BIOLOGY

BOOKS - S DINESH & CO BIOLOGY (HINGLISH)

CHROMOSOMAL BASIS OF INHERITANCE

Multiple Choice Question

1. Term chromosome was coined by

A. Hofmeister

B. Sutton

C. Boveri

D. Waldeyer

Answer: D

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2. Chromosome were first seen by

A. Homfmeister

B. waldeyer

C. Strasburger

D. Flemming

Answer: A

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3. Chromosomes found in the salivvaary glands of Drosophila are

A. Lampbrush

B. Polytene

C. Supernumerary

D. B-chromosomes.

Answer: B

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4. A giant chormosome with a number of chromonemata is

A. Lampbrush chromosome

B. Heterochromosome

C. supernumerary chromosome

D. `Polytene chromosome

Answer: D

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5. Lampbrush chormosome occur in

A. Salivary glands

B. Lymph glands

C. Cancer cells

D. Oocytes

Answer: D

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6. Cromosome ends are called

A. Satellites

B. Telomers

C. Centromeres

D. Kinetochores

Answer: B

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7. Chromatid is

A. One half of chromosome

B. Haploid chromosome

C. Complete chromosome

D. Duplicate chromosome

Answer: A

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8. Centromere is that part of chromosome where

A. Nucleoli are formed

B. Crossing over takes place

C. Chromatids are attached

D. Nicking occurs

Answer: C

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9. A chromosome with sub terminal centromere is

A. Acentric

B. Acrocentric

C. Metacentric

D. Telocentric

Answer: B

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10. A chromosome with centromere near the middle is called

A. Metacentric

B. Submetacentric

C. Acrocentric

D. Telocentric

Answer: B

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11. Puffs or balbiani rings in salivary gland chromsosomes are sites of

A. DNA replication

B. DNA duplication

C. RNA synthesis

D. Protein synthesis

Answer: C

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12. Chromosome theory of inheritane was proposed by

A. Sutton (1902)

B. `Boveri(1902)

C. Both Sutton (1902) and Boveri (1902)

D. Correns (1909)

Answer: C

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13. More than 200 chromosomes occur in

A. Chicken

B. Dog

C. Amoeba

D. Gorilla

Answer: C

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14. Drosophila has four homologous pairs of chromosomes.What is the number of linkage groups in this animal?

A. Four

B. Two

C. Eight

D. Uncertain

Answer: A

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15. Gene for colour blindness in man is located on

A. X-chromosomes only

B. Y-chromosome only

C. Either X or Y chromosome

D. Both X and Y chromosomes

Answer: A

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16. A colour blin daughter may be born if the

A. Father is normal and mother is colour blind

B. Father is colour blind and mother is normal

C. Father is normal and mother is a carrier

D. Father is colour blind and mother is a carrier

Answer: D

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17. A somatic cell in human male contains

A. No gene on sex chromosomes

B. Only one sex-linked gene for each characater

C. Two genes for every sex-linked character

D. Genes only on sex chromosomes

Answer: B

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18. A normal woman is married to a colour blind man.The children are expected to be

A. All normal

B. 50% sons are colour blind

C. All doughters are normal but carrier whereaas all sons are normal

phenothypuically as well as genotypically

D. 50% daughters are colour blind

Answer: C

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19. Which of the following disesase is sex linked?

A. Colour blindness

B. Malignancy

C. Hepatitis

D. Leukemia

Answer: A

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20. The genes for the eye colour and size of the wing in Drosophila are located on the same chromosome.They can be separated Recombinants develop due to

A. Non disjunction

B. Crossing over

C. Hybridization

D. Not be separated at any stage

Answer: B

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21. A colour blind son is born normal parents It shows that

A. The father was heterozygous for colou blindness

B. The mother was genotypically homozygous

C. The mother was heterozygous for colour blindness

D. Both parents carried a recessive gene for the disorder.

Answer: C

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22. Chromosomal constitution inn human femal can best be written as

A. 46

B. 44+2

C. 44A+XY

D. 44A+XY

Answer: C

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23. The sex linked characters are those

A. Which are related to sexual physiology

B. The genes of which are present on the sex chromosomes

C. Which appear either in male or in female

D. Which are controlled by sex hormones

Answer: B

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24. The chromosomes other than sex chromosomes are called

A. Autosomes

B. Heterosomes

C. Karyosomes

D. None of the above

Answer: A

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25. If the crossing over had occurred at two strand stage I Neurospora the ascospores would be arrnaged in

A. 1-1 position

B. 2-2 position

C. 4-4 position

D. None of these

Answer: C

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26. Complete linkage is found in

A. Birds

B. Snakes

C. Female Drosophila

D. Male Drosphila

Answer: D

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27. In most of the higher unisexual animals there is one chromosomal pair which isn not indentical in two sexes ,These are called

A. Non homologous chromosomes

B. Non identical chromossomes

C. Non compatible chromosomes

D. Sex chromosomes

Answer: D

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28. The two diverse disciplines of cytology and genetics were co related by

A. Muller

B. Morgan

C. Bridges

D. Tschermak

Answer: C

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29. A linkage group is defined as

A. All the linked gnes of a chromosomes pair

B. Different groups of gnes present on different chromosomes

C. All the genes locate onn the same chromosome

D.

Answer: A

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30. A phenomenon which works opposite to the linkage is

A. Independent assortment

B. Crossing over

C. Segregation

D. Mutation

Answer: B

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31. When two genes are situated very close to one another at a chromosome

A. The paercentaghe of crossing over between then is very high

B. Gardly any cross overs are produced

C. No crossing over can take place

D. Only double cross overs can occur between them

Answer: B

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32. Greater is the distance between the two genes on a chromosome

A. Greater is te linkage strength

B. Lesser is the linkage streangth

C. Linikage strength remains unchangeed

D. There is no relationship between the two

Answer: B

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33. Crossing over occurs at

A. Single strand satge of chroomosmes during propase

B. Two strand stage during zygotene

C. Metaphase II of meiosis

D.

Answer: C

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34. The linked character s would always inherit together till they are

A. Delinked by dominance

B. Masked by dominace

C. Mutated

D. Separtesd due to crossing over

Answer: D

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35. A white eyed and long winged male Drosophila was scrossed to a viestigial winged (recessive) red eyed female .The two characters are linked in this anmla .When a

female F_1 was crossed the F_2 generation produced

A. Mostly white eyesd with long wings

B. Mostly red eyed with vestigial wings

C. Mostly white eyed with long wings and red eyed with vestigial wings

D. All white eyed and vertigial winged

Answer: C

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36. A colour blind man marries a normal woman whose father was colour blin . What percentage of children is exdpected to bel colour blind?

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: B

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37. Mendel did not get any linkage in his experiments on pea. One of reasons wash that

A. He did not keep an exact record

B. There is no linkage in pea

C. He did not have means to deteck linkagen

D. All the seven characters selected by him were present on different chormosomes or showed 50% cross overs.

Answer: D

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38. In Four O' Clock plant, norma leaves (A) and variegated leaves (B) occur in different plants. If (B) male is corssed with (A) female, the hybrid has normal leaves, but when (B) female is crossed with (A) male , the hybird has variegated leaves. It is case of

A. Mutation

B. Cytoplasmic inheritance

C. complementary genes

D. supplementary genes.

Answer: B

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39. Crossing over occurs between

A. Two non sister chromatids of a homologous pair of chromosomes

B. Two chromatids of any chromosome

C. Two chromatids of same chromosome

D. All the foregoing

Answer: A

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40. Neurospora crossa is widely used in genetical stufies because of all the following except one

A. It is a haploid plant and mutations can be easily detected

B. It can be easily cultured

C. Life cycle short

D. Spores are not affected by mutagens

Answer: D

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41. The frequencty o0f crossing over would be higher if

A. Two genes are located closely

B. Two genes are far apart on a chromosome

C. Two genes are not located on the same chromosome

D. None of the above

Answer: B

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42. Mendelian recombinations are due to

A. Mutation

B. Linkage

C. Crossing over

D. Independent assortment of characters

Answer: D

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43. The blue green algae and bacteria contain

A. One linkage group

B. Two linkage groups

C. Threee linkage groups

D. None of the above

Answer: A

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44. Which one of the following character in man is controlled by a recessive gene?

A. colour bnlindness

B. Woolly hair

C. Brachydactyly

D. Curly hairs

Answer: A

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45. Plotting of specific gnes on the chormosome is know as

A. Chromosome map

B. woolly hair

C. Brachydactyly

D. curly hairs

Answer: D

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46. crossing over may result in to

A. Gene mutation

B. Genomatic mutation

C. Genetic recombination

D. None of the above

Answer: C

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47. Maize has 10 pairs of chromosomes.How many linkage groups does it have ?

A. 20

B. 10

C. 5

D. 40

Answer: B

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48. Linkage in Drosphila was first discovered

A. Bridges

B. Mendel

C. Bateson and Punnet

D. Morgan

Answer: D

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49. In gene mutation adenine is replaced by guanine .It is known as

A. Substitution

B. point mutation

C. Transition

D. Transversion

Answer: C

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50. In transversion :

A. Purine is replaced by another purine

B. Purine is replaced by pyrimidine or vice versa

C. Some nitrogen bases are eliminated from a gene

D. Some nitrogen bases are added in a gene

Answer: B

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51. Alkaptonurics excreate excess of

A. Urine

B. Albumen

C. Malony caetic acid

D. Homogentisic acid

Answer: D

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52. Suppose that out of 1000 koffspring in the F_2 generation of a dihybrid cross, 748 are tall and hairy, 6 are tall and smooth, 4 are short and hairy 242 are short and smooth.The reason is that the genes controlling these characters are

A. Lethal genes

B. Complaementarry genes

C. Linked genes

D. Epistatic genes

Answer: C

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53. An animal where male carries jhalf the chromosomes present in female is

A. Amoeba

B. Gorilla

C. Honey Bee

D. Geometrid moth

Answer: C

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54. The males of roundworms have

A. One y-chromosome

B. One chromosome less than female

C. Two similar sex chromosomes

D. Distinct sex chromosomes

Answer: B

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55. XX-XO sex chromosome complement occurs in

A. Cockroach

B. Honey bee

C. Human beings

D. Chimpanzee

Answer: A

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56. which one is homogametic ?

A. Human child

B. Human embryo

C. Human male

D. Human female

Answer: D

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57. Crossing over occurs is

A. Four strand stage

B. Three strand stage

C. Two strand stage

D. Single strand stage

Answer: A

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58. In Neuropora both recessive and dominant allels express their effect becacuse

A. Two gens control each character

B. There are tow allesles for eacch character

C. The organism contains only one allele for a gene

D. Each gene has only one allele

Answer: C

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59. Mutations were first reported by De vries in

A. Pea

B. Datura

C. Oenothera lamarckiana

D. None of the above

Answer: C

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60. An exchange of segments between the two non homologous chromousomes is callled

A. Polyplody

B. Chromosmal aberratioon

C. Transloction

D. Inversion

Answer: C

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61. If a part of chromosome gets separated and reattached in reverse positoion to the same chromosome, the mutation is called

A. Inversion

B. Transverion

C. Transloction

D. Gene mutation

Answer: A

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62. Mutation is

A. Achange in phenotype of an organism caused by some environmental factor

B. An inheritable change in gentic material

C. Atemporart change in structure of the nucleus

D. Any one of the above

Answer: B

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63. Illegitamte crossing over is another terma for

A. Transition

B. Transversion

C. Reciprocal transloction

D. None of the above

Answer: C

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64. Gene mutation are those which involve

A. The change in nature and sequence of base triplets of DNA

B. The change in genome

C. The change in all the genes

D. The disapperance of certain part of chromosome

Answer: A

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65. A genomatic mutation is the mutation involving

A. Change n gene

B. Cjhange in chromosomal structure

C. Change in the number of chromosomes

D. All the above

Answer: C

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66. Aneuplody is the term applied for the

A. Gene mutation

B. chromosomal mutation

C. Crhromosomal mutations involving the addition or loss of one or more chromoso9mes

D. Chromosomal mutation involving the addition of one or more complete set of chromosomes

Answer: C

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67. What term is appied to the gene mutation wher a base is replaced by another base?

A. Duplication

B. Aneuploidy

C. Euploidy

D. Substitution

Answer: D

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68. A monosomic organism can best be represented

A. 2n+1

B. 2n+2

C. n+1

D. 2n-1

Answer: D

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69. When a purine is replaced by a pyrimidine in a part of DNA the mutation so produced is called

A. Transition

B. Traansversion

C. Deletion

D. Reversal

Answer: B

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70. A mutation changes the original base sequence ofDNA, GATACCG to new swquecne GFTAGCG. What is the type of mutatio?

A. Transition

B. Transversion

C. Translocation

D. Inversion

Answer: A

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71. A classical example off allopolyploid is

A. Brassica

B. raphnobrassica

C. Raphanius

D. All the above

Answer: B

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72. The mutation which returns to the original state is called

A. Reversible mutation

B. Lethal mutation

C. Backward mutation

D. Abnormal mutation

Answer: A

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73. The first man made cereal Triticale has been developed from a cross between

A. Wheat and Oat

B. Wheat and Maize

C. Maize and Rice

D. Wheat and Rye

Answer: D

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74. Which of the following is a caase of auto-alloplyploidy?

A. AA,AA,AA

B. AA,AA,BB

C. AA-1

D. 1×10^{-12}

Answer: B

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75. The frequency of mutations in nature is one in

A. 1×10^{-5}

B. 1xx10^(12)`

C. 1×10^{-5}

D. 1×10^{-12}

Answer: A

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76. When chromosome sets are present in multiple of 'n', the condition is termed

A. Diploidy

B. Haploidy

C. Euploidy

D. Aneuploid

Answer: C

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77. Which of the following is not an aneuploid?

A. Monoploid

B. 2n-1

C. Trisomic

D. 2n+2

Answer: A

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78. The smallest segemtn of a gene which can undergo muttion is called

A. Muton

B. Recon

C. cistron

D. Interferon

Answer: A

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79. The X-rays were used to induce mutation in Drosophila by

A. Hooker

B. Morgan

C. Muller

D. Khurana

Answer: C

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80. The mutation which prove fatal for the organism are called

A. Spontaneous

B. Induced

C. Deleterious

D. Lethal

Answer: D

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81. Most of the mutations are

A. Forward

B. Backward

C. Reversible

D. Lethal

Answer: A

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82. The frequency of mutation in a species can be increased by the use of

A. X-rays

B. UV-rays

C. Nitrous acid

D. All the above

Answer: D

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83. Datura is a classical example of study of

A. Monosomics

B. Trisomics

C. Triploids

D. Nullisomics

Answer: B

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84. A trisomic individual possesses extra - chromosomes :

A. One extro chromosome

B. One less chromosome

C. Two extra chromosomes

D. One pair of extra chromosomes

Answer: A

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85. X- Rays cause mutation by

A. Breaking spindle

B. Ruptuing of nuclear membrane

C. Changing the chromosome morphology

D. Incucing karyokinesis

Answer: C

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86. Cholchicine interferes in

A. Spindle organisation

B. DNA replication

C. Chromosome condensation

D. Polyploidy

Answer: A

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87. In swseeet Pea , the flower colour changes from Red to white and seed coat colour from grey to white. This is an example of

A. Spontaneous mutation

B. Pleitropic mutation

C. Reverse mutation

D. Induced mutation

Answer: B

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88. Haploids are used for reaseaches beacuase

A. They contain only one chromosome

B. They contain two sets of chromosomes

C. They contain three sets of chromosomes

D. They contain only one set of chromosomes

Answer: D

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89. Male sterile lines were first discovered in

A. Wheat

B. Maize

C. Onine

D. Sunflower

Answer: B

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90. The scientist who first discorved cytoplasmic inheritance was

A. Correns

B. Rhoades

C. Mendel

D. Morgan

Answer: A

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91. Shell coiling in Linasea is an example

A. Maternal inheritance

B. Biparaental inheritance

C. Predetermination

D. Duauermodification

Answer: C

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92. Kappa paricles were discovered by

A. Correns

B. Sonneborn

C. Rhodes

D. Bycott et al

Answer: B

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93. Kappa paritcvles are present in

A. Mirabilis jalapa

B. Zea mays

C. Limnaea peragra

D. Paramecium aurelia

Answer: D

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94. Kappa particles make an animal killer when their number in an individual is

A. 6

B. 60

C. 400

D. 150

Answer: C

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95. The killer chemical secreted by kappa paritcles

A. Secertin

B. Parmecin

C. Plasmon

D. Poky

Answer: B

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96. Male sterlity was discovered by

A. Rhoades

B. Sonneborn

C. Bycott et al

D. Correns

Answer: A

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97. A sinistral shelled female snail having Dd gene complement breeds with dextral sheeled male snail havig dd gene component what tuype of shell be present in the progeny?

A. Dextral

B. Sinistral

C. Lateral coiling

D. Vertical coiling

Answer: A

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98. A pollen from green branch fertilizes an ovum of pale type in Mirabilis jalapa.What shall be the progeny?

A. Green

B. Varigated

C. Pale

D. All the above

Answer: C

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99. Cytoplasmic inheritance differs from nuclear inheritance in th absenece of

A. Similalrity of reciprocal crosses

B. Biparental contribution

C. Effect on backcrossing

D. All the above

Answer: D

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100. Cytoplasmic inheritracne is due to

A. Plastids

B. Mithochondria

C. Cytoplasmic particles

D. All the above

Answer: D

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101. Cytoplasmic inheritance is also called

A. Without sexual reproduction

B. Onlyfemale parent takes part in mutiplication

C. Most of the cytoplasm of the zygote is provided by ovum

D. All the above

Answer: C

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102. Length of X chromosome is

A. $8.5 - 9.5\mu$

B. $7.5 - 8.0\mu$

C. $6.5 - 7.5\mu$

D. $5.0 - 5.5\mu$

Answer: D

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103. Length of Y-chromosome is

A. 2.0 μ

B. 3.0 μ

C. 4.0 μ

D. 5.0 μ

Answer: A

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104. X-chromosome is

A. Telocentric

B. Metacentric

C. Acrocentric

D. Acentric

Answer: B

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105. Human Y-chromosome is :

A. Ascrocentric

B. Telocentric

C. Submetacentric

D. Acentric

Answer: A

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106. Theroy of heterogamesiss for sex determination was proposed by

A. Morgan

B. Darwin

C. Correns

D. Bridges

Answer: C

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107. Percentage of colour blindness in white male population is

A. 1.5%

B. 2.5%

C. 5.9%

D. 0.08

Answer: D

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108. Percentage of colur blindness in white female polulation is

A. 4.5%

B. 2.3%

C. 0.5%

D. Zero %

Answer: C

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109. XY chromosomes are

A. Homomorphic

B. Heteromorphic

C. Heterologous

D. Both B and C

Answer: B

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110. Role of chromosomes in sex determination was proposed by

A. Sutton and Boveri

B. Henking

C. Mc clung

D. Morgan

Answer: C

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111. Chromosome therory of XY sex determination Was proposed by

A. Henking

B. Wilson and stevens

C. Johannsen

D. Punnet

Answer: B

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112. In colour blindness red , green and other colour appear

A. White

B. Yellow

C. Grey

D. Pink

Answer: C

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113. Heterogamesis is

A. Formation of two types of gametes

B. Morphological distinction of male and female gametes

C. Formation of two types of gametes by one sex and one type by other sex

D. Formation of two types of gametes by both the sexes

Answer: C

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114. Who studied sex linked inheritance for the first time ?

A. Morgan

B. Bridges

C. Mc clung

D. Wilson and stevens

Answer: A

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115. A character is transmitted from father to daughter and form there grandson .It is

A. Holandric inheritacne

B. Hologenic inheritacne

C. Crisscross inheritance

D. Dominant inheritacne

Answer: C

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116. Colour blindness in which all colours appear grey is

A. Monochromotism

B. Dichromatism

C. Protonopia

D. Deuteronpia

Answer: A

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117. In protanopia ,a person cannot distinguish

A. Green colour

B. Red colour

C. Blue colur

D. Blue and green colour

Answer: B

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118. Females seldom become bald as they lack

A. The gene for baldness

B. Y-chromosome

C. Male sex hormone

D. All the above

Answer: C

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119. Beard appears only after attaining maturity as the gene

A. Expression is delayed

B. Expression occurs only in presence of male hormones

C. Remains dominant in childhood

D. All the above

Answer: B

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120. Traits controlled by genes present on X chromosome are called

A. Sex limited

B. Sex influenced

C. Autosomal

D. Sex linked

Answer: D

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121. Phenylketonura is

A. Sex linked dominant trait

B. Sex linked recesive trait

C. Autosomal dominant trait

D. Autosomal recessive trait

Answer: D

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122. Sickle -cell anaemia is:

A. Sex cells

B. Sex chromosomes

C. Autosomes

D. Bone cells

Answer: C

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123. A late acting doninat disorder is

A. Tay sach's dosease

B. Polydactyly

C. Huntington's chorea

D. Phenylketonuria

Answer: C

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124. Huntington 's chorea appears at the age of

A. 25-55 years

B. 15-25 years

C. 50-60 years

D. 10-15 years

Answer: A

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125. In Down s ysndrome the chromosome mumber in each cell of body is

A. 45

B. 47

C. 48

D. 49

Answer: B

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126. The number of chromossomes in Down's syndrome is

A. X

B. Y

C. 21

D. 22

Answer: C

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127. The child afflicted with Down's syndrome has

A. Flattened nasal bridge, open mouth with protruding tongue

B. Small forehead, bulging eyes and raised nasal bridge

C. Gabitually open mouth with long protruding tongue bulging eyes and small forehead

D. Large forehead,raised nasal bridge and long included tongue

Answer: A

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128. A person having klinefelter,s syndrome is charcterised by

A. Male with some secondary sexual characters of female

B. Female with some secondary sexual characters of male

C. Having both male and females sex organs

D. Female internal sex organs and male external sex organs

Answer: A

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129. In Drosophila the XXY constitution determines

A. Maleness

B. Femaleness

C. Intersex Both A and C

D.

Answer: B

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130. A supermale XYY is characeterised by

A. under production of sex hormonoes

B. overproduction of sex hormones

C. Reduced intelligence but aggressive nature

D. Both B and C

Answer: D

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131. In Huntigton's chorea limb movements are

A. Rhythmic

B. Arrhythmic

C. slow and hardly noticeable

D. absent

Answer: B

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132. Dancing gait and bizarre grimacing is characteristic of

A. Schizophrenia

B. Huntington's disease

C. Alzheimer 's disease

D. Paralysis agitans

Answer: B

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133. Alzyeimer 's disease is due to

A. Poor neurotransmissin

B. Degeneration of neurons

C. Muscular dystrophy

D. Both A and B

Answer: D

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134. In alzheimer's disease brain cells do not metabolise

A. Glucose

B. Amyloid βpeptide

C. GABA

D. Acetylcholine

Answer: B

135. Cystic fibrosis is caused by

A. Recessive autosmal allele

B. Dominant autosomal allele

C. Recessive sex linked allele

D. Doninant sex linked allele

Answer: A

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136. The gene for cystic fibrosis is located over chromosome

A. 21 chromosome

B. 14 chromosome

C. 7 chromosome

D. 4 chromosome

Answer: C

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137. In cystic fibrosis there is

A. Failure of chloride ion transport

B. Mucous clogging of lungs

C. Defective functioning

D. All the above

Answer: D

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138. Genome represents total number of gene in

A. Haploid chromosomes set

B. Complete chromosome set

C. Diploid chromosome set

D. All the genes present in the population

Answer: A

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139. Chromosomes were first seen by

A. Hofmeister

B. Strasburger

C. Flemming

D. Waldeyer

Answer: A

Watch Video Solution

140. The word chromosome was coined by

A. Benda

B. Waldeyer

C. Robert Hooke

D. T.H Morgan.

Answer: B

 Watch Video Solution

141. Allsomees are the name of

A. Sex chromosomes

B. Swellings on the chromosomes

C. Chromosomes other than the ones which determine sex

D. Nucleolus organising regions of chromosomes

Answer: A

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142. A family of five daughters only is expecting sixth issue. The chance of its beings a son is

A. Zero

B. 0.25

C. 0.5

D. 1

Answer: C

Watch Video Solution

143. In human being ,45 chromosomes (44+ XO) cause:

A. Down's syndrome

B. Klinefelter's syndrome

C. Turner 's syndrome

D. Edward syndrome

Answer: C

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144. In mongolism/Down 's syndrome the patient has

A. Extra sex cromosome

B. Extra 21st chromosome

C. Extra Y-chromosome

D. Deficient sex chromosome

Answer: B

 Watch Video Solution

145. The number of chromossomes in Down's syndrome is

A. 46

B. 47

C. 45

D. 23

Answer: B

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146. Sex of a child is due to

A. Size of ovum

B. Health of father

C. Sex chromosome of father/sperm

D. Sex chromosome of mother/ovum

Answer: C

 Watch Video Solution

147. Diploid chromosome number in humans is

:

A. 46

B. 44

C. 48

D. 42

Answer: A

Watch Video Solution

148. Genes for colour blindness in humans are carried by

A. Mother

B. Father

C. Both

D. Abnormal sex

Answer: C

Watch Video Solution

149. A haemophiliac man marries a carrier woman Their children will be

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150. Colour blindness occurs due to :

A. Recesive allele in females

B. Dominant allele in males

C. Dominant allele in males

D. Recessive allele in males

Answer: D

 Watch Video Solution

151. Ovum producing Klinefelter's syndrome shall have chromosome number

A. 21

B. 22

C. 23

D. 24

Answer: D

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152. Both husband and wife have normal vision though their father were colour blind and mother did not have any gene for colour blindness .The probability of their daughter becoming colour blind is :

A. 0

B. 0.25

C. 0.5

D. 0.75

Answer: A

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153. Which one is a hereditary disease?

A. Cataract

B. Leprosy

C. Blindness

D. Phenylketonuria

Answer: D

154. Sex is determined in human beings

A. By ovum

B. At time of fetilization

C. 40 days after fertilization

D. Seventh to eigth week when genitals differentiate in foetus.

Answer: B

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155. Haemophilia is more common in males because it is a

A. Recessive character carried by Y-chromosome

B. Dominant charchter carried by Y-chromosome

C. Dominant trait carried by X-chromosome

D. Recessuve trait carried by X-chromosome.

Answer: D

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156. Women rarely experience sex-linked defects because they must be:

A. Homozygous

B. Carrier

C. Heterozygous

D. Develop immunity

Answer: A

 Watch Video Solution

157. Which of the following will be colour blind ?

A. XY

B. X^cX^c

C. X^cX

D. XX

Answer: B

Watch Video Solution

158. In humans ,sex is determined by

A. Y-chromosomes

B. X--chroiosome

C. A and X-chromosomes

D. A and Y-chromosomes

Answer: A

 Watch Video Solution

159. Which one of the following is responsible for mental abnrmalites in humans?

A. XXX and XY

B. XX and XXX

C. XO and XXX

D. XX and XO

Answer: C

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160. Exchange of chromosome segments between maternal and paternal chromatids during meiosis is called.

Or

In meiosis the daughter cellsa re not similar to that of parent because of

A. Linkage

B. Recombination

C. Crossing over

D. Segregation

Answer: C

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161. Linkage was discovered by

A. Lblakeslee

B. Sutton

C. Muller

D. Bateson and Punnet

Answer: D

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162. Crossing over produces:

A. Recombination of linked gens

B. Synapsis of linked genes

C. Expression of recessive genes

D. Linkage of dominant genes

Answer: A

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163. A colour blind girl is rare because she will be only when :

A. Her mother and meternal grand father were colour blind

B. Her father and maternal grand father were colour blind

C. Her mother is colour blind and father has normal vision

D. Parents have normal vision but grand parents were colour blind.

Answer: B

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164. Bateson used the terms couping and repulsion for linkage and crossing over .Name the correct paraental or coupling type slong with its cross over or repulsion :

A. Coupling AABB ,aabb,Repulsion AABB,Aabb

B. Coupling AABB,aaBB,Repuslion Aa Bb, aabb

C. Coupling aaBB,aabb,Repulsion AABB,aabb

D. Coupling AABB,aabb,Repulsion Aabb,aaBB.

Answer: D

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165. A single recessive allele which can express its effect should occur on

A. Any autosome

B. Any chromosomes

C. X-chromosome of female

D. X-chromosome of male

Answer: D

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166. Mongolism, Patau's syndrome and Edward's syndrome are due to

A. Allosomal abnormalities

B. Autosomal abnormalities

C. Both A andB

D. None of these

Answer: B

Watch Video Solution

167. Down's syundrome is due to

A. Crossing over

B. Linkage

C. Sex linked inheritance

D. Nondisjunction of chromosomes

Answer: D

Watch Video Solution

168. A colour blind mother and normal father would have

A. Colour blind sons and normal /carrier daughters

B. Colour blind sons and daughters

C. All colour blind

D. All normal

Answer: A

 Watch Video Solution

169. Out of 8 ascospores formed in Neurospora the arrangement is 2a:4A:2a showing

A. No crossing over

B. Some meiosis

C. Second generation division

D. First generation division

Answer: C

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170. Sex determination chromosomes are called :

A. Autosomes

B. Hetersomes

C. Oxysomes

D. B-chromosomes

Answer: B

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171. An autosome is

A. Chromosome half

B. Sex chromosome

C. Chromosome other than sex

D. None of the above

Answer: C

 Watch Video Solution

172. Linkage in plants was first shown in

A. Zea mays

B. Lathyrus odoratus

C. Oenothera lamarckiana

D. Pisum sativum

Answer: B

 Watch Video Solution

173. maize with 10 pairs of chromosomes has linkage group:

A. 40

B. 20

C. 10

D. 5

Answer: C

 Watch Video Solution

174. Association of parental combiunation of characters in offspring in excess of dihybrid cross is due ot

A. Pseudoalleles

B. Linkage

C. Polygeny

D. Condominance

Answer: B

Watch Video Solution

175. An individual with cd genes was crossed with wild type ++ .On test crossing F_1 the progeny was + c105, +d 115, cd 880 and ++900 Distances between cd genes is

A. 11 map units

B. 5.5 map units

C. 44 map units

D. 88 map units

Answer: A

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176. Two linked genes a nad b show 20% recombination the indivsuls of a hybrid cross between ++/++ X ab/ab shaoll show gemetes:

A. $++80:ab:20$

B. $++50:ab:50$

C. $++40:ab:40:+a10:+b:10$

D. $++30:ab30:+a20:+b:20.$

Answer: B

Watch Video Solution

177. Plant in which chromosomal basisi of sex determination was discovered first is

A. Rumex

B. Melandrium

C. Caccinia

D. Sphaerocarplus

Answer: B

 Watch Video Solution

178. A sex linked trait/disease is

A. Colour blindness/haemophilia

B. Night blindness/albinism

C. Myxiedema/beri-beri

D. Deafness/tylosis

Answer: A

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179. Genes for colour blindeness /sex linked traits are located on

A. X-chromosome

B. Y-chromosome

C. X-or Y chromosome

D. Both X and Y chromosomes

Answer: A

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180. Trisomy has chromosome complement of

A. 2n-1

B. 2n-1-1

C. 2n+1+1

D. 2n+1

Answer: D

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181. Which of the following is a base analogue ?

A. 5-Bromouracil

B. Caffeine

C. Colchincine

D. Nitrous acid

Answer: A

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182. The plant on which Hugo de vries based his evolution theory is

A. Antirrhinum majus

B. Lathyrus odoratus

C. Oenothera lamarckiana/Evening Primrose

D. Pisum sativum

Answer: C

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183. Mutations are commonly

A. Dominant

B. Codominant

C. Recessive

D. Incomplete

Answer: C

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184. H.J. Muller ws awarded Nobel Prize for

A. Protein synthesis

B. Chemistry of nucleic acids

C. Cancer

D. X-ray induced mutations

Answer: D

 Watch Video Solution

185. Mutations are induced mostly by

A. UV radiations

B. Beta rays

C. Alpha rays

D. Gamma rays

Answer: D

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186. The major/ultimate osurce of variations are

A. Polyploidy

B. Mutations

C. Chromosome aberrations

D. Segregation

Answer: B

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187. Recessive mutations are expresssed in:

A. Homozygous condition

B. Heterozygous condition

C. Next generation

D. same generation

Answer: A

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188. Which is correct?

A. Multivalent formatin occurs in allopolylpids

B. Aneuploidy occurs due to chromosome doubling

C. Tetraploid plants may have wider and extensive distribution

D. Raphanobrassica is autopolyploid

Answer: C

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189. Monosomics are:

A. No crossing over

B. 2n+1

C. 2n-2

D. 2n-1

Answer: D

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190. Mutation is a change that is

A. Never inherited

B. Inherited only in F_2 generation f

C. Inherited

D. Responsible for plant growth

Answer: C

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191. The gene that controls the rate of mutation of another gene is :

A. Regulator gene

B. Inducer gene

C. Mutable gene

D. Mutator gene

Answer: D

Watch Video Solution

192. Colchicine interferes with :

A. Chromosome replication

B. Organisation of spindle

C. Chromosome condensation

D. Incorporation if nitrogen bases

Answer: B

Watch Video Solution

193. Which one can induce plolyploidy?

A. Colchicine

B. Acridines

C. Ethylene

D. Maleic hydrazide

Answer: A

Watch Video Solution

194. Mutations can be brought about by

A. Anlinne dye

B. X-rays

C. Auxins

D. D.D.T

Answer: B

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195. An auxotroph is a (an):

A. Plant capable of synthesising own crbohydrates

B. Plant showing quick bending response to sunlight

C. A mutatn having lost the ability to synthesisie one or more nutrients

D. An organism dependent on another for nutritional requirements

Answer: C

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196. If halpoid chromosome number is 10 the monosmic number shall be

A. 9

B. 18

C. 10

D. 19

Answer: D

Watch Video Solution

197. Which mutation/ variation is not heredity

A. Genetic

B. Somatic

C. Germinal

D. Gametic

Answer: B

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198. Aneuploidy is zygotic chromosome number

A. Thrice of ganmetic number

B. Twice of gmetic number

C. Quardruple of ganmetic number

D. Abnormal

Answer: D

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199. Both extra nuclear as well as nuclear materials are involved in transmission of hereditarty information as

A. Mitochondria and plastids are having DNA

B. Both cytoplasm and nuclear material are eually envolved in heredity

C. Each type of organisms have particular mitochondria or plastids

D. Some cells are prokaryotic

Answer: A

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200. A normal green male Maize is crossed with albino female. The progenyis albino because

A. Trait for ablinism is dominant

B. The albinos have biochemical to destroy plastids derived fromd green male

C. Plastids are inherited form female parent

D. Green plastids of male must have mutated

Answer: C

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201. Which one of the following carries extra nuclear genetic material ?

A. Golgi apparatus

B. Ribosomes

C. Chromosome

D. Plastids/Mitochondria

Answer: D

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202. Cytoplasmic male sterility is passed down

A. Through bacteriophage

B. Paternally

C. Maternally

D. Biparentally

Answer: C

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203. When a certain character is inherited only through female parent it probably represents

A. Multiple plastid inheritacne

B. Cytoplasmic inheritance

C. Incomplete dominance

D. Mendelian nuclear inheritance

Answer: B

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204. The two eucaryotic organelles responsible for cytoplasmic inheritacne are

A. Lysosomes and mitochondria

B. Chloroplasts and lysosomes

C. Mitochondria and chloroplasts

D. Mitochondria and Golgi complex

Answer: C

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205. Which corp varietuy is not due to induced mutations?

A. Reimei of Rice

B. Prabhat of Arhar

C. Sharbati sonora of wheat

D. Aruna of castor

Answer: B

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206. Haploids are preferred over diploids for mutation studies because in haploids:

A. Recessive mutation express immediately

B. Dominant mutations express immediately

C. Mutation are readily induced

D. Tissue culture is easy.

Answer: A

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207. Smallest segment of genetic material affected by mutation is

A. Recon

B. Cistron

C. Muton

D. Exon

Answer: C

Watch Video Solution

208. Tow dominant nonallelic genes are 50 map units apart.The linkage is

A. Cis type

B. Trans type

C. Complete

D. Absent/Incomplete

Answer: D

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209. One barr body is found in man of genotype

A. XY

B. XXXY

C. XXY

D. XX

Answer: C

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210. A colour blind man has a colour blind sister butnormal brother .The phenoptype of parents is

A. Normal father and colour blind mother

B. Both parents are normal

C. Both parents are colour blind

D. Father colour blind and mother normal

Answer: D

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211. Of a normal couple half the sons are haemophiliac while half the diughters are carriers .The gene islocated on

A. X-chromosome of father

B. Y-chromosome of father

C. One X-chromosome of mother

D. Both the X- chromosomes of mother

Answer: C

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212. In Neurospora ,8 ascospores are formed instead of 4 .This indicates

A. One meiosis

B. Two meiosis

C. Two meiosis

D. Two mitosis

Answer: D

Watch Video Solution

213. Who studied sex linked inheritacne for first time?

A. Morgan

B. Khorana

C. Pasteur

D. Von Helmont

Answer: A

 Watch Video Solution

214. Alleles of different genes found on same chromosome may separate due to

A. Epistasis

B. Crossing oiver

C. Continous variations

D. Pleiotrophy

Answer: B

Watch Video Solution

215. Which of the follwong is suitable for experiment on linkage?

A. $aaBB \times aaBB$

B. $\forall BB \times aa$

C. $AaBb \times AaBb$

D. $\forall \times AaBB$

Answer: B

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216. Mr kapoor has Bb autosomal gene pair and d allele sex linked.What shallbe proportion of Bd in sperms

A. Zero

B. $1/2$

C. $1/4$

D. $1/8$

Answer: C

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217. Of both normal parents the chances of a male child becoming colour blind are

A. No

B. Possible only when all the four grand parents had normal vision

C. Possible only when father's mother was colour blind

D. Possible only when mother 's father was colour blind

Answer: D

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218. An undertized human ovum has

A. X andY chromosomes

B. Xand X chromosomes

C. X in some and Y in other s

D. Only one X- chromosome.

Answer: D

 Watch Video Solution

219. Haemophiliac man marries a normal woman Their offspering will be

A. All normal

B. All haemophilic

C. All boys haemophilic

D. All girls haemophilic

Answer: A

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220. Eucaryotic chromosome is made of

A. DNA

B. DNA+protein

C. DNA +lipids

D. RNA

Answer: B

Watch Video Solution

221. A stong mutagen is

A. Cold

B. Heat

C. Water

D. X-ray induced mutations

Answer: D

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222. An example of disease of molecular muttion is

A. Sickle cell anaemia

B. Erythroblastosis foetalis

C. Haemophilia

D. Anaemia

Answer: A

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223. A cross between white eyed female and red eyesd male Drosophila gives red eyed females and white eyed males .Rarely the cross

gives rise to white eyed females and red eyed males This is due to

A. Loss of sex chromosome

B. Mutation in female fly

C. Nondisjuction of two X-chromosomes in female

D. Mutation in male

Answer: C

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224. Out of A-T,G-C pairing bases of DNA may exist in alternate valencyt state owing to arrangement calld

A. Analogue substitution

B. Tautomerisational mutation

C. Fame shift muttion

D. Point mutation

Answer: B

Watch Video Solution

225. In a cross between genotype AB and ++,650 out of 1000 individuals were of parental type The distance between A and B

A. 35 map units

B. 45 map units

C. 15 map units

D. 30 map units

Answer: A

Watch Video Solution

226. A fruitfly exhibiting both male and female triaits is

A. Heterozygous

B. Gynandromorph

C. Hemizygous

D. Gynanader

Answer: B

Watch Video Solution

227. A man with enlarged breasts sparse body hair and XXY chromosome complement is suffering from

A. Down's syndrome

B. Turener's syndrome

C. Klinefelter's syndrome

D. Super females

Answer: C

 Watch Video Solution

228. Linked genes separate due to

A. Recombination of linked genes

B. Mutation in female fly

C. Crossing over

D. None of the above

Answer: C

Watch Video Solution

229. What is true in case of Honey Bee?

A. Male diploid , female haploid

B. Male diploid, female diploid

C. Male haploid, female haploid

D. Male haploid, female diploid

Answer: D

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230. A child gets sex linked traits from

A. Father

B. Mother

C. Both father and mother

D. None of the above

Answer: C

Watch Video Solution

231. Klineffelter's syndrome has

A. 44+XXY

B. 44+XO

C. 45+XY

D. 66+XXY

Answer: A

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232. Number of X chromosomes in Turneer 's syndrome is

A. 3

B. 2

C. 1

D. Zero

Answer: C

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233. Two gens situated very close on the chromosome show

A. High crossing over is detected

B. No crossing over

C. Only double cross over can occur

D. one crossing over

Answer: B

Watch Video Solution

234. XY sex chromosomes were discovered by

A. Gregor johann mendel

B. M.J.D white

C. Nettie stevens

D. Robert Brown

Answer: C

Watch Video Solution

235. A colour blind woman marries a normal visoned male .In the offspring

A. Both sons nd doughters are colour blind

B. All dughters are colour blind

C. All sons are normal

D. All sons are colour blind , daughters carriers

Answer: D

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236. Genes located on T chromosome are

A. Mutatn genes

B. Sex linked genes

C. Autosomal genes

D. Hoplandric genes

Answer: D

Watch Video Solution

237. Huntington's chorea is

A. Common in Korea

B. Nervous degenratin causing involuntarty shaking of legs arms head

C. Diesease of kidney

D. Realted to diabetes

Answer: B

Watch Video Solution

238. Which chromosome set is found in male Grasshopper?

A. XY

B. X

C. YY

D. XX

Answer: B

Watch Video Solution

239. In human zygote male sex is dtermined by

A. Strength of father

B. Nutrition of mother

C. Compostion of required chromosomic

D. None of the above

Answer: C

Watch Video Solution

240. Trissomy of 21st chromosome results in

A. Down's syndrome

B. Sickle cell anaemia

C. Turner's syndrome

D. Klinefelter's syndrome

Answer: A

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241. Mutations can be induced in bacteria by

A. Growing different strains in same culture

B. Starvation

C. Providing growth substances

D. High energy radiations

Answer: D

Watch Video Solution

242. Man made cereal is

A. Triticum

B. Hordeium

C. Triticale

D. Eleusine

Answer: C

Watch Video Solution

243. Complte halpoid set of chromosomes of a species is

A. Genome

B. Genotype

C. Genetic code

D. Allele

Answer: A

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244. Frequencyof an autosomal recessive lethal gene is 0.4 Frequency of carrier in a population of 200 individuals is

A. 72

B. 96

C. 104

D. 36

Answer: B

 Watch Video Solution

245. Which of the following is not related to chromosomal aberration

A. Aneuploidy

B. Euploidy

C. Klinefelter's syndrome

D. AIDS

Answer: D

 Watch Video Solution

246. In mongolism/Down 's syndrome the patient has

A. Barr body

B. Trisomy

C. Monsomy

D. Nullisomy

Answer: B

 Watch Video Solution

247. Larva of Bonellia settling near probosics of adult female develops into male due ot

A. Sustances secreate by probosicis

B. Electrolytes in water

C. Oxygen in environment

D. Carbon dioxide in environment

Answer: A

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248. Autosomes in humans are

A. 11 pairs

B. 22 pairs

C. 23 pairs

D. 43 pairs

Answer: B

 Watch Video Solution

249. Girl normal vision whose father was colour and marries a man of normal vision whose father was also colour blind. The sons of this marrieage would be

A. All normal

B. All colour blind

C. 50% colour blind

D. 25% colour blind

Answer: C

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250. Which is not a mutgen?

A. acetic acid

B. gamma rays

C. nitrous acid

D. hydroxylamine

Answer: A

Watch Video Solution

251. Point mutationn is

A. loss of gene

B. change in a base of gene

C. addition of a gene

D. deletion of a segment of gene

Answer: B

Watch Video Solution

252. A loint mutation is

A. sickle cell anaemia

B. thalassemia

C. night blindness

D. down's syndrome

Answer: A

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253. Barr body in mammals represent

A. heterochrmoatin in male and female cells

B. all heterochromatin in female cells

C. one of two x chromosomes in somatic cells of female

D. y-chromosome in somatic cells

Answer: C

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254. Colchicine brings about :

A. polyploidy

B. cell division

C. cell elongation

D. cell differentation

Answer: A

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255. A man made allopolyploid is

A. water melon

B. gossypium

C. triticale

D. triticum

Answer: C

 Watch Video Solution

256. Mutation caused by a mutagen is

A. induced

B. natural

C. spontneous

D. chemical mution

Answer: A

 Watch Video Solution

257. Which one is found in males only?

A. X-chromosome

B. Y- chromosome

C. 2X-chromosomes

D. X+X chromosomes

Answer: B

 Watch Video Solution

258. Gyandromorph is

A. Male with female traits

B. Female with male traits

C. Half male and half female

D. None of the above

Answer: C

 Watch Video Solution

259. In herideity the genes are obtained from

A. Father

B. Mother

C. Both

D. None of the above

Answer: C

 Watch Video Solution

260. Linkage was discovered by

A. Punnet

B. Mendel

C. Muller

D. Morgan

Answer: D

 Watch Video Solution

261. which genotype will indicate color blindess in male?

A. X^cY

B. X^cY^c

C. X^cX^c

D. A^cA^c

Answer: A

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262. Cis tans expression of genes is an example of

A. Mutation

B. Intergenic crossing over

C. Intragenic crossing over

D. Cytoplasimic inheritance

Answer: B

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263. Wheat plants is 6n=42 ,what will be the number of chromosomes in its monosomic ,haploid and monoploid?

A. 43,21 and 7

B. 41,21 and 7

C. 15,7 and 7

D. 13,7 and 7

Answer: B

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264. The substance which causes a defineite change in genes is called

A. Mutagen

B. Toxin

C. Cytotoxin

D. Alkaloid

Answer: A

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265. Recessive muttion is not expressed in

A. Homozygous male

B. Heterozygous male

C. Heterozygous female

D. Homozygous female.

Answer: C

Watch Video Solution

266. Cytoplasmic inheritance differs from nuclear inheritance in th absenece of

A. Eye colour in Drosophila

B. Flower colour in Pea

C. Sterile pollen

D.

Answer: D

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267. Exchange of segments between nonhomologus chromosomes is

A. Translocation

B. iInversion

C. Crossing over

D. Tetrasomy

Answer: A

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268. In a chromosomes the protein content is

A. Nil

B. Trace

C. Half of DNA

D. Same as DNA

Answer: D

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269. Number o flinkage in a p[olynuceleotide would be

A. Same as number of nucleotides

B. Twice the number of nucleotides

C. One less than the number of nucleotides

D. One

Answer: D

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270. A colour blind man (X^cY) and a normal brother (XY). What is genotype of father and mother

A. X^cY, X^cX^c

B. X^cY, X^cX

C. XY, X^cX^c

D. XY, X^cX

Answer: B

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271. What causes mutations?

A. Colchicine

B. Cosmic rays

C. Gamma rays

D. Crossing over

Answer: C

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272. Number of chromosomes can increase or decrease due to

A. Mutation

B. Genetic reptetition

C. Nondisjunction

D. All the above

Answer: C

Watch Video Solution

273. X ray induced mutation were introduced in Maize for the first time by

A. Muller

B. Stadler

C. Morgan

D. Singleton

Answer: B

Watch Video Solution

274. Gene is formed of

A. Polynucleotide

B. Histone

C. Hydrocarbons

D. Lipoprotein

Answer: A

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275. Which one is a triploid?

A. Mango

B. Wheat

C. Orange

D. Banana

Answer: D

Watch Video Solution

276. Nobel prize for jumping gene/transposable DNA elements was given to

A. Mulller

B. Mc clintock

C. Morgan

D. Kornberg

Answer: B

Watch Video Solution

277. Which pteridophye has the maximum chromosome unmber?

A. Ophioglossum reticulatum

B. Azolla pinnata

C. Lycopodium cernuum

D. Selaginella apus

Answer: A

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278. Mutations are responsible for

A. Extinction of organisms

B. Variations in population

C. Increase in population

D. Maintaining genetic continuity

Answer: B

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279. Sudden change which breeds true is

A. Mutation

B. Law of inheritacne

C. Inheritance of acquired character

D. Natural selection

Answer: A

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280. Hexaploid or modern wheat developed through

A. Hybridomas

B. Chromosome doubling

C. Hybridisation

D. Hybridisation and chromosome doubling

Answer: D

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281. Foetal sex can be determined form cells presetn in amniotic fluid by lookin gfor

A. Kinetochores

B. Chiasmataa

C. Barr bodies and sex chromopsomes

D. Autosomes

Answer: C

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282. A female fruitfly heterozygous for sex linked genes is mated with normal male fruitfly mlae specific chromosome will enter the egg cells in proportion of

A. $1:1$

B. $2:1$

C. $3:1$

D. $7:1$

Answer: A

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283. Genetic identity of human male is known by

A. Nucleolus

B. Cell organelles

C. Autosomes

D. Sex chromosomes

Answer: D

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284. After crossing two plants the progeny was found to be male sterile due to maternal inheritance .The gene for male sterlity resides in

A. Nucleus

B. Chloroplasts and lysosomes

C. Cytoplasm

D. Mitochondria and Golgi complex

Answer: D

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285. A change in hcromosomal number is called

A. polyploidy

B. Aneuploidy occurs due to chromosome doubling

C. Chromosomal mutation

D. Somatic mutation

Answer: C

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286. Drosophila melanogaster possessses

A. 3 pairs sutosomes +1 pair sex chromosomes

B. 2 pairs autosomes +2 pairs sex chromosomes

C. 1 pairs autosomes +3 pairs sex chromosomes

D. 2 pairs autosomes +1 pairs sex chromosomes

Answer: A

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287. Numerical change in chromosome number which is not the exact multiple of haploid genome is

A. Triploid

B. Allopolyploid

C. Autopolyploid

D. Aneuploid

Answer: D

Watch Video Solution

288. Triticum aestivum (Bread wheat) is

A. Tetraploid

B. Hexoploid

C. Diploid

D. Haploid

Answer: B

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289. In Down 's syndrome of a male child , the sex complement is

A. XO

B. XY

C. XXY

D. XXY

Answer: B

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290. Which one is de novo mutation?

A. $\top XX \top \rightarrow \top$

B. $\times \rightarrow Tt$

C. $Tt \times \ \rightarrow Tt$

D. $Tt \times Tt \rightarrow \ \top , Tt,$

Answer: B

View Text Solution

291. An X- linked recessive trait is

A. Colour blindness

B. Hunter's syndrome

C. Sickle cell anaemia

D. Leishman's syndrome

Answer: A

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292. In order to remain linked the distacne between two genes should not increase beyound

A. 10 map units

B. 20 map units

C. 40 map units

D. 50 map units

Answer: C

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293. A mutation results in change in

A. Sequence of amno acids in a protein

B. tRNA of ribonsomes

C. rRNA of ribosomes

D. None of the above

Answer: A

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294. Free Martin is due to

A. Sex reversal by gene

B. Environmental control of sex

C. Hormonal control of sex

D. Sex determination by chromosome

Answer: C

Watch Video Solution

295. Down 's syndrome is due to

A. Autosome

B. Sex chromosome

C. Sex linked disease

D. Duplication

Answer: A

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296. Haemophilia occurs because of

A. Mutatuion in an autosome

B. Mutation of Y-chromosome

C. Mutation of X- chromosomes

D. Deficiency of iron

Answer: C

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297. If BB represent barr body and Y_0Y-body XXY or Klinefelters syndrome has

A. BB-1,$Y_0 - 0$

B. BB-1,$Y_0 - 1$

C. BB-0,$Y_0 - 1$

D. BB-2,$Y_0 - 1$

Answer: B

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298. Rearrangement of genes occurs due to

A. Transloction and duplicatin

B. Translocation and deficiency

C. Deletion and deficiency

D. Translocation and inversion

Answer: D

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299. In Drosophila, white eye colour is recessive X linked trait while red eye colour is dominant A white eyed female is crossed with red eyed male. The female offspring with red eye colour would be

A. 1

B. 0.5

C. 0.25

D. Zero

Answer: A

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300. A colour blind daughter is born in case of

A. Colour blind mother normal father

B. Carrier mother colour blind father

C. Normal mother colour blind father

D. Carrier mother normal father

Answer: B

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301. Where are barr bodies found ?

A. Ova

B. sperms

C. somatic cells of man

D. somatic cells of woman

Answer: D

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302. DNA is associated with basic protein

A. albumin

B. nonhistone

C. histone

D. both a and c

Answer: C

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303. Hyperchromism is presence of

A. same chromosome more than once

B. same type of chromosome less than once

C. variable chromosomes in nucleus

D. none of the above

Answer: A

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304. Mutation is a change that is

A. change in gene frequency

B. genetic drift

C. change in base paires in DNA molecule

D. Environmental mechanism of evolution

Answer: C

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305. Euploidy is

A. One chromosome more than haploid set

B. One chromosome more than diploid set

C. One chromosome less than haploid set

D. Exact multiple of haploid set of chromosomes

Answer: D

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306. Haemophilia is a genetic disorder in which

A. blood clots in blood vessels

B. There is delayed coagulation of blood

C. Blood fails to coagulate

D. Blood cell count falls

Answer: B

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307. Chromosomes are made of

A. DNA+Pectin

B. RNA+DNA

C. DNA+Histones

D. DNA only

Answer: C

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308. Mutation refers to sudden change in

A. Phenotype

B. Maturation time

C. Metabolic rate

D. Genetic make up

Answer: D

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309. How many genomes are present in a typical green plant cell?

A. Ten

B. Two

C. Five

D. Three

Answer: B

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310. The formation of multivalents at meiosis in diploid organism is dua to

A. Deletion

B. Inversion

C. Monosomy

D. Reciprocal translocation

Answer: D

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311. Mental retardation in man, associated with sex chromosomal abnormality is usually due to

A. Increase in X-complement

B. Decrease in X-complement

C. Largeincrease in Y- cpomplement

D. Moderate increase in Y- complement

Answer: A

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312. DNA parts which can switch their position are

A. Exons

B. Introns

C. Cistrons

D. Transposons

Answer: D

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313. A woman with two genes one for haemophilia and one for colour blindness on

one of its X-chromosomes marries a normal man .The progeny will be

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314. Down's syndrome is due to trisomy of 21st chromosome caused by

A. Nondisjunction during egg formation

B. Nondisjunction during sperm formation

C. Additon of extra chromosome during mitosis of zygote

D. Either A or B

Answer: D

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315. Chromosomes aberration occurs due to

A. Aneuploidy

B. Polyploidy

C. Physical effects

D. All the above

Answer: C

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316. Cytoplasmic inheritacne is also called

A. Maternal inheritance

B. Clonal inheritance

C. Cytoplasmic association

D. None of the above

Answer: A

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317. Linkage deecrease the frequency of

A. Recessive allele

B. Dominant

C. Hybrid

D. Both B and C

Answer: C

Watch Video Solution

318. Distance between two linked genes is measured fin map units that depict

A. Ratio of crossing over between them

B. Cross over value

C. Number of genes between them

D. Both B and C

Answer: B

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319. Genes located on differential region of Y-chromosome are called

A. XY linked genes

B. Holandric genes

C. Autosomal genes

D. Mutant genes

Answer: B

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320. The exhange of one part of a chromosome to the other part of some or another chromosome is called

Or

The movement of gene from one linkage group to another is called

A. Inversion

B. Crossing over

C. Trranslocation

D. Linkage

Answer: C

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321. A reson for maternal inheritacne is due to genes present in

A. Cytoplasm

B. Mitochondria

C. Luysosmes

D. Nucleolus organising regions of chromosomes

Answer: B

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322. Which is the main category of mutation?

A. Genetic mutation

B. Zygotic mutation

C. Somatic mutation

D. None of the above

Answer: A

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323. Extra 18th autosomal chromosomes results in

A. Edward's syndrome

B. Patau's syndrome

C. Down's syndrome

D. None of the above

Answer: A

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324. Therory proposed by Bridges is

A. Sex reversal by gene

B. Hormonal control of sex

C. Genic balance

D. Developlment of gynandromorph

Answer: C

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325. Cross over frequency is proportional to

A. Phenotypic recombinant frequency

B. Genotypic recombinant frequency

C. Haploid number of chromosomes

D. Diploid number of chromosomes

Answer: A

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326. Marriage between colour blind man and normal woman shall result in

A. Colour blind female progeny

B. colour blind male progeny

C. normla visioned female progeny

D. normal visioned male and female progeny

Answer: D

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327. Hypertirichosis (hariy pinnae) is trait linked to

A. X-chromosome

B. Y-chromosome

C. Autosomes

D. None of the above

Answer: B

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328. Chromosomes complement with 2n-1 is calle as

A. Monosomy

B. Nuilliosomy

C. Trisomy

D. Terasomy

Answer: A

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329. The phenomenon of movement of DNA segment from one chromosome to another is

A. DNA replication

B. DNA transposition

C. DNA recombination

D. DNA hybridisation

Answer: B

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330. A haemophiliac man marries a carrier woman Their children will be

A. All children haemophiliac

B. One fourth children haemophiliac

C. Half children haemophiliac

D. One tenth childeren haemophiliac

Answer: C

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331. Male sex is determined in human zygote by

A. Nutrition of mother

B. Strength of father

C. Chromosomes composition of eff

D. Chromosomes composition of sperm

Answer: D

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332. Determination of percentage of crossing over between two linked genes is important in

A. Maintaining heterozygosity in poplulation

B. Indication relative position of genes in chromosomes

C. Fixation of heterosos in organisms

D. Explaining the phenomenon of coupling and replusion

Answer: B

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333. In human sperm besides autosomes the chromosomes complement contains

A. X andY

B. Either X or Y

C. Y only

D. X only

Answer: B

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334. Match the columns

	Column I		Column II
a	Down's Syndrome	*p*	An additional sex chromosome
b	Cri-du-chat Syndrome	*q*	Loss of a part of chromosome 5
c	Klinefelter's Syndrome	*r*	Absence of sex chromosome
d	Turner's Syndrome	*s*	Prsence of an extra chromosome
		t	Presence of two extra chromosomes

A. a-s,b-q,c-p,d-r

B. a-t,b-s,c-p,d-q

C. a-s,b-p,c-q,d-r

D. a-s,b-q,c-r,d-p

Answer: A

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335. If there is complete linkage in

A. F_2generation

B. Parental types and recombinants appear in equal ratioo

C. Recombinants are less than parental types

D. Recombinants are more than parental types

Answer: D

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336. Holandric gens /direct transmission of traits from father to son occurs through

A. Autosomes

B. X-chromosome

C. Y-chromosome

D. None of the above

Answer: C

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337. In Drosophila Xxy is female .In humans it represents an abnormal male because

A. Y-chromosome induces male traits in lhumans

B. Y-chromosome is essential for female sex in Drosophila

C. Y-chromosome is not essential for male sex in humans

D. None of the above

Answer: A

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338. In Drosophila, during organ differentiation, one organ can be replaced by another like wings by legs. Genes responsible for it are :

A. Plastid gens

B. Hpomeotic genes

C. Complementary genes

D. Supplementary genes

Answer: B

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339. Queen victoria of England was

A. Haemophiliac carrier

B. Colour blind

C. AIDS patient

D. Deaf

Answer: A

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340. A colour blind person connot distinguish

A. Red and green

B. Green and blue

C. Yellow and white

D. Black and yellow

Answer: A

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341. Albinism and phenylketonuria are disorders due ot

A. Recessive autosomal genes

B. Dominant autosomal genes

C. Dominant sex genes

D. Recessive sex genes

Answer: A

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342. Blood does not stop coming out of a wound in

A. Tetanus

B. Malaria

C. Haemophilia

D. AIDS

Answer: C

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343. One of the following is a random proces

A. Variations

B. Adaptations

C. Evolution

D. Mutations

Answer: D

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344. Is it possible to say when a gene will m mutate

A. Sometimes

B. Always

C. Never

D. The gene does not mutate

Answer: C

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345. Extra nuclear genes are present in

A. Cytoplasm

B. E.R and cytoplasm

C. Ribosome and cytoplasm

D. Mitochondrial and cytoplasmic particles

Answer: D

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346. A woman has a child with klinefetler 's syndrome .Number of barr bodies present in the child is

A. One

B. Two

C. Three

D. None

Answer: A

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347. Turner's syndrome is due to

A. Trisomy of chromosome 21

B. Trisomy of chromosome 18

C. Autosomal recessive gene

D. Absence of one sex chromosome

Answer: D

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348. Genes located on mitochondrial DNA bring about

A. Paternal inheritance

B. Maternal inheritance

C. Biparental inheritaance

D. Thee is no inheritance

Answer: B

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349. Even harmful mutations do not get eliminated from gene pool due tio

A. Genetic drift

B. Gigher frequency due to doninant nature

C. Being recessive and perisiting in heterozygous condition

D. Survival value

Answer: C

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350. Human chromosomes have been grouped on the basis of size and centromere into types

A. 5

B. 6

C. 7

D. 10

Answer: C

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351. Lyon's hypothesis is connected with

A. Number of barr bodies

B. Genetic compatibility

C. Genetic incompatibility

D. Centromere position

Answer: A

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352. Turner's syndrome is represented by

A. XYY

B. XO

C. XXXY

D. XXY

Answer: B

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353. Autosomes present in human sperm are

A. 46

B. 44

C. 23

D. 22

Answer: D

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354. The symbol of empty circules used in pedigree analysis represents

A. Normal females

B. Normal males

C. Affected females

D. Affected males

Answer: A

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355. Cytoplasmic gens enter an individual through

A. Centriles

B. Ribosomes

C. Golgi apparatus

D. Mitochondria

Answer: D

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356. Which one contains haploid set of chromosomes

A. Spermatogonium

B. Primary spermatocyte

C. secondary spermatocyte

D. primordial germ cell

Answer: C

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357. The term mutation was given by

A. De vries

B. Mendel

C. Darwin

D. Lamarck

Answer: A

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358. Genes exclusively present on Y-chromosome are called

A. Sex linked

B. Holandric genes

C. Holgynic

D. Histone

Answer: B

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359. Number of chromosomes in Geometrid Moth is

A. 224

B. 250

C. 78

D. 48

Answer: A

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360. Number of nucleosomes found in helical coil of 30nm chromatin fiber is

A. 6

B. 10

C. 12

D. 15

Answer: A

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361. Shape of chromosomes is determined by position of

A. centrosome

B. Centromere

C. Telomere

D. Micromere

Answer: B

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362. Hamophilia is due to mutation in

A. X and Y chromosomes

B. Y-chromosome

C. X-chromosome of female

D. Autosomal chromosome

Answer: C

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363. Seedless watermelons have been obtained through

A. Vegetative propagation

B. Haploidy

C. Triploidy

D. Gibberellin application

Answer: C

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364. Presence of recessive trait is 16% .The frequencyof dominat allele in polultin is

A. 0.6

B. 0.32

C. 0.84

D. 0.92

Answer: A

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365. In humans , Philadelhia chromosomee is formed by reciprocal translocation between chromosomes

A. 9 and 21

B. 9 and 22

C. 9 and 11

D. 20 and 10

Answer: B

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366. Scientist who was awarded Nobel prize for finding genes to be linearly arranged on chromosomes was

A. Wolf

B. Punnet

C. Morgan

D. Swammerdan

Answer: C

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367. A lady crrier for haemophilia (Hh) marries a normal man (HO) .Daughters of such a lady would be

A. 50% normal (HH) and 50% carrier (Hh)

B. 50% normal (HH) and 50% haemophilic (hh)

C. 50%crrieer (Hh) and 75% haemophilic

D. 75% carrier (Hh) and 25% hameophilic

Answer: A

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368. Barr body occurs in

A. Interphase cell of female mammal

B. Interphase cell of male mammal

C. Prophase cell of male mammal

D. Prophase cell of female mammal

Answer: A

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369. Strength of linkage is related inversely to distance between

A. Genes

B. Chromatids

C. Chromosomes

D. Telomeres

Answer: A

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370. Deletion of cetain genes cause

A. Gene mutation

B. Chromosome mutation

C. Gene modifiction

D. Aneuploidy

Answer: B

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371. Sex linked genes were discovered by

A. Johanssen

B. Mendel

C. Morgan

D. Muller

Answer: C

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372. Find out the mismatch

A. Klinefelter's syndrome -XO

B. Haemophilia -sex linked

C. Down's syndrome qutosomal anwquplody

D. Truner 's syndrome females with retarded sexual development.

Answer: A

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373. Extranuclear genes are found in

A. Plastids, not inherited

B. Plasmid, not inherited

C. Mitochondria,inherit ed from male

D. Mitochondria , inherited form female.

Answer: D

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374. X-rays cause mutation by

A. Transition

B. Transversion

C. Deletion and deficiency

D. Base substituion

Answer: C

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375. Transpons are found in

A. Eucaryotes

B. Procaryotes

C. Both A and B

D. Angiosperms only

Answer: C

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376. Genic balance theroy holds good in case of

A. Humans

B. Drosophila

C. Grasshopper

D. Allium cepa

Answer: B

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377. According to genic balance theroy ,X/A=1.5 will make the individual

A. Male

B. Meta or super female

C. Intersex

D. None of the above

Answer: B

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378. R-II strain of T_4 bacteriphage cannot lyse Escherichia coli .Two of its types , $R-II^x \text{and} R-II^y$ were allowed to invade the bacterium which lysed because of

A. Transformation into wild type

B. Presenece of similar cistrons

C. Presence of different cistrons

D. Absence of mutation

Answer: A

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379. AB genes are linked .What is genotype of progenyin a cross between AB/ab and ab/ab

A. AABB and aabb

B. AaBb and aabb

C. Aabb and aaBB

D. AaBb and AaBb

Answer: B

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380. Probability of all the four sons to a couple is

A. $\frac{1}{4}$

B. $\frac{1}{8}$

C. $\frac{1}{16}$

D. $\frac{1}{32}$

Answer: C

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381. Number of Barr bodies in XXXX female would be

A. 4

B. 3

C. 2

D. 1

Answer: B

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382. Male XX and female XY develop sometimes due to

A. Hormonal imbalance

B. Aneuploidy occurs due to chromosome doubling

C. Deletion

D. Transfer of segments between X and Y

Answer: D

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383. Inheritance would be extranuclear in case of

A. Killer Amoeba

B. Killer paramecium

C. Killer Euglena

D. Killer Hydra

Answer: B

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384. Under electron microscope , chromatin fibres apperar like beads in a string .The beads are appear like beads in a string. The beads are

A. Chromomeres

B. Nucleosomes

C. Solenoids

D. Chromonemas

Answer: B

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385. A disease sometimes found in persons above 40 which is charachterised by poor CNS corrdination, forgetfullness and tremor of hands is

A. Epilepsy

B. Alzheimer's disease

C. Migraine

D. Schizophrenia

Answer: B

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386. An abnormality not due to recessive gene is

A. Phenylketonura

B. Alkaptonura

C. Polydactyly

D. Tay sach's syndrome

Answer: C

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387. Epicanthus is symptom of

A. Haploidy

B. Turner's syndrome

C. Down's syndrome

D. Hetreoploidy

Answer: C

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388. An inborn error of metabolism which eventually affects mental development is

A. Albinism

B. Phenylketonuria

C. Anaemia

D. Bleeder's disease

Answer: B

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389. Presence of beard in man is

A. Sex limited character

B. Sex linfluenced character

C. Y- linked character

D. X-linked character

Answer: B

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390. As per latest information human genome has

A. 300000 genes

B. 30000 genes

C. 3000 genes

D. 300 genes

Answer: A

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391. Male is haploid in

A. Lizard

B. Cockroach

C. Honey Bee

D. Bats

Answer: B

Watch Video Solution

392. Male is haloid in

A. Lizard

B. Cockroach

C. Honey Bee

D. Bats

Answer: C

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393. A boy with normal brother and colourblind sister has his parents

A. Fateher normal mother colourblind

B. Both normal

C. Both colourblind

D. Father colour blind and mother normal

Answer: D

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394. Father of human genetics is

A. Cuvier

B. Bateson

C. Mendel

D. Garrod

Answer: D

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395. Number of barr bodies in human female is

A. 1

B. 2

C. 3

D. 4

Answer: A

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396. Deficenecy of VIII factor leads to

A. Haemophilia A

B. Haemophilia B

C. Haemophilia C

D. Haemophilia D

Answer: A

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397. Durning preparation of gene maop, recombinatin frequencies are additve over short distacnes sbut not exactly over long distances due to

A. Synaptinemal complex

B. Inhibitor genes

C. Multiple cross overs

D. Mutations

Answer: C

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398. Klinefelter's syndrome is due to sex cpomplement of

A. XO

B. XY

C. XXY

D. XYY

Answer: C

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399. Barr body is associated with

A. Autosome

B. X-chromosome

C. Y-chromosome

D. Male sex only

Answer: B

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400. Limnaea shell coiling is due to

A. Maternal inheritance

B. Cytaopl,asmic inheritance

C. Extranuclear inheritance

D. All the above

Answer: D

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401. Polydactyly ihn man is due to

A. Autosomal recessive allel

B. Autosomal dominant allele

C. Sex linked recessive allele

D. Sex linked dominant allele.

Answer: B

 Watch Video Solution

402. Addition of individual chromosomes is mutation called

A. Polyploidy

B. Structural mutation

C. Polysomy

D. Point mutation.

Answer: C

Watch Video Solution

403. Haemophilia is

A. Autosomal disease

B. Bacterial disease

C. Viral disease

D. Sex linked disease.

Answer: D

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404. Chromosome cpmplement of human male is

A. 44+AO

B. 44A+XX

C. 44A+XY

D. 44A+XXY

Answer: C

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405. A normal woman whose father was colour blind marries a cloublind man. What percentage of girls born to these parents would be colourblind

A. 1

B. 0.75

C. 0.5

D. 0.25

Answer: C

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406. A monosomic (2N-1) abnormality in human is

A. Klinefelter,s syndrome

B. Turner's syndrome

C. Edward's syndrome

D. Down' s sydrome.

Answer: B

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407. Which is not a correct match?

A. Sex determination- chromosomal phenomenon

B. Red green colour blindness sex linked charcxter

C. Abnormal chromsosopme number polyploidy

D. Y- chromosome autosomal

Answer: D

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408. Down's syndrome is related to

A. Increase in chromosome number of 21 st pair

B. Decrease in chromosome number of 21 st pair

C. Increase in chromosome number of 18th pair

D. Decrease in chromosome number of 18th pair

Answer: A

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409. A disease found only in males is

A. Gaucher's disease

B. Lesch Nyhan disease

C. Hunter 's disease

D. Fabry's disease.

Answer: B

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410. As per Lyon's hypothesis one of the two x - chromosomes undergoes heterochromatisation and is called

A. Barr body

B. Karyotypic body

C. Genotypic body

D. Phenotypic body

Answer: A

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411. The function of crossing over is

A. Segregation of alleles

B. Recombination of alleles

C. Segregation of chromosomes

D. Distribution of linked genes.

Answer: B

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412. Which one brings about point mutation?

A. 5- methyl cyosine

B. Guanine

C. Adenine

D. 5-Bromouracil.

Answer: D

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413. An octamer of four histones complex with DNA is claled

A. Endosome

B. Nucleosome

C. Raff

D. Nucleotin

Answer: B

Watch Video Solution

414. Frequency of recessive allele is 0.2 what is the frequency of homozygous dominant?

A. 0.64

B. 0.32

C. 0.8

D. 0.064

Answer: A

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415. One of the following is holandric inheritance

A. Haemophilia

B. Epidermolysis

C. Webbed toes

D. Turner's syndrome.

Answer: C

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416. An example of sex influenced inheritance is

A. Haemophilia

B. Baldness

C. Colourblindness

D. Down 's sysnderome.

Answer: B

View Text Solution

417. Male child with blood group AB is colourblind His parnets could be

A. Father norma vision with blood group A, mother colourblind with group O

B. Father colourblind with group O, mother colourblind with blood gourp AB .

C. Father normal vision with blood group A, mother colourblind with blood group B

D. Father colourblind with blood group O, mother normal vision with blood group O.

Answer: C

View Text Solution

418. Probability of male child of hamemophlicac father and normal mother becoming haemophiliac ius

A. 0

B. 0.25

C. 0.5

D. 1

Answer: A

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419. Which one can reverse the harmful effect of previous mutation?

A. Intergenic mutation

B. Interagenic mutation

C. Supepressor mutation

D. Indirect suppression.

Answer: C

View Text Solution

420. Process of genetic mutation is

A. Reversible

B. Irreversible

C. Partially reversibvle

D. Continuous.

Answer: D

View Text Solution

421. Genic blance of sex determination was proposed by

A. Bridges

B. Mendel

C. Balbiani

D. Morgan

Answer: A

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422. Twenty third pair of human chromosomes are known as

A. Autosomes

B. Hetersomes

C. Chromatids

D. Chromosomes

Answer: B

View Text Solution

423. Edward's syndrome characterised by mental dificency is caused by trisomey of chromosome

A. 5

B. 9

C. 15

D. 18

Answer: D

Watch Video Solution

424. A man is sterile due to imporp[er development of testis which has an additional X chromosome. Heis suffering from

A. Turner 's syndrome

B. Huntington 's disease

C. Klinefelter's syndrome

D. Marfan's syndrome

Answer: C

Watch Video Solution

425. Turner's syndrome where vindividuals are phenotypically female but have rudimentary

sex organs and mammary galnds is due to absence of

A. Both x chromosomes

B. Y- chromosomes

C. One X- chromosomes/44+XO

D. X-Y chromosomes

Answer: C

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426. A colourblind man marries a woman with normal vision. The offspring will be

A. All sons colourblind

B. All doughters colour blind

C. Both A and B

D. All sons and soughters normal but doughters are carriers

Answer: D

 Watch Video Solution

427. Three genes a b c show crossing over 20% between a and b, 28% between b and c and 8% between a and c. Swquence of genes will be

A. bac

B. abc

C. acb

D. None of the above

Answer: A

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428. A diploid cell is treated with colchicine .It becomes

A. Diploid

B. Monoploid

C. Triploid

D. Tetraploid

Answer: D

View Text Solution

429. Which is correctly matched?

A. A parkinsons's disease -X and Y-chromosomses

B. Haemophilia-Y chromosomes

C. Down's syndrome -21 st chromosome

D. Stickle cell anaemia -X dchromosomes

Answer: C

Watch Video Solution

430. A diseased man marries a normal woman. The couple has 3 doughters and 5 sons. The daughters are diseased while the sones are normal . The gene of the disease is

A. Sex linked recessive

B. Sex linked dominat

C. Autosomal character

D. Sex limited character.

Answer: B

View Text Solution

431. A mother is afflicted by Down's syndorme causerd by an extra copy of chromosome 21 Father is normal .percentage of offspring affected by the disorder would be

A. 1

B. 0.75

C. 0.5

D. 0.25

Answer: C

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432. Which of the following discoveries resultated in Nobel Prize

A. Recombination of linked genes

B. X- rays induce sex linked recessive lethal mutations

C. Genetic Engineering

D. Cytoplasmic inheritacne

Answer: B

View Text Solution

433. Linkage map of X-chromosomes of fruitfly has 66 map units with yellow body gnen(y) at one end and bobbed hair (b) at the other . The recombination frequecny between y and b gene would be

A. 0.66

B. $> 50\,\%$

C. $\leq 50\%$

D. 1

Answer: C

View Text Solution

434. Genes for cytoplasmic male sterility in plants are located in

A. Chloroplast genome

B. Mitrochondrial genome

C. Nuclear genome

D. Cytosol

Answer: B

Watch Video Solution

435. Christmas disease is another name of

A. Sleeping sickness

B. Down's syndrome

C. Hepatitis

D. Haemophilia B

Answer: D

436. In Drosophila sex is determined by

A. X and Y chromosomes

B. Ratio of pairs of X- chromosomes to the pairs of autosomes

C. Ratio of number of x chromosomes to the sets of autosomes

D. Whether the egg is fertislised or develops parthenentically.

Answer: C

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437. Pattern baldness ., moustaches and beard fin himan males are examples of

A. Sex linked traits

B. Sexdiffeentiating traits

C. sex limited traits

D. sex detmining traits

Answer: B

View Text Solution

438. A hrmful condition which is also pitential saviour form a mosquito borne infectious disease

A. Thalassemia

B. Sicke cell anaemia

C. Leukemia

D. Pernicious anamia

Answer: C

View Text Solution

439. Genetic map is one that

A. Establishes sites of the gene on a chromosome

B. Establishes the various stages in gene evolution

C. Shows the stages during cell division

D. Shows distrubution of various speices in a region.

Answer: A

 Watch Video Solution

440. One of the gnes present exclusively in the X - chromosome in himans is concerned with

A. Baldness

B. Red-green colour blindness

C. Facial hair/ moustaches in males

D. Night blindness

Answer: B

View Text Solution

441. The christams disesase patient lacks antihaemophilic

A. Homogenticsic acid oxidase

B. Factor VIII

C. Factor XI

D. Factor IX

Answer: D

Watch Video Solution

442. Ishiara charts are used by ophthalamologist for detecting

A. Eye infection

B. Night blindness

C. Colour blindness

D. Fingler prints

Answer: C

 Watch Video Solution

443. Sickel cell anaemia is a

A. Metabolic disorder

B. Genetic disorder

C. Degenerative disorder

D. Pathogenic disorder

Answer: B

Watch Video Solution

444. Haemophilia does not occur in women

A. It is autosomal recessive

B. women have to be homozygous which is fata

C. They have only one X- chromosome

D. Theyare more resistant to this disorder

Answer: B

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445. Albinism is due to hereditary deficiency of enzyme

A. Amylase

B. Carbonic anhydrase

C. Acetuy chloine esterase

D. Tyrosinase

Answer: D

Watch Video Solution

446. Ultraviolet radiations cause mutations due to

A. formation of thymine dimers/ thymidine

B. Deletion f base pairs

C. Addtion of base pairs

D. Methylation of base pairs.

Answer: A

Watch Video Solution

447. The loss of one single chromosome creates a condition called:

A. Hap[loidy

B. Nullisonmyt

C. Trisomy

D. Monosomy.

Answer: D

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448. In Melandrium sex determination is of

A. XX-XO

B. ZZ-ZW

C. XX-XY

D. XY-XO

Answer: C

 Watch Video Solution

449. Wilson detected the colour blindness disease in

A. 1921

B. 1911

C. 1910

D. 1914

Answer: C

 Watch Video Solution

450. Presence of one Barr body in WBC iondicates theat the person is

A. Colour blind normal male

B. Normal femal

C. Haemophiliac

D.

Answer: C

Watch Video Solution

451. Which one is inheristed disorder ?

A. Albinism

B. AIDS

C. Parkinson disease

D. Leprosy

Answer: A

Watch Video Solution

452. What is not true of hamemophilia?

A. Bleeders disease

B. Royal disease

C. X-linked disorder

D. Y-linked disrder

Answer: D

Watch Video Solution

453. A normal woman whose fateher was colour blind marries a normal man .the progencyt would be

A. Sons normal duaghters colour blind

B. Sons colour blind, daughter normal

C. 50% sons colour blind, remaining 50 % sons and all daughters phenotypically normal

D. Bopth sons and daughter are colour blind.

Answer: C

Watch Video Solution

454. XXY perosn suffers from

A. Down's syndrome

B. Kilnefelter's syndorme

C. AIDS

D. Turner 's syndrome

Answer:

Watch Video Solution

455. A condition of bnot having exact multiple of haploid set is

A. Aneuploidy

B. Synploidy

C. Polylpoidy

D. All the above

Answer: A

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456. Crossing over result in

A. Recombination between linked genes

B. Linkages between genes

C. Segregation of genes

D. Dominacne of genes.

Answer: A

Watch Video Solution

457. Tay sach s disease is due to

A. Sex linked recessive gene

B. Sexlinked dominant gene

C. Autosomal dominant gene

D. Autosomal rescessive gene

Answer: D

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458. Colchincine was discovered by

A. Flemming

B. Blakeslee

C. Dumans

D. Muller

Answer:

 Watch Video Solution

459. Mustard gas was used as a chemical mutagen for the first time by

A. Muller

B. Alterberg

C. Auerbach and Robinson

D. Stadler.

Answer: C

 Watch Video Solution

460. Chromosomes other than sex chromosomes are called

A. Allsomoes

B. Autosomes

C. Lampbrush chromosomes

D. Hetersomoes

Answer: B

Watch Video Solution

461. Mutation in which a part or complete gene is removed is

A. Deletion

B. Inversion

C. Translocation

D. Duplication

Answer: A

Watch Video Solution

462. Chromosomal doubling for producing piolyploid plants is carried out by

A. PEG

B. NAA

C. EMS

D. Colchincine.

Answer: D

 Watch Video Solution

463. Chromosomla doubling for producing polyploid plants is carried out by

A. PEG

B. NAA

C. Mutagen

D. Fusogen

Answer: C

Watch Video Solution

464. Sex linked traits are generally

A. Lethal

B. Rescssive

C. Dominant

D. Pleiotropic

Answer:

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465. Number of linkage groups in pisum sativum is

A. 4

B. 5

C. 7

D. 10

Answer: C

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466. Monosomic and trisomic conditions are

A. 2n -1, 2n+1

B. 2n-1,2n-2

C. 2n+1,2n+3

D. n,n+1

Answer: A

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467. The phenomenon of closely placed genes being inherited together is f

A. Linkage

B. Crossing over

C. Gene interaction

D. Qualitative inheritance

Answer: A

Watch Video Solution

468. Which is gentically transmitted trait?

A. Haemophilia

B. Muscular dystrophy

C. Colour blindess

D. All the above

Answer: D

Watch Video Solution

469. Percentage of similarity of β chain of Hb in humans and Rhesus monkey is

A. 0.02

B. 0.04

C. 0.08

D. 0.4

Answer: D

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470. Frequency of Down syndrome increases when the maternal age is :

A. Below 35 years

B. Above 35 years

C. At the time of first pregnanacy

D. After bearing three children

Answer: B

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471. A recessive mutation is

A. Not expressed

B. Rarely expressed

C. Expressed only in homozygous and hemizygous sites

D. Expressed only in heterozygous state.

Answer: C

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472. The male has a mutation in his mittochondria During segregation , the mutation is found in

A. None of the progeny

B. One third of progeny

C. Half of progeny

D. Whole of progeny

Answer: A

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473. Lack of independent assortment between two genes A and B would be due to

A. Crossing over

B. Linkage

C. Repulsion

D. Recombination

Answer: B

 Watch Video Solution

474. Recessive gene present on one X-chromosome of humans will be

A. Lethal

B. Sublethal

C. Expressed in males

D. Expressed in females

Answer: C

 Watch Video Solution

475. A male human is heterozygous for autosomal genes A and B .He is also hemizyous for hameophilic gene H h. what prolportion of sperms will carry abg

A. $1/8$

B. $1/32$

C. $1/4$

D. $1/16$

Answer: A

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476. A mutation at a gene locus changes a character due to change in

A. DNA replication

B. Protein synthesis pattern

C. RNA transcription pattern

D. Protein structure

Answer: D

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477. Phen ylketonuria is genetic disorder caused by a defect in metabolism of

A. Fatty acids

B. Polysaccharide

C. Amino acids

D. Vitamins

Answer: C

 Watch Video Solution

478. Philadelphia chromosome ocurs in patients suffering from

A. Leukemia

B. Riockets

C. Hepatitits

D. Albinism

Answer: A

Watch Video Solution

479. Amino acid substituted in sickel cell anamia is

A. Glutamic acid for valine in alpha chain

B. Glutamic acid for valine in beta chain

C. Valine for gulatanic acid in apha chain

D. Valine for glutamic acid in beta chain

Answer: D

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480. Failure of separation of sister chromatuds us

A. Fusion

B. Nondisjucntion

C. Complementation

D. Interference

Answer: B

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481. Monosomeic trisomy is

A. 2N-1+1

B. 2N-1-1

C. 2N-1

D. 2N+1+1

Answer: A

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482. Turner' s syndrome is due to

A. Monosomy

B. Bisomy

C. Trisomy

D. Polyploidy

Answer: A

Watch Video Solution

483. Total number of base pairs found in human genome is

A. 3.5 meillion

B. 35000

C. 35 billion

D. 3.1 billion

Answer: D

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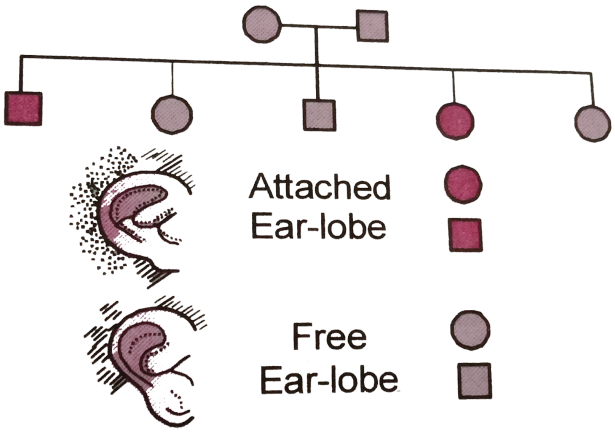
484. From the pedigree chart find out if



A. Parents are homozygous

B. Parents are heterozygous

C. Parents are homozygous recessive

D. Trait is Y- linked

Answer: B

 Watch Video Solution

485. Gynaecomastia is a symptom of

A. Turner 's syndrome

B. Klinefelter's syndrome

C. Down's ysndrome

D. SARS

Answer: B

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486. Colchicine brings about

A. Gene mutation

B. Chromosome aberratiion

C. Quick repleication

D. Duplication of chromosomes

Answer: D

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487. A normal spontaneous rate for a single gene is one mutation in every... replication

A. $10^3 - 10^5$

B. $10^5 - 10^7$

C. $10^6 - 106(9)$

D. $10^7 - 10^{10}$

Answer: B

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488. Percentage of recombination between A and B is 9% A and C 17% and B and C is 26% The arrangement of genes would be

A. A-B-C

B. A-C-B

C. B-C-A

D. B-A-C

Answer: D

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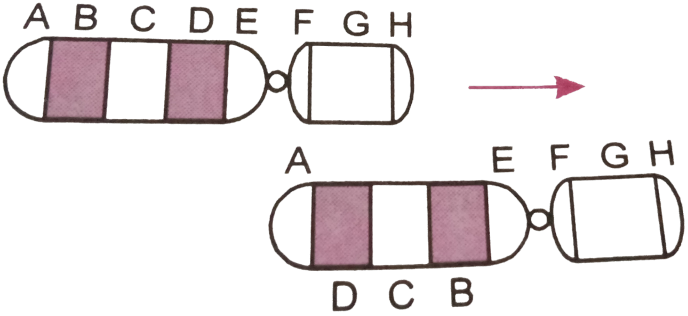
489. Given in the figure is chromosomal mutation It is



A. Duplication

B. Inversion

C. Deletion

D. Reciprocal translocation

Answer: B

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490. The most likely reason for the development of resistence against pesticides in insects damaging a crop is

A. Genetic recombination

B. Acquired heritable changes

C. Random mutations

D. Directed mutations

Answer: C

Watch Video Solution

491. Which genotype and phenotype is a result of aneouploidy in sex chromosomes ?

A. 22 pairs + XXY male

B. 22+Xxfemale

C. 22pairs +XXXY female

D. 22 pairs +Y female

Answer: A

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492. Defect in amino acid metabolism may result in

A. Porphyria

B. Phenyletonuria

C. Wilson's disease

D. Tay sch 's disease

Answer: B

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493. Mutation altering nucleotide sequence within a gene are

A. Frame shif mutations

B. Base pair substitution

C. Both A and B

D. None of the above

Answer: A

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494. A sudden spontaneous change in structure and action of a gene is called

A. Variation

B. Allelomeorph

C. Linkage

D. Mutation

Answer: D

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495. Genes that change their lockation on chromosome are

A. split genes

B. Duplicate genes

C. Jumpling genes

D. Pleitropic gense

Answer: C

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496. Mongolism is

A. Turner 's syndrome

B. Klinefetler 's syndrome

C. Down 's syndrome

D. Hypothalamic syndrome

Answer: C

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497. In man sex linked cahracters are mainly transmitted though

A. Autosome

B. Y- chromosome

C. X-chromosomes

D. All the above

Answer: C

Watch Video Solution

498. Albinism is a result of inability of the system to convert amino acid

A. Alanine

B. Tryptophan

C. Lysine

D. Phenylalanine

Answer: D

 Watch Video Solution

499. Heterochromatic region is

A. Gentically more active

B. Genetically less active

C. Loosely coiled region

D. Lightly coloured region

Answer:

Watch Video Solution

500. Which one is sex related disease ?

A. Chrismtams disease

B. Klinefelter 's syndrome

C. Phenylketonuria

D. Albinism

Answer: A

 Watch Video Solution

501. If haemophilic female survives and marries a normal male , the theroetical ratio of their offspring regrding haimophilia will be

A. All offspring haemophilc

B. All girls haemophilic

C. All sons haemophilic

D. 50% of sons and 50% daughters haemophilic .

Answer: C

Watch Video Solution

502. Haploid chromososme number of body cells is 21

A. 21

B. 22

C. 23

D. 46

Answer: C

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503. Diagrammatic representation of chromosomes I s

A. Karyotype

B. Idiogram

C. Chromosome map

D. Phenogram

Answer: B

Watch Video Solution

504. Sex linke traits of a man are presetn on

A. X chromosome

B. Autosomes

C. Short arm (p) of Y- chromosome

D. Long arm (q) of Y- chromsome.

Answer: A

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505. Sex linked character have a distinct feature of

A. Occurrence on X chromosome

B. Occurrence on Y- chromosome

C. Non criss cross inheritance

D. Criss cross inheritacne

Answer: D

 Watch Video Solution

506. In skip generation inlheritance of colour blindness the trait from a colourblind man is passed on to

A. Daughter

B. son

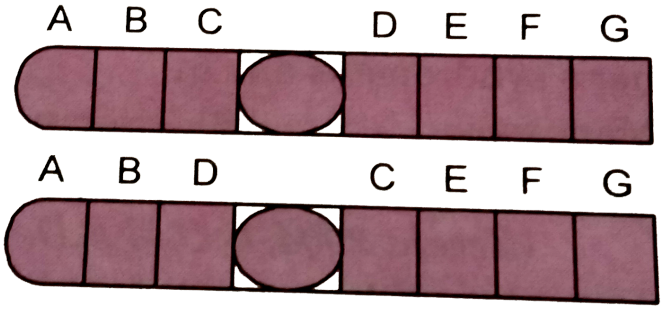
C. Grand duaghter

D. Grand son

Answer: D

 Watch Video Solution

507. Type of chromosomal aberration indicatied in diagram shows



A. Interstitila translocation

B. Reciprocal trranslocation

C. Pericentricc trancsloscation

D. Paracentric translocation

Answer: C

Watch Video Solution

508. One centi Morgan is equal to recombination frequancy of :

A. 1

B. 0.1

C. 10

D. 0.01

Answer: A

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509. A hereditary disease which is seldom passed from father to son is

A. Autosomal linked disease

B. Xchromosomal linked disease

C. Y chromosomal linked disease

D. None of the above

Answer: B

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510. The condition of an extra chromosome in addition to its homologous pair is

A. Trisomy

B. Monosomy

C. Polyploidy

D. Nullisomy

Answer: A

 Watch Video Solution

511. Which one of the following techniques is employed in human genetic counselling ?

A. Serological technique

B. Polyploidy

C. Pedigree analysis

D. Amniocentesis

Answer: C

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512. Barr body is observed in

A. Basophils of male

B. Neutrophils of female

C. Nbaseophils of female a

D. Eosinophils

Answer: B

Watch Video Solution

513. Which of the following is incorrectly paired

A. sry gene- X chromosome

B. 2n-2- Nullisome

C. Nucleoid- prokaryote

D. Polytene chromosome -Drosophila

Answer: A

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514. Balckining of exposed urine is a metaboic disorder due ot

A. Phenylalanine

B. Tyrosine

C. Homogenticsic acid

D. Valine replacing gultamic acid

Answer: C

Watch Video Solution

515. A normal couple has seven children (2 doughter and 5 sons) .Three of the sons ssthe doughters is affected . Which is the inheritacne type?

A. Sex limited recesive

B. Autosomal dominanat

C. Sex linke dominant

D. Sex linked recessive

Answer: D

Watch Video Solution

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516. A women with 47 chromosomes due to three copies of chromosomes 21 is charactericzed by :

A. Super femaleness

B. Turner's syndrome

C. Down's syndorme

D. Tripolidy

Answer: C

Watch Video Solution

517. Frequecy of A allele is 0.6 and that of a allele is 0.4 what would be frequency of heterozygoetes in random mating polultion?

A. 0.36

B. 0.16

C. 0.24

D. 0.48

Answer: D

Watch Video Solution

518. Which one is not a hereditary disease

A. Cystic fibrosisi

B. cretinism

C. Thalassaemia

D. Hamophilia

Answer: B

Watch Video Solution

519. A woman with normal vision but with colurblind father marries a coloublind man The fouth child of the couple is a boy .This boy

A. May or may not be colourblind

B. Must be colourblind

C. Must have nrormal vision

D. Will be partially coloublind due to being heterozygous

Answer: A

Watch Video Solution

520. Transposons are

A. House keeping genes

B. Transporting genes

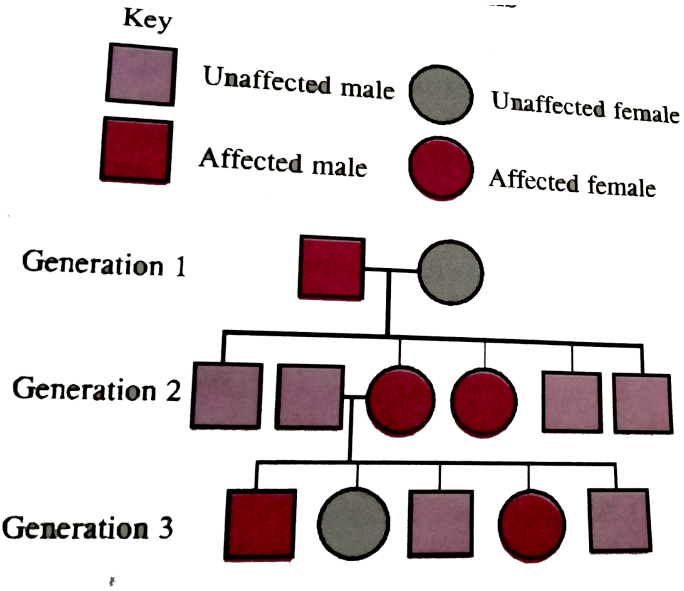
C. Jumping genes

D. Stationary genes

Answer: C

Watch Video Solution

521. Given below is a pedigree chart with symbols for sex linked triat in humans



The trait of the above pedigree chrt is

A. Recessive Y linked

B. Resccessive X linked

C. Dominant Y linked

D. Dominant X- linked

Answer: D

Watch Video Solution

522. Cri- du chat syndrome is due to chromosomal change invlving

A. Duplication

B. Inversion

C. Deletion

D. Translocation

Answer: C

Watch Video Solution

523. Primary source of allelic variation is

A. Independent assortment

B. Recombination of alleles

C. Mutation

D. Polyploidy

Answer: B

Watch Video Solution

524. Assertion : Persons sufffering from haemophilia fail to produce blood cloting factor . VIII.

Reason : Prothrombin producing plateles in such persons are found in very low concentration

A. A

B. B

C. C

D. D

Answer: C

Watch Video Solution

525. Assertion (a) :- An organism with lethal mutation may not even develop beyond the zygote stage.

Reason (R) :- All types of gene mutations are lethal .

A. A

B. B

C. C

D. D

Answer: D

Watch Video Solution

526. Assetion . Polytene chromosomes have a high amount of DNA.

Reason Polytene chromosomes are formed be brepeated replication of chromosomal DNA without separation of chromatids

A. A

B. B

C. C

D. D

Answer: A

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527. When two genetic loci produce indentical phentotypes in cis and trans positionn they are

A. Pseudoalleles

B. Multiple alleles

C. Part of same gene

D. Different genes

Answer: A

Watch Video Solution

528. Sex limited and sex linked genes are located oin

A. Autosomes q

B. X-chromosome

C. Y-chromosome

D. Both A and B

Answer: D

Watch Video Solution

529. Wilson disease is asoicated with abnormal matabolism of

A. Iron

B. Potassium

C. Copper

D. Iodine

Answer: C

Watch Video Solution

530. Melenurea (black urine) is caused by abnormal catabolism of

A. Alanine

B. Tyrosine

C. Proline

D. Tryptophan

Answer: B

Watch Video Solution

531. Which is fuctional unit of inheritance

A. Ciston

B. Intron

C. Chromosome

D. Gene

Answer: D

Watch Video Solution

532. Haemophilical man marrie a normal homozygous female. The probability of their child beign haemophiliac is

A. 0

B. 0.25

C. 0.5

D. 0.75

Answer: A

 Watch Video Solution

533. Which is not an X- linked recessive disease?

A. β-Thealassemia

B. Haemophilia-Y chromosomes

C. Colour blindness

D. Glucose 6 phosphate dehydrogenase deficiecny.

Answer: A

Watch Video Solution

534. The condition of sickle cell anamia ais due to

A. Chromosomal mutation

B. Silent mutation

C. Point mutation

D. Frame shift mutation

Answer: C

Watch Video Solution

535. Sickle cell anamia has not been eleiminated from African polulation as

A. It is controlled by dominant genes

B. It is controlled by rescessive genes

C. It is not a fatal disease

D. It provides immunity aginst malaria

Answer: D

 Watch Video Solution

536. Which of the following is the most suitavble medium for culture of most suitable medium for culture of Drosophila melanogaster?

A. Cow dung

B. Moist bread

C. Agar agar

D. Rip[e Banana

Answer: D

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537. Cri-du-chat syndrome in humans is caused by

A. Trisomy of 21st chromosome

B. Loss of half of short arm of chromosome 5

C. Loss of half of long of long arm of chromosome 5

D. Fertilization of an XX egg by a normal Y bering sperm.

Answer: B

 Watch Video Solution

538. Both sickle cell anamia and Huntington 's chorea are

A. Virus related diseases

B. Bacteria related diseases

C. Congenital disorders

D. Pollution induced disroders.

Answer: C

Watch Video Solution

539. Expression of recessive genes on X-chromosome occurs in males genes on

A. Hemizygous conditujon

B. Homozygours nature

C. Polyzygous nature

D. Inverted vondition

Answer: A

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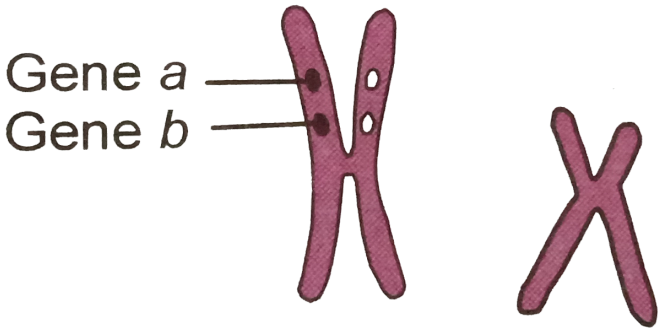
540. Give below is highly smplified represnttion of the human sex chromosomes from a karyotype



The genes a and b could be of

A. Colou blindness and body height

B. Attached earl,obe and Rhesius bloood group

C. Gaemophila and red green colour blindness

D. Phenylketonuria and hamophila

Answer: C

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541. Gnes present in the cyoplasm of eukaryotic cells are found in

A. Mitochondira and inherited via egg cytoplasm

B. Lysomsomes and peroxisomes

C. Golgi bodies and ser

D. Plastids and inherited via male gametes.

Answer: A

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542. Which represent correct hexaploid nature of wheat?

	Mono-somic	*Haploid*	*Nulli-somic*	*Trisomic*
(A)	21	28	42	43
(B)	7	28	40	42
(C)	21	7	42	43
(D)	41	21	40	43.

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543. Phenylketonura Huntington's disease and sickle cell anaemia are caused by disorders associated with chromosomes

A. 7,11 and 12

B. 12,4 and 11

C. 11,7 and 11

D. 7,12 and 11

Answer: B

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544. Accumulation of prottein amyloid β peptide in human brian causes

A. Addison 's disease

B. Hundtingron's disease

C. Parkinson 's disease

D.

Answer: C

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545. Choose the correct combination

a	Walter Sutton	1.	Discovered penicillin
b	Thomas Hunt Morgan	2.	Discovered chromosomal basis of heredity
c	James Watson	3.	Described the phenomenon of linkage and crossing over
d	Alexander Fleming	4.	Discovered double helical structure of DNA

A. a-1,b-4,c-2,d-3

B. a-2,b-3,c-1,d-4

C. a-3,b-2,c-1,d-4

D. a-2,b-3,c-4,d-1

Answer: D

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546. Solenoid is atructure of

A. Nucleosomal organisation with 10 nm thickness

B. Condenese chromatin fibre with 30 nm diameter

C. Highly condensed form of chromatid with 300 nm thickness

D. Well organised chromatid with 700 nm thickness

Answer: B

Watch Video Solution

547. Genetic maps of chromosomes are based on the frequency of

A. Nondisjunction

B. Translocation

C. Dominance

D. Genetic recmombination

Answer: D

Watch Video Solution

548. Chromosome complement of Down 's syndorme is

A. 2N-1+1

B. 2n-1-1

C. 2n+1,2n+3

D. 2n+1+1

Answer: C

 Watch Video Solution

549. Methylation of DNA commonly occurs in the sequence

A. CMG

B. CMA

C. CmT

D. CmC

Answer: A

Watch Video Solution

550. Down 's syndorme is due to nondisjunction of

A. X-chromosome

B. Y-chromosome

C. Autosome

D. Second chromosome of Drosophila

Answer: C

Watch Video Solution

551. Morgan proposed tht genetic exhcagen or recombination occurs in the region of

A. Chiasmata

B. Linkage

C. Centromere

D. Telomere

Answer: A

 Watch Video Solution

552. The gene for cystic fibrosis is locatied over chromosome

A. 4

B. 7

C. 11

D. 12

Answer: B

Watch Video Solution

553. Basic set of chromosome number is called

A. Eupolid

B. Polyploid

C. Aneuploid

D. Monoploid

Answer: D

 Watch Video Solution

554. Mutations that devoelop suddnely in nature are

A. Spontaneous

B. Induced

C. Ghene mutatuons

D. Chromosomes mutations.

Answer: A

 Watch Video Solution

555. Drosophila is metamale with chromosomal formulation

A. 2A+3X

B. 3A+3X

C. 4A+3X

D. 3A+XY

Answer: D

Watch Video Solution

556. Match the columns

I	II
1. *Sickle cell anaemia*	*a* 7th chromosome
2. *Phenylketonuria*	*b* 4th chromosome
3. *Cystic fibrosis*	*c* 11th chromosome
4. *Huntington's disease*	*d* X-chromosome
5. *Colour blindness*	*e* 12th chromosome

A. 1-a,2-c,3-d,4-b,5-e

B. 1-c,2-e.3-a,4-b,5-d

C. 1-b,2-c,3-d,4-e,5-d

D. 1-b,2-a,3-c,4-e,5-a

Answer: B

 Watch Video Solution

557. What is correct? Monosmy and nullisomy are two typs of euploidy

A. Monosomy and nullisomy are two types of euploidy

B. Polyploidy is more common in animlas than in plants

C. Polyplods occur due to failure in separtin of complete sets of chrpmosomes

D. 2n-1 is trisomey

Answer: C

Watch Video Solution

558. Down 's syndorme and Turner's syndrome are due to respectively

A. Monosomic and nullisonic condition s

B. Trisomic and monosomic conditions

C. Monosomic and rtrisomic conditions

D. Trisomic and tetrasomic conditions

Answer: B

Watch Video Solution

559. Number of chromosomes in male grsshopper is

A. 8

B. 45

C. 46

D. 23

Answer: D

 Watch Video Solution

560. Epicanthus skin fold above the eyes and transverser plamer crase are typical symptoms of

A. Cri-du-chat

B. Klinefelter's syndrome

C. Down 's syndrome

D. Truner 's syndrome

Answer: C

561. Nucleoprotein structres found at the end f chromosome are

A. Centreomeres

B. Telomers

C. Satellites

D. Centrosomes

Answer: B

Watch Video Solution

562. Longest chromosomes occur e in

A. Lilium

B. Zea mays

C. Allium

D. Trillium

Answer: D

 Watch Video Solution

563. Sex chromosomes of birds are

A. ZW-ZZ

B. ZZ-WW

C. XX-XY

D. XO-XX

Answer: A

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564. An agent that proomotes occurrence of mutation is called

A. Carcinogen

B. Mutagen

C. Muton

D. Both B and C

Answer: B

 Watch Video Solution

565. An organism carrying mutated gene is

A. Mutant

B. Recon

C. Muton

D. Mutator

Answer: A

 Watch Video Solution

566. Number of linkage groups in Escherichia coli is

A. 1

B. 2

C. 4

D. 5

Answer: A

 Watch Video Solution

567. R and y genes of Maize lie very close to each other . When RRYY and rryy gneotypes are hybridised , F_2 genertion will show

A. segregation in 9:3:3:1 ratio

B. segregation in 3:1 ratio

C. Higher number of parental types

D. Higher number of recombinant types

Answer: C

 Watch Video Solution

568. Telomeres with repetitive DNA sequence

A. Act as replicons

B. Are transcription initiators

C. Help in chromosome pairing

D. Prevent chromossome loss

Answer: D

Watch Video Solution

569. Nongenetic sex determination occurs in

A. Bonellia

B. Cow

C. Birds

D. Fruitfly

Answer: A

Watch Video Solution

570. Given below are assertion and reason. Point out if both are true with reason being correct explanation (A), both are true but

reason is not correct explanation (B), assertion is true but reason is wrong (C) and both are wrong (D) . Assertion. In some species of asteraceae and poaceae, seeds are formed without fertilization Reason. Formation of fruit without fertilization is called parthenocarpy

A. A

B. B

C. C

D. D

Answer: A

 Watch Video Solution

571. Sex chromosomes of a female bird are represented by

A. XO

B. ZZ

C. ZW

D. XX

Answer: C

 Watch Video Solution

572. Distance between the genes a,b,c and d in map units is a-d =3.5 , b-c=1,a-b=6, c-d=1.5 and a-c=5 .Find out the sequecne of the genes

A. Adcb

B. acdb

C. abcd

D. acbd

Answer: A

Watch Video Solution

573. A man a inherit his X chromosome from

A. Paternal grandfateher

B. Paternal grandmother

C. Moternal grandfather or grandmother

D.

Answer: D

Watch Video Solution

574. Match the column

a	Sickle cell anaemia	1.	Sex-linked
b	Colour blindness	2.	Autosomal
c	Phenyl ketonuria	3.	Autosomal chromosome
d	Cystic fibrosis	4.	Autosomal chromosome
e	Huntigton's chorea	5.	Autosomal chromosome

A. a-3,b-5,c-1,d-2,e-4

B. a-3,b-1,c-5,d-2,e-4

C. a-4,b-1,c-5,d-2,e-3

D. a-5,b-1,c-2,d-3,e-4

Answer: B

 Watch Video Solution

575. When a mutation is limited to be the substiution of one nucleotide for another, it is called

A. Base inveersion

B. Point mutation

C. Translocation

D. Frme shift mutation

Answer: B

Watch Video Solution

576. In a pedigree analysis =0 represetns

A. Consanguineous mating

B. Afftected parents

C. Sibling

D. Unrealted mating

Answer: A

Watch Video Solution

577. Hypertrichlosis of pinna occurs only in mlaed because

A. Esterogen suppresses the trait I n females

B. It is induced by testosterone in males

C. Gene for it is present only ion y-chromosome

D. Its gene is recessive in females and ldominant in males.

Answer: C

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578. Hamemophilic carrier female marries a normal man .In her progenby

A. All daughters will have hamemophilia

B. All sons will have hamemophilia

C. 560% doudghters will have haemophilia

D. 50% sons will have lhaemohphilia .

Answer: D

Watch Video Solution

579. A colour blind male (X Y) marries a caarrieer female (X X) possible genotype of doughters will be

A. X X only

B. X X only

C. X X and X X

D. X Xand X X

Answer: D

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580. Which clotting factor is absent in haemophilia A?

A. VII

B. VIII

C. IX

D. X

Answer: B

 Watch Video Solution

581. Pairs of homologuous chromosomes present in humans is

A. 46

B. 44

C. 23

D. 22

Answer: C

 Watch Video Solution

582. A person with chromosome complement of XXX is

A. Klinefelter's syndrome

B. Down 's syndorme

C. Turner 's syndrome

D. Super female

Answer: D

Watch Video Solution

583. Which one is correctly matched?

A. Erythroblastisis syndrome X-linked

B. Down 's syndrome

C. Klinefelter's syndrome -44+XXY

D. Colour blindness -Y- linked

Answer: C

Watch Video Solution

584. Haemophilia is a

A. Genetic disorder

B. Indfectious disease

C. Metabolic disorder

D. Occupational disease

Answer: A

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585. Find the correct combination cytoplasmic inheritacne is due to

A. 1,2,3 correct

B. 1,2 correct

C. 2,4 correct

D. 1,3 correct

Answer: D

View Text Solution

586. Find the correct combinationn.Linkage groups

1. Have genes which are linked in single chromosomes

2. Show independent assortment

3. Do not show independent assortment

4.In prokaryotes more than one.

A. 1,2,3 correct

B. 1,2 correct

C. 2,4 correct

D. 1,3 correct

Answer: D

Watch Video Solution

587. Diploid cells have :

A. One set of chromosomes

B. Two sets of chromosomes

C. Two pairs of homologous chromosomes

D. Two chromosomes

Answer: B

 Watch Video Solution

588. Stickle cells anaemia is

A. Autosomal dominant inheritacne

B. X-linked recessive inheritacne

C. Autosomal recessive inheritacne

D. X-linked dominant inheritance

Answer: C

 Watch Video Solution

589. Sickle cell anamia is due to mutatioon of

A. CTC to CAC

B. CTG to CAG

C. CAG to CTC

D. CGC to CAC

Answer: A

 Watch Video Solution

590. A disease which is inherited as an autosomal doininat condition

A. Haemophilia

B. Hundinghton's chorea

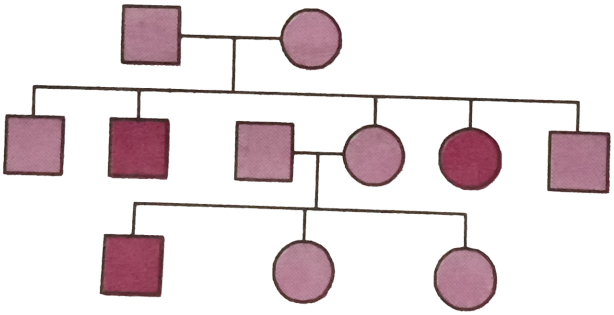
C. Colour blindness

D. Cri du chat .

Answer: B

Watch Video Solution

591. Study the pedigree chart what does it show?



A. Inheritacne of a condition like phenylketonur as an atuosomal recessive trait

B. Inheritatacne of a resceesive sex linked disease like hamemophilia

C. Inheritacne of sex linked inborn error of metabolism like pheylketonuria

D. Pedigree chats is worng as this is not possible

Answer: A

Watch Video Solution

592. Which has an additional Y-n chromosome ?

A. Turner's syndrome

B. Down 's syndrome

C. Klinefetlter's syndrome

D. super female

Answer: C

Watch Video Solution

593. Point mutation may occur due to

A. gGain of a segment of DNA

B. Deletion of segment of DNA

C. Alternation in DNA sequence f

D. Change in a single base pair of DNA

Answer: D

Watch Video Solution

594. Phenyletoniuria is autosomal reason disorder of chromosome

A. 11

B. 12

C. 16

D. 17

Answer: B

Watch Video Solution

595. Which one is correctly matched

A. Sickle cell anaemia -X chromosomee

B. Haemophilia -Y chromosome

C. Down's syndrome -21st chromosomes

D. Parkinson 's disease -Y chromosome

Answer: C

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596. Out of A-T G-C pairing bases of DNA may exist in alternate valency stte called

A. Tautomerisational mutation

B. Analogue substitution

C. Point muitation

D. Frame shift mutation

Answer: A

Watch Video Solution

597. Select the correct bases of DNA RNA and amino acid of beta chain causing sickle cell anaemia

A. CAC-GUG

B. CAC-GTG

C. CTC-GAG

D. CAC-GTG

Answer: B

Watch Video Solution

598. A segment of chromosome breaks and rejoins after 180° rotation .It is

A. Duplication

B. Reciprocal translocation

C. Interstitial transloction

D. Inversion

Answer: D

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599. Pick out the correct statements

A. a,b,d correct

B. a,c,e correct

C. a,c correct

D. b,e correct

Answer: A

View Text Solution

600. Match the columns

a	Monoploidy	1	$2n-1$
b	Monosomy	2	$2n+1$
c	Nullisomy	3	$2n+2$
d	Trisomy	4	$2n-2$
e	Tetrasomy	5	n
		6	$3n$.

A. a-6,b-5,c-3,d-4,e-2

B. a-5,b-2,c-4,d-1,e-3

C. a-5,b-1,c-4,d-2,e-3

D. a-1,b-1,c-3,d-6,e-5

Answer: C

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601. In Morgan 's experiments on linkage , the percentage of white eyed miniature winged recompbinants in F_2 generation is

A. 1.3

B. 62.8

C. 37.2

D. 73.2

Answer: C

Watch Video Solution

602. Hereditary material present outside nucleus is known as

A. Genome

B. Plasmon

C. Proteome

D. Cytol

Answer: B

Watch Video Solution

603. Which one is a sex linked disorder?

A. Sickle cell anamia

B. Albinism

C. Haemophilia

D. Phenylketonuria and hamophila

Answer: C

Watch Video Solution

604. Sickle cell anaemia is

A. Characterised byu elongated sickle like RBCs with a nucleus

B. Caused by substitution of valine by glutamic acid in beta gloublin chain of haemoglobin

C. Caused by a change in a single base pair of DNA

D. An autosomla linked dominant triat.

Answer: C

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605. Select the incroorect statement from the following

A. Baldness is a sex limited triat

B. Linkage is an exception to the pricip[le of independent assortment

C. Galactosemia is na inborn error of metabolism

D. Small population size results in random genetic drift in a popluation

Answer: A

 Watch Video Solution

606. Alzheimer disease in himans is associated with the deficiencyt of

A. Glutamic acid for valine in alpha chain

B. Dopamine f

C. Gamma amino butyric acid (GABA)

D. Acetylcholine.

Answer: D

 Watch Video Solution

607. A man sufferin g rom recessive Xlinked disease marries a normal woman .In the progeny

A. All sons are normal

B. All daughter are diseased

C. All sons are diseased

D. None opf the above

Answer: A

Watch Video Solution

608. What type of sex determination is found in Grasshopper

A. XX-XY

B. ZW-ZZ

C. ZZ-ZY

D. XX-XO

Answer: D

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609. Genome does not include

A. Mapping of fenes

B. Analysis ogenome

C. Developmenet of GM crops

D. Analysis of gene products.

Answer: C

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610. Due to nondisjuction of chromosomes during spermatogenesis some sperms cary both sex chromosomes (22A+XY) while others do not carry anysex chromosome (22A+O).If these sperms feticlize normal eggs (22A+X), What type of genetic disorders appear among the offspering

A. Turner 's syndrome and klinefetlter's syndrome

B. Down's syndrome and Klinefetlter 's syndrome

C. Down 's syndrome and Turner 's sysndrome

D. Down's syndrome and cri-du-chat syndrome.

Answer: A

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611. Sickle cell anaemia is a disroder caused due to change in chemical nature of

A. αchain of haemoglpobin

B. β chain of haemoglobin

C. Plasma protein

D. Both α and β chains of haemoglobin .

Answer: B

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612. Phenotypically females having rudimentary ovaries, underdeveloped breasts, short stture webbing neck , often subnormal intelligence suggests

A. Down 's syndrome

B. Klinefetlter's syndrome

C. Turner 's synderome

D. Haemophilic syndrome

Answer: C

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613. Which sttement about colour blindness is correct

A. 6% men are red colour blind, 2% are green colou blind

B. 2% men are red colour blind , 6% are green colour blind

C. 10% men are red colour blind , 5% are green colour blind

D. 5% men are red colour blind ,10% are green colour blind.

Answer: B

Watch Video Solution

614. Mobile genetic sequences are called

A. Exons

B. Cistrons

C. Introns

D. Transposons

Answer: D

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615. Plant A has 2n =12 chromosomes while plant B has 2n = 16 chromosomes . An allotetaploid is raised from them . What is its chromosome number

A. 7

B. 14

C. 28

D. 32

Answer: C

 Watch Video Solution

616. Single step large mutation leading to speciation is

A. Founder effect

B. Adaptive radiatin

C. Saltation

D. Branching desecent

Answer: C

Watch Video Solution

617. Identify the worng statement

A. Human males have one sex chromosome much shorter than others

B. In domesticated flow] , sex of progeny depends upon type of sperm tht fetilized the egg

C. In Male gGrasshopper, 50of sperms have no sex chromosome

D.

Answer: B

Watch Video Solution

618. Which of the following is not a Mendelian disroder

A. Turner's syndrome

B. Thalassemia

C. Haemophilia

D. Cyctic fibrosis

Answer: A

Watch Video Solution

619. A mutation in DNA molecule involing replacement of one nucleiotide base pair with another is

A. Point mutation

B. Frame shilft mutation

C. A transposon

D.

Answer: A

Watch Video Solution

620. Moody describies mutation as

A. Factor

B. Saltation

C. Sport

D. Shotgun

Answer: D

Watch Video Solution

621. Which is not sex linked

A. Colour blindness

B. Myopia

C. Haimophilia

D. Down's syndrome.

Answer: B

Watch Video Solution

622. The number of autochromosomes in human sperms are

A. 22

B. 11

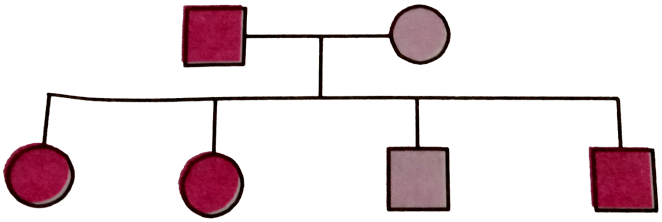
C. 44

D. 45

Answer: A

Watch Video Solution

623. Study the pedigree chart of certain family given here and select the correct conclusion



A. The female parent is heterozygous

B. The parents could not have had a normal doughter for this charcter

C. The trait under study could not be colour blindness

D. The male parent is homozygous dominant.

Answer: A

 Watch Video Solution

624. The fruit fly Drosophila melanogaster was found to be very suitable for expermiental verification of chromosomal theory on inheritanc by Morgan and his coleagues because

A. It preproduces parthenogentically

B. Smaller female is easilty distinguishable from large male

C. A single mating produces two yound flies

D. It copmpltetes life cycle in about two weeks.

Answer: D

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625. Which one of the following symbols and its representation, used in human pedigree analysis is correct

A. (A)  = unaffected male

B. (B)  = unaffected female

C. (C)  = male affected

D. (D)  = mating between relatives.

Answer: D

Watch Video Solution

626. Carrier female marries a normal visioned male . How manay diusghters would be coloublind carriers?

A. Zero

B. 0.25

C. 0.5

D. 1

Answer: C

Watch Video Solution

627. Polypoloid fromed by two diffeent speices is called

A. Autopolyploid

B. Allopolyploid

C. Triploid

D. Monoploid

Answer: B

 Watch Video Solution

628. Colour blindness occurs due to :

A. Recesive gene on X-chromosome

B. Dominant gene on X-chromosome

C. Recessive gene on an autosome

D. Dominant gene on an autosmome.

Answer: A

Watch Video Solution

629. Which is not considered regular mitogen

A. UV radiation

B. Nuclear radiation

C. 2=-aminopurine

D. Low temperature

Answer: D

Watch Video Solution

630. In Drosphila female has a pair of chromosomes

A. ZZ

B. XX

C. YY

D. ZW

Answer: B

Watch Video Solution

631. If the first seven childern born to a particular pair of parents are all males ,what is

the probability that the eighth child will also be a male ?

A. $\frac{1}{2}$

B. $\frac{1}{4}$

C. $\frac{1}{8}$

D. $\frac{1}{16}$

Answer: A

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632. Human genome project was started in

A. 1989

B. 1990

C. 1992

D. 1995

Answer: B

Watch Video Solution

633. More men suffer from colour blindess than women because

A. Women are more resistant to diseases

B. Male sex hormone trestosterone causes the disease

C. Colour blindness gen occurs on Y-chromosome

D. Men are hemizygous and one defective allele is neough to cause the disease

Answer: D

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634. Haploid conten of human DNA is

A. $3.3 \times 10^6 bp$

B. $3.3 \times 10^9 bp$

C. $4.6 \times 10^6 bp$

D. $6.6 \times 10^9 bp$

Answer: B

Watch Video Solution

635. Loss of chromosome segment is due to

A. Polyploidy

B. Deletion

C. Inversion

D. Transversion

Answer: B

Watch Video Solution

636. XO sex determination is seen in

A. Man

B. Drosophila

C. Birds

D. Grasshopper

Answer: D

Watch Video Solution

637. Chromosome number in meiocyte of housefly is

A. 8

B. 12

C. 21

D. 23

Answer: B

Watch Video Solution

638. Match the column and find the correct options

a	*Ophioglossum*	*p*	23
b	Rice	*q*	24
c	Potato	*r*	12
d	Man	*s*	630

A. a-p,b-q,c-r,d-s

B. a-q,b-r,c-s,d-p

C. a-r,b-s,c=q,d-p

D. a-s,b-r,c-p,d-q

Answer: D

Watch Video Solution

639. 2n-2 is

A. Monosomic and nullisonic condition s

B. Trisomic and monosomic conditions

C. Nullisomic

D. Haploid

Answer: C

Watch Video Solution

640. Walter sutton is famous for his contribution to

A. Chromosomal therory of inheritane

B. Genetic engineering

C. Totipotency

D. Quantitative genetics

Answer: A

Watch Video Solution

641. Experimental verification of chromosomal theroy of inheritance was gtiven by

A. Thomas Hunt Morgan

B. Gregor Johann Mendel

C. Hugo de vries

D. Langdon Down

Answer: A

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642. Which one correctly determines the sex

A. XO condition in lTurner's syndrome determines female sex

B. Homozygous XX produce male in Drosophila

C. Homozygous ZZ determine female sex in birds

D. XO determines male sex in Grasshopper.

Answer: D

Watch Video Solution

643. Which external trait determines sex correctly

A. Female Cockroach- Anal cerci

B. Male Shark- claspers on plevic fins

C. Female Ascaris- Curved p[osterior end

D. Male Frog-Copluatory poad on first digit of hind limb

Answer: B

Watch Video Solution

644. Human genonme project lead to the development of

A. Bionformatics

B. Biotechnology

C. Biomonitoring

D. Biosystematics

Answer: A

Watch Video Solution

645. Which condition zygotic cell will from normal human female child

A. XX chromosomes

B. Y- chromosome

C. X-chromosome

D. Xychromosomes

Answer: A

Watch Video Solution

646. Chimera is produced as a result of

A. Lethal mutation s

B. Reverse mutations

C. Somatic mutations

D. Pleiotropic mutations

Answer: C

 Watch Video Solution

647. Total heriditray material outside the chromosome is called

A. Muthon

B. Recon

C. Plasmon

D. Plasmagene

Answer: C

Watch Video Solution

648. A woman with albinic father marries an ablinic man .The proportion of her progency is

A. All normal

B. All albinic

C. 2 normal : 1 albinic

D. 1 normal : 1 albinic.

Answer: D

Watch Video Solution

649. Which is correct

A. Birds have ZZ(female)-ZW (male) sex determinaltion

B. Drosophila has XX-XY sex determination

C. Henking discorvered Y-chromosome

D. Grasshoppers show XX-XY sex determination.

Answer: B

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650. Which pair of diseases are caused by genes lacated on X- chromosomes

A. Colour blindness, albinism

B. Colour blindness, hypertrichosis

C. Colour blindness , phenylketonura

D. Colou blindness, haemophilia.

Answer: D

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651. Doubling of chromosomes is

A. Polyteny

B. Transcription

C. Duplication

D. Transaltion

Answer: C

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652. In case of incomplete linkage the parental combination appears in

A. 1

B. More than 50%

C. 0.25

D. Less than 25%

Answer: B

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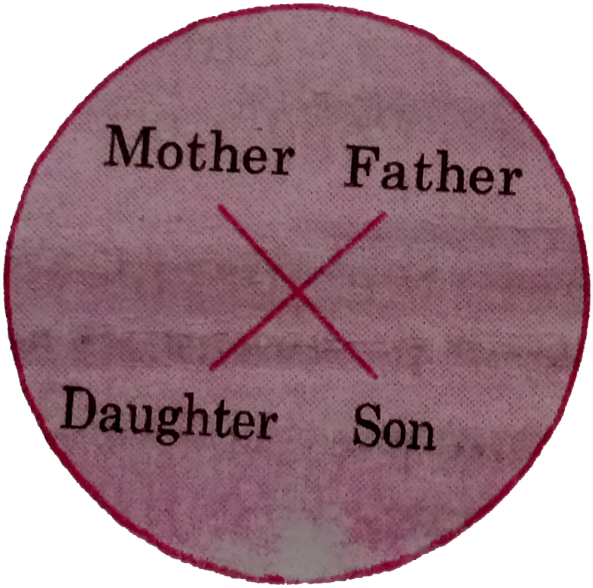
653. What is the example of inheritacne pattern shown



A. Phenylkutonuria

B. Sickle cell anaemia

C. Haemophilia

D. Tha,lassemia

Answer: C

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654. Turner's syndorme is

A. Case of monosomy

B. Cause of sterility in females

C. Absence of Barr body

D. All the above

Answer: D

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655. Depending upon distacne fbetween two genes cross oveers will vary from

A. 50-100%

B. 75-100%

C. 10~50%

D.

Answer: D

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656. Cause of chromosome laggards in meiosis is

A. Inversion

B. Dicentric chromosome

C. Acentric chromosome

D. Duplication of a gene

Answer: B

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657. X-chromosomes or X-body was first observed by

A. Mendel (1901)

B. Castle (1910)

C. Henking(1891)

D. Bateson (1906)

Answer: C

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658. In XO type of sex determination

A. Females produce two types of fameter

B. Male produce two types of gametes

C. Females produce gametes with Y-chromosome

D. Males produce single type of gametes

Answer: B

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659. Who used the frequency of recombination between gene pairs on the same chromosome as a measure of the distance between genes and mapped their position on the chromosome ?

A. Alfred sturtevant

B. Gregor Mendel

C. Correns

D. Tschermak

Answer: A

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660. A ten year patient is found to have slanting eyes with epicanthic fold, hypertelorism dysplastic ears, mongoloid face and pro=truding tongue. The patient is suffering from

A. Down 's syndrome

B. Klindfelter 's syndrome

C. Turner 's syndrome

D. Cri du chat syndrome.

Answer: A

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661. Chromosomal condition of Down 's syndrome is

A. Allosomal hypoaneuploidy

B. Autosomal aneuploidy

C. Allosomal hyperaneuploidy

D. Partial autosomal deletion.

Answer: B

Watch Video Solution

662. If father is normal wile mother is carrieer of haemophilia

A. All female offspring will be carriers

B. A male offspring has 50% chance of activ edisease

C. A female offspring has 50% chance of active dissease

D. All female offsrping will be normal

Answer: B

Watch Video Solution

663. Gene for diabetes mellitus is

A. Autosomal dominant inheritacne

B. Autosomal recessive

C. Sex linked dominant

D. Sex linked recessive

Answer: A

Watch Video Solution

664. Hereditary disease in which urine trune s black on expsosure due to rpesence of homogenetisisc acid is

A. Ketonuria

B. Phenlketonuria

C. Hamaturia

D. Alkaptonuria

Answer: D

Watch Video Solution

665. Give below are assertion and reason .Point out if both are true with reason being true explanation (A) , both are ftrue but reason is not correct explanation (B) , assertion is true but reason is worong (c) , and both are worong (D).

Assertion A middle aged woman is havbing small sized breasts and undersized uterus

Reason Her genotype showns XO condition of allosomes.

A. A

B. B

C. C

D. D

Answer: A

 Watch Video Solution

666. Which chromosome condition is Jascob syndrome

A. 44+XO

B. 44+XXY

C. 44+XYY

D. 45+XYY

Answer: C

Watch Video Solution

667. Paramoecium exhibits cytoplasmic inheritance through

A. Chromosome

B. Nuclear gene

C. Dappa particles

D. DNA

Answer: C

 Watch Video Solution

668. Syndrome in which somatic cells contins three sex chromosomes XXY is

A. Turner's syndrome

B. Down 's syndrome

C. Klinefetlter's syndrome

D. Super female

Answer: C

Watch Video Solution

669. Down 's syndrome has trisomy of chromosome

A. 20

B. 21

C. 22

D. 23

Answer: B

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670. Genes are located in

A. Ribosomes

B. Sphaeromes

C. Lysosomes

D. Chromosomes

Answer: D

Watch Video Solution

671. Match the items and find the correct otion

I		II	
(a)	Morgan	1.	Induced mutations
(b)	Lysenko	2.	Photoperiodism
(c)	Muller	3.	Term 'genetics'
(d)	Garner and Allard	4.	Vernalization
		5.	Linkage

A. a-2,b-1,c-3,d-4

B. a-4,b-3,-2,d-5

C. a-5,b-4,c-1,d-2

D. a-3,b-2,c-4,d-1

Answer: C

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672. Which one shws arrhenotky in development

A. Pumea

B. Drosophila

C. Apis

D. Bonellia

Answer: C

673. If both the parents are carriers of autosomal r recessive disorder thalassemia ,

what are the chances of pregnancy resulting in an affected child

A. 1

B. No chance

C. 0.5

D. 0.25

Answer: D

 Watch Video Solution

674. which of the following statements is not true of two genes that show 50 % recombination frequency ?

A. They undergo more than one crossovers in every meiosis

B. The genes are present on different chromosomes

C. The genes are tightly linked

D. The genes show independent assortment.

Answer: C

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675. Incorrect statement with regard toi haemophilia is

A. A single protein involved in clotting of blood is affectrede

B. It is sex linked disease

C. It is a recessive disease

D. It is a doninant disease

Answer: D

 Watch Video Solution

676. Which is incorrect reagrding predigree analysis

A. It hepls to understantd whether the trait in question is dominant or recessive

B. It confirms that the trait is linked to one of the autosomes

C. It helps to trace the inheritiacne of specific trait

D. It confirms tht DNA is the carrier of genetic information

Answer: D

Watch Video Solution

677. A disease found in persons of over 40 years characterised by poor CNS coordination foregetfulness and tremor of hand is

A. Alzheimer's disease

B. Migraine

C. Schizophrenia

D. Epilepsy

Answer: A

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678. A man with extra X-chromosome suffers form

A. Down's syndrome

B. Klinefelter 's syndrome

C. Bleeder's disease

D. Turner,'s syndrome.

Answer: B

Watch Video Solution

679. Heterogamety or formation of two types of gametes is found in

A. Male Drosphila

B. Female bird

C. Female Drospophila

D. Both A and B

Answer: D

Watch Video Solution

680. Which is X - linked recessive trait with locus in Xq 28 and related to factor VIII

A. Haemophilia A

B. Haemophilia B

C. Haemophilia C

D. Christmas disease

Answer: A

Watch Video Solution

681. When two genetic loci produce indentical phentotypes in cis and trans positionn they are

A. FeCI_(2)` is treated with urine , it truns green in genetic disease

B. SCA

C. Albinism

D. Alcaptonura

Answer: D

Watch Video Solution

682. Cri-du chat is

A. Gene disorder

B. Allosomal disorder

C. X-chromosomal disorder

D. Autosomal disorder

Answer: D

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683. A colour blind man marries a daughter of another colour blind man whose wife had a normal nenotype . In their progeny

A. All the children will be colour blind

B. All therir sons are colour blind

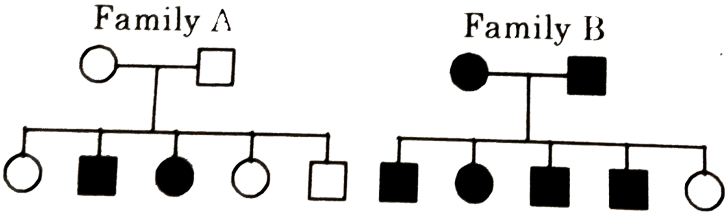
C. None of the daughter would be colour blind

D. Half of their sons and half of their diaughters would be colour blind.

Answer: D

Watch Video Solution

684. Which is true ofr recessive disease in falmily A andB



A. In family A, both parents are homozygous recessive

B. In fmily B, boith the parents are homozygous dominant

C. In family B, both the parents are heterozygous recessive

D. In family A, both the parents are heterozygous recessive

Answer: D

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685. Give below are assertion and reason . Point out if both if both are true with reasoin being true explanation (A), bith are true but

reason is not correct explanation (B), assertion is true but reason is worng (c) and both are worng (D)

Assertion only a boy chilld could be born with a substitution of flutamic acid by valine on 6th of

A. A

B. B

C. C

D. D

Answer: D

View Text Solution

686. Nephritis is due to

A. Y-linked inheritance

B. X-linked inheritacne

C. XY-linked inheritance

D. Autosomal gene inheritance

Answer: C

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687. Read the following statemenets and choose the correct option

I. Failure of segregation of chromatids duringt cell division results in aneuploidy

(II) Chromposomal disorders are maninly determined buy alteration or mutation in a single gene

(III) Thalassemia and cystic fibrosis are Mendelian disorders

(IV) Sickle cell anameia is an X- linked trait

ltbvrgt (V) Haemophilia is an autosome linked recessive disease

A. I and III alone are correct

B. I,III and IV alone are correct

C. III and IV alone are correct

D. II and IV alone are correct

Answer: A

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688. Read the following statement s and choose the correct option

In p[henylketonuria the affected person does not secrete the enzyme to con vert pheylalnine to typrosine

(II)Possibility of male becoming haemophiliac is extremely rare

(III) Sickle cell anaemia is caused by the substitution of glutamic acid by valine at fifth position of beta chain of haemoglobin

(IV) Myotonic dystrophy is an autosomla dominant trait

A. I and II alone are wrong

B. II and III alone are wrong

C. II alone is wrong

D. II and IV alone are wrong

Answer: B

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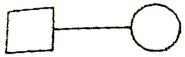
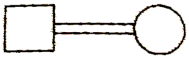
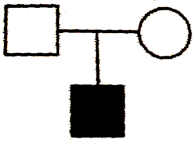
689. Match the columns and choose the correct option

I		II
(i)		(a) Consanguineous mating
(ii)		(b) Normal female
(iii)		(c) Mating
(iv)		(d) Affected female
(v)		(e) Parents with male child affected
		(f) Sex unspecified

A. i-c,ii-aiii-b,iv-e,v-d

B. i-b,ii-a,iii-f,iv-c,v-d

C. i-c,ii-d,iii-a,iv-e,v-b

D. i-c,ii-a,iii-f,iv-e,v-d

Answer: D

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690. Statement (s) Nondisjunction is the failure of paired chromosomes to segreagate during the metaphase of meiotic division of fametogenesis

Reason (R) Non disjunction results in production of abnormal gametes

A. Both S and R are true but R is not correct explanation of S

B. Both S and R are true and R is correct explanation ofS

C. S is correct, R is wrong

D. S is wrong and R is correct.

Answer: A

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691. The diet of pheynylketonurics should have

A. No phenylalanine and no tyrosine

B. Low phenylalanine and normal tyrosine

C. Normal recommended amount of phenylalanine

D. Normal recommended amount of phenylalanine and tyrosine

Answer: B

 Watch Video Solution

692. The mechanism that causes a gne to move from one linkage froup to another is

A. Translocation

B. Inversion

C. Crossing over

D. Duplication

Answer: A

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693. Sex determinaltion by chromosomes in human and Drosphila I sthrough

A. XX-XY

B. XX-XO

C. ZZ-W

D. Both A and B

Answer: A

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694. Which of the following sets of syndromes shows 47 chromosomes in their genetic make up

A. Turner's syndrome, Edward's syndrome, Klinefelter's syndrome

B. Klinefelter' s syndorme, Turner's syndrome, Patau's syndrome

C. Down's syndrome , Patau's syndorme, Edward's syndrome

D. All the above.

Answer: C

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695. Genetic disrder haemophilia is characterised by excessive loss of blood which of the following sttements is not truwe in relation to this disorder

A. It is lethal disease

B. Factor VIII or IX may be absent

C. It is X linked disease

D. It is autosomal disease.

Answer: D

696. Genes located on X- chromopsomes are known as

A. Epistatic genes

B. Holandric genes

C. Operator genes

D. Antiepistatic genes

Answer: D

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697. Frequency of crossing over occurring between two gene located on the same chromosome depends up

A. Length of chromosome

B. Position of centromerer

C. Activities of two genes

D. Distacne between tow genes

Answer: D

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698. Colour blindness is due to defect in

A. cones

B. Rods

C. Rods and cones

D. Rhodopsin

Answer: A

 Watch Video Solution

699. Which of the following factor was used by Alfred Sturtevant to measure the distance between the genes and mapped their pasition on the chromosome

A. Total recombination

B. Frequency of recombination

C. Parental gene combination

D. Nonparental combination

Answer: B

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700. Males produces sperms by mitosis in

A. Perisplaneta americana

B. Apis melliefera

C. Drosphila melangaster

D. Lepisma

Answer: B

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701. Match the lists and find the correct option

	I		II
a.	Down's syndrome	I.	45, X
b.	Edward syndrome	II.	47, XX, +13
c.	Klinefelter's syndrome	III.	47, XX, +18
d.	Patau's syndrome	IV.	47, XX, +21
e.	Turner's syndrome	V.	47, XXY

A. a-III,b-IV,C-II,d-I,e-V

B. a-II,b-III,c-IV,d-V,e-I

C. a-IV,b-III,c-V,d-I,e-I

D. a-IV,b-II,c-V,d-III,e-I

Answer: C

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702. In alpha thalasssemia the gene HBAI is located on chromosome

A. 8

B. 22

C. 9

D. 16

Answer: D

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703. Male heterogametic ,XX-XO type of sex determination is found in

A. Butterflies

B. Moth

C. Grasshoppewrs

D. Drosophila

Answer: C

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704. Statement a. For a particular character in an individual each gamete gets onlyu one allele

Statement b. Chromatids of a chromosome

split(separate) and move towards opposite poles during anaphase of mitosis

A. Both the statements are correct and b is the reasonfor a

B. Both the statements are correct but b is not the reason for a

C. Satement a is correct but b is wrong

D. Statement b is correct but a is wrong

Answer: B

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705. Down's syndrome is an example of

A. Aneuploidy of sex chromosomes

B. Aneuploidy of autosomes

C. Syndrome caused by gene muttin

D. Loss of one sex chromosome fr om the diploid set

Answer: B

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706. Which of the following is correct match

A. Thalassemia-XO-Flatnose, simian crease

B. Down's syndrome-42AA+XY-Webbing of neck

C. Turner's syndrome-44AA+XXX-Anaemia, jaundice

D. Klinefelter's syndrome -44AA+XXY-Tall ,thin ,eunuchoid.

Answer: D

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707. Choose the wrong statement

A. Failure of segregation of chromatids during cell division results in aneuploidy

B. Additional copy of 'X' chromosome in males results in Klinefelter's syndrome

C. Closely located genes in a chromosome always asswort independently resulting in recobinations

D. Accordin gto Mendel, recessive trait never blends in heterozygous condition

Answer: C

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708. A person affected with phenylketonuria lacks an enzyme that converts the amino acid phenylalanine into :

A. Valine

B. proline

C. Histidine

D. Tyrosine

Answer: D

Watch Video Solution

709. Choose the worng statement

A. In grasshoppers, besides autosomes, males have only one X-chromosome whereas females have a pair of X - chromosomes

B. In XY type of sex determination ,both males and females have same number of chromosomes

C. In Drosophila, males have one X- and one Y -Chromosome whereas females have a pair of X-chromosomes besides automes

D. In birds, female have one Z and one W chromosomes , whereas males have a pair of Z chromosomes besides autosomes

Answer:

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710. A man whose father was colour blind marries a woman who had colour blind mother and normal father what precentage of male childeren of this couple will be colour blind

A. 0

B. 0.5

C. 0.75

D. 0.25

Answer: B

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711. A human female with Turneer's syndrome

A. Has an additional X- chromosome

B. Exhibits male chraacters

C. Is able to produce childern with normal husband

D. Has 45 chromosomes with XO

Answer: D

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712. Match the lists and find the correct option

(a) ABO blood group	(i) Landsteiner and Wiener
(b) Rh factor	(ii) Morgan and Castle
(c) Sex linkage of *Drosophila*	(iii) Landsteiner
(d) Chromosomal theory of linkage	(iv) T.H Morgan

A. a-iii,b-I,c-iv,d-ii

B. a-iv,b-I,c-iii,d-ii

C. a-ii,b-I,c-iv,d-iii

D. a-iii,b-ii,c-iv,d-i

Answer: A

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713. A Drosophila has XXXXYY sex chromosomes. All the autosomal chromosomes are normal .

The sexual phenotype will be

A. Normal female

B. super female

C. Intersexual

D. Male

Answer: B

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714. A species has 2n =16 chromosomes .How many chromosomes will be found per cell in each of the following nutanats

A. Monosomic and nullisonic condition s

B. Atutotriploid

C. Trisomic

D. Double monosomic

Answer: A

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715. Which of the following is correct

A. Haemophilic -Y chromosome

B. Down's syndrome -21 st chromosome

C. Sickle cell anamia -X chromsome

D. Parkinson's disease -X and Y chromosomes.

Answer: B

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716. If a boy's father has haemophilia and mither is heterozygous what is the chance that the boy will inherit haemophilia

A. 0.5

B. 0.25

C. 0.75

D. 1

Answer: A

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717. Which type of gene regulates sex determination in spinach plant

A. Hopmozygous genes

B. Single gene

C. Heterozygus genesf

D. Multiple genes

Answer: B

Watch Video Solution

718. Which animal can form gynandormorhp

A. Drosophila

B. Beetle

C. Silkworm

D. All the above

Answer: D

Watch Video Solution

719. Match the columns I,II and III and find correct options

I	II	III
(a) Sickle cell anaemia	(i) Recessive pp genes	(p) Arrangment of valine in place of glutamic acid
(b) Phenylketonuria	(ii) Absence of homogentisic oxidase enzyme	(q) Inborn error of metabolism
(c) Alkaptonuria	(iii) Follows Mendelian principles	(r) Urine turns black when exposed to air
(d) Thalassemia	(iv) Homozygous recessive genes	(s) Required haemoglobin is not generated in blood

A. a-ii-s,b-iii-r,c-i-q,d-iv-p

B. a-iv-p,b-iii-r,c-i-s,d-ii-r

C. a-iv-p,b-i-q,c-ii-r,d-iii-s

D. a-iii-r,b-i-q,c-iv-p,d-ii-s

Answer: C

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720. Triticale is an example of

A. Autopolyoidy

B. All opolypolidy

C. Aneuploidy

D. None of above

Answer: B

Watch Video Solution

721. The common bread wheat has chromosomes

A. 14

B. 21

C. 28

D. 42

Answer: D

 Watch Video Solution

722. In humans ,dosage compensation

A. Brings about euqlity in X-cided gebe oridycts

B. Brubgs aviyt equality in y-coded gene products

C. Brings about determination of sex

D. Is not involved in any of the above.

Answer: A

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723. the term 'linkage' was coined by :

A. T.H Morgan

B. T.Boveri

C. G.Mendel

D. W.Sutton

Answer: A

Watch Video Solution

724. Identify the correct order of organisation of genetic material from largest to smallest :

A. Chromosome, gene, geneome, nucleotide

B. Genome, chromosome,nucleotide, gene

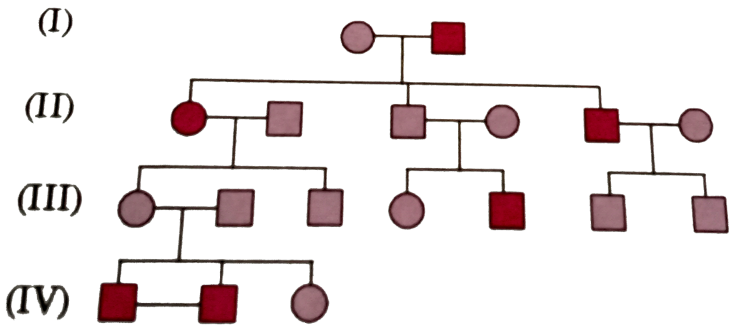
C. Geneome , chromosome,gene, nucleotide

D. chromosome, genome, nucleotide,gene.

Answer: C

Watch Video Solution

725. In this human pedigree the filled symbols represent the affected individuals .Identify the type of this pedigree



A. Autosomal dominant inheritacne

B. X-linked recesive

C. Autosomal recessive inheritacne

D. X-linked dominant.

Answer: C

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726. A colourblind man marries a woman with bormal sight who has no histroyh of colour blindess in her family. What is the probability of their grandson becoming blind

A. 0.5

B. 1

C. nil

D. 0.25

Answer: A

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727. Fin the odd one out with respect to X-linkage

A. Haemophilia

B. Myopia

C. Nephritis

D. Night blindness

Answer: C

Watch Video Solution

728. Which of the following animlas was selected by Morgan for studyin glinkage

A. Apis indica

B. Agrobacterium tumefaciens

C. Drosophila melanogaster

D. E. coli

Answer: C

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729. A person with 44A+XXY chromosome set up has gynecomasia and is Barr body positive They are symtoms of

A. Turneer's syndrome

B. Klinefelter's syndrome

C. Down 's syndrome f

D. Edward's syndrome

Answer: B

 Watch Video Solution

730. Drosophila with genotype AAA+XX is

A. Normal male

B. Normal femal

C. intersex

D. Metamale.

Answer: C

Watch Video Solution

731. Find out the mismatched pari

A. Lyonization-Russel and Lyon

B. Y-chromosomes-Stevens and Wilson

C. X-body-Henking

D. Shot gun sequencing -Jeffreys.

Answer: D

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732. The nucler structure observed by Hanking 50% of the insect sperms after spermatogenesis was

A. X-body

B. Autosome

C. Y-chromosome

D. Nucleolus

Answer: A

 Watch Video Solution

733. physical association of genes on a chromosomes is called :

A. Repulsion

B. Linkage

C. Aneuploidy

D. Duplication

Answer: B

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734. Distance between the genes and percentage of recombination shows

A. A direct realtinship

B. An inverse relationship

C. A paralle relationship

D. No relationship

Answer: A

Watch Video Solution

735. Conditions of a karyotype $2n \pm 1$ and $2n \pm 2$ are called

A. Aneuploidy

B. Monsomy

C. Autopolyploidy

D. Polyploidy

Answer: A

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736. A set of genes will be in a complete linkage when the progeny phenotypes for parental (P) and recombinant (R) types are :

A. P=0%,R=100%

B. P=50%,R=50%

C. $P < 50\,\%$, $R < 50\,\%$

D. P=100%,R=0%

Answer: D

 Watch Video Solution

737. Person suffering from sickle cell anaemia normally do not suffer form

A. Chloera

B. Malaria

C. High blood [pressure

D. Hepatitis

Answer: B

Watch Video Solution

738. Which one of the following information is essential to determine the genetic map distance between two genes located on the same chromosome ?

A. Length of the particlaular chromsome

B. Number of genes present in the particular chromosome

C. Number of nucleotied in the particular sequence

D. Percentage of crossing over or recombinant frequency between two genes

Answer: D

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739. Genes of maternal inheritance are located in

A. Golgi bodies

B. Mitochondria

C. Lysosomes

D. Nucleus

Answer: B

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740. Match the collumn s and find the correct answer

(*p*) Klinefelter's syndrome	(*i*) Mutation in mal gene
(*q*) Thalassemia	(*ii*) Mutation in sex-linked gene
(*r*) Down's syndrome	(*iii*) Trisomy of autosome
(*s*) Colur blindness	(*iv*) Trisomy of sex chromosome

A. p-I,q-ii,r-iii,s-iv

B. p-ii,q-iii,r-iv,s-i

C. p-iii,q-iv,r-I,s-ii

D. p-iv,q-I,r-iii,s-ii

Answer: D

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741. In our society women are blamed for producing female child. Choose the correct answer for sex determination in humnans due to

A. Some defect like aspermia in man

B. Genetic make up of particular sperm which fertilizes the egg

C. Genetic make up of egg

D. Some defect in reproductive system of women

Answer: B

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742. A gene is

A. Synonym of chromosomes

B. Composed of mRNA

C. A specific segement of nucleotides o fDNA

D. Having only those nucleotides required to synthesize a protein.

Answer: C

Watch Video Solution

743. A preganant woman who has undergone amniocentesis test, finds an extra Barr body in

her embryo. The syndrome which is likely to be assoucated with embryo is

A. Klinefelter's syndrome

B. Down's syndrome

C. Turner's syndrome

D. Patau's syndrome.

Answer: A

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744. Probability of cross over occurring between two genes on the same chromsome is

A. Unrelated to distannce between them

B. Increased if they are close together

C. Increased if they are far apart

D. None of the above

Answer: C

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745. Out of the three copies of chromosome 21 in a child, two have come from the mother .Based on this when did the nondisjunction event most likely occurred

A. Maternal meiosis II

B. Paternal meisosis I

C. Maternal meiosis I

D. Paternal meiosis I

Answer: C

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746. Which of the following conditions correctly describes the manner of determining the sex in a given example

A. XO condition in humnas as found in Klinefelter's syndrome determines female sex

B. Homozygous sex chromosoem sZZ determines female sex in birds

C. XO type of sex determines male sex in grasshopper

D. Homozygous sex chromosomes XX produce male in Drosophila.

Answer: C

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747. Proportion of colour blind fchildren when normal man marries a carrier woman is

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: A

Watch Video Solution

748. Sickle cell anaemia results due to mutationn caused by

A. Substitution

B. Insertion

C. Deletion

D. Duplication

Answer: A

Watch Video Solution

749. Trisomy 18 is

A. Edward's syndrome

B. Patau's syndrome

C. Tuner's syndrome

D. Klinefelter's syndrome

Answer: A

Watch Video Solution

750. Which is gentically not possible

A. Haemophilic father transfers the haemophilic gene to his son

B. Haemophilic father transfers the haemophilic gene to his daughter

C. Carrier mother transfers the haemophilic gene to her son

D. Carrier mother transfers the haemophilic gene to her daughter

Answer: A

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751. Barr body is missing in the female suffering from

A. Huntington's disease

B. Tay sach's disease

C. Klinefetter's syndrome

D. Turnmer 's syndrome

Answer: D

Watch Video Solution

752. In which female has a pair of XX chromosomes

A. Drosophila

B. Butterfly

C. Bulbul

D. Peafowl

Answer: A

Watch Video Solution

753. Which disease has failure of Cl' transport mechanism

A. Colour blindess

B. Huntington's chorea

C. Phenylketonuria

D. Cystic fibrosis

Answer: D

Watch Video Solution

754. In Alzheimer disease the aggregation of this happens

A. Phospholipids

B. Haemoglobin

C. Amyloid βpeptide

D. Nucleic acid.

Answer: C

Watch Video Solution

755. In alkaptonuria this is secreated in urine

A. Urea

B. Alanine

C. Homogenticsic acid

D. Chlorogenic acid

Answer: C

Watch Video Solution

756. During cell division , the process that causes failure of separation of sister chromatids is called

A. Coincidence

B. Yinterfernce

C. Nondisjuction

D. Complementation

Answer: C

 Watch Video Solution

757. Which is used as mitotic spindle poison

A. Ca^{2+}

B. Mg^{2+}

C. Tubulin

D. Colchincine

Answer: D

Watch Video Solution

758. Which is sex linked disease in man

A. Polia

B. Alzheimer 's disease

C. Haemophilia

D. Beri-beri.

Answer: C

 Watch Video Solution

759. Linkage prevents

A. Recombination

B. Homozygous condition

C. Dominance of genes

D. Segregation of alleles

Answer: A

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760. The croos over percentage between linked genes is (a) J and M - 20% (b) J and L-35% (c) J and N -20% (d) L and K - 15% (e) M-N-50%(f) M and L-15% .The sequence oif genes on the chromosomes is

A. J,N,M,L,K

B. J,M,L,N,K

C. J,M,L,K,N

D. M,J,L,K,N

Answer: C

Watch Video Solution

761. Which organism is known as Drosophila of plant kingdom

A. Saccharomyces

B. Arabidopsis

C. Capsella

D. Danio

Answer: B

Watch Video Solution

762. Which cytological phenomenon supports Mendel's law of heredity

A. Cell division

B. Cell transformation

C. Cell fommuncitation

D. Cell fusion

Answer: A

Watch Video Solution

763. Which is not a gene linked disease

A. Haemophilia

B. Daltonism

C. Myxoedema

D. Alkaptonuria

Answer: C

Watch Video Solution

764. There is trisomey of chromosoome 13 which is characterised by mental retardation slopin g forehead, deformed face, polydactyly, cardiant defects ,etc The syndrome is

A. Klinefelter's syndrome

B. Patau's syndrome

C. Edward's syndrome f

D. Turner's syndrome.

Answer: B

 Watch Video Solution

765. Who is known as father of biochemical physiological genetics

A. Slatyer

B. Elton

C. Taylor

D. Archibald Garrod

Answer: D

Watch Video Solution

766. Choose the correct statement regarding genetic disrders

View Text Solution

767. Assertion (A) According to "genic balalnce therory" the karyotype with AA-XO in Drosophila is sterile female .

Reason (R) Y- chromosome in Drosophila lacks male determining factor

A. Both A and R are true . R ois correct explanation of A

B. Both A and R are true ,R is not correct explanation of A

C. A is true but R is false

D. A is false but R is true

Answer: D

Watch Video Solution

768. Which of the floowing have heterogametic females:

A. d and c

B. a and b

C. a and c

D. b and d

Answer: D

View Text Solution

769. The distacne between the genes on the chromosomes sis measured by using

A. codominance

B. Recombination frequecny

C. Pleiotropy

D. Allele frequency

Answer: B

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770. Which one of the following sttements is wrong with refeence to Barr bodies

A. The extra X-chromosome undergoes heterochromatisation and becomes active during early embryonic development

B. The heterchromatiinised X- chromosome remains attached to nuclear membrane

C. The heterchromatinised X-chromosome is called Barr body

D. The inactivation of X-chromosome is called Lyonisation

Answer: A

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771. The gene for haemophiliea is located on X chromosome. Hence it is nromally impossible for a

A. Haemophilic father to pass the gene to his daughter

B. Carrier mother to pass the gene to er daughter

C. Carrier mother to pass the gene to her son

D. Haemophilic father to pass the gene to his son

Answer: D

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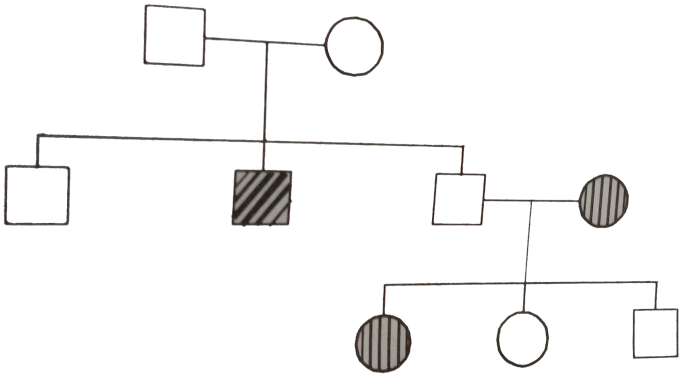
772. From the pedigree chart of a family one can make an analysis that it is on



A. Authosomal dominant trait

B. Autosomal recessive trait

C. Allosomal dominant trait

D. allosomal recvessive trait

Answer: B

Watch Video Solution

773. A human male is heterozygous for autosomal genes P and Q. He is also hemizygous for haemophilic gene h. What percentage of sperms will carry 'pqh' genotype

A. 0.25

B. 0.5

C. 0.75

D. 0

Answer: A

 Watch Video Solution

774. In diploid set of chromosomes , deletion and additional of a member leads to

A. Aneuploidy

B. Euploidy

C. Polylploidy

D. Triploidy

Answer: A

Watch Video Solution

775. Linkage groups can be separated during â€¦.. In meiosis

A. Crossing over

B. Synapsis

C. Tetra formation

D. Terminalisation

Answer: A

Watch Video Solution

776. Peacock shows following genotype

A. XX-XY

B. XY

C. ZZ

D. ZW

Answer: C

Watch Video Solution

777. When white eyed and miniature winged Drosophila melanogaster is crossed with its wild type it produces following percent of recombinations

A. 1.3%

B. 37.2%

C. 62.8%

D. 98.7%

Answer: B

 Watch Video Solution

778. Which of the following disorder is caused by atutosomal aneuploidy

A. Down 's syndrome

B. Haemophilia

C. Sickle cell anamia

D. Phenylketonuria and haemophilia

Answer: A

Watch Video Solution

779. Identify the scientists from the hints given below : (i) They used chromosome movement to explain Medel's laws (ii) They noted that behaviour of chromosomes was parallwl to the behaviour of genes

A. Morgan and correns

B. De vries and Boveri

C. Brridges and Correns

D. Brodges and sutton

Answer:

Watch Video Solution

780. Which of the following most appropriately describes haemophilia ?

A. Dominant gene disoder

B. Recessive gene disroder

C. Xlinked gene disroder

D. Chromosomal disorder

Answer: C

Watch Video Solution

781. Pick out the correct statements (a) Haemophilia is a sex linked recessive disease (b) Down syndrome is due to aneuploidy (c) Phenyl ketonuria is an autosomal recessive

gene disroder (d) Sickle cell anaemia is X-linked recessie gene disoreder

A. a,b and c are correct

B. a and d are correct

C. b and d are correct

D. a,c,d are correct

Answer: A

 Watch Video Solution

782. Mechanism that causes a gene to move from onel linkage goup to another is called

A. Crossing over

B. Inversion

C. Duplication

D. Translocation

Answer: D

Watch Video Solution

783. If a colour blin dman marries a woman who is homozygous for normal colour vision the probability of their son being colur blind is

A. 1.0

B. 0

C. 0.5

D. 0.75

Answer: B

 Watch Video Solution

784. If both the parents are carriers for thalassemia which is an autosomal recessive disorder what are fthe chances of pregnancy resulting in an affected child

A. 0.25

B. 1

C. No chance

D. 0.5

Answer: A

 Watch Video Solution

785. Given below are assertin and reason. Point out if both are true with reason being corect explanation (A) both true but reason is not coredct explanation (B) assertion true but reason is wrong (c) both are worng (d) Assertion XX-XY type of sex determination mechanism is an example of male heterogamety

Reason In birds male heterogamety is observed as males produce two different types of gametes

A. A

B. B

C. C

D. D

Answer: C

 Watch Video Solution

786. Assetion Number of chromosomes in one genome is equal to nukber of linkage goups Reason Linkage groups give important

information about the location of genes in the chromosomes

A. A

B. B

C. C

D. D

Answer: B

View Text Solution

787. Assertion: XX-XY type of sex determination mechanism is an example of male heterogamety.

Reason: In birds, male heterogamety is seen as males produce two different types of gametes.

A. A

B. B

C. C

D. D

Answer: D

Watch Video Solution

788. Thalassemia and sickle cell anaemia are caused by a problem in globin molicule synthesis .Select the correct statement

A. Both are due to a qualitative defect in globin chain synthesis

B. Both are due to a quantitative defect in globin chain synthesis

C. Thalassemeia is due to less synthesis of globin molecules

D. Sickle cell anaemia is due to a quantitative problem of globin molecules.

Answer: C

 Watch Video Solution

789. A disease caused by an autosomal primary nondisjunction is

A. Down 's syndorme

B. Klinefelter's syndorme

C. Turner's syndorme

D. Sickle cell anaemia is due to a quantitative problem of globin molecules.

Answer: A

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Check Your Grasp

1. The term chromatin was coined by

A. Strasburger

B. Flemining

C. Waldeyer

D. Boveri

Answer:

Watch Video Solution

2. Who discovered that chromosome number is fixed for a species

A. Winiwater

B. Hertwig

C. Van Beneden

D. Boveri

Answer:

Watch Video Solution

3. Chromosome theory of inheritance was proposed by

A. sutton and boveri independently

B. sutton and boveri jointly

C. Boveri and brauer independently

D. Boveri and brauer jointly

Answer:

Watch Video Solution

4. Who suggested for the first time that genes are located on the chromosomes ?

A. Boveri

B. Sutton

C. Morgan

D. Strasburger

Answer:

Watch Video Solution

5. R-banding of chromosomes stain s chromosome areas

A. Centromeric

B. Having suphur rich proteins

C. Abundant A+T

D. Proteins lacking sulphur

Answer:

Watch Video Solution

6. Maximum number of chromosomes are reported in

A. Amoeba

B. Aulocantha

C. Geometird Moth

D. Pphiloglossum

Answer:

Watch Video Solution

7. Male Honey Bee is

A. Deficient in one chromosome

B. Haploid

C. Parthenote

D. Both B and C

Answer:

 Watch Video Solution

8. Number of DNA coils over a nucleosome is

A. 1.75

B. 17.5

C. 75

D. 5

Answer:

 Watch Video Solution

9. Centeromer possesses

A. α hjeterochromatin on either side

B. β heterochromatin

C. Little chromonemal coiling

D. All the above

Answer:

Watch Video Solution

10. Kinetochore is

A. Surface of centromere

B. Trilaminar plate over centromere

C. End of chromosome

D. Constriction near chromosome end

Answer:

 Watch Video Solution

11. What is true of polytene chromosomes ?

A. They are in permanent prophase

B. They show chiasmata

C. Lateral loops occure at most places

D. They are bivalents

Answer:

 Watch Video Solution

12. Lampbrush chromosomes possess

A. Somatic pairing

B. Endomitosis

C. Chiasmata

D. Bands and interbands

Answer:

 Watch Video Solution

13. Idiochromosomes are

A. B or supernumerary chromosomes

B. L-or E-chromosomes which are eliminated in somatic cells

C. m or minute chromosomes

D. Allosomes

Answer:

Watch Video Solution

14. Sex in crepidula and Bonellia is determined by

A. XO method

B. XY method

C. Environment

D. Haplodiploidy

Answer:

Watch Video Solution

15. Genic blance theory of sex was proposed by

A. Bridges

B. Bateson

C. Boveri and brauer independently

D. Moore

Answer:

 Watch Video Solution

16. X-chromosome was discovered by

A. Wilson and stevens

B. Hgenking

C. Stevens

D. Mc Clung

Answer:

Watch Video Solution

17. Holandric genes are llocated on

A. Androsome

B. Y-chromosomes

C. Both A and B

D. None of the above

Answer:

 Watch Video Solution

18. In birds

A. Females have heteromorphic sex chromosomes

B. Males have heteromorphic sex chromosomes

C. Females have isomorphic sex chromosomes

D. Males have XO/ZO chromosome complement

Answer: A

Watch Video Solution

19. XX-XO sex determination occurs in

A. Round worms

B. Bugs

C. Grasshoppers

D. All the above

Answer: D

Watch Video Solution

20. In ZO-ZZ sex complement found in moths and butterflies

A. Females have haploid chromosome number

B. Females have one sex chromosome

C. Males have haploid chromosome numebr

D. Males have one sex Chromosome

Answer:

Watch Video Solution

21. In Drone sex determination is

A. Syngametic

B. Epigamic

C. Progamic

D. Environmental

Answer:

Watch Video Solution

22. Father opf experimental genetics is

A. Morgan

B. Mendel

C. Bateson

D. Garrod

Answer: A

Watch Video Solution

23. Small insects hovering over ripe Banana are

A. Male mosquitoes in search of sweet pulp

B. Female mosquitoes in search of space for laying eggs

C. Drosophila in search of yeast

D. Drosophila in search of pulp

Answer:

 Watch Video Solution

24. Transfer of traits from male parent to grand sorthough daughter is called

A. Diandric

B. Diagynic

C. Holandric

D. Androgenic

Answer:

Watch Video Solution

25. Chromosome therory of linkage was proposed by

A. Morgan and castle

B. Drlington

C. Bateson and punnet

D. John Otto

Answer:

 Watch Video Solution

26. Coupling and repulsion theory of linkage was given by

A. Morgan and castle

B. Darlington

C. Bateson and Punnet

D. John Otto

Answer:

Watch Video Solution

27. Complete linkage is recorded in case of

A. Human beings

B. Male Drosophila

C. Female Silk Moth

D. Both B and C

Answer:

 Watch Video Solution

28. The trait of milk secretion in mammals is

A. Sex linked

B. Sex limited

C. Sex influenced

D. None of the above

Answer:

 Watch Video Solution

29. X^hX^h haemophiliac would transfer the trait or haemophilia to

A. All sons

B. 50% sons

C. 50% daughters

D. Dies before birth

Answer:

Watch Video Solution

30. A marriage between normal vision man and colour blind woman will produce which of following types of offspring ?

A. Colour blin sons and carrier daughters

B. 50% colour blind sons and 50% carrier doughter

C. Normal males and carrier daughter

D. Colour blind sons and 50% carrier daughters

Answer:

Watch Video Solution

31. Frasternal twings are derived from

A. Single fetilized egg

B. Two separate fertilized eggs present in the same womb

C. An ovum fetilized twice followed by its breaking

D. Breaking of one unfertilized egg and fgertiliztion of both parts

Answer:

Watch Video Solution

32. Father of human genetics/biochemical genetics is

A. Davenport

B. Galton

C. Garrod

D. Jenssens

Answer:

Watch Video Solution

33. The term corssing over was conined by

A. Jenssens

B. Johannesens

C. Morgan

D. Bridges

Answer:

Watch Video Solution

34. In haploids the monohyubrid ration is

A. $3:1$

B. $1:1$

C. $1:2:1$

D. $15:1$

Answer:

Watch Video Solution

35. Tetratype is

A. Cell with tetrad stage

B. Tetrads having 50% parental and 50% recombinants

C. Tetrads with only parental types

D. Tetrads with no parental types

Answer:

Watch Video Solution

36. The first man made plant Raphanobrassica was developed by

A. Fairchild

B. Nelsson Ehle

C. Sonneborn

D. Karpechenkoo

Answer:

 Watch Video Solution

37. Turner's syndrome is due to aneuploidy

A. Monosomic and nullisonic condition s

B. Nullisomic

C. Trisomic

D. Tetrasomic

Answer:

Watch Video Solution

38. A sex trisomic in human beings is

A. Down 's syndrome

B. Cat cry syndrome

C. Klinefelter's syndrome

D. Muscular dystrophy

Answer: C

Watch Video Solution

39. A mutagenic/alkytlating agent which is commonly used is

A. Ethyl dibromide

B. Griseofulvin

C. Endrin

D. All the above

Answer:

Watch Video Solution

40. α thalassemia is due to defective genes on chromosome

A. 16

B. 12

C. 9

D. 11

Answer:

Watch Video Solution

41. β thalassemia disease becomes manifest at the age of

A. Immediately after birth

B. 4-6 year

C. 4-6 months

D. Any time after four years

Answer:

Watch Video Solution

42. Absenece of phenylalanine hydroxylase in liver produces a disease called

A. Alkaptonuria

B. Phenylketonuria

C. G-6 PD deficiencyt

D. Duchenne's muscular dystrophy.

Answer:

Watch Video Solution

43. Super males were discovered by

A. Turner

B. Down

C. Klinefelter

D. Hauschika

Answer:

Watch Video Solution

44. Congenital night blindeness is caused by

A. Vitamin A deficiency in mother

B. Vitamin A deficiency since birth

C. Sex linked recessive gene

D. Autosomal recessive gene

Answer:

45. Turner 's syndrome does not occur in males (44+Y) because

A. An ovum is seldom devoid of X-chromosome

B. A male sperm does not penetrate X-deficient ovum

C. Foetus with 44+Y complement dies

D. Unexplained

Answer: C

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