



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – MEDICAL LAB TECHNOLOGY

THIRD SEMESTER – NOVEMBER 2017

16PML3ID01 - RESEARCH METHODOLOGY AND BIOETHICS

Date: 11-13-2017
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

Section A

Answer **all** of the following

2 x 10 = 20

1. Define the survey method in statistical studies
2. What is classification of data?
3. Name any four measures of central tendencies.
4. Illustrate perfect positive and negative skewness.
5. What are the statistical packages available for analysis of Biological data?
6. Write the expression for student “t” distribution.
7. Expand IEC and state its role.
8. Comment on the principle of the three R’s followed by Animal Ethics Committee?
9. Mention any two criteria to be considered for Organ Transplantation.
10. Differentiate the somatic gene therapy from germline gene therapy.

Section B

Answer **any four** of the following.

4 x 10 = 40

11. Explain in detail the components of a typical table and describe the basic types.
12. Draw a percentage bar diagram to represent the following data.

The expenditure incurred in the cultivation of paddy hectare in given below.

Item	Expenditure(Rs.)
Seed	300
Fertilizer	100
Maintenance	250

13. What are measures of dispersion? Calculate A.M and S.D when $\Sigma X=40$, $N=10$ & $\Sigma X^2=182$.
14. Describe styles of report writing with example.
15. Write a note on the Principles of Good Clinical Practice (GCP) in Clinical Trials.
16. Discuss the ethical concerns related to embryonic stem cell research.

Section C

Answer **any two** of the following.

2 x 20 = 40

17. Write a detailed account on the steps in formulation of hypothesis and types of research.
18. Explain data processing and its components.
19. Give an account on the norms for conducting studies on human.
20. Discuss the ELSI of the Human Genome Project.