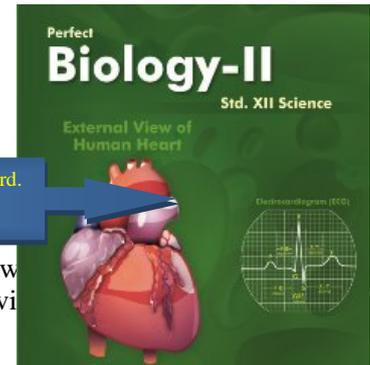


BOARD QUESTION PAPER: MARCH 2014

BIOLOGY – II (12th Sci., HSC, Maharashtra)



This question paper is an extract from our title "Perfect Biology - II" for Std. XII Science, MH Board. Visit www.targetpublications.org to know more.

Note:

- Answers to Section-I and Section-II should be written in **Two Separate** answer books.
- Questions from Section-I attempted in the answer book of Section-II and vice versa will not be given any credit.
- All questions are compulsory.
- Draw neat and labelled diagram wherever necessary.
- Figures to the right indicate full marks.
- Answer to every new question must begin on a new page.

SECTION – II [ZOOLOGY]

Q.5. Select and write the most appropriate answer from the given alternatives for each sub-question: [7]

- The most common types of fossils are _____.
(A) moulds (B) casts
(C) actual remains (D) models
- Which of the following trait is never observed in human females?
(A) Hypertrichosis (B) Haemophilia
(C) Colour blindness (D) Myopia
- Safety of polio vaccine is tested on transgenic _____.
(A) pig (B) rabbit
(C) fish (D) mice
- Mucous membrane trapping the microbes acts as a _____.
(A) physiological barrier (B) physical barrier
(C) phagocytic barrier (D) inflammatory barrier
- Conversion of ammonia into uric acid occurs through _____.
(A) ornithine cycle (B) guanine cycle
(C) Ionosinic pathway (D) Kreb's cycle
- Spinal cord and sympathetic ganglion of autonomous nervous system are connected by _____.
(A) ramus ventralis (B) ramus communicans
(C) ramus dorsalis (D) connective
- Pregnancy in second trimester is maintained by _____.
(A) LH (luteinizing hormone) (B) progesterone
(C) estrogen (D) HCG (human chorionic gonadotropin)

Q.6. (A) Answer the following in 'one' sentence each:

(6) [12]

- What is 'gene flow'?
- Why do sex linked traits appear more in males than in females?
- What is 'restriction digestion'?
- What is the use of tissue plasminogen activator?

- v. Name the type of animal breeding carried out to produce a mule.
- vi. Why is zona pellucida retained around the egg till it reaches uterus?

(B) Draw a neat and well labelled diagram of human excretory system. (2)

(C) Attempt any TWO of the following (4)

- i. Write a note on desert adaptations.
- ii. Give the economic importance of fisheries.
- iii. Distinguish between X and Y chromosomes.
- iv. Give applications of a vaccine.

Q.7. (A) Attempt any TWO of the following: (6) [9]

- i. With the help of a chart, explain the method of sex determination in honeybees.
- ii. Describe the structure of an antibody.
- iii. Distinguish between the following:
(Give at least one point of distinction for each pair).
 - (a) Natality and Mortality.
 - (b) Competition and Mutualism.
 - (c) Agricultural water pollution and Shipping water pollution.

(B) Sketch and label V.S. of human eye. (3)

Q.8. Draw a neat and well labelled diagram showing T.S. of ovary and describe the menstrual cycle in human female. [7]

OR

With the help of a well labelled diagram describe the internal structure of human heart.