## **PG-CET-BOTANY**

PRACTICE BITS ON "CELL DIVISION" -1

<ol> <li>Find out the wrong statement         <ol> <li>Mitosis was first observed in Plants by Strassburger</li> <li>Meiosis was first observed in Animals by Hoffmeister</li> <li>Meiosis was named by Farmer and Moore</li> <li>Mitosis was named by Fleming</li> </ol> </li> </ol>	[2]
<ul> <li>2) Chiasma represents the site of</li> <li>1) Synapsis</li> <li>2) Crossing over</li> <li>3) Linkage</li> <li>4) All of these</li> </ul>	[2]
<ul> <li>3) Largest phase of Meiosis-I is</li> <li>1) Prophase-1 2) Metaphase-1 3) Anaphase-1 4) Telophase-1</li> </ul>	[1]
4) In sexually reproducing organisms the chromosome number is maintaine1) Mitosis & Fertilisation2) Meiosis & Fertilisation3) Mitosis & Meiosis4) Karyokinesis & Cytokinesis	d by [2]
5) Meiosis converts1) Gametophyte to Gametophyte3) Gametophyte to sporophyte4) Sporophyte to sporophyte	[2]
<ul> <li>6) Crossing over occurs between</li> <li>1) Sister chromatids of homologous chromosomes</li> <li>2) Non- sister chromatids of non-homologous chromosomes</li> <li>3) Sister chromatids of non-homologous chromosomes</li> <li>4) Non- sister Chromatids of homologous chromosomes</li> </ul>	[4]
7) Homologous chromosomes move to opposite poles during 1) Anaphase 2) Anaphase-I 3) Anaphase-II 4) All of these	[2]
<b>8) Centromere does not divide in</b> 1) Mitosis 2) Meiosis -1 3) Meiosis-II 4) None of these	[2]
<ul> <li>9) Nuclear envelope and nucleolus disappear during</li> <li>1) Prophase 2) Prophase-1 3) Prophase-II 4) All of these</li> </ul>	[4]
<b>10) "Double metaphasic plate" is found in</b> 1) Metaphase2) Metaphase-13) Metaphase-II4) All of these	[2]
<b>11) Identify the mismatch</b> 1) Zygotene – Synapsis2) Pachytene - crossing over3) Leptotene – Chiasma4) Diakinesis - Terminalisation of chiasmata	[3]
<ul> <li><b>12) Genetic information is transferred from zygote to all body cells by</b></li> <li>1) Mitosis 2) Meiosis 3) Crossing over 4) Amitosis</li> </ul>	[1]

<ul><li><b>13. Which of the following inhibits the spindle fibre formation</b></li><li>1) Colchicine 2) Cyanides 3) Azides 4) All of these</li></ul>	[4]
<ul> <li>14) In a tetraploid cell meiosis occurs, what is the ploidy of daughter [2 nuclei formed after meiosis is</li> <li>1) Haploid 2) Diploid 3) Triploid 4) Tetraploid</li> </ul>	2]
<b>15) At Anaphase-II each chromosome contains</b> (1) 1 DNA molecule 2) 2 DNA molecules 3) 3 DNA molecules 4) 4 DNA molecule	[ <b>1]</b> ules
<ul> <li>16) Nuclear envelope and nucleolus disappear during</li> <li>1) Prophase 2) Pro-I 3) Pro-II 4) All of these</li> </ul>	[4]
<ul> <li><b>17) Meiosis is absent in</b></li> <li>1) Sporocytes 2) Gametocytes (3) PMC 4) Prokaryotes</li> </ul>	1]
<b>18) Find out the mismatch</b> [1) Anaphase-shortest phase of 'M' phase2) G1-Longest phase of Inter phase3) Prophase-Longest phase of 'M' phase4) G2-Longest phase of Inter phase	
<b>19) Initiation of spindle fibre formation during mitosis occurs in</b> [1]1) Prophase2) Metaphase3) Ana phase4) Telophase	
<b>20) In which phase of cell cycle RNA polymerase is active?</b> 1) G1-Phase 2) S-Phase 3) G2 -Phase 4) All of these	[4]
<ul> <li>21) On treatment with colchicine a pollen grain transforms into</li> <li>1) Haploid 2) Diploid 3) Triploid 4) Polyploid</li> </ul>	[2]
<ul> <li>22) Nucleosomes are formed during</li> <li>1) G1-Phase 2) G2-Phase 3) S-Phase 4) M-phase</li> </ul>	[3]
<ul> <li>23) Cancer is a</li> <li>1) Uncontrolled DNA replication</li> <li>3) Uncontrolled Mitosis</li> <li>4) Totipotency</li> </ul>	[3]
<ul> <li>24) During normal mitosis what occurs first?</li> <li>1) Spindle formation</li> <li>2) Chromosome duplication</li> <li>4) RNA &amp; protein synthesis</li> </ul>	[4]
<ul> <li>25) Phragmoplast is found during mitosis in</li> <li>1) Animal cells 2) Prokaryotes 3) All Eukaryotes 4) Eukaryotic plant cell</li> </ul>	[4]
<ul> <li>26) Cell division is absent in the cells of</li> <li>1) Liver 2) Brain 3) Skin 4) Bone marrow</li> </ul>	[2]

## 27) A somatic cell dividing mitotically, undergoes karyokinesis but fails to undergo cytokinesis. The resultant cell will have I diploid nucleus 2) 2 haploid nuclei 3) 2 diploid nuclei 4) 1 tetraploid nucleus 28) Coenocytic condition is formed due to Cytokinesis is not followed by karyokinesis

- 2) Karyokinesis is not followed by cytokinesis
- 3) Both Karyo kinesis & Cytokinesis are not occurred
- 4) Both Karyo kinesis & Cytokinesis are occurred

## 29) Nuclear membrane disappears at late prophase and re appears at the end of the telophase. From where does these nuclear membrane arise? [3]

- 1) Synthesized in cytoplasm
- 2) synthesized in nucleus
- 3) formed from ER and old nuclear membrane pieces
- 4) formed from Golgi complex

## 30) Find out the wrong statement

- 1) Sporic meiosis occurs in spores
- 2) Zygotic meiosis occurs in Zygote
- 3) Gametic meiosis occurs in Gametes
- 4) Meiosis occurs in PEN during endosperm formation
  - ALL THE BEST By D.R

[2]