Competitive Exams: Revision Terminology Part 20

- Meiosis I = educational or heterotypic
- If Diplotene is long lasted = Dictotene (in lamp brush chromosome, human female – end of 3rd mouth of prenatal life to 12 year arrested
- Separation of homologous chromosome = Disjunction (Anaphase I)
- Meiosis II – necessary as due to crossing over, chromatids are not identical & natural be separated spindles in meiosis II at right angle to that of meiosis I
- Meiosis II haploid no of chromosome present, crossing over during prophase – I, radon distribution of char in anaphase – I
- Meiosis ⇾ cytological basis of Mendel's law of inheritance
- Anaphase II – Centromere divides.
- Chromosome are carrier of Mendel's factor.
- Each pair of factor – carried by homologous chromosome
- Each chromosome must carry factors.
- DNA duplication ⇾ euchromatin
- In case translocation present in one of 2 sets of chromosome = translocation heterozygote – normal pairing into bivalents is not possible
- Hammerling – chromosome of individuals are controlled by nucleus
- Carmine stains nucleus.
- Hematoxylin stains chromosome
- Eukaryotes = DNA + histone (true chromosome) – protamine present
- A is linear ds DNA – Circular & joined at ends by polynucleotide ligase
- DNA molecule in tertiary helix & Supercoiled & them fit into vires.

- Bacterial chromosome = single ds DNA – Folded genomes – basic proteins, not histones – maintain stability in absence of member name.
- Even polyploidy = fertile
- Odd polyploidy = sterile
- Polyploidy disc by lutz – induced by colchicine → gigantism octaploids usually die higher polyploidy
- Euploidy = exact multiple of haploid number.
- Aneuploidy = chromosome no which is not exact multiple of chromosome number.
- Monosomics isolated from diploids like tomato & maize.
- 21 monosomics isolated for hexaploid wheat.
- 21 nullisomics isolated for wheat
- (haploids of polyploidy = golyhaploids)
- Autopolyploids – some basic set of chromosome multiplied (autotriploid – sudleos watermelon, sugar beet, tomato, banana) .
- Polyploidy cell in otherwise diploid org = endopolyploidy.
- Size of chromosome – mitotic metaphase.
- Shape of chromosome – Anaphase
- Monocots contain larger chromosome than dicots
- Centromere – chromosome Movement during cell division
- Kinetochores – actual site of attachment of the spindle (in zea mays nulture)
- Metacentric – V – trillium & Tradescentia
- Sub metacentric – L
- Acrocentric – J
- Telocentric – I
- Arm ratio = $\frac{\text{length of long chromosome}}{\text{length of short chromosome}}$ (highest in acrocentric)
- Second constrictions are distinguish from primary as chromosome bends only in primary.
- Telomeres – Exhibit polarity & prevent union of chromosome ends with one another.
- Second Constriction involved in organization of nucleolus = nucleolus organizer region

- Histones (H_2A, H_2B (lysine) , H_3 & H_4 (arginine)) hold by H_1 lysine rich linker.
- DNA content in pictograms.
- Most abundant form of chromatin in interphase nucleus.
- Ideogram – represent haploid set of organism in a series.
- Asymmetric Karyotype is an advanced feature over symmetric karyotype.
- Heterochromatin – Condensed, more deep stain, late replicating
- Euchromatin – expanded, less deep stain, early replicating or diffuse regions