

VPM's B. N. Bandodkar College of Science Thane
Human Sciences F.Y.B.Sc ; Course- USHSC204
Semester II - 2017-18

Total Marks: 75

Duration: 2.5 hrs

N.B:1. All questions are compulsory.

2. Figures to the right indicate marks.

3. Draw neat and labeled diagrams wherever necessary.

- Q.1) (A) Z - link Inheritance with the help of suitable examples. (7)
OR
(A) Autosomal Recessive Inheritance with suitable examples. (7)
(B) Structure of DNA with neat labeled diagram. (8)
OR
(B) X- linked Dominant inheritance. (8)
(C) Attempt any ONE of the following: (5)
(i) Write a note on mRNA & rRNA.
(ii) Write a note Co – dominance inheritance
- Q.2) (A) Sex Determination in Human Beings & Birds. (7)
OR
(A) Describe Polyploidy and Aneuploidy. (7)
(B) Explain Sex determination in Bonellia. Add a note on Free Martin. (8)
OR
(B) Balanced abnormalities and their types. (8)
(C) Attempt any ONE of the following: (5)
(i) Write note Chromosomal abnormalities.
(ii) Clinical features of Down and Edwards Syndrome.
- Q.3) (A) Explain Consanguineous marriage and the disorders related to it. (7)
OR
(A) Explain the steps in In Vitro Fertilization. (7)
(B) Explain the Sex Determination in Honey bee & Birds. (8)
OR
(B) Describe any four hereditary disorders. (8)
(C) Attempt any ONE of the following: (5)
(i) Describe Types of embryo transfer after in vitro fertilization?
(ii) What disorders and defects can amniocentesis detect?
- Q.4) Attempt Any THREE of the following: (15)
(i) Explain the structure of tRNA with neat labeled diagram.
(ii) Chromosomal theory of inheritance
(iii) Explain XX/XO mechanism.
(iv) Clinical features of Klinefelter and Turner Syndrome
(v) What are the applications of prenatal sex determination?
(vi) What are the possible side effects of IVF treatment?
