



**J-0854**

**Second Year B. Sc. Examination**

**March/April – 2013**

**Medical Technology : Paper - III**  
*(General Microbiology) (Old Course)*

Time : 3 Hours]

[Total Marks : 70

**Instructions :**

(1)

नीचे दृशावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="Second Year B. Sc."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Medical Technology : Paper - III (OLD COURSE)"/>	<input type="text"/>
Subject Code No. : <input type="text" value="0"/> <input type="text" value="8"/> <input type="text" value="5"/> <input type="text" value="4"/>	<input type="text"/>
Section No. (1, 2,.....): <input type="text" value="Nil"/>	<input type="text"/>
	Student's Signature

(2) Figures on the right indicate marks.

(3) Draw diagrams where necessary.

1 Answer the following briefly.

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- (1) What are fungi ? Enlist media used for fungal cultivation.
- (2) Differentiate between elementary body and reticulate body of chlamydia.
- (3) Explain chemolithotrophs and chemoorganotrophs giving examples.
- (4) Define Generation time.
- (5) Explain the role of DNA gyrase enzyme in DNA replication.
- (6) Enlist the different types of food spoilage.
- (7) Enlist the taxonomic ranks in specific order.

2 Comment on the following : (any three)

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- (1) Prions exist in two different morphological forms.
- (2) Lag phase of bacterial growth curve is not a dormant phase.
- (3) Fermentation process yields low energy than respiration.
- (4) Virulent phage replicates differently from avirulent phage.

- 3** Answer any **two** of the following. **16**
- (1) Explain the methods used for detection of coliforms in water analysis.
  - (2) Enlist the methods involved in gene transfer of bacteria. Explain conjugation in detail.
  - (3) What are proto oncogenes and oncogenes ? Describe the characteristics of virus induced cell transformation in detail.
- 4** Write an essay on : 'Microbiological analysis of air'. **10**
- 5** Write notes on : (any **three**) **15**
- (1) Bacteriological media.
  - (2) General characteristics of Bacteriophage.
  - (3) Synchronous growth.
  - (4) DNA-DNA hybridization method for microbial classification.
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