

ANNUAL EVALUATION 2017 - 18
STANDARD IX BIOLOGY
SCORING KEY

- 1 Trypsin
2. b. lactic acid
3. C a and d are correct
4. A. Myofilament, B. Fascicle
- 5 B. Emphysema - due to smoking
6. Chromatin reticulum
Diffusion - Absorption of glycerol
Active transport - Absorption of salt
8. A. Grana
B. ATP formation & splitting of water
9. a. Kreb's cycle
b. Occurs in cytoplasm
c. 28 ATP are formed
d. Pyruvic acid & ATP
10. a. Nephritis
b. Leads to Kidney failure or uremia, Dialysis or Kidney transplantation.

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|-----------|-------------------|-----------|
| Earthworm | Nephridia | Ammonia |
| Insect | Malpighian tubule | Uric acid |

- 12 The girth of Mango tree increases as it grows due to the presence of lateral meristems. Lateral meristem is absent in arecanut. So its girth does not increase.
13. a. Cytoplasmic division
b. A occurs in animal cell and B in plant cell. In Animal cell cytoplasm divides by the formation of furrow in plasma membrane but in plant cells, it is by cell plate formation.
14. a. Increases blood circulation all over the body
Cardiac muscles become strong

- b. Exchange of respiratory gases become more effective
Vital capacity increases
- c. More capillaries form in muscles.
Increases the efficiency of muscles.

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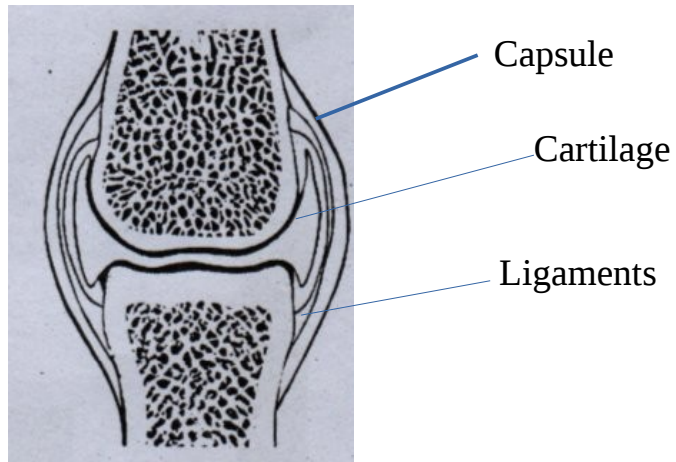
| | |
|----------------------------------------|-------------------------------------|
| Skeletal Muscles (Striated Muscles) | Smooth Muscles (Non Striated) |
| Cylindrical Muscle fibres | No striations |
| Seen along with the bones of leg | Make involuntary movements possible |
| Affect muscle fatigue | Seen in stomach |

- 16.
 - a. Phototropism
 - b. Geotropism
 - c. Chemotropism
- 17. In Neck - Pivot Joint and in Knee - Hinge joint
Pivot joint pivots on an axis
Hinge Joint enables movement in
one direction only.
- 18.
 - a. Appendicular skeleton
 - b. sternum
 - c. 24
 - d. Vertebral column
 - e. Pectoral girdle
 - f. 2
- 19.
 - a. C male gamete or sperm
D female gamete or ovum
 - b. Chromosome number reduces to half.
 - c. No, In male 4 sperms are formed from a single
germinal cell. But in female one ovum is
produced from a single germinal cell.
- 20. They need consideration because
 - their muscles shrink and become weak
 - rate of cell division decreases
 - availability of oxygen to the cells decreases
 - deterioration of cells increase

- production of energy decreases
- efficiency of sense organs decreases

21. a. A. 120/80 mmHg
b. B. Do regular exercise ,Avoid junk food ,fatty food
c. Blood pressure is felt due to heart beat, when heart pumps blood into the arteries
22. Prophase - c chromatin reticulum condenses to form chromosomes
Metaphase - a chromosomes get aligned at the equator of the cell
Anaphase - b chromatids separate and daughter chromosomes move to each pole
Telophase - e chromosomes change to chromatin reticulum and daughter nuclei are formed

23.



- (a) Capsule
 - (b) Cartilage
 - (c) Ligaments
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