

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, PESHAWAR

Higher Secondary School Certificate (H.S.S.C.) Examination — 2020 (Reappear / Supplementary)

BIOLOGY

Class: 12th (Inter Part-II)	Paper ref: PR - XII (SE) (20)	Year: 2020	Medium: English
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Time Allowed: 20 Minutes

SECTION - A

Marks: 18

Note: Four choices are given against each question; fill the circle of the correct answer only. Use a black or blue ball point / marker to fill the circle. Filling more than one circle for a question will be counted as a wrong answer.

- Movement of an organism towards or away from a stimulus is called _____.
☐ Taxis ☐ Imprinting ☐ Habituation ☐ Kinesis
- The uterine layer which is shed with each monthly cycle in _____.
☐ Endometrium ☐ Perimetrium ☐ Myometrium ☐ None of these
- Skin colour is the example of _____.
☐ Lethal gene ☐ Polygenic inheritance
☐ Epistases ☐ Hypostasis
- The study of birds is called _____.
☐ Ornithology ☐ Ethalogy ☐ Ichthyology ☐ Entomology
- Radioactive labeled fragment of DNA or RNA is called _____.
☐ Probe ☐ Primer ☐ Epitope ☐ Exon
- Inflammation of middle ear is which fluid is trapped is called _____.
☐ Ear pain ☐ Sinusitis ☐ Otitis media ☐ Otitis media
- A bone fracture in which skin is intact is called _____.
☐ Simple ☐ Compound ☐ Complicated ☐ Open
- The corpus luteum is formed at the site of _____.
☐ Fertilization ☐ Implantation ☐ Ovulation ☐ Menstruation
- A chromosome with equal length of its arms is called _____ chromosome.
☐ Metacentric ☐ Acrocentric ☐ Telocentric ☐ Sub-metacentric
- _____ was the first scientist who developed vaccine against small pox.
☐ Gilbert ☐ Edward Jenner ☐ Maxon ☐ Robert Brown
- In human skull number of facial bones are _____.
☐ 8 ☐ 12 ☐ 14 ☐ 16
- Cystitis is the infection of _____.
☐ Bladder ☐ Nephron ☐ Kidney ☐ Urethra
- Rabies and Polio vaccine are _____ vaccine.
☐ Toxoid ☐ Subunit ☐ Skilled ☐ Live attenuated
- Menopause starts at the age of _____ years.
☐ 12 ☐ 28 ☐ 50 ☐ 70
- Which one is not stop codon?
☐ AUG ☐ UGA ☐ AAG ☐ UAA
- The right lung of human represents _____ of the total lung volume.
☐ 45% ☐ 50% ☐ 54% ☐ 56%
- _____ receptors detects light.
☐ Photo ☐ Noci ☐ Thermo ☐ Mechano
- Oxytocin hormone is secreted by _____ gland.
☐ Thyroid ☐ Parathyroid ☐ Pituitary ☐ Adrenal

SECTION - B

Marks: 40

Note: Time allowed for Section-B and Section-C is 2 Hours and 40 minutes. [BIOLOGY (New) — Inter Part-II (Reappear)]

Q-II Answer any TEN parts. Each part carries FOUR marks.

- What is endosymbiosis? Elaborate briefly.
- State the four components of PCR technique.
- What are the causes and risk factors of T.B?
- What are the three types of UTIs (Urinary Tract Infections)? Give their causes.
- What are the symptoms and treatments of otitis media?
- Differentiate between continuous and saltatory impulse?
- Write a note on cramps.
- What is the function of innate behavior?
- Define Hamburger's phenomenon. Briefly discuss.
- Differentiate between T_3 and T_4 hormones. What are their functions?
- Enlist signs and symptoms of aging.
- Define Aneuploidy and Euploidy. Give examples.
- Write a note on epistasis.

Note: Attempt any THREE questions. All questions carry equal marks.

Q-III	Discuss various phases of menstrual cycle in detail.	(9)
Q-IV	Differentiate between PNS and CNS. Describe the structure and function of human brain.	(3+3+3)
Q-V	Define Muscle. Explain the structure of skeletal muscle and the composition of sarcomere.	(1+5+3)
Q-VI	Write note on any TWO of the following:	
(a)	Mendal's Law of segregation showing F_1 and F_2 generation	(4½)
(b)	Transgenic organisms	(4½)
(c)	Development of Active membrane potential.	(4½)

Notes on this transcription

- This is a **typeset transcription** of the original paper, not a photograph of it. Question wording, spelling, punctuation and numbering are reproduced exactly as printed, including the board's own errors.
- **No answer key is included.** On the source sheet the correct circles are already shaded in; every option here is reproduced unmarked so the paper can be attempted.
- Peshawar Board papers carry no group label, so this paper is filed without one.
- The objective-section instructions are printed in Urdu on the original sheet; an English rendering of them is given above.
- The objective half is the board's printed answer sheet; the candidate's name and roll number printed on it have been left out.
- **Q.14, third option:** the digits sit directly under the source watermark. They read as **50** and are set that way; a cleaner scan would confirm it.
- Board spellings kept verbatim: "Ethalogy" (Q.4), "Ostitis media" alongside "Otitis media" as two separate options (Q.6), "Epistases" (Q.3), "Differenciate" (Section-B 10) and "Mendal's Law" (Q-VI a). Q.6 also prints "is which fluid is trapped" as shown.