

SARALA BIRLA PUBLIC SCHOOL

Mahilong, Ranchi.

Revision Test (BIOLOGY)

Class – XII



SARALA BIRLA
PUBLIC SCHOOL

(SARALA BIRLA GROUP OF SCHOOLS)

Q1) Name an organism where cell division itself is a mode of reproduction.

Q 2) Give an example of a plant which came into India as a contaminant and is a cause of pollen allergy.

Q3.) How does the sperm penetrate through the zona pellucida in human ovum?

Q4) Fill in the blanks

I) Human reproduces - - - (asexually/sexually)

II) Humans are ----- (Oviparous, viviparous, ovoviviparous.)

III) Fertilisation is - - - - - in humans (external/internal)

Q5) Name the negatively charged and positively charged components of a nucleosome.

Q6) Give the term for each of the following.

I) The condition in which both male and female reproductive organs are found on the same plant.

II) The condition in which both male and female parts are present on the different plants.

III) Animals that remain reproductively active throughout their reproductive phase.

IV) Animals that remain reproductively active only during the favourable seasons in their reproductive phase.

Q7) Explain the process of pollination in Vallisneria.

Q8) In a typical monohybrid cross, the F₂ Population ratio is written as 3:1 for phenotype, but expressed as 1:2:1 for genotype. Explain with the help of an example.

Q9) How do homologous organs represent divergent evolution? Explain with the help of a suitable example.

Q 10) i) Name the technique used for the separation of DNA fragments.

ii) Write the type of matrix used in this technique.

iii) How is the present DNA visualised and extracted for use in recombinant technology?

Q 11) Write the functions of

I) *cry* I gene

ii). RNA interference (RNA i).

Q12) Answer the following questions based on Meselson and Stahl's experiment

I) Write the name of the chemical substance used as a source of nitrogen in the experiment by them.

II) Why did the scientists synthesise the light and heavy DNA molecules in the organism in this experiment

III) How did the scientist make it possible to distinguish the heavy DNA molecule from the light DNA molecule? Explain.

IV) Write the conclusion the scientists arrived at after completing the experiment.