



**DPP-1408**

**M. Sc. (Microbiology) (Sem. II) Examination**

**April / May - 2016**

**MB-202 : Molecular Diagnosis &  
Molecular Pathogenesis**

Time : 3 Hours]

[Total Marks : 70

**Instructions :**

(1)

नीचे दशांशों में निशानों वाली विंगतों उत्तरवही पर अवश्य लिखनी। Fillup strictly the details of signs on your answer book.		Seat No. :	
Name of the Examination :		<input type="text"/>	
M. Sc. (MICROBIOLOGY) (SEM. 2)		<input type="text"/>	
Name of the Subject :		<input type="text"/>	
MB-202 : MOLECULAR DIAGNOSIS & MOLECULAR PATHOGENESIS		<input type="text"/>	
Subject Code No. :		Section No. (1, 2.....):	
1 4 0 8		Nil	
		Student's Signature	

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

1 Answer the following : (any two) 18

- (a) Explain signal amplification technique in detail.  
(d) Discuss the strand displacement method of target amplification and give its significance.  
(c) Explain in detail the molecular methods for detection of RNA targets.

2 Answer the following : (any two) 18

- (a) Justify: *Shigella dysenteriae* enters colonic mucosa via M cells and infects the intestinal epithelial cells through the basolateral membrane.  
(b) Explain in detail phagocytosis in macrophages.  
(c) Describe the mechanism of EPEC induced A/E pedestal formation.

- 3** Answer the following : (any **Two**) **18**
- (a) Describe in detail the genetic factors of host in establishment of a disease.
  - (b) Explain in detail the mechanism and function of pore forming toxins.
  - (c) Explain the importance of antigenic variation in avoiding antimicrobial immune response.
- 4** Write Short notes : (any **two**) **16**
- (a) Disease escape.
  - (b) Evolution of virulence, avirulence and resistance gene.
  - (c) Molecular genetics of rice blast.
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