VPM's B. N. Bandodkar College of Science Thane
Human Sciences F.Y.B.Sc; Course- USHSC204
Semester II - 2018-19

EXTRA 1+S

Total Marks: 75 Duration: 2.5 hrs

7/5/2019

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) Describe Dihybrid cross with suitable example. (7)

OR

(A) Explain Sex linked inheritance. (7)
(B) Explain Criss cross inheritance pattern with suitable example. (8)

OR

(B) Describe the Watson & Crick's Model of DNA with neat & labeled diagram. (8)
(C) **Attempt any ONE of the following:** (5)
(i) Write a note on mRNA.
(ii) Write a note on Y- Linked inheritance.

Q.2) (A) Describe the XX-XY & ZZ-ZW type of sex determination. (7)

OR

(A) Describe Numerical Abnormalities. (7)
(B) Define Non – Balanced abnormalities. Explain types of Non-balanced abnormalities. (8)

OR

(B) Explain the Sex determination in Bonellia. Add a note on Free Martin. (8)
(C) **Attempt any ONE of the following:** (5)
(i) Write a note on Parthenogenesis & Gynandromorph.
(ii) Write a note on Down syndrome & Edwards syndrome.

Q.3) (A) Give an account of Amniocentesis. (7)

OR

(A) Define Consanguinity. Explain Consanguineous marriage and the disorders related to it. (7)
(B) Define IVF. Explain the Steps involved in IVF. (8)

OR

(B) What are Genetic disorders? Explain any 6 Genetic Disorders. (8)
(C) **Attempt any ONE of the following:** (5)
(i) Write a note on Medical Uses of IVF
(ii) Justify "The chances of giving birth to a healthy baby after using IVF depends on factors like maternal age, embryo status & lifestyle factors."

Q.4) **Write short notes on the following:** (15)
(i) Explain with diagram Cloverleaf structure of tRNA.
(ii) Write a note on Incomplete inheritance.
(iii) Explain the Sex determination in Honey bees.
(iv) Write a note on Balanced abnormality & its two types.
(v) What are the risks & side effects associated with IVF?
(vi) Explain types of test for Sex Determination.

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