

Royal College of Arts, Science & Commerce  
Sample Questions  
SYBSc Semester III  
**Microbiology Paper III (USMB 303)**

Note : Each multiple choice question in section I carries 1 mark  
Each multiple choice question in section II & III carries 2 marks

**Section I**

- Q1 Which enzyme is used to cut DNA molecules?  
a Helicase  
b DNA Ligase  
c Restriction endonuclease  
d Reverse transcriptase
- Q2 The process of killing all microorganisms along with their spores is \_\_\_\_\_  
a Disinfection  
b Antisepsis  
c Sanitization  
d Sterilization
- Q3 Which of the following is not a chemical agent for microbial control?  
a Radiations  
b Antibiotics  
c Antiseptics  
d Germicide
- Q4 Which of the following methods is used for killing microorganisms of only certain types and not all microorganisms?  
a Pasteurization  
b Incineration  
c Autoclaving  
d Fractional Sterilization
- Q5 Which of the following is used as a solidifying agent for media?  
a Beef extract  
b Peptone  
c Agar  
d Starch

**Section II**

- Q6 Which phase shows the reproduction rate equal to the equivalent death rate?  
a Log phase  
b Stationary phase  
c Death phase  
d Lag phase

Contd.....

- Q7 Which of the following is trace element?  
a Potassium ion  
b Sodium ion  
c Copper ion  
d Magnesium ion
- Q8 What percentage of alcohol is used for disinfection?  
a 20%  
b 70%  
c 90%  
d 100%
- Q9 Which enzyme is active at 72° in the PCR cycle?  
a isomerase  
b exonuclease  
c polymerase  
d endonuclease
- Q10 Southern blotting Technique is used for separation & identification of \_\_\_\_\_  
a Proteins  
b DNA  
c RNA  
d Enzymes

### Section III

- Q11 Solid phase synthesis is used in making of \_\_\_\_\_  
a Synthetic DNA  
b Clones of DNA  
c Copies of DNA  
d Nucleotides
- Q12 Which cloning vector carries both ampR & URA3 as Selectable markers?  
a pUC19  
b YEp24  
c YAC  
d BAC
- Q13 The organisms which can use reduced inorganic compounds as electron donors are known as \_\_\_\_\_  
a autotrophs  
b organotrophs  
c lithotrophs  
d phototrophs

Contd...

Q14 Which of the following conditions are required for the determination of thermal death time?

- a temperature is varied
- b time is fixed
- c temperature is fixed and time is varied
- d temperature is fixed and time is fixed

Q15 Which of the following actions occur due to low temperature?

- a coagulation of proteins
- b death of microorganisms
- c rate of metabolism is reduced
- d denaturation of proteins

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