

**NCERT TEXTBOOK MISTAKES ACCEPTED,UPLOADED AND INCORPORATED**  
**AS INTIMATED TO DR. ARVIND GOYAL BY THE NCERT**

## DIVERSITY IN THE LIVING WORLD

### THE LIVING WORLD

1. Wrong Statement: Pg 4, NCERT (XI); It mentions that unicellular organisms grow by cell division.

Corrected To: Unicellular organisms multiply by cell division

### FUNGI

2. Wrong Statement :Under Ascomycetes – Many members like morels and buffles are edible. [pg. 24; NCERT XI]

Corrected To: Many members like morels and truffles are edible.

## STRUCTURAL ORGANISATION IN PLANTS AND ANIMALS

### PLANT MORPHOLOGY

3. Wrong Statement :In the family Fabaceae, the floral diagram shows valvate aestivation of Calyx, while in the theory it is mentioned that Calyx has imbricate aestivation (pg. 79, NCERT XI).

Corrected To: Calyx in Fabaceae has Valvate / Imbricate aestivation.

Since diagram is specifically of *Pisum sativum* so valvate shown in that.

4. Wrong Statement :In the family liliaceae, the floral diagram shows the perianth to be gamophyllous and the theory also says Perianth – tepal six ( 3+3), often united into tube. But the floral formula shows the perianth to be polyphyllous (pg. 81, NCERT XI).

Similarly in the floral diagram in the androecium, the stamens are shown to be free and epiphyllous (united to tepals). But in the floral formula they are shown as  $A_{3+3}$  meaning to be free and not attached to perianth. In the theory it is mentioned Androecium is stamen six, (3+3), which again means they are fused.

Corrected To: Floral formula corrected to  $P_{(3+3)}$  ; **Androceium** is 3+3 and in floral diagram corrected to 3+3 and made Epitepalous.

### ANIMAL MORPHOLOGY

5. Wrong Statement :Typhlosole extends between 26 – 35 segments in the intestine of Earthworm (pg. 108; NCERT XI).

Corrected To: The Typhlosolar region lies after 26<sup>th</sup> segment except the last 23<sup>rd</sup>-25<sup>th</sup> segments .

**6. Wrong Statement :**(Figure 7.13 pg 110 NCERT XI) – The labelling of spermiducal funnels and testis is wrong. The structure which has been labelled as spermiducal funnel is testes. Testes have been shown to be present in segment 10<sup>th</sup> only while in the text, it has been clearly mentioned that testes are present in the 10<sup>th</sup> and 11<sup>th</sup> segment.

**Corrected To:** The labeling has been corrected in the Diagram(7.13) and Testis labeled in both 10<sup>th</sup> and 11<sup>th</sup> segments.

**7. Wrong Statement :**Main text (pg. 115; Class 11<sup>th</sup>) says female cockroach produces 9 – 10 ootheca. But summary at the end of the chapter (pg 121) says female cockroach produces 10 – 40 ootheca.

**Corrected To:** Female cockroach produces 9 – 10 ootheca has been mentioned at both places.

**8. Wrong Statement :**Figure 7.13 (pg. 110, NCERT XI) – The prostate gland in earthworm has been shown to be lying in 17<sup>th</sup> to 19<sup>th</sup> segments.

**Corrected To:**Now shown to be lying in 17<sup>th</sup> to 20<sup>th</sup> segments in Figure 7.13

**9.Wrong Statement :**On pg. No. 114 (NCERT XI), it is mentioned that ovaries in cockroach are present in 2<sup>nd</sup> to 6<sup>th</sup> abdominal segments while on pg. no. 121 (NCERT XI), it is mentioned that ovaries in cockroach are present in 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> abdominal segments.

**Corrected To:** Ovaries in cockroach are present in 2<sup>nd</sup> to 6<sup>th</sup> abdominal segments ,at both places in the book.

**10.Wrong Statement :**On pg. No. 114 (NCERT XI), it is mentioned that testes in cockroach are present in 4<sup>th</sup> to 6<sup>th</sup> abdominal segments while on pg. No. 121 (NCERT XI), it is mentioned that testes in cockroach are present in 4<sup>th</sup> and 5<sup>th</sup> abdominal segments.

**Corrected To:** Testes in cockroach are present in 4<sup>th</sup> to 6<sup>th</sup> abdominal segments , at both places in the book.

## CELL: STRUCTURE AND FUNCTIONS

### CELL: THE UNIT OF LIFE

**11. Wrong Statement :**Size of chloroplast – length – 5 – 10mm and width – 2 – 4mm (pg. 136 NCERT XI).

**Corrected To:** Size of chloroplast – length – 5 – 10 $\mu$ m and width – 2 – 4 $\mu$ m

**12.Wrong Statement :**All prokaryotes have a cell wall surrounding the cell membrane. (+1 NCERT, pg 127-128) ;But on pg No. 20, +1 NCERT writes that the Mycoplasma are organisms that completely lack a cell wall. As Mycoplasma are prokaryotic organisms kept under Monera by NCERT itself, the fact given on pg No. 127-128 should be rectified.

**Corrected To:** All prokaryotes have a cell wall surrounding the cell membrane except in mycoplasma.

## BIOMOLECULES

**13. Wrong Statement :**Exoskeletons of arthropods have a complex polysaccharide called chitin. These complex polysaccharides are heteropolymers. [Pg. 149 (NCERT XI).]

**Corrected To:** Homopolymers.

**14. Wrong Statement :**Structure of glutamic acid (pg. 150, NCERT XI)

**Corrected To:** Extra-CH<sub>2</sub> group deleted, and so Glutamic acid is C<sub>5</sub>H<sub>9</sub>NO<sub>4</sub>

**15. Wrong Statement :** NCERT (XI) pg. 160 mentions; There are 21 types of amino acids, and on pg. 147 it is mentioned that there are 20 types of amino acids.

**Corrected To:** There are 20 types of amino acids, at both places in the book.

## Cell Cycle and Cell Division

**16. Wrong Statement :** In the NCERT +1 pg. 164 the text matter says that 'The cells that do not divide further exit G<sub>1</sub> phase to enter an inactive stage called quiescent stage(G<sub>0</sub>) of the cell cycle', whereas Figure 10.1 on pg. 163 depicts G<sub>0</sub> phase before the G<sub>1</sub> phase.

**Corrected To:** We were misinformed that it has been corrected , but it has not been done so.

## PLANT PHYSIOLOGY

### TRANSPORT/MINERAL NUTRITION IN PLANTS

**17. Wrong Statement :**The deficiency symptoms of relatively immobile elements appear first in young leaves – e.g., Sulphur & calcium (pg. 198: Mineral Nutrition: NCERT XI).

Under Translocation of Mineral Ions on pg 190; NCERT XI it is mentioned that – Elements most readily mobilized are phosphorus, sulphur, nitrogen and potassium. Some elements that are structural components like calcium are not remobilized.

**Corrected To:** Sulphur is mobile and Calcium is an immobile element , at both places in the book.

## RESPIRATION IN PLANTS

**18. Wrong Statement :**We have till now seen that Glucose has been broken down to release CO<sub>2</sub> and eight molecules of NADH + H<sup>+</sup>; two of FADH<sub>2</sub> have been synthesised besides just two molecules of ATP (pg 232; NCERT XI).

It should be ten molecules of NADH+H<sup>+</sup> and four molecules of ATP. As two NADH+H<sup>+</sup> and two ATP molecules are also produced during conversion of glucose to pyruvate (glycolysis). It is mentioned in the NCERT also at pg. No. 229.

Or

It should be written as : Two molecules of pyruvate are broken down to release eight molecules of NADH+H<sup>+</sup>, two molecules of FADH<sub>2</sub> and two molecules of ATP during TCA cycle.

**Corrected To:** We were misinformed that it has been corrected , but it has not been done so.

## DIGESTION AND ABSORPTION

19. **Wrong Statement** :The duodenum is 'u' shaped. (pg. 259; NCERT).

**Corrected To:** This is a 'c' shaped structure.

20. **Wrong Statement** :Fructose is absorbed with the help of the carrier ions like  $\text{Na}^+$ . (pg. 264, NCERT XI).

**Corrected To:** Substances are **absorbed** with the help of the carrier ions like  $\text{Na}^+$ . They have deleted the statement that Fructose is absorbed with the help of the carrier ions like  $\text{Na}^+$ .

Guyton Textbook of Medical Physiology: Fructose transport does not occur by the sodium co-transport mechanism. It is transported by facilitated diffusion but not coupled with sodium transport.

## BODY FLUIDS & CIRCULATION

20. **Wrong Statement** :Diagram of Heart (pg. 283; class XI)

Structure labelled as pulmonary vein is actually pulmonary trunk (pulmonary artery).

**Corrected To:** Labelling of Pulmonary vein and pulmonary artery has been corrected in Fig. 18.2

## EXCRETORY SYSTEM

21. **Wrong Statement** :Our lungs remove large amounts of  $\text{CO}_2$ (18 litres/day) (Page no. 298; NCERT (XI))

**Corrected To:** Our lungs remove large amounts of  $\text{CO}_2$ (approximately 200 mL/ minute)

22. **Wrong Statement** :Reabsorption is minimum in Henle's loop (pg. 294, NCERT XI)

**Corrected To:** Henle's loop : Reabsorption is minimum in its ascending limb.

## NEURAL CONTROL & COORDINATION

23. **Wrong Statement** :There are wax secreting sebaceous glands in the skin of the pinna and the meatus. (Page No. 325; NCERT (XI))

**Corrected To:** There are wax secreting glands in the skin of the pinna and the meatus.

Snell's Clinical Anatomy for Medical Students: The wax glands (ceruminous glands) are modified sweat glands.

## CHEMICAL COORDINATION AND INTEGRATION

24. **Wrong Statement:**Endocrine system – NCERT XI pg 334; mentions that thymus gland is located on the dorsal side of the heart and the aorta. Actually thymus lies moulded over the ventral side of pericardium and aorta.

**Corrected To:** We were misinformed that it has been corrected , but it has not been done so.

## REPRODUCTION

### REPRODUCTION IN ORGANISMS

**25. Wrong Statement:** Haploid chromosome number (n) in Onion is given as 16 (page no. 13, + 2 NCERT), while on page No. 164, +1 NCERT, it is written that onion cells have 14 chromosomes.

**Corrected To:** Haploid chromosome number (n) in Onion is 8 and Diploid is 16 , corrected in both the 11<sup>th</sup> and 12<sup>th</sup> Books.

**25. Wrong Statement: Pg 5, XII, NCERT – It is mentioned that when offspring is produced by a single parent with or without the involvement of gamete formation, the reproduction is asexual.**

**Whereas on pg 15, XII, NCERT – In the box of summary it is given that – Asexual reproduction does not involve the formation or fusion of gametes.**

**Corrected To:** On pg 15, XII, NCERT – In the box of summary now it is given that – Asexual reproduction does not involve the fusion of gametes.

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### SEXUAL REPRODUCTION IN FLOWERING PLANTS

**27. Wrong Statement:** Sun flower is an example of albuminous seed (pg 36, NCERT XII)

**Corrected To:** We were misinformed that it has been corrected , but it has not been done so.

- Botany for Degree Students by A.C. Dutta : Sunflower has exalbuminous seeds.
- Angiosperms by G. L. Chopra : Sunflower has exalbuminous seeds.
- A Textbook of Botany (Angiosperms) by Singh, Pande & Jain: Sunflower has exalbuminous seeds.

**28. Wrong Statement:** The ovule generally has a single embryo sac formed from a megaspore through reduction division. NCERT XII, Pg 25.

**Corrected To:** The ovule generally has a single embryo sac formed from a megaspore.

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## HUMAN REPRODUCTION

**29. Wrong Statement:** Fertilization takes place at the Ampullary isthmic junction of the fallopian tube in Humans. Page No. 51; (NCERT (XII))

**Corrected To:** We were misinformed that it has been corrected , but it has not been done so.

- Jeffcoate's Principles of Gynaecology : In the ampulla of the tube, the egg is approached by numerous sperms and ultimately a single spermatozoan penetrates the ovum. (Thus it is clear that fertilization occurs in the ampulla).
- Practice of Fertility control by S.K. Chaudhuri : The fertilisation of the ovum takes place in the ampullary part of the fallopian tube.

**30. Wrong Statement:Pg 54; NCERT (XII) : End of 24 weeks is termed as second trimester.**

**Corrected To:** By the end of about approximately 24 weeks ( end of second trimester).

## GENETICS

### PRINCIPLES OF INHERITANCE & VARIATIONS

**31. Wrong Statement:Pg 70, NCERT XII; one of the contrasting traits selected in pea plants by Mendel was smooth or inflated pods.**

**Corrected To:** one of the contrasting traits selected in pea plants by Mendel was constricted or inflated pods.

### MOLECULAR BASIS OF INHERITANCE

**32. Wrong Statement:NCERT (XII) pg 105 mentions-E.coli divides in 20 minutes and on pg 106 it is mentioned that E.coli completes the process of DNA replication within 38 minutes.** Both these facts don't seem to relate well to each other.

**Corrected To:**On pg 105 E.coli divides in 20 minutes and on pg 106 it is mentioned that E.coli completes the process of DNA replication within 18 minutes.

**33. Wrong Statement:NCERT (XII) pg 112; In the given table of codons for various amino acids; the short name of Glutamine is given as Gin.**

**Corrected To:** Gln instead.

## BIOLOGY IN HUMAN WELFARE

### HUMAN HEALTH & DISEASE

**34. Wrong Statement: NCERT XII; pg 162 – AIDS can be transmitted to one's life partner through sexual contact while hepatitis B is transmitted through infected blood.**

**Corrected To:** Both can be transmitted through sexual contact or infected blood.

35. Wrong Statement: Drugs like barbiturates, amphetamines, benzodiazepines, lysergic acid diethyl amides (LSD), and other similar drugs, that are normally used as medicines to help patients cope with mental illnesses like depression and insomnia, are often abused. (+2 NCERT, pg 159).

Corrected To: LSD has been deleted from this list of drugs used as medicines.

## STRATEGIES FOR ENHANCEMENT IN FOOD PRODUCTION

36. Wrong Statement: Under Tissue Culture somatic hybridisation between protoplasm of tomato and potato resulted in formation of tomato. Page No. 177; NCERT (XII).

Corrected To: Tissue culture somatic hybridisation between protoplasm of tomato and potato resulted in formation of pomato.

## BIOTECHNOLOGY

### BIOTECHNOLOGY: PRINCIPLES & PROCESSES

36. Wrong Statement: (NCERT XII; pg 195) – The convention for naming the restriction enzymes is the first letter of the name comes from the genes and the second two from the species.

Corrected To: "genus" instead of "genes".

### BIOTECHNOLOGY & ITS APPLICATIONS

38. Wrong Statement: Pg 211; NCERT (XII) – Figure 12.3, The colour of A peptide should be blue and that of the B peptide should be green after being separated from the 'C' peptide.

Corrected To: Colours have been corrected.

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## ECOLOGY

### ORGANISMS AND POPULATIONS

39. Wrong Statement: Pg 222; (NCERT XII), Salinity of hypersaline lagoons is mentioned as > 100 percent.

Corrected To : > 100 parts per thousand.

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### ECOSYSTEM

**40. Wrong Statement:** Pg 245; (NCERT XII); Chemosynthetic bacteria have been called autotrophs which fix sun's energy.

**Corrected To :** Chemosynthetic bacteria have been deleted from the list of Photoautotrophs.

**41. Wrong Statement:**In primary succession in water. Page 251 (In the theory) it says.

The pioneers are the small phytoplanktons, they are replaced by free floating angiosperms, then by rooted hydrophytes, sedges, grasses and finally the trees.

**Corrected To :** In primary succession in water, the pioneers are the small phytoplanktons, they are replaced with time by rooted-submerged plants, rooted-floating angiosperms followed by free-floating plants, then reed-swamp, marsh-meadow, scrub and finally the trees. The climax again would be a forest.

**42. Wrong Statement:** The arrow shown in the carbon cycle from Burning forests and fuelwood is pointed in the wrong direction (Fig 14.6, Pg 253, NCERT XII).

**Corrected To :** The direction of arrow has been corrected.

## ENVIRONMENTAL ISSUES

**43. Wrong Statement:**On pg. No. 276 (NCERT XII), in the text matter, the levels of DDT in water are given in units – parts per billion (0.003 ppb) but in the accompanying diagram the levels are given in units – parts per million (0.003 ppm).

**Corrected To :** In the accompanying diagram the levels have been corrected to units – parts per billion (0.003 ppb).

**44. Wrong Statement:** According to **Euro II Norms**, the amount of Sulphur is to be controlled at 350 parts per million in diesel and at 150 ppm in petrol (Page No. 273; NCERT XII). The Euro II norms given by NCERT do not match with those given on the internet on various sites.

**Corrected To :** According to **Euro III Norms**, the amount of Sulphur is to be controlled at 350 parts per million in diesel and at 150 ppm in petrol.