**Neha Malhotra**  **R.L. Institute M: 9416974837**

**Max Time : 1 hr** **Class = 12th Biology Test**  **Max Marks : 30**

**EVOLUTION**

1. Multiple choice questions : [ 1 X 5 = 5]
2. Which one of the following scientist's names is correctly matched with the theory put forth by him:

|  |  |
| --- | --- |
| a) de Vries - Natural selection | b) Mendel - Theory of Pangenesis |
| c) Weismann-Theory of continuity of germplasm | d) Pasteur - Inheritance of acquired characters |

1. Thorn of Bougainvillea and tendril of Cucurbita are examples of

|  |  |  |  |
| --- | --- | --- | --- |
| a) | b) | c) | d) |

a) vestigial organs b) retrogressive evolution c) analogous organs d) homologous organs.

1. Palaentological evidences for evolution refer to the

a) development of embryo b) homologous organs c) fossils d) analogous organs.

1. For the MN-blood group system, the frequencies of M and N alleles are 0.7 and 0.3, respectively. The expected frequency of MN-blood group bearing organisms is likely to be is

a) 42% b) 49% c) 9% d) 58%

1. Which type of selection explains industrial melanism observed in moth, Biston bilularia?

a) Stabilizing b) Directional c) Disruptive d) Artificial

* 1. Name the scientist who disproved spontaneous generation theory. [ 1]
  2. State two postulates of Oparin and Haldane with reference to origin of life. [ 1]
  3. State the significance of the study of fossils in evolution. [ 1]
  4. Why are analogous structures A result of convergent evolution [ 1]
  5. Explain the increase in the numbers of melanic(dark winged) moths in the urban areas of post-industrialization period in England. [ 2]
  6. Explain the interpretation of Charles Darwin when he observed a variety of small black birds on Galapagos Islands. [ 2]
  7. List any four postulates of Darwinism based on natural selection. [ 2]
  8. (a) How does the Hardy- Weinberg's expression equation explain that genetic equilibrium is maintained in a population?

(b) List any two factors that can disturb the genetic equilibrium. [ 3]

* 1. Write the characteristics of Ramapithecus, Dryopithecus and Neanderthal man. [ 3]

Q.11 Explain the three ways in which natural selection operates on different traits in nature. [ 3]