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NET, IAS, State-SET (KSET, WBSET, MPSET, etc.), GATE, CUET, Olympiads etc.: Botany MCQs (Practice_Test 99 of 104)

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1. Match List I with List II and select the correct answer

List-I	List-II
<p>a. Nucleolus</p> <p>b. Spherosomes</p> <p>c. Peroxisomes</p> <p>d. Plasmodesmata</p>	<p>a. Lipid storage</p> <p>b. Glycolate metabolism</p> <p>c. Transport of macromolecules</p> <p>d. RNA-synthesis</p>
<p><i>Table Supporting: NET, IAS, State-SET (KSET, WBSET, MPSET, Etc.) , GATE, CUET, Olympiads Etc. : Botany MCQs</i></p> <p><i>(Practice_Test 99 of 104)</i></p>	

D

4132 4123

ABC 1243 1324

2. Mitotic cells cycle is divided typically into four phases, G1, S, G2 and M. Considering a mitotic cycle time of 18 hours, the distribution of period of time (in hours) for each of these phase will be. G1 S G2 M
- a. 1 3 5 9
- b. 9 1 3 5
- c. 9 5 3 1
- d. 3 5 9 1
3. In a proliferating cell system, how many mitotic divisions are required to produce 1024 cells from a single parent cell?
- a. 10
- b. 20
- c. 512
- d. 1023

4. In diploid systems, the genes located on the chromosome regions between the Centromere and the first chiasma (from the Centromere), at meiosis-I, exhibit the type of phenomenon called
- Non-disjunction
 - Pre-reduction
 - Post-reduction
 - Double reduction
5. Mendel proposed his 'laws' on the basis of his researches on seven contrasting characters in garden pea which has 14 chromosomes per somatic cell. If, instead of garden pea, Mendel had chosen to work on seven characters in a plant species having only four chromosomes per somatic cell, then the most likely outcome would have been that
- He would have discovered blending inheritance
 - He could not have proposed that genes are located on the chromosomes
 - He might not have discovered the law of independent assortment.
 - He might not have discovered the law of segregation
6. In humans, red-green color blindness is recessive and sex-linked, while albinism is recessive and autosomal. A marriage between two homozygous parents, a normal visioned albino woman and a color-blind and normally pigmented man will produce children
- Who are all phenotypically normal visioned and have normal pigmentation
 - Half of whom are color-blind and the other half having normal vision, and all of them having normal pigmentation
 - All of whom have normal vision, but half of whom are albino and the other half with normal pigmentation
 - Of four categories, normal visioned. Pigmented: Normal visioned, albino; color-blind, pigmented: Color-blind, albino: All in equal proportions
7. A dihybrid tall plant bearing yellow flowers ($Tt Yy$) was crossed with a dwarf plant bearing white flowers ($tt yy$). What percentage of the progeny is expected to be homozygous tall bearing yellow flowers?
- 75
 - 50
 - 25
 - Zero
8. A significant effect of ultraviolet radiation is the
- Production of base tautomers
 - Breakage of phosphodiester bonds

- c.* In the nucleus for some RNA and in the cytoplasm for other RNAs
 - d.* Before the RNA transcript separates from its complementary site on DNA
- 14. Give a chromosome segment a-b-c With 40% interference, the frequency of double cross-over (dco) will be
 - a.* 20%
 - b.* 10%
 - c.* 1.2%
 - d.* 0.12%
- 15. In tomato, three pairs of genes are located on a chromosome. Of these two are linked. There is 8% recombination between the genes for tallness (T) and smooth surface (S) , There is 20% recombination between tallness and oval shape (O) of the fruit, and 12% between oval shape fruit and smooth fruit surface. The correct sequence of the genes is
 - a.* S O T
 - b.* S T O
 - c.* T S O
 - d.* O T S