

NOTE: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink. Cutting or filling two or more circles will result in zero mark in that question.

Q1.

12

1. **To attract flies and birds is the function of:**
(A) sepal (B) petal (C) anther (D) stamen
2. **The punnett square is also called:**
(A) score board (B) checker board (C) genetic board (D) mendel board
3. **Darwin published his book on natural selection in:**
(A) 1857 A.D. (B) 1858 A.D. (C) 1859 A.D. (D) 1860 A.D.
4. **Utilization of nitrates by organisms is called:**
(A) assimilation (B) nitrification (C) denitrification (D) ammonification
5. **The micro-organism used for the production of formic acid is:**
(A) bacillus (B) E.Coli (C) aspergillus (D) sacchromyces
6. **Which one of the following drugs is obtained from plants?**
(A) aspirin (B) insulin (C) morphine (D) streptomycin
7. **The acute bronchitis usually lasts about:**
(A) one week (B) two weeks (C) three weeks (D) four weeks
8. **Which type of waste materials are excreted by rubber plants?**
(A) latex (B) gums (C) resins (D) mucilage
9. **The followings are all hormones except.**
(A) glucagon (B) pepsinogen (C) thyroxin (D) insulin
10. **Which hormone develops the male secondary sex characters?**
(A) insulin (B) testosterone (C) progestrone (D) estrogen
11. **The number of pair of ribs in human are:**
(A) 9 (B) 10 (C) 11 (D) 12
12. **The ripened ovary is called:**
(A) seed (B) egg (C) fruit (D) sperm

Roll No.(in Figures): (in Words):

Maximum Marks: 48

SUBJECTIVE TYPE

Time Allowed :1.45 Hours

(PART - I)

Q2. Write short answers to any FIVE (5) questions: **(5×2=10)**

- (i) What is meant by cellular respiration?
- (ii) Write two functions of nasal cavity.
- (iii) Differentiate between acute and chronic bronchitis.
- (iv) Differentiate between transpiration and guttation.
- (v) Write the names of two parts of renal corpuscle.
- (vi) Define reflex arc.
- (vii) What is diabetes mellitus? Write its cause.
- (viii) What is meant by myopia?

Q3. Write short answers to any FIVE (5) questions: **(5×2=10)**

- (i) What is rheumatoid arthritis? Write its symptoms.
- (ii) Define the term parthenogenesis and also give an example.
- (iii) What is meant by calluses?
- (iv) What is meant by external fertilization? In which does it occur?
- (v) What is meant by incomplete dominance? Also give its example.
- (vi) What is the role of skeletal system?
- (vii) What do you mean by traits? Give its two examples.
- (viii) Differentiate between monohybrid and dihybrid cross.

Q4. Write short answers to any FIVE (5) questions: **(5×2=10)**

- (i) Define food chain and give an example.
- (ii) What is meant by Biomass?
- (iii) What is meant by consumers? Write its two types.
- (iv) Write two uses of fermentation.
- (v) What is single cell protein? How is it produced?
- (vi) What is meant by vaccine? Who produced it first time?
- (vii) What is meant by hallucinogens?
- (viii) Differentiate between antiseptics and disinfectants.

(PART - II)

Note: Attempt any TWO questions. **(2×9=18)**

- Q5. (a) How is kidney stone formed? Write its symptoms.** **4**
- (b) Define reflex action. Explain it with the help of diagram and example.** **5**
- Q6. (a) What is cartilage? Give detail of its three types.** **4**
- (b) Write a detailed note on binary fission?** **5**
- Q7. (a) Write a note on flow of energy in an ecosystem.** **4**
- (b) Explain salient achievements of genetic engineering.** **5**

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Q1.

12

1. **To which group aspirin belongs?**
(A) drugs from animals (B) drugs from bacteria
(C) synthetic drugs (D) drugs from minerals
2. **The enzyme which is used to dissolve blood clots is:**
(A) ligase (B) lipase (C) urokinase (D) amylase
3. **The enrichment of nitrates and phosphates in water is called:**
(A) pollution (B) Eutrophication (C) decomposition (D) nitrification
4. **The units of inheritance are called:**
(A) chromosomes (B) proteins (C) genes (D) chromatin
5. **Watson and Crick proposed the model of DNA structure in:**
(A) 1951 A.D (B) 1952 A.D (C) 1953 A.D (D) 1954 A.D
6. **The example of insect pollinated flower is:**
(A) corn (B) rose (C) willow (D) hazel
7. **In flower the whorl of carpels is called:**
(A) calyx (B) corolla (C) androecium (D) gynoecium
8. **The hardest connective tissue in the body is:**
(A) tendon (B) bone (C) cartilage (D) ligament
9. **The lobe which receive impulses from skin is:**
(A) frontal (B) parietal (C) occipital (D) temporal
10. **Paralysis is a disease due to disorder in:**
(A) heart (B) endocrine system (C) liver (D) nervous system
11. **During lithotripsy stone is removed by:**
(A) X-rays (B) surgery
(C) electrical shock waves (D) non-electrical shock waves
12. **A narrow opening present at the floor of pharynx is called:**
(A) Trachea (B) nostril (C) larynx (D) glottis

Roll No.(in Figures): (in Words):

Maximum Marks: 48

**SUBJECTIVE TYPE
(PART - I)**

Time Allowed :1.45 Hours

Q2. Write short answers to any FIVE (5) questions:

(5×2=10)

- (i) What are lenticels? Write their function.
- (ii) Differentiate between breathing and respiration.
- (iii) What is pneumonia? Write its cause.
- (iv) Define Guttation.
- (v) Write the name of two main organs working for homeostasis.
- (vi) Define ganglion.
- (vii) What is meant by stimulus?
- (viii) Write the names of two hormones produced by ovaries.

Q3. Write short answers to any FIVE (5) questions:

(5×2=10)

- (i) Write down the roles of tendons and ligaments.
- (ii) Define Joint. Write down names of its two types.
- (iii) What is difference between epigeal germination and hypogeal germination?
- (iv) What are gonads? Write down the names of male and female gonads.
- (v) Write down two main objectives of National Aids Control Program.
- (vi) What is meant by nucleosomes?
- (vii) Write down two main sources of variation in sexually reproducing populations.
- (viii) Differentiate between breeds and cultivars.

Q4. Write short answers to any FIVE (5) questions:

(5×2=10)

- (i) Define Ecosystem. Give an example.
- (ii) Write down four symptoms of Dengue fever.
- (iii) What is meant by utrophication?
- (iv) Write down the name of basic steps in genetic engineering.
- (v) What is meant by Novel Protein or minifood?
- (vi) What are sedatives? Write its two effects.
- (vii) Differentiate between drug and addictive drugs.
- (viii) What is iodine tincture? Write its use.

(PART - II)

Note: Attempt any TWO questions.

(2×9=18)

Q5. (a) Describe the structure of spinal cord.

4

(b) Describe the function of human kidney.

5

Q6. (a) Describe binary fission with examples.

4

(b) Explain in detail movable joints.

5

Q7. (a) Write five objectives of genetic engineering.

4

(b) Write four adverse effects of acid rain.

5