**Questions**

1. Which of the following cells are prokaryotes and which are eukaryotes?

|  |  |
| --- | --- |
| Mammal cells |  |
| Bacteria |  |
| Cyanobacteria |  |
| Fungal cells |  |

2. Fill in:

Most mitochondria are found in ……………………. cells.

1. epithelial 2. muscle 3. nerve

3. Match the following processes with the respective organelles:

|  |  |
| --- | --- |
| Process | Organelle |
| Lipid synthesis |  |
| Exchange with environment |  |
| Conversion of H2O2 to water |  |
| Energy conversion |  |

A. Mitochondria

B. Peroxisomes

C. Plasma membrane

D. Smooth endoplasmic reticulum

4. Fill in:

The extracellular fluids that surround the cells of a multicellular animal must be ………………………. to the cells.

1. hypertonic 2. hypotonic 3. isotonic

5. For the following question choose from the words bellow. Use each one once and only once:

Mitochondria release ……………from organic molecules and store it in…...........molecules by the process……………….which occurs in …………….…………. of the eukaryotic cell.

Answer: Oxidative phosphorylation; Energy; ATP; Cristae of mitochondria

6. Fill in:

……………….. molecules of CO2 are generated for each molecule of acetyl CoA introduced into the Krebs cycle.

1. One 2. Two 3. Tree

7. Match the numbers of the following compounds as they occur in catabolism:

|  |  |
| --- | --- |
| 1. | Pyruvate  |
| 2. | Glyceraldehyde phosphate  |
| 3. | Glucose  |
| 4. | Acetyl CoA  |

8. The karyotype in case of triploidy is …...... .

(2n-1, 3n, 2n+1, 2n+3)