Biology - solution (Zoology)

Q- 92 - (D) paramecium have micro & macro nuclie.

Q-102 - (B) Bronchiole & fallopian tube have ciliated epithelium. which help in transport of mucus & ovum respectively.

Q-103 - (B)

Q-106 - (D) Starch is Non reactive and osmotically inactive. bc. osmolarity Depends upon no. of particles.

Q-119 (D)

Q-123 (A) → parietal cell
↓
HCl
↓
pepsinogen ——→ pepsin.

Q-124 (B) → Human Dentition

- thecodont → Embedded in bony socket
- diphyodont → Grow Twice in life time
- Heterodont → Teeth are of different types structurally & functionally.

Q-125 (D)

parietal cell
↓
Castle's Intrinsic factor
⇓
Help in Reabsorption of Vite-B12
⇓
vite-B12 ... in maturation of RBC (Erythropoesis).

Q-126 - (A)

Q-127 (B) - Silicosis is associated with exposer of silica. in Stone occupation.

Q-128 - (B) P_{O_2} in alvoli = 104 mm Hg
P_{O_2} in Blood = 95 mm Hg.

Q. 129 (B) Conduction system of Heart is made up Highly specilised Autorythmic cardiac muscle fibres. It consist of -

S.A. Node
↓
Internodal pathway
↓
AV. Node
↓
Bundle of HIS
↓
purkinje fibre.

Q-130 - (A)

Q. 130 - (A)

Q. 132 (c). Nearly 99% of glomerular filtrate is Reabsorbed by Renal tubules.
→ as we know GFR = 180 L/Day ; whose ≈ 99% is Reabsorbed plus urine formed is ≈ 1.5 L/Day

Q-133 - (d) In case of prolong fasting fat is oxidised to produce energy. During Breakdown of fat Ketone bodies are produced. — Ketone bodies are — Acetone
— Acetoacetate
— β-Hydroxy Butyrate

Q-134 (C)

Q135 -(A) Binding of Ca^{++} with a subunit of Troponin causes conformational changes resulting in exposer of Actine sites.

Q-136 -(C) After menopause in female level of Estrogen Hormone Decrease, which causes osteoporesis ie decreased in Bone density.

Q 137 - (A) Sustained muscular contraction is called tetanus.

Q 138 - D. ventral root route of spinal cord arise from Anterior horns.

* the two routes of spinal cord < Dorsal – sensory, ventral – motor.

Q-139 - (C)

Q-140 (D) → Hypothalmus is part of Diencephalon
⇓
have thermoregulatory center.

Q-141 -(D).

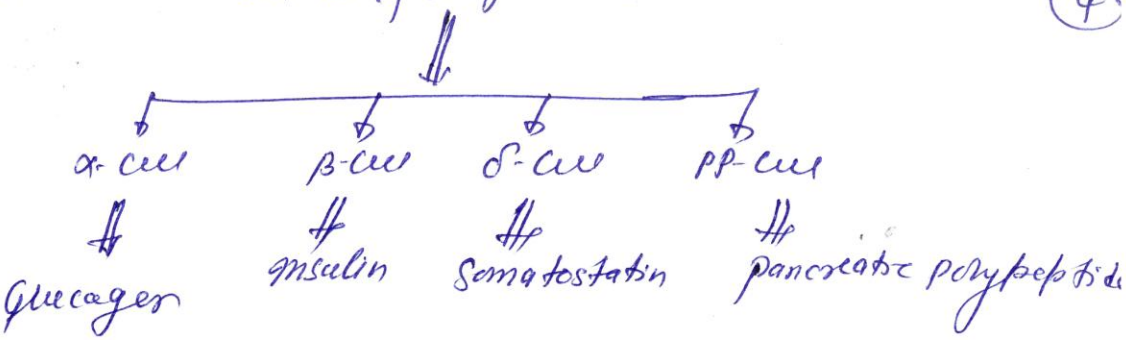
Q-142 -(C) ⟶ Adrenal gland
⇓

A. cortex
⇓
– mineralocorticoids
– glucocorticoids
→ Ganado corticoids

A. medula
⇓
- Epinephrin
- Nor-epinephrine.

143 - A.

Islets of Langerhans.



Q - 144 (D)

Q 145 (C)

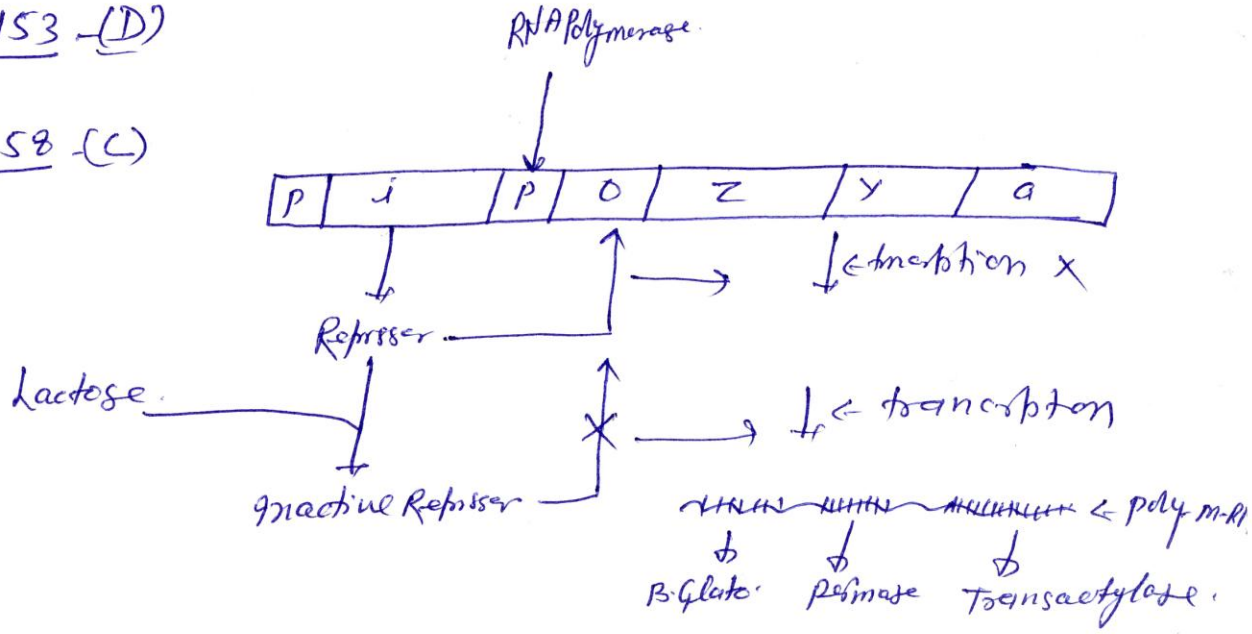
Q 146 (B)

Q. 150 (B) → mammalian egg is microlecithal.
→ But human egg is Alecithal the yolk is Negligible.

Q - 151 (B) ovum Released (ovulation) at 2ndy oocyte stage. which is formed after meiosis-I, thus 2ndy oocyte is Haploid & contain only one X-chromo.

Q. 153 (D)

Q-158 (C)



Q.159 (D)

Q.161 -(B)

Q.162 - (A)

Q63 -(B) Hardy Weinberg equation

$p^2 + 2pq + q^2 = 1$

p^2 → freqy of Homozygous dominant individuals

$2pq$ → freqy of Heterozygous individual

q^2 → freqy of Homozygous Recessive individuals.

-164-(B)

Q.165 -(D) Thymus is the training center of T-lymphocyte T-lymphocyte & B-lymphocyte Both are produced in Red Bone marrow But T-lymphocyte migrates to thymus for maturation.

Q.166 -(B)

Q.167 -(D)

Q.169 -(C)

Q.170 -(D)- Selectable markers are specific genes which are used to identify the Transformed cell.

Q.171 - (A)

Q-172 → (D)

Botany

91) - b
92) - d
93) - a
14) - a
15) - a
16) - d
17) - d
18) - c
19) - a
100) - d
01) - a
04) - a
05) - b
106) - d
107) - c
108) - b
109) - a
110) - a
11) - d
12) - b
13) - a
115) - d
116) - d
117) - b
118) - d
119) - d
120) - b
121) - c
122) - d
127) - c
148) - b
149) - a
155) - a
156) - b
157) - b
158) - c
159) - b
160) - a
161) - b
162) - a
163) - b
167) - d
168) - c
169) - c
170) - d
173) - d

AaBb x^{th} y
ab x^{th}
$\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$

94) In museum specimen of plant and animals are placed for exhibition.

96) Pinus is monoecious and in albugo (phycomycetes) gametangial contact.

98) In Red algae (polysiphonia) oogamous type.

101) Cork → Cork cambium → 2° cortex → 2° ~~xylem~~ phloem → 2° xylem (wood)
(Phellem) → (Phellogen) → (Phelloderm)

107) In fungi phycomycetes (oomycetes) cell wall is made up of cellulose

110) i) Starch → sugar — stomata open
(osmotically inactive) (osmotically active)

ii) sugar → starch — stomata close.

111) As the height rises atm pressure decrease transpiration Increase.

112) Options:
All are incorrect.

115) AaBb $X^{th}Y$
↓
Ab, aB, ab, AB ● Type of gametes → x^{th} and y
$\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$.

95) Potatoe, tomatoe
/ ↓
Solanum Tuberosum Lycopersian esculentum.
but belong to same family.