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[A-32, A-33]

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**SARDAR PATEL UNIVERSITY**  
**MSc (Integrated) Biotechnology, Tenth Semester Examination**  
**Tuesday, 28<sup>th</sup> April 2015**  
**10:30 am to 1:30 pm**  
**PS10CIGIB4/PS10CIGEB4: Biosafety, Bioethics and IPR**

Total Marks- 70

- Note: i) Attempt all questions.  
ii) Marks are indicated on the right hand side.

**Q.1 Answer the following Multiple Choice Questions. All are compulsory**

**08**

1. When autoclaving biohazardous waste it is important to :  
a) Not overfill autoclave bags      b) Place autoclave bags in secondary container  
c) Record autoclave used in the user log      d) all of the above
2. How should biological materials that need to be transported from the lab to another location be handled?  
a) wear a lab coat and transport the materials in your pocket b) wear gloves and carry the material in your hand c) seal materials in a leak-proof, shatter resistant secondary container d) cells in cell culture flasks and dishes are fine for transport.
3. The permit for import or receipt of etiologic agents and vectors of human and animal disease in India is issued by  
a) GEAC b) RCGM c) MoEF d) DBT
4. The first International Statement on the ethics of medical research using human subjects formulated in 1947 was  
a) Nuremberg Code b) Edinberg Code c) ICMR code d) Helsinki Declaration
5. The minimum requirements for obtaining a patent are that the invention must be:  
a) non-obvious or include an inventive step b) useful or capable of industrial application c) novel d) All of the above
6. What is copyright meant for?  
a) Film works b) Books c) Essays d) All of above
7. Budapest Treaty is for  
a) Deposition of microorganism b) Deposition of germ plasma c) stopping Bio-piracy d) all the above
8. Bio -piracy is  
a) Exploitation of indigenous knowledge by commercial actors b) Use of stored data c) Exploitation of plant material d) none of them

**P.T.O**

<b>Q.2</b>	<b>Attempt Any Seven of the following:</b>	<b>14</b>
1.	Write in short about principles of bioethics.	
2.	Define bio- hazardous materials. What is their importance in the biotechnological laboratories?	
3.	Write down the issues related to the use of GMO's.	
4.	Define Laboratory Acquired Infection. Mention the various routes of transmission.	
5.	What is patentable in India?	
6.	What is the importance of IPR in modern era?	
7.	What is WIPO? What is its role?	
8.	Explain various types of license agreements	
9.	What are the significance of traditional knowledge?	
<b>Q.3 A</b>	Discuss the ethical issues in human cloning.	<b>06</b>
<b>Q.3 B</b>	Describe the ethical issues involved in stem cell research.	<b>06</b>
	<b>OR</b>	
<b>Q.3 B</b>	What is the importance of studying bioethics in academics?	<b>06</b>
<b>Q.4 A</b>	Define containment. Explain different types and elements of containment.	<b>06</b>
<b>Q.4 B</b>	What precautions should be taken before releasing the rDNA product to the environment?	<b>06</b>
	<b>OR</b>	
<b>Q.4 B</b>	Highlight main points of Bioseafy gudiline in India .	<b>06</b>
<b>Q.5 A</b>	What do you understand by IP and IPR? Explain copyright, trade secrets and trade mark in detail.	<b>06</b>
<b>Q.5 B</b>	Describe various types of Patent application .	<b>06</b>
	<b>OR</b>	
<b>Q.5 B</b>	Explain patent infringement in detail	<b>06</b>
<b>Q.6 A</b>	Explain Budapest treaty and discuss its important features.	<b>06</b>
<b>Q.6 B</b>	Explain Bioprospecting and Biopiracy.	<b>06</b>
	<b>OR</b>	
<b>Q.6 B</b>	Write a note on TRIPS.	<b>06</b>

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