

Objective  
Paper Code  
**8466**

Intermediate Part Second **F30-42-21**  
**BIOLOGY (Objective) GROUP - II**  
Time: 20 Minutes Marks: 17

Roll No. : \_\_\_\_\_  
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Q.No.1 You have four choices for each objective type question as A, B, C and D. The choice which you think is correct fill the relevant circle in front of that question number on computerized answer sheet. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero marks in that question. Attempt as many questions as given in objective type question paper and leave other circles blank.

S.#	Questions	A	B	C	D
1	Environmental factors causing abnormal development are called:	Toxins	Carcinogens	Teratogens	Mutagens
2	A group of cells that is capable of division is known as:	Meristem	Primordium	Zone of cell division	Zone of cell elongation
3	Parthenocarpy is artificially induced for commercial purpose by adding:	Ethene	Abscissic acid	Cytokinins	Auxins
4	The earliest form of muscles to evolve was:	Smooth muscles	Cardiac muscles	Skeletal muscles	Voluntary muscles
5	Secondary walls of sclerenchyma cells are impregnated with:	Cutin	Suberin	Pectin	Lignin
6	A group of diseases in which bone resorption outpaces bone deposit is known as:	Osteoporosis	Osteoarthritis	Osteomalacia	Arthritis
7	Nitrogen of amino acids is converted into urea by:	Kidney	Liver	Spleen	Pancreas
8	Humming bird is included in:	Ectotherms	Endotherms	Heterotherms	Poikilotherms
9	Which is green house gas:	Oxygen	Nitrogen	Hydrogen	Carbon dioxide
10	Northern coniferous forests are called:	Taiga	Savanna	Prairies	Tundra
11	The process in which micro-organism use proteins and release ammonia or ammonium ion is called:	Nitrification	Denitrification	Ammonification	Assimilation
12	A group of bacteria that tolerate temperature up to 120°C are called:	Cyanobacteria	Eubacteria	Archaeobacteria	Mycoplasma
13	A gene is synthesized in laboratory from mRNA using:	Reverse transcriptase	DNA polymerase	Transcriptase	RNA polymerase
14	In a dihybrid cross the probability of plant with wrinkled and yellow seeds in F <sub>2</sub> is:	$\frac{1}{16}$	$\frac{3}{16}$	$\frac{9}{16}$	$\frac{16}{16}$
15	The spread of tumor cell and establishment of secondary areas of growth is called:	Metamorphosis	Cytostasis	Epistasis	Metastasis
16	The microtubules of spindle are composed of protein:	Actin	Myosin	Globulin	Tubulin
17	Synthesis of mRNA copy from DNA template is called:	Transcription	Translation	Transduction	Transformation

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**Intermediate Part Second**  
**BIOLOGY ( Subjective ) GROUP - II**

Roll No. \_\_\_\_\_

Time: 02:40 Hours

Marks: 68 **F80-42-21**

**SECTION - I**

2. Write short answers to any EIGHT parts.

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- (i) Define excretophore and anhydrobiosis.
- (ii) Define panting with an example.
- (iii) Compare osmoregulation in marine fishes and fresh water fishes.
- (iv) Define moulting. Give the hormone involved.
- (v) Give the structural composition of synovial joint.
- (vi) What is osteomalacia and cleft palate?
- (vii) Give the mechanism of invitro fertilization.
- (viii) Define parthenocarpy and seed dormancy.
- (ix) Give the layering feature of grassland.
- (x) Write scientific names of any two animals of temperate deciduous forest.
- (xi) Define greenhouse effect. Give its causes.
- (xii) Define deforestation and afforestation.

3. Write short answers to any EIGHT parts.

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- (i) Write any four functions of cytokinins.
- (ii) Differentiate between photoreceptors and thermoreceptors.
- (iii) Write a note on Parkinson's disease.
- (iv) Differentiate between genotype and phenotype.
- (v) What do you understand by independent assortment of alleles?
- (vi) Write a note on codominance.
- (vii) What are palindromic sequences?
- (viii) What is a nectar in biotechnology? Give its role.
- (ix) What is gene pharming?
- (x) Differentiate between ecosystem and biosphere.
- (xi) Define food chain and food web.
- (xii) What is denitrification?

4. Write short answers to any SIX parts.

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- (i) Differentiate between primary and secondary growth.
- (ii) Define teratology.
- (iii) Write the function of DNA polymerase III.
- (iv) What is meant by karyotype?
- (v) Give the structure of typical nucleotide.
- (vi) Differentiate between benign tumor and malignant tumor.
- (vii) What is tetrad?
- (viii) State theory of special creation.
- (ix) What are vestigial organs?

**SECTION - II** Attempt any THREE questions. Each question carries 08 marks.

5. (a) Write a note on adaptations in plants to low and high temperature. 04  
 (b) What is predation? Write significance of predation. 04
6. (a) What are turgor movements? Describe their types. 04  
 (b) Describe the replication process of DNA. 04
7. (a) What are neurons? Explain their different types with the help of diagrams. 04  
 (b) Describe acid rains. Describe their adverse effects. 04
8. (a) Write a note on test tube babies and identical twins. 04  
 (b) Describe and explain multiple alleles with the help of example. 04
9. (a) Discuss any four factors affecting gene frequency. 04  
 (b) Write a note on regeneration. 04

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