

BIOLOGY Part-II Time: 20 Minutes Marks: 18 Multiple Choice Questions 01 Mark for each	Paper Code ① ● ③	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Roll No. of the Student</td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> <td style="width: 5%;"></td> </tr> </table> Serial No. Of the Answer Book _____	Roll No. of the Student							
Roll No. of the Student										

SECTION-A

Note:

- 1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after due time.
- 2) Fill the circle (A)(B)(C)(D), which one is correct with blue or black ball point, in this sheet as well as in separate OMR Sheet like ●
- 3) If more than one circle in the OMR sheet is filled then no credit will be given to such answer.

I.i. The number of linkage group in man is.

- | | | | |
|-------|--------|--------|--------|
| (A) 2 | (B) 23 | (C) 46 | (D) 92 |
|-------|--------|--------|--------|
- ii. A chromosome with equal length of its arms is called.
- | | | | |
|-----------------|-----------------|---------------------|-----------------|
| (A) Telocentric | (B) Acrocentric | (C) Sub-metacentric | (D) Metacentric |
|-----------------|-----------------|---------------------|-----------------|
- iii. Which type of struggle is more strong & severe.
- | | | | |
|--------------------|--------------------|--------------------|----------------|
| (A) Intra specific | (B) Inter specific | (C) Extra specific | (D) Both A & B |
|--------------------|--------------------|--------------------|----------------|
- iv. Among the following resources all are non-renewable except.
- | | | | |
|---------|----------|----------|-----------|
| (A) Oil | (B) Coal | (C) Gold | (D) Water |
|---------|----------|----------|-----------|
- v. The gene of choice is joined with the sticky ends produced after cutting the plasmid with the help of another social enzyme known as.
- | | | | |
|----------------|--------------------|---------------------------|------------------------------|
| (A) DNA ligase | (B) DNA polymerase | (C) Reverse transcriptase | (D) Restriction endonuclease |
|----------------|--------------------|---------------------------|------------------------------|
- vi. Liger is hybrid breed of.
- | | | | |
|-------------------|------------------|--------------------|---------------------|
| (A) Cheeta & lion | (B) Lion & Tiger | (C) Leopard & Lion | (D) Leopard & Tiger |
|-------------------|------------------|--------------------|---------------------|
- vii. Among twelve pairs of cerebral nerves, the number of sensory nerves are.
- | | | | |
|-------------|-------------|-------------|-------------|
| (A) 2 pairs | (B) 3 pairs | (C) 4 pairs | (D) 5 pairs |
|-------------|-------------|-------------|-------------|
- viii. In human ultra-filtration produces about _____ ml of glomerular filtrate per minute.
- | | | | |
|---------|---------|---------|---------|
| (A) 120 | (B) 125 | (C) 130 | (D) 135 |
|---------|---------|---------|---------|
- ix. Skull of human is made up of bones.
- | | | | |
|-------|-------|--------|--------|
| (A) 6 | (B) 8 | (C) 14 | (D) 28 |
|-------|-------|--------|--------|
- x. Carbon dioxide diffuses in the blood & combine with water to form.
- | | | | |
|-----------------|-------------------|----------------|------------------------|
| (A) Acetic Acid | (B) Carbonic acid | (C) Malic acid | (D) Carbonic anhydrase |
|-----------------|-------------------|----------------|------------------------|
- xi. The problem related with over use of tomato is.
- | | | | |
|-------------------|-------------------|-------------------|--------------------|
| (A) Hypercalcemia | (B) Hyperuricemia | (C) Hyperoxaluria | (D) Hypergalacemia |
|-------------------|-------------------|-------------------|--------------------|
- xii. In skeletal muscle calcium facilitates contraction by bidding actin to.
- | | | | |
|----------------|------------|--------------|-------------|
| (A) Tropomycin | (B) Myosin | (C) Troponin | (D) Cytosin |
|----------------|------------|--------------|-------------|
- xiii. All can affect the velocity of impulse in axon fiber except.
- | | | | |
|-------------------|------------|--------------|-----------------|
| (A) Myolin sheath | (B) Length | (C) Diameter | (D) Schwan cell |
|-------------------|------------|--------------|-----------------|
- xiv. Glycosuria is related to defeciency of which hormone?
- | | | | |
|--------------|--------------|-------------|----------------|
| (A) Thyroxin | (B) Glucogan | (C) Insulin | (D) Epinephrin |
|--------------|--------------|-------------|----------------|
- xv. Altruistic behaviour is adopted by animal.
- | | | | |
|---------|---------------|-------------------|---------------------------|
| (A) Cat | (B) Honeybees | (C) Spider monkey | (D) All these are correct |
|---------|---------------|-------------------|---------------------------|
- xvi. Spermatogenesis at a normal rate will be controlled by sertoli cell producing.
- | | | | |
|-------------|-------------------|----------------|--------------------|
| (A) Inhibin | (B) Prostaglandin | (C) Vericulase | (D) Hayalorunidase |
|-------------|-------------------|----------------|--------------------|
- xvii. In human embryology which organ is not of ectodermal origin.
- | | | | |
|--------------------|----------|----------|-----------|
| (A) Nervous System | (B) Eyes | (C) Skin | (D) Heart |
|--------------------|----------|----------|-----------|
- xviii. Gene located on the same chromosome that tend to inherited together in genetic crosses are.
- | | | | |
|---------------|-------------------|------------------|---------------------------|
| (A) Polygenes | (B) Linkage group | (C) Linked genes | (D) All these are correct |
|---------------|-------------------|------------------|---------------------------|

Note: Time allowed for section B and C is 2 hours and 40 minutes.

SECTION "B"

Marks: 40

II. Attempt any Ten Parts out of the following. Each Part carries equal marks.

- i. List two differences between Haemoglobin & Myoglobin.
- ii. What is the benefit of Extracorporeal shock wave lithotripsy (ESWL) over per cutaneous nephro lithotripsy (PCNL).
- iii. What is Spondylosis?
- iv. What is Alzheimer's disease. Write risk factors & symptoms of this disease.
- v. What is nerve impulse. How action membrane potential arises.
- vi. Why anterior pituitary gland is called master gland.
- vii. Differentiate between the terms miscarriage & abortion.
- viii. Write about genetic abnormalities related to spontaneous abortions.
- ix. When F_1 female drosophila heterozygous for white eyes($x^R x^w$) is crossed with white eye male ($x^w y$). What will be the percent ratio for this trait in both sexes.
- x. Mention only two parallel behaviour of genes & chromosomes during meiosis.
- xi. How variation play role in natural selection of an organism.
- xii. Differentiate between Nitrification & Denitrification.
- xiii. What are probes. How it can be uses in diagnosis of diseases caused by protozoa & Helminthes.

SECTION "C"

Marks: 27

Note: Attempt any Three questions of the following. Each question carries equal Marks.

- III. Explain in detail the Darwin's theory of evolution.
- IV. Explain the procedure of peritoneal & haemodialysis.
- V. Explain the role of harmones secreted by anterior lobe of pituitary gland.
- VI. Write brief note on the following.
 - i. Down Syndrome
 - ii. Incomplete dominance