



AC-1408

M. Sc. Microbiology (Sem. II) Examination

April / May - 2015

Paper - 202 : Molecular Diagnosis & Molecular Pathogenesis  
(New Course)

Time : 3 Hours]

[Total Marks : 70

Instructions : (1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य वपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<b>M. Sc. MICROBIOLOGY (SEM. II)</b>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<b>PAPER - 202 : MOLE. DIAG. &amp; MOLE. PATHO. (NEW)</b>	<input type="text"/>
Subject Code No. : <input type="text" value="1"/> <input type="text" value="4"/> <input type="text" value="0"/> <input type="text" value="8"/>	Student's Signature
Section No. (1, 2,.....): <b>Nil</b>	

- (2) Figures to the right indicate full marks of the question  
(3) Draw neat and labeled diagrams whenever necessary

**Q 1. Answer any two the following : 18**

1. Enlist the probe amplification techniques. Explain in detail the Cleavage-invader technology.
2. Justify : The signal is directly proportional to the amount of target sequence present in clinical Specimen in amplification technique.
3. Explain in detail the Nucleic acid sequence based amplification(NASBA) and transcription based amplification(TBA) technique.

**Q 2. Answer any two the following : 18**

1. Explain in detail the major differences in the process of phagocytosis in polymorphoneutrophils and macrophages.
2. Justify : Many pathogens can resist killing and digestion in the phagolysosome.
3. Explain In detail the oxygen dependent and oxygen independent antimicrobial mechanisms leading to the killing in neutrophils.

**Q 3. Answer any 2 of the following : 18**

1. Justify : DNA viruses has evolved a nuber of strategies to combat the local response of immune response.
2. Explain in detail the spread of pathogens via lymphatic system.
3. Enlist the different toxins. Explain in detail pore forming toxins

**Q.4. Answer any two the following : 16**

1. *Magnaporthe grisea*
2. Signal transduction in plant-pathogen interaction
3. Systemic acquired resistance in plants