

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For candidates admitted during the academic year 2011-12 and thereafter)**

SUBJECT CODE: 11ZL/GE/GD44

B.A/B.Sc/B.Com/B.C.A/B.S.W DEGREE EXAMINATION, APRIL - 2015

**COURSE: GENERAL ELECTIVE
PAPER: GENES – DISEASES - SOCIETY**

**TIME: 3 HOURS
MAX.MARKS:100**

SECTION-A

ANSWER ALL QUESTIONS

(10 x 4 =40)

1. Define the following:
a. Allosomes b. Genotype c. Recessive character d. Codominance
2. Fill in the blanks:
a. Mammography is useful in detecting -----.
b. Human gametes have----- the number of chromosomes as compared to the body cells.
c. A change occurring in the genetic material is referred to as a -----.
d. The creation of a genetically identical copy of an organism is known as -----.
3. Distinguish between
a. Dominance and Epistasis
b. Sex linked and Sex limited genes
4. Give an example of each of the following:
a. Deletion b. Translocation c. Semilethal gene d. Incomplete Dominance
5. State the mode of inheritance of the following:
a. Cystic Fibrosis b. EhlerDanlos syndrome c. Kearns Sayre syndrome
d. Hypertrichosis
6. What is BMI? How is it calculated?
7. State whether true or false.
a. The gene on the Y chromosome that determines sex in man is the SRY gene.
b. Stem cells can be used to treat diseases.
c. Hypercholesterolemia can lead to heart attacks.
d. Tay Sachs disease is caused due to the deficiency of an enzyme.
8. What is Criss Cross inheritance?
9. Name any four teratogens
10. Comment on Alzheimer's disease.

SECTION-B**ANSWER ANY FIVE QUESTIONS:****(5x6=30)**

11. How is sex determined in man?
12. Describe the mode of inheritance of skin color in man.
13. Describe any two metabolic disorders.
14. Comment on consanguineous marriages and their impact on society.
15. Write short notes on
 - a. Juvenile Diabetes
 - b. DNA fingerprinting
16. Comment on the importance of Genetic Counselling.
17. Write a note on the objectives and applications of the Human Genome Project.

SECTION-C**ANSWER ANY TWO QUESTIONS****(2x15=30)**

18. Give an account on a. Monohybrid Cross b. Lethal genes
19. What are multiple alleles? Explain the same with reference to ABO blood groups in man.
Add a note on the significance of the Rh antigen.
20. Describe any three chromosomal disorders.
21. Explain the basic steps and applications of genetic engineering along with associated ethical issues.
