**Neha Malhotra** **R.L. Chemistry Classes M: 9996868554**

**Max Time : 1 hr** **Class = 11th Biology Test**  **Max Marks : 20**

**CELL : THE BASIC UNIT OF LIFE [ Cytoskeleton and Nucleus]**

1. Multiple choice questions : [ 1 X 4 = 4]
2. The solid linear cytoskeletal elements having a diameter of 6 nm and made up of single type of monomer are :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Microtubules | b) Microfilaments | c) Intermediate filament | d) Lamins |

1. The protein present in the axoneme of cilia/flagella, having ATPase activity is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) Nexin | b) Dynein | c) Myofibrils | d) tubulin |

1. Cilia and flagella both have :

|  |  |
| --- | --- |
| a) 9 + 2 arrangement of microtubule | b) protective structure of cells |
| c) Only present in protozoa animals | d) Only outgrowth structure of cytoplasm |

1. Number of protofilament in microtubule is :

|  |  |  |  |
| --- | --- | --- | --- |
| a) 10 | b) 12 | c) 5 | d) 13 |

1. Nucleus was discovered by \_\_\_\_\_\_\_\_\_\_. [ 1 ]
2. What is the diameter of intermediate filament and state their function. [ 2 ]
3. What is the diameter of Microfilament and state their function. [ 2 ]
4. Distinguish between Euchromatin and Heterochromatin. [ 2 ]
5. Draw and explain the arrangement of microtubule in cilia and flagella. [ 3 ]
6. Explain the following structure (i) Nucleus (ii) Nuclear envelope (iii) nucleolus [ 3 ]
7. Define different type of chromosomes on the basis of position of centromere? [ 3 ]

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

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