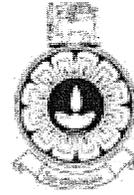


THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. / B.Ed. DEGREE PROGRAMME – LEVEL 04
BOU2103/ BOE4103- PRINCIPLES OF MICROBIOLOGY
OPEN BOOK TEST – 2013/2014
DURATION: ONE (01) HOUR.



Reg. No.

DATE : 27th February 2014

TIME : 10.30 a.m. – 11.30 a.m.

Answer All Questions. Questions should be answered on the question paper itself.

01. Fill in the blanks with suitable phrases/words.

- i. The metabolically inert state of viruses outside living cells is known as
- ii. The scientist provided evidence for the existence of heat resistant forms of bacteria.
- iii. is a technique which employs viruses to differentiate between strains of closely related bacteria.
- iv. The time taken for 100 *E.coli* cells to become 200 is termed as
- v. The two distinct types of prokaryotes are and
- vi. Organisms that use organic carbon and utilize light as their energy source are termed as
- vii. The use of solid media for the cultivation of microorganisms was introduced by the scientist
- viii. A culture medium containing natural substances of unknown composition is referred to as
- ix. The pioneer to use aseptic techniques in surgery was
- x. Microorganisms with low temperature optima are known as

xi. The bacterium is used as a biological insecticide for the control of lepidopteron larvae.

xii. The use of attenuated strains in vaccination was discovered by the scientist

xiii. Insect transmission is used for viruses which cannot be transmitted by

xiv. Unwanted forms of life in a culture plate are known as

xv. A pure culture maintained for long periods of time is referred to as a

xvi. The scientist who contributed most to the pure culture concept is

(3 x 16 marks)

02. Briefly explain the use and the principle of each the following equipments.

a). Gas pack anaerobic jar

Use.....

Principle.....

.....

.....

b). Shaker with rotary motion

Use.....

Principle.....

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c). Autoclave

Use.....

Principle.....
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(4 x 3 marks)

03. Differentiate between the following (give two factors each).

a) Virulent phage and Temperate phage

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b) Batch culture and Continuous culture

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c) General purpose medium and a Selective medium

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d) Lag phase and Log phase

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(6 x 4 marks)

(04) . Briefly explain the following statements.

a). 'Phototrophic bacteria do not evolve oxygen during photosynthesis'.

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b). 'Petri-dishes should be incubated in an inverted position with lid-side down'.

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c). 'Autoclaving certain media produces insoluble flocs'

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d). 'MacConkeys medium can be described as a selective and differential medium for enteric bacteria'

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(4 x 4 marks)

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