



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 दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="checkbox"/> M. SC. (INT. BIOTECHNOLOGY) (SEM. 6)	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="checkbox"/> 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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Instructions :

(1)

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