



R-3843-44

M. Sc. (Int. Biotechnology) (Sem. VI) Examination

May / June – 2010

IBT-605 : Medical Biotechnology

Time : 3 Hours]

[Total Marks : 70

R-3843

Instructions :

(1)

नीचे दृष्टविते निशानीवाणी विगतो उत्तरवडी पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. SC. (INT. BIOTECHNOLOGY) (SEM. 6)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="IBT-605 : MEDICAL BIOTECHNOLOGY"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="8"/> <input type="text" value="4"/> <input type="text" value="3"/>	Section No. (1, 2,.....) : <input type="text" value="1"/>
Student's Signature	

- (2) Answer all the questions.
- (3) Illustrate your answer with neat diagrams wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Answer to the two sections should be written in **separate** answer sheet.

- 1 Give precise answers for the each of the following : 10
  - (a) What are Dane particles? Explain other morphological forms of same pathogen.
  - (b) Define these four terms : Tubercles, Ghon complex, Caseous lesions, Military tuberculosis.
  - (c) What are hypnocytes? What is their significance?
  - (d) Give the location of gene which when mutated results in Duchenne muscular dystrophy. What is the normal function of protein made by this gene?
  - (e) What is the normal function of majority of Ras subfamily of proteins?

- 2 Explain multiplication and pathogenesis of human immunodeficiency virus. 10

OR

- 2 Write an essay on genetics and pathogenesis of Huntington's Disease. 10

- 3 Write short notes on any **three** of the following : 15
  - (a) Malaria : Etiology and vector biology
  - (b) Pulmonary Tuberculosis : Treatment and DOTS.
  - (c) Parkinson's Disease : Signs and Symptoms
  - (d) Alzheimer's Disease : Progressive Stages
  - (e) Poliomyelitis : Types of immunization.

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[Contd...

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Subject Code No. : <input type="text"/> 3 <input type="text"/> 8 <input type="text"/> 4 <input type="text"/> 4 Section No. (1, 2,.....) : <input type="text"/> 2	

- (2) Answer all the questions.  
(3) Illustrate your answer with neat diagrams wherever necessary.  
(4) Figures to the right indicate full marks.  
(5) Answer to the two sections should be written in **separate** answer sheet.

- 4 Give precise answers for the each of the following : **10**
- (a) Enlist two non-viral methods used for gene transfer during gene therapy.
  - (b) Name two fluorophores that can be used in FISH cytogenetics.
  - (c) Name three vital components of HAT medium.
  - (d) Name two diseases where antisense therapy is effectively used.
  - (e) What are therapeutic applications of rhGH?

- 5 Explain few examples of novel targets used to develop antimicrobial drugs. **10**

**OR**

- 5 Describe how PCR can be used for the diagnosis of congenital disorders. **10**

- 6 Write short notes on any **three** of the following : **15**

- (a) Interferons: Production and use in therapy
- (b) Gene Fishing
- (c) Applications of MAbs
- (d) AAV : Vector for gene therapy
- (e) FISH : Application and Variants.