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RR-0619

First Year B. Sc. Examination

March / April – 2010

Medical Technology : Paper - II

(Introduction of Microbiology)

(New Course)

Time : **3** Hours] [Total Marks : **70**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ F. Y. B. Sc. (New)

Name of the Subject :

☛ Medical Technology - 2

☛ Subject Code No. : 0 6 1 9 ☛ Section No. (1, 2,.....) : Nil

Seat No. :

Student's Signature

(2) Figures to the right indicate full marks of the question.

(3) Draw neat and labelled diagrams wherever necessary.

1 Answer the following : **14**

(a) Who devised goosenecked flask? Give its importance.

(b) Give two examples of fluorescent dye.

(c) Name two intensifer used in staining procedure.

(d) What are iodophors? Give its application.

(e) What is the composition of peptidoglycan?

(f) List two cryoprotective agents use in preservation of cultures.

(g) What is axial fibrils? State its function.

2 Comment on the following : **12**

(a) Bacteria exhibit different arrangements of flagella.

(b) Iodine and chlorine has antimicrobial action.

OR

2 (a) Heat can be used as sterilizing agent.

(b) Bacteria exhibit different morphological and cultural characteristics.

3 Write an essay on : **10**

"TEM-Principle, construction and application."

OR

3 Write an essay on : **10**

"Cellwall composition of gram positive and gram negative bacteria."

4 Justify the statement : **10**

Various experiments are carried out to disprove spontaneous generation.

OR

4 Justify the statement :

Dyes has several applications.

5 Answer any **two** of the following : **12**

(a) Describe principle and application of SEM.

(b) Discuss ideal characteristics of antimicrobial chemical agent.

(c) Discuss methods for isolation of pure culture along with their advantages and disadvantages.

6 Write short notes on any **two** of the following : **12**

(a) Contribution of Edward Jenner

(b) Metachromatic granule staining - Principle and method

(c) Spirochaete staining.
