

HALF YEARLY EXAMINATION – 2018
ERK HR SECONDARY SCHOOL
Key Answer for XI – Bio-Zoology

SECTION – 1

Answer all the questions:

1. B. Probiotic
2. C. Synaptic Junction – Junction between neurons
3. A. 1(iii) 2(iv) 3(i) 4(ii)
4. B. Plasma with fibrinogen is called serum
5. D. Assertion is wrong but Reason is correct
6. D. 1 and 3 are correct, 2 is wrong
7. D. The urea level in the urine is higher than the normal
8. B. Insulin

SECTION – II

Answer any FOUR questions:

9. Methanogens:

The domain archaea includes single celled organisms, the prokaryotes which have the ability to grow extreme conditions like polar ice caps, volcano vents, et., Some of them produced methane is called methanogens.

10. Adipocytes:

While fasting, these cells maintain our life by producing and supplying energy as fuel. Adipose tissues are also found in subcutaneous tissue, surrounding the kidneys, eyeball, heart, et., Adipose tissue is called white fat or white adipose tissue.

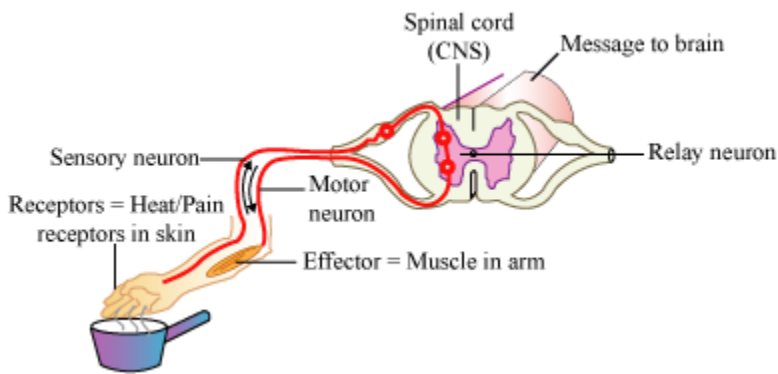
11. Vermicompost:

Artificial rearing or cultivation of earthworms involves new technology for the betterment of human beings. This process is called Vermiculture. The process of producing compost using earthworms is called Vermicomposting.

12. More O₂ is transported by Haemoglobin than the dissolved form:

Because the oxygen is poorly soluble in water, so, only 3% of the oxygen is transported in the haemoglobin in a reversible manner to form oxyhaemoglobin (HbO₂).

13. Draw and label reflex arch:



14. Functions of Melatonin:

- It plays a central role in the regulation circadian rhythm of our body.
- Maintains the normal sleep wake cycle.
- Also regulates the timing of sexual maturation of gonads.

SECTION – III

Answer any THREE and question no.18 is compulsory:

15. Erythroblastosis foetalis:

During the first pregnancy the Rh- antigens of the foetus does not get exposed to the mothers blood as both their blood are separated by placenta. However, small amount of the foetal antigen becomes exposed to the mothers blood during the birth of the first child. The mothers blood starts to synthesize D antibodies. But during subsequent pregnancies the Rh antibodies from the mother (Rh-) enters the foetal circulation and destroys the foetal RBC's. This becomes fatal to the foetus because the child suffers from anaemia and jaundice. This condition is called Erythroblastosis foetalis.

16. Composition of Sebum:

They are the fine hairs and wax producing sebaceous glands called ceruminous glands in the external auditory meatus. The combination of hair and the ear wax helps in preventing dust and foreign particles from entering the ear. Sebum contains a variety of different lipids, including cholesterol, glycerides, fatty acids, and wax, but the exact composition of sebum varies with a person's age.

17. Mean arterial pressure increases:

Mean arterial pressure is a function of cardiac output and resistance in the arterioles. The primary reflex pathway for homeostatic controls of mean arterial pressure is the baroreceptor reflex. The baroreceptor reflex functions every morning when you get out of bed. When you are lying flat the gravitational force is evenly distributed. When you stand up, gravity causes blood to pool in the lower extremities.

18. Functions of CSF:

- CSF provides buoyancy to the CNS structures.

- CSF act as a shock absorber for the brain and spinal cord.
- CSF nourishes the brain cells by transporting constant supply of food and oxygen.
- It carries harmful metabolic wastes from the brain to the blood and
- Maintains constant pressure inside the cranial vessels.

19. Pelvic girdle is adapted for conception:

The ischium is a curved bar of bone. The V- shaped pubic bones articulate anteriorly at the pubic symphysis. The pelvis of male is deep and narrow with larger heavier bones and the female is shallow, wide and flexible in nature and this helps during pregnancy which is influenced by female hormones.

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