

**B.Sc. BIOTECHNOLOGY
THIRD SEMESTER
BIOETHICS & BIOSAFETY
BBT-305**

**SET
B**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

(Objective)

Marks: 20

Choose the correct answer from the following:

1×20=20

1. The acronym HEPA stands for:
 - a. High-efficiency particulate air
 - b. High-energy particles in the air
 - c. High evaluation protection
 - d. Hepatitis A
2. Biosafety is working safely with biological material or organisms with the potential to cause disease to:
 - a. Humans
 - b. Animals
 - c. Plants
 - d. All of the above
3. PPE is:
 - a. Possible Protective Equipment
 - b. Personal Protection Enhancements
 - c. Personal Protective Equipment
 - d. Protective Physical Equipment
4. Ebola virus is a:
 - a. Risk group 1 microbe
 - b. Risk group 2 microbe
 - c. Risk group 3 microbe
 - d. Risk group 4 microbe
5. Full form of OECD is:
 - a. Organization of Economic Cooperation and Development
 - b. Organization for Economic Commission and Development
 - c. Organization for Economic Cooperation and Development
 - d. None of these
6. Full form of AERB is:
 - a. Atomic Energy Regulatory Board
 - b. Atomic Energy Regulatory Bureau
 - c. Atomic Emission Regulatory Board
 - d. None of these
7. Biohazard waste containers should be open:
 - a. At all times
 - b. Only when actively adding waste to them
 - c. When they are placed outside for storage
 - d. None of the above
8. Principle safety precautions commonly used in working with radiation are:
 - a. Time and distance
 - b. Distance and shielding
 - c. Shielding and time
 - d. Time, distance and shielding
9. This procedure involves inserting a small flexible plastic tube through the vagina into the uterus:
 - a. Alpha fetoprotein screening
 - b. Amniocentesis
 - c. Chorionic villi sampling
 - d. None of the above

10. _____ includes rules of conduct that may be used to regulate our activities concerning the biological world.
- | | |
|---------------|----------------|
| a. Bio-piracy | b. Biosafety |
| c. Bioethics | d. Bio-patents |
11. Abortion can have severe effects on a woman's body
- | | |
|-------------|----------------------|
| a. Yes | b. No |
| c. May have | d. None of the above |
12. Aminocentesis cannot be used to determine which one of these?
- | | |
|----------------------------|------------------------------|
| a. Chromosome analysis | b. Detecting genetic defects |
| c. Maturity of fetal lungs | d. None of these |
13. The Atomic Energy Regulatory Board was constituted on:
- | | |
|-----------------------------------|-----------------------------------|
| a. 15 th November 1983 | b. 15 th October 1983 |
| c. 15 th December 1983 | d. 15 th November 1980 |
14. Full form of GEAC is:
- | | |
|---|--|
| a. Genetic Engineering Approval Committee | b. Genetic Engineering Approval Commission |
| c. Both a and b | d. None |
15. Chorion is a/an:
- | | |
|--|--|
| a. The membrane developing around an embryo contributes to the formation of the placenta | b. Sack within a pregnant women's uterus containing the amniotic fluid surrounding the fetus |
| c. The organ in the uterus connected to the fetus by the umbilical cord | d. None of these |
16. Euthansia, from the Greek word meaning:
- | | |
|-------------------|----------------|
| a. Volatile death | b. Good death |
| c. Bad death | d. Worst death |
17. Agents studied in BSL - 3 lab are:
- | | |
|-------------------------------|--------------------------|
| a. Mycobacterium tuberculosis | b. Clostridium botulinum |
| c. Hepatitis B virus | d. Bacillus subtilis |
18. The full form of PNDT Act is:
- | | |
|-------------------------------|--------------------------------|
| a. Post natal diagnostic test | b. Post neural diagnostic test |
| c. Prenatal diagnostic test | d. None of these |
19. Full form of IBSC:
- | | |
|--------------------------------------|---------------------------------------|
| a. Institutional Biosafety Committee | b. Institutional Biosafety Commission |
| c. Institutional Bioethics Committee | d. International Biosafety Committee |
20. Which one of the following will be checked under phase IV surveillance?
- | | |
|--|------------------|
| a. The whole market will be under surveillance | b. 20-300 people |
| c. 300-3000 people | d. 20-50 people |

(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

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|---|----------|
| 1. What are Clinical Trials? Describe the different phases of a clinical trial. | 10 |
| 2. What is the Atomic Energy Regulatory Board (AERB)? What are the functions of AERB? | 5+5=10 |
| 3. Write a note on the International Biosafety Regulatory Bodies of Biosafety. | 10 |
| 4. What is Prenatal Diagnosis? Write a note on the conditions/situations when the prenatal diagnosis is recommended. Write a few lines on the PNDT Act. | 4+2+4=10 |
| 5. Write a short note on Amniocentesis. | 10 |
| 6. What is Biological Risk assessment? Describe the different types/methods of risk assessment. | 3+7=10 |
| 7. Classify the microorganisms according to risk groups. Also, give examples for each risk group. | 10 |
| 8. What is meant by Biosafety? Write a note on the Biosafety levels. | 3+7=10 |

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