

## Model Paper Biology Objective

**Intermediate Part – II (12<sup>th</sup> Class) Examination Session 2015-2017 and onward**

**Total marks: 17      Paper Code \_\_\_\_\_      Time Allowed: 20 minutes**

**Note:-** You have four choices for each objective type question as A, B, C and D. The choice which you think is correct; fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

1. The hormone promotes closing of stomata:  
(a). Auxins                      (b). Gibberellins              (c). Absciscic acid              (d). Cytokinins
2. Aspartame is a:  
(a). Dipeptide                      (b). Tripeptide                      (c). Pentapeptide              (d). Polypeptide
3. Which hormone is chemically a steroid:  
(a). ADH                      (b). Cortisone                      (c). Thyroxine                      (d). Insulin
4. The syndrome having trisomy of chromosome number 18 is:  
(a). Down's                      (b). Patau's                      (c). Edward's                      (d). Jacob's
5. Incidence of uric acid stone is:  
(a). 5%                      (b). 10%                      (c). 15%                      (d). 70%
6. Yellow cytoplasm of ascidian zygote give rise to:  
(a). Muscle cells                      (b). Gut                      (c). Neural tube                      (d). Larval epidermis
7. Disease caused by nutritional deficiency in man:  
(a). Cholera                      (b). Beri-beri                      (c). Arthritis                      (d). Diabetes
8. Respiratory protein found in all aerobic species is:  
(a). Cytochrom A                      (b). Cytochrome B                      (c). Cytochrome C                      (d). Cytochrome D
9. Which one is a plant of desert:  
(a). Pinus                      (b). Dwarf willow                      (c). Rose                      (d). Cactus
10. Which one of the following is heterotherm:  
(a). Bat                      (b). Frog                      (c). Snake                      (d). Man
11. Which one is haploid cell:  
(a). Oogonia                      (b). Primary oocyte                      (c). Secondary oocyte                      (d). Zygote
12. Succession starts on dry soil is called:  
(a). Hydrosere                      (b). Xerosere                      (c). Derosere                      (d). Desertification
13. Amino acid attachment site of tRNA is:  
(a). G-end                      (b). Z-end                      (c). 3-end                      (d). 5-end
14. Drosophila males for eye colour are:  
(a). Homozyous                      (b). Heterozygous                      (c). Hemizygous                      (d). Both a + b
15. Number of cervical vertebrae in a male camel (Mammal):  
(a). 7                      (b). 11                      (c). No definite number                      (d). varied with neck size
16. Hormone absent in developing seed:  
(a). Auxins                      (b). Gibberellins                      (c). Cytokinins                      (d). Ethene
17. Bone to bone attachment is by:  
(a). Tendon                      (b). Nerves                      (c). Muscles                      (d). Ligament

## Model Paper Biology Subjective

Intermediate Part – II (12<sup>th</sup> Class) Examination Session 2015-2017 and onward  
Total marks: 68 Time: 2:40 hours

### SECTION I

**Q.No.2 Write short answer to any Eight (8) questions.**

- i. Differentiate between ectotherms and endotherms.
- ii. What are pyrogens?
- iii. Explain two types of Nastic movement.
- iv. What is herniation of disc?
- v. What is habituation? Give an example.
- vi. Differentiate between homology and analogy.
- vii. Explain ecological Niche.
- viii. Define anhydrobiosis with an example.
- ix. What is the cause of cramps?
- x. What is the difference between CNS and PNS?
- xi. State Endosymbiont hypothesis?
- xii. What is autecology?

**Q.No.3 Write short answers to any eight. (8)**

- i. Give the differences between oviparous and viviparous animals.
- ii. What is the structure and function of corpus luteum?
- iii. How do final size of cells of cortex and tracheids is attained in zone of maturation.
- iv. What is Alkaptonuria and its cause?
- v. Give the layering characteristics of grassland.
- vi. Mention the characteristics of plant life in desert ecosystem.
- vii. What is solid waste and how these can be used as source of energy?
- viii. What do you mean by population explosion and give its two causes.
- ix. What is the difference between oogenesis and spermatogenesis in humans?
- x. What are organizer and inducer substances?
- xi. What is meristem? Name its types.
- xii. What is the function of RNA polymerase in transcription?

**Q.No.4 Write short answer to any six (6) questions.**

- i. Give two events of zygotene.
- ii. Give two main importances of meiosis?
- iii. What is test cross? Give its uses.
- iv. What are sex limited traits?
- v. What are palindromic sequences?
- vi. Define genome and genomic library.
- vii. How and why transgenic animals that secrete a product are often cloned?
- viii. What is incomplete dominance? Give example.
- ix. Write symptoms of Turner's syndrome?

## SECTION II

**Note: Attempt any three questions.**

- Q.No.5(a).** Describe the process of excretion in plants. 4  
(b). Describe how Hershey and Chase prove that DNA is the heredity material. 4
- Q.No.6(a).** Define and explain briefly the fibrous, cartilagenous and synovial joints. 4  
(b). Define non disjunction and discuss its effects with one example. 4
- Q.No.7(a).** Discuss the nervous system of Hydra. 4  
(b). What is incomplete dominance? Explain it with one example. 4
- Q.No.8(a).** Explain the process of birth in human? 4  
(b). Discuss "Green House Effect" in detail. 4
- Q.No.9(a).** Define abnormal development Explain different factors causing abnormalities. 4  
(b). Define hydrospheric ecosystem. Explain some common features of aquatic or hydrospheric ecosystem? 4

(Academic Sessions 2015-2017)

**Model Paper**

**BIOLOGY (INTERMEDIATE) Practical**

Time Allowed 3.00 Hours

Maximum Marks: 30

- I. Prepare a temporary mount of the material provided. Identify and draw its labelled diagram. 3
2. Describe in technical terms the following parts of the specimen provided:  
(i) Inflorescence (ii) Calyx (iii) Corolla (iv) Androecium 4
3. Pick out----- from the skeleton provided. Draw its labelled diagram. 4  
(Label any four parts)
4. Identify the slide specimen A, B, C, & D. Give at least one important character of A,B,C and class / Phylum of D. 4
5. Perform one of the following experiments allotted to you by the Examiner. Write down its procedure and record your observations/ results. 10
- i) Demonstrate process of Transpiration by Potometer method.
  - ii) Set up an experiment to study simple twitch using frog muscle.
  - iii) Dissect the animal provided and expose its nervous system.
6. Practical Note Book. 2
7. Viva Voce. 3