briefly explain the special techniques that can be adapted for collection of algae (03 marks).

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