

Q2, 12, 19

PAPER CODE - 8462  
12<sup>th</sup> CLASS - 12019

**BIOLOGY, GROUP SECOND  
NEW COURSE**

ACADEMIC SESSION: 2015 - 2017 TO 2017 - 2019

TIME: 20 MINUTES

MARKS: 17

**OBJECTIVE**

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.

**QUESTION NO. 1**

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|----|---|
| 1  | Flame cells are the part of excretory system of<br>(A) Hydra (B) Earthworm (C) Planaria (D) Cockroach   |
| 2  | End product of haemoglobin breakdown is<br>(A) Uric acid (B) Urea (C) Ammonia (D) Bilirubin   |
| 3  | The membrane that bounds vacuole is<br>(A) Tonoplast (B) Chloroplast (C) Epiblast (D) Hypoblast   |
| 4  | Action of Venus fly trap is<br>(A) Nyctinasty (B) Photonasty (C) Haptonasty (D) Thermonasty   |
| 5  | Part of brain which controls breathing, heart rate and swallowing is<br>(A) Cerebrum (B) Medulla (C) Cerebellum (D) Mid brain                         |
| 6  | Reproduction is necessary for the survival of.<br>(A) Species (B) Community (C) Individual (D) Biome  |
| 7  | Luteinizing hormone induces.<br>(A) Flowering (B) Vernalization (C) Menopause (D) Ovulation   |
| 8  | Hypoblast is mainly presumptive.<br>(A) Endoderm (B) Ectoderm (C) Mesoderm (D) Blastoderm   |
| 9  | Pentose sugar in the molecule of DNA is<br>(A) Ribose (B) Deoxyribose (C) Lactose (D) Sucrose   |
| 10 | Pairing of homologous chromosomes is completed in<br>(A) Leptotene (B) Zygotene (C) Pachytene (D) Diplotene   |
| 11 | Which pair of chromosome fails to segregate in Down's syndrome.<br>(A) 7 <sup>th</sup> (B) 15 <sup>th</sup> (C) 19 <sup>th</sup> (D) 21 <sup>th</sup> |
| 12 | Green colour blindness is called<br>(A) Tritanopia (B) Protanopia (C) Deuteranopia (D) Protonema  |
| 13 | An antibody made by soybean can be used as treatment for<br>(A) Herpes simplex (B) Malaria (C) AIDS (D) Gonorrhea                                     |
| 14 | Who published the essay on the "Principles of Population".<br>(A) Darwin (B) Wallace (C) Malthus (D) Lyell  |
| 15 | All the food chains and food webs begin with<br>(A) Consumers (B) Carnivores (C) Decomposers (D) Producers  |
| 16 | In Sindh, desert ecosystem is called<br>(A) Thal (B) Thar (C) Cholistan (D) Sahara  |
| 17 | Which of the following act as environmental buffers?<br>(A) Deserts (B) Forests (C) Industry (D) Fossil fuels   |

**QUESTION NO. 2 Write short answers any Eight (8) questions of the following** 16

- 1 Why leaves are called excretophores?
- 2 Differentiate between Protonephridium and Metanephridium
- 3 Account one each main adaptation in plants to high and low temperature.
- 4 Differentiate between cork cambium and vascular cambium.
- 5 Explain hinge joint.
- 6 Why moulting takes place in Arthropods?
- 7 How urine is a preferable vehicle for biotechnology product than milk?
- 8 Write the two uses of PCR amplification and analysis.
- 9 Write human impact on coniferous forests?
- 10 List four adaptations in plants and animals for terrestrial ecosystem.
- 11 Explain the human role for global warming.
- 12 How forests play a role as environmental buffers?

**QUESTION NO. 3 Write short answers any Eight (8) questions of the following** 16

- 1 What are effectors ? Give Examples.
- 2 Differentiate between gastrin and secretin hormone.
- 3 Define Chlorosis. Give its cause.
- 4 What are viviparous? Give an example.
- 5 What is genital herpes and its cause?
- 6 Define haploid parthenocarpy with an example.
- 7 Define epistasis.
- 8 What are polygenic traits? Give an example.
- 9 Define Mendel's law of segregation.
- 10 What is commensalism?
- 11 Differentiate between predation and parasitism.
- 12 How community differs from population?

**QUESTION NO. 4 Write short answers any Six (6) questions of the following** 12

- 1 What is one gene one polypeptide hypothesis?
- 2 How eukaryotic mRNA is protected from cytoplasmic nucleases?
- 3 What are chromosomal aberrations ? Quote examples as well.
- 4 What is primary organizer and primary induction?
- 5 Differentiate between area pellucida and area opaca.
- 6 Define crossing over and synapsis.
- 7 Differentiate between Benign and Malignant tumors.
- 8 Differentiate between natural selection and artificial selection.
- 9 Define Homology with an example.

**SECTION-II**

**Note: Attempt any Three (3) questions from this section** 8 x 3 = 24

Q.5.(A)	Discuss structure and function of nephron.
(B)	Describe the first four stages of xerosere.
Q.6.(A)	Describe the process of repair of a simple bone fracture.
(B)	Describe Meselson -Stahl experiment regarding DNA replication
Q.7.(A)	Define learning behaviour, describe its various types.
(B)	Write a detailed note on Eutrophication.
Q.8.(A)	Write a note on Birth process in human female.
(B)	Explain genetics of colourblindness in human.
Q.9.(A)	Write a note on Neo-Darwinism.
(B)	What is growth? Discuss different phases of growth?