BIOLOGY

BOOKS - GR BATHLA & SONS BIOLOGY (HINGLISH)

HUMAN GENETICS

Human Chromosomes

1. First determination of the human chrosme number was made by :

A. Painter

B. Flemming

C. Winiwarter

D. Montgomery

Answer: C

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Chromosome Disorders

1. Trisomy of chromosome number 21 in man causes:

A. Thalassemia

B. Down syndrome

C. Turner syndrome

D. Sickle-cell anaemia

Answer: B

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Sex Determination

1. The males of grasshoppers and bugs posses two sets of autosomes and :

A. Only y-chromosome

B. Only X-chromosome

C. X-and Y-chromosomes

D. Neither X-nor Y-chromosome

Answer: B

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Human Sex Anomalies

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

A. Down syndrome

B. Turner syndrome

C. Edward sydrome

D. Klinefelter sydrome

Answer: B

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Sex Chromatin

1. Sex chromatin was discovered by :

A. Barr and Bertram

B. Jacob and Monod

C. Beadle and Tatum

D. Morgan and Bridges

Answer: A

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Inheritance Related To Sex

1. The traits whose gense are located on X-chromosome are known as:

A. sex-linked

B. sex-limited

C. sex-controlled

D. sex -influenced

Answer: A

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Colour Blindness

1. G-6-P dehydrogenase deficiency is associated with heamolysis of :

A. RBC_s

B. Plateles

C. Leucocytes

D. Lymphocytes

Answer: A

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Haemophilia

1. Which of the following is a sex-linked inheritance ?

A. TB

B. Rickets

C. Haemophilia

D. Night blindness

Answer: C

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Holandric Inheritance

1. Genes which are locted only in the Y-chromosome are known as :

A. epistatic genes

B. holandric genes

C. operator genes

D. antiepistasis genes

Answer: B

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Blood Group Inheritance

1. one of the following is not true types blood grou[ps or blood factors:

A. ABO and Rh

B. Rh and MB

C. Buffs and kips

D. Lewis and Duffy

Answer: C

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Rh Blood Groups

1. Rh factor is concerned with:

A. eugenics

B. blood clotting

C. blood grouping

D. protein synthesis

Answer: C

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Pedigree

1. A man and a woman ,who do not show any apparent signs of a certain inheriated disease, have seven childern (2 daughters and 5 sons).Three of the sons suffer form the given disease but none of the daughters are affected.which of the following mode of inheritance do you suggest for this disease ?

A. Autosomal dominant

B. Sex-linked dominant

C. sex-limited recessive

D. Sex-linked recessive

Answer: D

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Genetic Diseases In Man

1. Which of the following is a dominant autosomal mutation ?

A. Haemophilia

B. Cystic fibrosis

C. Colour blindness

D. Chondrodystrophic dwarfism

Answer: D

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Exemplar Problems

1. All gens located on the same chromosome

A. Fome one linkage group

B. Will not from one linkage groups

C. From interactive group that affect the phenotype.

D. From different groups depending upon their relative distance.

Answer: A

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Others

1. The correct human chromosome number was first reported by:

A. Tjio and Levan

B. Ford and Hamerton

C. Mjorgan and Bridege

D. Painter and Flemming

Answer: A

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2. Human Y-chromosome was discovered by:

A. Wilson

B. Painter

C. Bridges

D. Morgan

Answer: B

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3. The number of chromosomes in human beings is:

A. 44

B. 48

C. 50

D. 46

Answer: D

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4. The number of autosomes in human beings is :

A. 22 pairs

B. 23 pairs

C. 33 pairs

D. 46 pairs

Answer: A

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5. The number of autosomes in a normal human cell is :

A. 45

B. 44

C. 46

D. 48

Answer: B

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6. The Number of autosomes in normal human sperm is :

A. 44

B. 23

C. 46

D. 22

Answer: D

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7. How many chromosmes are there in a spermetid of man ?

A. 24

B. 23

C. 48

D. 46

Answer: B

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8. The correct human chromosome number of male is :

A. 48 autosomes + X

B. 22 pairs of autosomes +X+Y

C. 44 autosomes and 4 sex chromosomes

D. 21 pairs of autonomes and 2 sex chromosomes

Answer: B

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9. Human female possess 44 + XX chromosomes.The secondary oocyte shall have:

A. 22

B. 44

C. 22+X

D. 22+XX

Answer: C

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10. Karyotype is :

A. techique of arranging chromosomes of a cell based on their morphology and size

B. study of human genetics

C. study of nucleus

D. none of the above

Answer: A

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11. Which of the following are used to define the karyotype of a species

1. The number of chromosomes

2. The chromosome length

3. The positions of the centromeres

A. 1,2 and 3 are correct

B. only 1 and 2 are correct

C. only 2 and 3 are correct

D. only 1 and 3 are correct

Answer: A

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12. To make a karyotype, chromosomes are photographed during :

A. interphase

B. fertilization

C. mitotic metaphase

D. meiotic metaphase

Answer: C

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13. How many group of chromosomes are found in human karyotype ?

A. 5

B. 6

C. 10

D. 7

Answer: D

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14. In man ,chromosomes are:

A. metacentirc

B. acrocentric

C. submetacenteic

D. all of these

Answer: D

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15. Mongolism is also knows as :

A. Down syndrome

B. Tuner syndrome

C. Klinefelter syndrome

D. Hypothalamic syndrome

Answer: A

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16. Epicanthal skin fold and simian crease are characteristics of:

A. Thalassemia

B. Tuner syndrome

C. Klinefelter syndrome

D. Down's syndrome

Answer: D

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17. Down syndrome is due to :

A. extra Y- chromosome

B. extra sex chromosome

C. extra 21st chromosome

D. deficient sex chromosome

Answer: C

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18. Down syndrome is due to chromosome number :

A. increase in 21st pair of autosomes

B. decrease in 21st pair of autosomes

C. increase in 18st pair of autosome

D. decrease in 18st pair of autosomes

Answer: A

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19. Which of the following is a correct match ?

A. Haemophilia-Y-chromosome

B. Sickle -cell anaemia -X-chromosome

C. Down syndrome -21st chromosome

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

Answer: C

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20. Chromosome number of Down syndrome is :

A. 46

B. 47

C. 23

D. 45

Answer: B

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

A. Triploidy

B. Down syndrome

C. Turner syndrome

D. Super femaleness

Answer: B

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22. Which of the following is related to the high frequency of Down syndrome ?

A. Maternal age

B. Paternal age

C. Both of these

D. none of the above

Answer: A

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

A. below 35 years

B. above 35 years

C. during first pregnancy

D. in mother of at least three childern

Answer: B

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24. Down syndrome is due to :

A. linkage

B. duplication

C. crossing over

D. nondisjuction of chromosome

Answer: D

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25. In Down syndrome , karyotyping has shown that the disoeder is associated with trisomy of chromosome number 21 usually due to:

A. non disjuction during egg formation

B. non disjuction during sperm cell formation

C. addition of extrachromosome during cleavage of zygote

D. non disjuction of during egg cells production and sperm production

Answer: A

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26. Whose number of sex chromosome are normal

A. Super female

B. Down syndrome

C. Turner syndrome

D. Klinefelter sydrome

Answer: B

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27. The condition of sex chromosome in a male chid of Down syndrome will be :

A. XO

B. XX

C. XY

D. XXY

Answer: C

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28. Epicanthus' is the symptom of

A. Haploidy

B. Heteroploidy

C. Down syndrome

D. Turner syndrome

Answer: C

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29. Any change is sex chromosome constitution is not involved in :

A. Super male

B. Super female

C. Turner syndrome

D. Down syndrome

Answer: D

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30. Down syndrome is caused by an extra copy of chromosome number 21. What percentage of offspring produsedby an affected mother and a normal father would be affected by this disorder?

A. $50\ \%$

B. $25\ \%$

C. 100 %

D. 75 %

Answer: A

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31. A person who is trisomic for chromosome 18th pair is :

A. Down syndrome

B. Edward syndrome

C. Turner syndrome

D. Cri-du-chat syndrome

Answer: B

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32. Down,Edward and patau syndromes are :

A. change in autosomes

B. change is sex chromosome

C. mutation due to malnutrition

D. both change in sex chromosome and autosomes

Answer: A

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33. Cri-du-chat syndrome in is caused by the :

A. deletion

B. duplication

C. translocation

D. paracentric inversion

Answer: A

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34. Cri-du-chat syndrome in humans is caused by the :

A. trisomy of 21st chromosome

B. loss of half of the long arm of chromosome 5

C. loss of half of the short arm of choromosome 5

D. fertilization of an XX egg by a normal Y- bearing sperm

Answer: C

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35. Deletion of short arm of chromosome 4 $\left(4p^{-}\right)$ result in :

A. patau syndome

B. Edward syndrome

C. Klinefelter syndrome

D. wolf-Hirschhorn syndrome

Answer: D

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36. The 'Philadelphia chromosome 'is found in the patients of :

A. rickets

B. hepatitis

C. albinism

D. leukaemia (CML)

Answer: D

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37. Which autosome in human beings gives rise to 'Philadephia chromosome'?

A. 18

B. 20

C. 21

D. 22

Answer: D

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38. In humans, 'philadelphia chromosome number:

A. 3 and 11

B. 9 and 21

C. 9 and 22

D. 20 and 9

Answer: C

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39. Burkitt's lymphoma, a white blood cell cancer ,is associated with reciprocal translocations between chromosome :

A. 8 and 14

B. 9 and 22

C. 9 and 11

D. 3 and 11

Answer: A

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40. The sex determination pattern in honeybee is called

A. gametogony

B. haplo-diploidy

C. female haploidy

D. gametic diploidy

Answer: B

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41. Which of the following is not true ?

A. A holandric gene in humans is not expected to be pheno-typically expressed in woman

B. In Drosophila,the Y-chromosome does not determine 'maleness' but is necessary for fertility

C. Sex-linked recessive traits in humans beings are always expected to be more frequent in males than in females

D. In honeybee, worker develops from unfertilized eggs

Answer: D

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42. Larva of Bonellia setting near the probosics of adult female develops into male due to :

A. electrolytes in water

B. oxygen in enviroment

C. substance secreted by probosics

D. carbon dioxide in the environment

Answer: C

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43. Heterogametic male condition does not occur in:

A. Birds

B. Humans

C. Fruitfly

D. Honeybee

Answer: A

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44. Which of the following symbols are used for represeting sex chromosomes of birds ?

A. XY-XY

B. ZZ-ZW

C. XO-XX

D. ZZ-WW

Answer: B

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45. Genic balance theory of sex determination was proposed by:

A. Lillie

B. Boveri

C. Morgan

D. Bridges

Answer: D

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46. Balance theory of sex determination holds good for :

A. Humans

B. Drosophlia

C. Allium cepa

D. Grasshoppers

Answer: B

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47. Drosophila melanogaster has :

A. 1 pair of autosomes and 3 pairs of sex chromosomes

B. 2 pairs of autosomes and 2 pairs of sex chromosomes

C. 3 pairs of autosomes and one pair of sex chromosomes

D. 2 pairs of autosomes and one pair of sex chromosomes

Answer: C

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48. Sex determination in Drosophila melanogaster is based on :

A. Pseudoalleles

B. XY-chromosome mechanism

C. Choromosome -enviroment interaction

D. Genetic balance between the X-chromosome and auto-somes

Answer: D

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49. In Drosophila, the sex is determined by

A. whether the egg is fertilized or develops parthenogene-tically

B. the ratio of pairs of X-chromosomes to the pairs of auto-somes

C. the ratio of number of X-chromosomes to the set of autosomes

D. X and Y-chromosomes

Answer: C

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50. Super male and super female type of determination of sex in Drosophila is based on:

A. unformity

B. biodiversity

C. genic balance

D. oxygen balance

Answer: C

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51. 2A+XO Drosophila are :

A. intersexes

B. sterile male

C. fertile female

D. infertile female

Answer: B

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52. Which of the chromosomal formulation is responsible for the expression of meta-male character in Drosophila ?

A. 2A +3X

B. 3A +3X

C. 4A +3X

D. 3A +XY

Answer: D

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53. According to genic balance theory,X/A=1.5 Drosophila individual will be :

A. male

B. female

C. intersex

D. super female

Answer: D

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54. When an animal has both the characters of male and female,it is called:

A. intersex

B. super male

C. super female

D. gynandromorph

Answer: D

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55. A fruitfly exhibiting

A. gynander

B. hemizygous

C. gynandromorph

D. heterozygous

Answer: C

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56. The term 'gynandromorph' was introduced by :

A. B.Mc Clintock

B. Th.Dobzhansky

C. R.B. Goldschmidt

D. C.M Montagomery

Answer: C

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57. Gynandromorpha are:

A. half male and half female

B. male with female character

C. female with male character

D. none of the above

Answer: A

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58. Gynandromorphism in certain flies is the result of :

A. non disjuction of X-chromosome

B. repeated and sudden changes in both X-and Y-chromo-somes

C. mis division of chromosome whereby one of the X-chromosome gets lost

D. failure of X and Y-chromosome to seprate during gamete formation at the first zygotic division

Answer: A

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59. Gynandromorphs are animals having :

A. same sex in all cells of the body

B. different sexes in all cells of the body

C. same sex in different cells of the body

D. different sexes in different cells of the body

Answer: D

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60. In most animals,sex of the offspring is established during :

A. cleavage

B. fertilization

C. crossing over

D. embryo formation

Answer: B

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61. Sex determination chromosomes are called :

A. autosomes

B. heterosomes

C. centrosomes

D. spherosomes

Answer: B

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62. Sex chromosomes are called :

A. allosomes

B. autosomes

C. hybridization

D. all of these

Answer: A

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63. Sex chromosomes of male are :

A. autosomes

B. hemizygous

C. homozygous

D. heterozygous

Answer: D

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64. XY sex chromosomes were discovered by :

A. Robert Brown

B. Nettie Stevens

C. M.J.D White

D. Gregor Johann Mendel

Answer: B

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65. In which of the following the sex chromosome were discovered for the first time in plants?

A. Pistia

B. Pinus

C. Nephrolepis

D. Sphaercarpus

Answer: D

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66. In Melandrium ,the sex determination tyes is :

A. XX-XY type

B. XX-XO type

C. ZZ-ZW type

D. XY-XO type

Answer: A

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67. Sex chromosomes are found in the cells of :

A. testes

B. ovaries

C. kidney and liver

D. all of these

Answer: D

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68. Which one is found in males only ?

A. X-chromosome

B. Y-chromosome

C. X+X chromosome

D. 2X-chromosomes

Answer: B

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69. The male child is born when sperm with,

A. X fertilizes the ovum

B. Y fertilizes the ovum

C. both X and Y fertilize with ovum

D. none of the these

Answer: B

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70. Sex of a human child is determined by

A. size of the egg

B. size of the sperm

C. sex chromosome of the father

D. sex chromosome of the father

Answer: C

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71. A girl receives her X- chromosomes form :

A. her father only

B. her mother only

C. both father and mother

D. extranuclear DNA from her mother's egg

Answer: C

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72. A boy recevies his X-chromosome form :

A. his mother only

B. his father only

C. both father and mother

D. either mother or father

Answer: A

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73. The chromosome that determines the male sex in human is called :

A. X-chromosome

B. Y-chromosome

C. W-chromosome

D. Z-chromosome

Answer: B

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74. In humans,sex determination the key factor is :

A. Y-chromosome

B. X-chromosome

C. both(a) and (b)

D. none of these

Answer: A

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75. Human Y-chromosome is :

A. telocentric

B. acrocentric

C. metacentric

D. submetacentric

Answer: B

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76. In humans chromosomal condition of male is

A. 44AA+XO

B. 44AA+XX

C. 44AA+XY

D. 44AA+XXY

Answer: C

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77. In recent years,DNA sequences (nucleotide sequence) of mt-DNA and Y-chromosome were considered for the study of human evolution ,because :

A. their structure is known in greater detail

B. they are small, and therefore, easy to study

C. they can be studied from the the sampels of fossil remains

D. they are uniparental in origin and do not take part in recombination

Answer: D

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78. What will the phenotypic sex of the following organisms on the basis of the sex chromosomal constitution indicated againts each organism ?

	Organism	Sex chromosome constitution
A	Human being	XO
B	*Drosophila*	XO
C	Human being	XXY
D	*Drosophila*	XXY

select the correct answer using the following codes.

A.

Male	Female
A and C	B and D

B.

Male	Female
C and D	A and B

C. Male B and D Female A and C

D. Male B and C Female A and D

Answer: D

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79. Match list I and list II and select the correct answer using the codes given blow the lists.ltBRgt

	List I (Peculiarity of male-determining sperm)		List II (Organism in which it is seen)
A	No sperm is needed at all	1	Grasshopper
B	Necessarily with a Y- chromo-some	2	Honeybee
C	With haploid set of autosomes	3	Birds
D	With W-chromosome	4	*Drosophila*
		5	Humans

A. A=2,B=5,C=1,D=3

B. A=2,B=1,C=3,D=4

C. A=5,B=2,C=4,D=3

D. A=3,B=5,C=1,D=4

Answer: A

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80. An analysis of chromosomes in big city reavealed the presence of four types of rather rare human beings ,whose sex chromosome compositions are mentioned in the List I.They are phenotypically either male (M) of female (F) as recorded in List II.Match List I(Chromosome composition)with List II(Sex) and select the correct phenotypic sex using the codes given below the lists:

List I (Chromosome composition)		List II (Sex)	
A	XO	1	Male (M)
B	XXXY	2	Female (F)
C	XYY		
D	XXY		

A. A=1,B=2,C=1,D=2

B. A=2,B=1,C=1,D=1

C. A=2,B=1,C=1,D=2

D. A=1,B=1,C=2,D=1

Answer: B

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81. A faily has five girls and no sons.Probability of son in the sixth child will be :

A. $20\ \%$

B. $50\ \%$

C. $75\ \%$

D. $100\ \%$

Answer: B

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82. Probability of four sons to a couple is :

A. $1/4$

B. $1/8$

C. $1/16$

D. $1/32$

Answer: C

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83. Unfertilzed egg of human contains :

A. XX-chromosome

B. one X-chromosome

C. one Y-chromosome

D. X-and Y-chromosome

Answer: B

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84. In human zygote,male sex is determined by :

A. Strength of father

B. Strength of mother

C. Composition of required chromosome pair

D. None of the above

Answer: C

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85. Average ratio of men and women in human population is :

A. $1:1$

B. $1:2$

C. $3:4$

D. $3:5$

Answer: A

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86. In man,sex determination depends upon chromosome present in :

A. male gametes

B. female gametes

C. both male and female gametes

D. none of above

Answer: A

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87. When released from ovary,humans egg contains:

A. XY-chromosomes

B. one Y-chromosome

C. one X-chromosome

D. Two X-chromosomes

Answer: C

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88. Which of the following is not a correct match ?

A. Y-chromosome - Autosomal

B. Sex determination - A chromosomal phenomenon

C. Red green colour blindness - A sex -linked character in human

D. An abnormal chromosome number in each cell - A case of polyploidy

Answer: A

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89. XX-chromosomal condition is :

A. male in both

B. female in both

C. female in human and male in Drosophila

D. female in Drosophlia and male in human

Answer: B

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90. Down syndrome and Turner syndrome occur in human beings due to:

A. nullisomic and monosomic conditions respectively

B. monosomic and nullisomic conditions respectively

C. trisomic and monosomic condition respectively

D. monosomic and trisomic condition respectively

Answer: C

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91. Tuner syndrome is an example of :

A. bisomy

B. trisomy

C. monosomy

D. polyploidy

Answer: C

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92. Tuner syndrome in human is caused by :

A. Polyploidy

B. point mutation

C. autosomal aneuploidy

D. sex chromosome aneuploidy

Answer: D

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93. Turner syndrome has .....chromosome complement .

A. XO

B. XXY

C. XXX

D. XYY

Answer: A

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94. Tuner syndrome si :

A. Trisomy of 18th chromosome

B. trisomy of 21st chromosome

C. absence of one sex chromosome

D. An autosomal recessive condition

Answer: C

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95. The chromosome pattern of turner syndrome usually have:

A. 2A+XXY

B. one X

C. 2A + XXX

D. Two X only

Answer: B

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96. Syndrome in human in which an individual somatic cell contain only one sex chromosome XO is called :

A. patau syndome

B. Down syndrome

C. Turner syndrome

D. Klinefelter sydrome

Answer: C

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97. The chromosome condition in Turner syndrome is :

A. 21 trisomy with XY

B. 44 automes + XO

C. 44 automes + XXY

D. 44 automes + XYY

Answer: B

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98. Webbed neck' is a characteristic of :

A. XO

B. XY

C. XXY

D. XXX

Answer: A

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99. In man,which of the following genotypes and phenotypes may be the correct result of aneuploidy in sex chromo-somes ?

A. 22 pairs + XXY - Males

B. 22 pairs + XX - Females

C. 22 pairs + XXXY - Females

D. 22 pairs + Y - Females

Answer: A

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100. A man has enlarged breasts,spares hairs on the body and sex charomosomal formula XXY.He then suffers from:

A. Down syndrome

B. Edward syndrome

C. Turner syndrome

D. Klinefelter sydrome

Answer: D

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101. Gynaecomastia is common feature seen in

A. patau syndome

B. Down syndrome

C. Turner syndrome

D. Klinefelter sydrome

Answer: D

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102. The sex chromosome constitution in a klinefelter male is :

A. XO

B. YO

C. XXY

D. XXX

Answer: C

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103. The number of chromosomes in klinemfelter male is :

A. 47(44+XXY)

B. 47(44+XXX)

C. 47[46 + 1 (chromosome (21)]

D. non of the above

Answer: A

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104. In which disease,man has an extra X-chromosome ?

A. Intersex

B. Down syndrome

C. Bleeders disease

D. Klinefelter sydrome

Answer: D

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105. Chromosomal analysis reveals a 47 ,XXY karyotype . Which of the following description best fits this abnormality ?

A. Autosomal trisomy

B. sex chromosome triploidy

C. sex chromosome aneuploidy

D. A female with turner syndrome

Answer: C

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106. In 1956, an XXXY type of abnormality was seen in three patients which is :

A. male phenotype

B. female genotype

C. female phenotype

D. gynandromorph

Answer: A

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107. which one is true for klinefelter syndrome ?

A.

No of Barr bodies	Expression
0	XO

B.

No of Barr bodies	Expression
1	XO

C.

No of Barr bodies	Expression
1	XXY

D.

No of Barr bodies	Expression
0	XYY

Answer: C

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108. In Drosophi, XXY represents a female but in human it is an abnormal male .It shows that :

A. Y-chromosome is essential for female sex determination in Drosophila

B. Y-chromosome is not essential for male sex determi-nation in human

C. Y-chromosome is essential for man sex human

D. all of these

Answer: C

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109. In humans , male XXY and female XXXX occur due to :

A. euploidy

B. aneuploidy

C. autosomal syndrome

D. none of these

Answer: B

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110. In man ,which of the following genotypes and phenotypes may be the correct result of aneuploidy in sex chromosomes ?

A. 22 pairs +Y females

B. 22 pairs + XXY - Males

C. 22 pairs + XX - Females

D. 22 pairs + XXXY - Females

Answer: B

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111. who has first described XYY syndrome ?

A. Tjio

B. Lejeune

C. Jacobs

D. Kornberg

Answer: C

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112. Which of the following chromosomal constitution refer to Jacob's syndrome in human ?

A. 44+XYY

B. 45+XYY

C. 44+XO

D. 44+XXY

Answer: A

Watch Video Solution

113. The erroe in meiosis that produces a 47,XYY karyotype is best described by:

A. Meiotic division I of maternal oogenesis

B. Meiotic division II of maternal oogenesis

C. Meiotic division I of paternal spermatogenesis

D. Meiotic division II of paternal spermatogenesis

Answer: D

Watch Video Solution

114. Mental retardation in man associated with sex chromosomal abnoramlity is usually due to inrease in :

A. size of Y-chromosome

B. size of X-chromosome

C. number of Y-chromosome

D. number of X-chromosome

Answer: D

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115. The syndrome in which individual somatic cell contains three sex chromosome,XXX is called :

A. Super female

B. Down syndrome

C. Turner syndrome

D. Klinefelter sydrome

Answer: A

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116. Sex chormatin was discovered in

A. cat

B. dog

C. man

D. monkey

Answer: A

Watch Video Solution

117. Sex chromatin can be obsreved in interphase nuclei of :

A. normal male

B. normal female

C. jacob syndrome

D. turner syndrome

Answer: B

Watch Video Solution

118. Barr body is found in the nucleus during

A. Prophase in cell of the mammal

B. interphase in cell of male mammal

C. prophase in cell of female

D. interphase in cell of female mammal

Answer: D

Watch Video Solution

119. Barr body is found in :

A. male somatic cells

B. male germinal cells

C. female somatic cells

D. female germinal cells

Answer: C

Watch Video Solution

120. Barr body is associated with:

A. autosome of male

B. autosomes of female

C. sex chromosome of male

D. sex chromosome female

Answer: D

Watch Video Solution

121. Barr body is associated with:

A. Autosome

B. Y-chromosome

C. X-chromosome

D. Male sex only

Answer: C

Watch Video Solution

122. Number of Barr bodies present in each somatic cell of a females is :

A. 1

B. 2

C. 3

D. 4

Answer: A

Watch Video Solution

123. Lyon hypothesis deals with

A. Centromere position

B. genetic compatibility

C. number of Barr bodies

D. genetic incompatibility

Answer: C

Watch Video Solution

124. Based on Lyon's hypothesis, what will be the number of Barr bodies found in a human female suffering from Down's syndrome

A. 0

B. 1

C. 2

D. 3

Answer: B

Watch Video Solution

125. Barr body in mammals represent

A. all heterochromatin in female cells

B. all heterochromatin in male and female cells

C. the Y-chromosome in the somatic cells of male

D. one of the two X-chromosome in the sometic cells of females

Answer: D

Watch Video Solution

126. A medical technician while observing a human blood smear under the microscope notes the presence of barrbody close to the nuclear membrane in the WBC. This indicates that person under investigation is

A. diabetic

B. haemophilic

C. colour blind

D. normal male

Answer: D

Watch Video Solution

127. A pregnant woman who has done amniocentesis test finds an extra Barr body in her embryo.The syndrome which is likely to be associated with the embryo is :

A. patau syndome

B. Down syndrome

C. Edward sydrome

D. Klinefelter sydrome

Answer: D

Watch Video Solution

128. According to Lyon's hypothesis,one of the two X-chromosome in each female somatic cell is known as :

A. Barr bodies

B. Genotypic body

C. Karyotypic body

D. Phenotypic body

Answer: A

Watch Video Solution

129. Foetal sex can be determined by examining cells from amniotic fluid looking for

A. Chiasmata

B. Barr bodies

C. Choromosomes

D. Klinetochore

Answer: B

Watch Video Solution

130. A women has a child with Klinefelter syndrome.How many Barr bodies the child possesses?

A. one

B. two

C. three

D. none of these

Answer: A

Watch Video Solution

131. If somatic cells of a human male contain single barrbody, the genetic composition of the person would be

or

The genotype of a boy having sexual characters of a girl is

A. XO

B. XXY

C. XYY

D. XXXY

Answer: B

Watch Video Solution

132. The number of Barr bodies and Y spots in XXXXXYY karyotype

A. 5 and 2

B. 4 and 2

C. 5 and 1

D. 4 and 1

Answer: B

Watch Video Solution

133. A certain human abnormal individual showing tow Barr bodies in the showing two Barr bodies in the sometic cells would be :

A. only a male with one X-chromosome

B. only a female with two X-chromosome

C. only a male having two Y-chromosomes

D. either a male or a female having three X-chromosome

Answer: D

Watch Video Solution

134. The barr body is observed in

A. basophil of mass

B. neutrophil of mass

C. eosinophil of mass

D. neutrophil of mass

Answer: D

Watch Video Solution

135. Which of the following microscope is used to observe Y-chromatin ?

A. Light microscope

B. Electron microscope

C. Ultraviolet microscope

D. phase contact microscope

Answer: C

Watch Video Solution

136. The number of Y-chromosome corresponds to :

A. number of X-chromosome

B. number of Y-chromosome

C. one less than number of X-chromosomes

D. one more than number of X-chromosomes

Answer: C

Watch Video Solution

137. Muscular dystrophy is:

A. dominant

B. recessive

C. sex-linked dominant

D. sex-linked recessive

Answer: D

Watch Video Solution

138. A man and a woman, who do not show any apparent signs of a certain inherited disease, have seven children (2 daughters and 5 sons). Three of the sons suffer from the given disease but none of the daughters are affected which of the following mode of inheritance do you suggest for this disease

A. sex-linked dominant

B. sex-linked recessive

C. sex-limited recessive

D. autosomal dominant

Answer: B

Watch Video Solution

139. Which of the following is not a X-linked recessive disease ?

A. Haemophilia

B. β-thalassemia

C. Colour blindness

D. Glucose -6- phosophate dehydrogenase deficiency

Answer: B

Watch Video Solution

140. In sex linkage ,the speciality is :

A. atavism

B. reversion

C. gene flow

D. criss-cross inheritance

Answer: D

Watch Video Solution

141. Sex-linked characters have one distinct feature:

A. only present on X-chromosome

B. may be present on Y-chromosome

C. never follows criss -cross inheritance

D. always follows criss-cross inheritance

Answer: D

Watch Video Solution

142. Criss-cross inheritace is observed for the genes present on :

A. Autosomes

B. Y-chromosome

C. X-chromosome

D. X-and Y-chromosome

Answer: C

Watch Video Solution

143. In man sex-linked characters and only transmitted through :

A. Autosomes

B. X-chromosome

C. Y-chromosome

D. X chromosome and autosomes

Answer: B

Watch Video Solution

144. The recessive genes loceted on X-chromosome in humans are always:

A. lethal

B. sublethal

C. expressed in males

D. expressed in females

Answer: C

Watch Video Solution

145. A hereditary disease which is never passed on from father to son is :

A. Y-chromosome linked disease

B. X-chromosome linked disease

C. autosomal syndrome

D. non of the above

Answer: B

Watch Video Solution

146. Who studies sex linked inheritance for the first time ?

A. Mendel

B. pasteur

C. Morgan

D. Khorana

Answer: C

Watch Video Solution

147. Sex-linked characters are usually:

A. lethal

B. recessive

C. dominant

D. pleiotropic

Answer: B

Watch Video Solution

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

A. carrier

B. homozygous

C. heterozygous

D. develop immunity

Answer: B

Watch Video Solution

149. A single recessive trait which can express its effect should occur on :

A. Any autosome

B. Any chromosome

C. X-chromosome of male

D. X-chromosome of female

Answer: C

Watch Video Solution

150. A child gets sex-linked trait from:

A. father

B. mother

C. both father and mother

D. none of these

Answer: C

Watch Video Solution

151. One way of determining sex-linked inheritance is :

A. both sons and daughters resemble father

B. both sons and daughters resemble mother

C. sons resemble father and daughter resemble mother

D. sons resemble mother and daughter resemble father

Answer: D

Watch Video Solution

152. A cross between white-eyed female and red eyed male Drosophila gives red-eyed females and white-eyed females and red-eyed males.This is due to :

A. mutation in male

B. mutation in female

C. loss of sex chromosome

D. non disjunction of two X-chromosome in female

Answer: D

View Text Solution

153. Which character is sex-linked in Drosophila ?

A. Red eye colour

B. Grey body colour

C. White eye colour

D. all of these

Answer: D

Watch Video Solution

154. Which of the following traits in human is sex linked ?

A. Diabetes

B. Colour of eyes

C. Night blindness

D. none of these

Answer: D

Watch Video Solution

155. A diseased man marries a normal woman.They get three daughters and five sons were normal . The gene of this disease is :

A. Y-linked character

B. sex-linked recessive

C. sex-linked dominant

D. autosomal dominant

Answer: C

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156. Match list I and list II and select the correct answer using the codes given blow the lists.ltBRgt

	List I (Character of man)		List II (Example)
A	Sex-linked	1	Baldness
B	Sex-influenced	2	Acquired immune deficiency syndrome
C	Sex-limited	3	Klinefelter syndrome
		4	Haemophilia
		5	Beard in man

A. A=4,B=1,C=5

B. A=5,B=3,C=2

C. A=5,B=1,C=3

D. A=4,B=3,C=2

Answer: A

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157. Which one of the following is a genetically transmitted character

A. Colour blindness

B. Hydrocephalus

C. Haemophilia

D. all of the above

Answer: D

Watch Video Solution

158. Wilson deceted the colour blindness disease in

A. 1921

B. 1911

C. 1912

D. 1914

Answer: B

Watch Video Solution

159. Colour blidness in man is :

A. dominant character

B. sex-linked character

C. sex-limited character

D. sex-influenced

Answer: B

Watch Video Solution

160. Colour blidness is caused by a single

A. recessive gene in man

B. dominant gene man

C. recessive gene in woman

D. dominant gene in woman

Answer: A

Watch Video Solution

161. Colour blidness is due to ,

A. recessive female chromosome

B. dominant female chromosome

C. recessive male chromosome

D. dominant male chromosome

Answer: C

Watch Video Solution

162. Gene for colour blindness is located on:

A. Y-chromosome

B. X-chromosome

C. 13th chromosome

D. 21st chromosome

Answer: B

Watch Video Solution

163. One of the genes present exclusive on the X- chromosome in humans is concerned with :

A. baldness

B. night blindness

C. red -green colour blindness

D. facial hair /moustaches in males

Answer: C

Watch Video Solution

164. Inheritance of blue blindness is :

A. Y-linked

B. Autosomal

C. X-linked

D. None of these

Answer: B

Watch Video Solution

165. Colour blindness results from

A. Inverted retina

B. Absence of rods

C. Abnormal cones

D. Absence of eyes lids

Answer: C

Watch Video Solution

166. Presons who are colour blind cannot distingused ?

A. red and green

B. white and blue

C. black and white

D. yellow and white

Answer: A

Watch Video Solution

167. Deuteranopia is a disease when there is no perception of .....colour .

A. red

B. blue

C. white

D. green

Answer: D

Watch Video Solution

168. Colour blindness is found more in males than in females because :

A. heterozygous females are colour blind

B. males having affected Y-chromosome are colour blind

C. males containing the single affected X-chromosome are colour blind

D. affected X-chromosome has a much higer affinity to Y-chromosome as compared to unaffected X-chromosome

Answer: C

Watch Video Solution

169. Carriers of colour blindness are :

A. men

B. women

C. Both of these

D. none of these

Answer: B

Watch Video Solution

170. Colour blindness is inherited in :

A. males only

B. females only

C. both males and females

D. none of these

Answer: C

Watch Video Solution

171. Colour blindness occurs due to :

A. recessive gene on-X-chromosome

B. Dominant gene on X-chromosome

C. recessive gene on autosomes

D. dominant gene on autosomes

Answer: A

Watch Video Solution

172. A colour -blind man marries the daughter of another colour-blind man whose wife has a normal genotype for colour vision .In their progeny:

A. all their sons are colour -blind

B. none of the daughters would be colour -blind

C. half of their sons and half of their daughter would be colour - blind

D. all the childern would be colour -blind

Answer: C

Watch Video Solution

173. A normal woman whose father was colour blind is married to a normal man .The sons would be :

A. all normal

B. all colour blind

C. 50% colour blind

D. 75 % colour

Answer: C

Watch Video Solution

174. A normal visioned man whose father was colour blind, marries a woman whose father was also colour blind .They have their first child as a daughter .What are the chances that this child would be colour blind ?

A. 0.25

B. 0.5

C. 1

D. zero per cent

Answer: D

Watch Video Solution

175. A woman with normal vision,but whose father was colour blind,marries a colour blind man.Suppose that the fourth child of this couple was a boy .This boy:

A. must be colour blind

B. must have normal colour vision

C. may be colour blind or may be nornal vision

D. will be partially colour blind since he is heterozygous for the colour blind mutant allele

Answer: C

Watch Video Solution

176. Daughter would be colour blind only if :

A. only father is colour blind

B. only mother is colour blind

C. mother is carrier and father normal

D. mother is carrier and father colour blind

Answer: D

Watch Video Solution

177. If a colour blind woman marries a normal man their chidren will be :

A. all normal

B. all colour blind

C. all daughters normal and all sons colour blind

D. all sons normla and alll daughters colour blind

Answer: C

Watch Video Solution

178. Daughter suffers from colour blindness and son is normal.It is possible if :

A. mother and father normal

B. mother and father suffering from CB

C. father is normal,mother suffering from CB

D. mother is carrier,father suffering from CB

Answer: D

Watch Video Solution

179. A woman with no history of colour blindness marries a colour blind man.What are the risks for this couple of having a son or daughter who is colour blind ?

A. 0

B. 0.25

C. 0.5

D. 1

Answer: A

Watch Video Solution

180. If a man who is colour blind marries a woman who is pure normal for colour vision ,the chance of their sons having colour blindess is :

A. 1

B. $50:50$

C. 0

D. $75:25$

Answer: C

Watch Video Solution

181. If husband and wife have normal vision ,but father of both were colour blind ,probablity of their first daughter to be colour blind is :

A. 0

B. 0.25

C. 0.5

D. 1

Answer: A

Watch Video Solution

182. Anil is colour blind.What is the chance of his son inheriting colour blindness from him?

A. 0

B. 0.5

C. 1

D. none of these

Answer: A

Watch Video Solution

183. A colour blind man marries a daughter of normal woman and colour blind man.the ratio of carrier daughter,colour blind daughters,normal sons born to this couple wil be ,

A. $1:0:1:0$

B. $2:1:1:2$

C. $1:1:1:1$

D. $1:2:2:1$

Answer: C

Watch Video Solution

184. If both parents of a male child are normal,what are the chances of the child being colour blind ?

A. It is impossible

B. it is possibel only if mother's father was colour blind

C. It is possible only if father's mother was colour blind

D. It is possible even when all the four grand parents had normal vision

Answer: D

Watch Video Solution

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

A. her mother is colour blind and faher has normal vision

B. her father and maternal grandfather were colour blind

C. her mother and maternal grandfather were colour blind

D. parents have normal vision but grandparents were colour blind

Answer: B

Watch Video Solution

186. Red green colour blindness in humans is governed by sex-linked recessive gene .A normal woman whose father was blind marrier a colour blind man. What proportion of their daughters is expected to be colour blind ?

A. $1/4$

B. $1/2$

C. $3/4$

D. all of these

Answer: B

Watch Video Solution

187. A colour blind daughter is born when

A. mother is carrier ,father is normal

B. mother is carrier ,father is colour blind

C. father is colour blind,mother is normal

D. mother is colour blind ,father is normal

Answer: B

Watch Video Solution

188. A sex-linked recessive gene 'c' produces red-green colour blindness in human beings.A normal woman whose father was colour blind marries a colour blind man. Of all the girls born to these parents what percentage is expected to be colour blind ?

A. 0.25

B. 0.75

C. 1

D. 0.5

Answer: D

Watch Video Solution

189. Ram is colour blind.What is the chance ,his son will inherit colour blindness from him ?

A. 0

B. 0.25

C. 0.5

D. 1

Answer: A

Watch Video Solution

190. A colour blind man has a normal brother and colour blind sister .The phenotypoes of persents are :

A. both parents normal

B. both parents colour blind

C. mother is carrier and father colour blind

D. normal father and colour blind mother

Answer: C

Watch Video Solution

191. Which genotype will indicate colour blindness in male ?

A. X^CY^C

B. X^CX^C

C. A^CA^C

D. X^CY

Answer: D

Watch Video Solution

192. Which of the following will be colour blind ?

A. XY

B. X^CX

C. XX

D. X^CX^C

Answer: D

Watch Video Solution

193. What are all the chances of colour blind daughter and sons being born in a marriage of normal man marrying a normal woman whose father was colour blind ?

A. All sons are normal and all daughter are colour blind

B. both the sons and daughter are phenotypically normal

C. all the sons are colour blind and all daughters are normal

D. 50% sons are colour blind and all daughter are phenotypically normal

Answer: D

Watch Video Solution

194. If a man and a woman both having colour blind fathers marry,the percentage probability of their first daughters to be colour blind is :

A. 0

B. 0.25

C. 0.5

D. 1

Answer: A

Watch Video Solution

195. If a normal woman marries a colour blind man :

A. all the childern will be normla

B. all their childern will be colour blind

C. all their sons will be colour blind and daughter will be normal

D. all daughter will be colour blind and sons will be normal

Answer: A

Watch Video Solution

196. A colour blind child have both normla parents .Child is

A. male

B. females

C. may be male or female

D. cannot be predicted

Answer: A

Watch Video Solution

197. If a colour blind man marries a woman who is normal but carries this this trait,the progny would be :

A. all males and 50% females colour blind

B. all females and 50% male colour blind

C. all normal females but carries of the trait

D. 50% males and 50% females colour blind

Answer: D

Watch Video Solution

198. If a colour blind man marries the daughter of a colour blind man then :

A. no daughter will be colourblind

B. all daughters will be colourblind

C. 1/4 of daughters are colourblind

D. half of the daughters are colourblind

Answer: D

Watch Video Solution

199. A marriage between normal visiond man and colour blind woman will produce which of the following types of off-springs ?

View Text Solution

200. A woman with normal vision, but whose father was colour blind, marries a colour blind man. Suppose that the fourth child of this couple was a boy. Thus boy

A. must be colour blind

B. must have normal colour vision

C. will be partially colour blind since he is herterozygous for the colour blind mutant allele

D.

Answer: C

Watch Video Solution

201. If a colour blind woman marries a normal visiond man ,their sons will be:

A. all colour blind

B. all normal visioned

C. one -half colour blind and one -half normal

D. three-fourths colour blind and one-fourth normal

Answer: A

Watch Video Solution

202. In a skip generation in heritance of colour blidness ,the trait from a colour blind man is passed on to :

A. Son

B. daughter

C. grandson

D. granddaughter

Answer: C

Watch Video Solution

203. In humans blue eye colour is recessive to brown eye colour. If a boy has brown eyes and mother blue-eyed, what would be phenotype of father ?

A. Blue eye

B. black eye

C. green eye

D. brown eye

Answer: D

Watch Video Solution

204. Which disease is genetically linked ?

A. Plague

B. Haemophilia

C. Dysentery

D. Tuberculosis

Answer: B

Watch Video Solution

205. Haemophilia was first studied by :

A. Horner

B. Haldance

C. Johannsen

D. John Cotto

Answer: D

Watch Video Solution

206. Haemophilia is :

A. Z-linked

B. X-linked

C. Y-linked

D. Autosomal

Answer: B

Watch Video Solution

207. Genes for haemophilia disease is locted on :

A. auto somes

B. chlorophasts

C. mitrochondria

D. sex chromosomes

Answer: D

Watch Video Solution

208. Which of the following diseases is related to haemophilia ?

A. Night blindness

B. Cataract

C. Colour blindness

D. Non of these

Answer: C

Watch Video Solution

209. Haemophilia is a condition where there is :

A. a failure in the clotting mechanism of blood

B. no production of haemoglobin in the blood

C. no production of melanin is the skin

D. a delay in the clotting of blood

Answer: D

Watch Video Solution

210. A man has a wound.Normally a bleeding would develops a clot and flow of blood stops.If this does not happen to the man then he probably suffers from :

A. AIDS

B. tetanus

C. malaris

D. haemophilia

Answer: D

Watch Video Solution

211. Which following pair of diseases is caused by two genes located on human X-chomosome ?

A. colour blindness and albinism

B. colour blindness and hypertrichosis

C. colour blindness and phenylketanuria

D. colour blindness and haemophilia

Answer: D

Watch Video Solution

212. The most common types of hemophilia results from the congenital absence of factor :

A. II

B. V

C. VIII

D. XI

Answer: C

Watch Video Solution

213. A phentypically normal couple has two normal daughters and a son affected with haemophilia.What is the probability that both the daughter are heterozygous carries ?

A. 0

B. 0.25

C. 1

D. 0.5

Answer: D

Watch Video Solution

214. Haemophilia is caused by :

A. X-chromosome in male

B. Y-chromosome in male

C. X-chromosome in female

D. X-chromosome in boht male and female

Answer: D

Watch Video Solution

215. Haemophilia is most likely originated as a result of :

A. a gene mutation in the X-chromosome

B. the crossing over of two sex chromosomes

C. a nondisjuction of chromosome number 21

D. the separation of two homologous chromosomes .Since this is a an X-linked disease,it can be predicted that:

Answer: A

Watch Video Solution

216. It is well known that Queen Victoria of England was a carrier for haemophilia.Since this is a an X-linked disease,it can be predicted that:

A. all of her sons would have had disease

B. all her daugthers would have been carriers

C. her father must definitely have had haemophilia

D. haemophilia would have occurred in more of her male than her female descendents

Answer: D

Watch Video Solution

217. Haemophilia is more commonly seen in human males than in human female because:

A. a greater proporation of girl die in infancy

B. this disease is due to a Y-linked recessive mutation

C. this disease is due to a X-linked recessive mutation

D. this disease is due to a X-linked dominant mutation

Answer: C

Watch Video Solution

218. Given is :

$\underline{X}$ is the chromosome with gene for haemophilia.

X is the chromosome with gene for normal bood clotting.

Which of the following individual will act as carrier for haemophilia ?

A. $X\underline{X}$

B. XY

C. $\underline{X}$Y

D. $\underline{XX}$

Answer: A

Watch Video Solution

219. The femal childern of a haemophilia man and carriers woman are likely to be :

A. all carriers

B. all haemophilic

C. half normal and half carries

D. half heamophilic and half carriers

Answer: D

Watch Video Solution

220. A haemophilic man marries a normal homozygous woman. What is he probability that their son will be haemophilic ?

A. 0

B. 0.5

C. 0.75

D. 1

Answer: A

Watch Video Solution

221. Sita's father has haemophilia,an X-linked recessive trait ,but her husband does not.What is the chance that her son will have the disease ?

A. 0

B. 0.75

C. 0.5

D. 1

Answer: C

Watch Video Solution

222. If Sita (from the above question) has a daughter ,what is the chance that she will have the disease?

A. 0

B. 0.5

C. 0.75

D. 1

Answer: A

Watch Video Solution

223. A heamophilic man marries a carries woman.Percentage of daughter becoming haemophilic shall be

A. 0

B. 0.5

C. 0.75

D. 1

Answer: B

Watch Video Solution

224. In case of haemophilia,if the carries daughter (Hh) marries a normal man 'H',Then among their daughters:

A. 50 % will be normal (HH) and 50% haemophilic (h)

B. 50 % will be carrier (Hh) and 50% haemophilic(h)

C. 25% will be carries (Hh) and 75% haemphilic (h)

D. 50 % will be normal (HH)and 50% carrier (Hh)

Answer: D

Watch Video Solution

225. If a certain couple shows the probability of having only half of the sons haemophilic and only half of the daughters haemophilic, the parents are likely to be :

A. normal mother and normal father

B. heamophilic mother and normal father

C. heamophilia carrier mother and normal father

D. haemophilic carrier mother and haemophilic father

Answer: D

Watch Video Solution

226. Of a normal couple,half the sons are heamophilic while half the daughter are carriers.The gene is located on :

A. Y-chromosome of father

B. X-chromosome of faher

C. one X-chromosome of mother

D. both X-chromosome of mother

Answer: C

Watch Video Solution

227. A man is heamophilic.It indicates that he :

A. has little amount of blood

B. is carriying a blood paracite

C. has inherited this condition from faher

D. has inherited this condition from mother

Answer: D

Watch Video Solution

228. One child is haenophilic (sex-linked trait)whereas his fraternal twin bother is normal .Which one of the following infomations is most apporpriated ?

A. The haemophilic child is male

B. The child is a monozygotic twin

C. The mother must have been heterozygous

D. The other child is a female and the father is haemophilic is :

Answer: C

View Text Solution

229. The probability of the male child of a haemophilic is :

A. 0

B. 0.25

C. 0.5

D. 1

Answer: A

Watch Video Solution

230. A woman with two genes for haemophilic and a gene for colour blindness on one of the X-chromosome marries a normal man.How will the progeny be ?

A. Heamophilic and colour blind daughters

B. All sons and doughter haemophilic and colour blind

C. 50% haemophilic daughter and 50% colour blind daughter

D. Among sons 50% haemophilic and 50% haemophilic colour blind

Answer: D

Watch Video Solution

231. A male human is heterozygous for autosomal genes A and B and is also hemizygous for haemophilic gene h.What proportion of this sperms will be abh ?

A. $1/4$

B. $1/8$

C. $1/16$

D. $1/32$

Answer: B

View Text Solution

232. A haemophiliac woman marries a normal man then :

A. all the childern will be normla

B. half girl will be haemophiliac

C. all the sons will be haemophiliac

D. all the girl will be haemophiliac

Answer: C

Watch Video Solution

233. Christmas disease' is another name for :

A. Hepatitis B

B. Haemophilia B

C. Down syndrome

D. Sleeping sickness

Answer: B

Watch Video Solution

234. The 'christmas disease patient lacks antihaemophilic:

A. Factor IX

B. Factor XI

C. Factor VIII

D. Homogentisic acid oxidase

Answer: A

Watch Video Solution

235. One of the following is not true of haemophilia:

A. Royal disease

B. Bleeders disease

C. X-linked disorder

D. Y-linked disorder

Answer: D

Watch Video Solution

236. Haemophilia is rare in woman because:

A. they only one X-chromosome

B. it is recessive autosomal gene disorder

C. they are more recessive to this disorder

D. woman ought to be homozygous for this gene

Answer: D

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237. Mr.Kapoor has Bb autosomal gene pair and d allele sex-linked .When shall be the proportion of Bd in sperm ?

A. 0

B. $1/4$

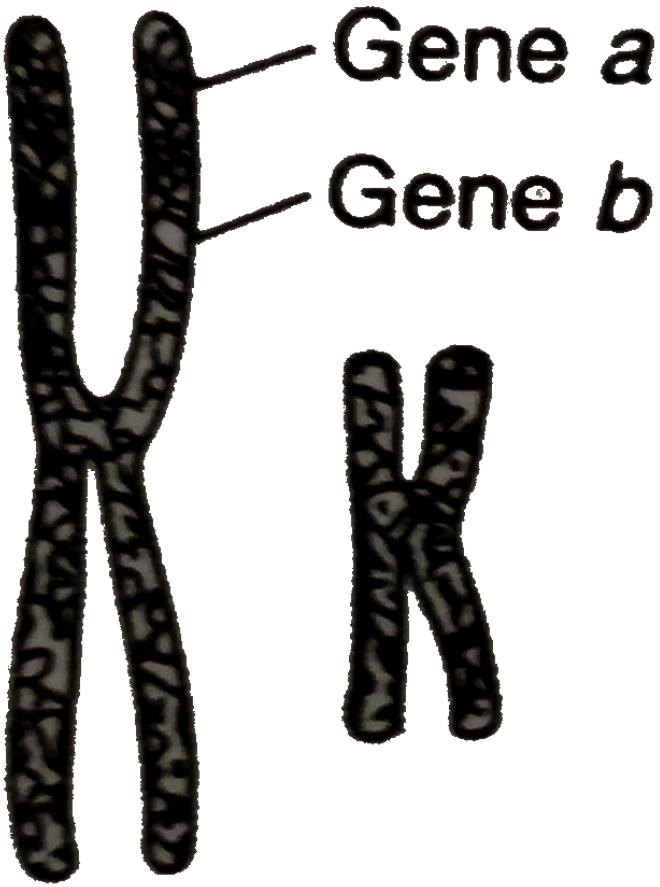
C. $1/2$

D. $1/8$

Answer: B

Watch Video Solution

238. Given below is a highly simplified repre-sentaion of the human sex chromosome from a karyotype .The gene a and b could be of :



A. colour blindness and body height

B. phenylketonuria and haemophilia

C. atteached ear lobe and rhesus blood group

D. haemophilia and red -green colour blindness

Answer: D

Watch Video Solution

239. Duchenne muscular dystrophy is caused by the presence of :

A. an extrsa 21st chromosome

B. an extrsa 18st chromosome

C. a defective gene in X-chromosome

D. Two X-chromosomes and one Y-chromosome in an individual

Answer: C

Watch Video Solution

240. Whhich of the following is characterized by mental retardation,abnomal facial appearance with large ears and long face ?

A. Haemophilia

B. colour blindness

C. Fragile X syndrome

D. Ducheme muscular dystrophy

Answer: C

Watch Video Solution

241. Sex influenced characters are due to :

A. X-linked genes

B. Y-linked genes

C. Autosomal genes

D. Y-linked gene modification

Answer: C

Watch Video Solution

242. Baldness is :

A. sex-linked

B. sex-controlled

C. sex determined

D. non of these

Answer: B

Watch Video Solution

243. An example for sex influenced inheritance :

A. Haemophilia

B. pattern baldness

C. Colour blindness

D. Down syndrome

Answer: B

Watch Video Solution

244. The fact that baldness is more common in men than in woman could be explained on the basis that :

A. genes for baldness are located on X-chromosome only

B. genes for baldness are located on y-chromosome only

C. baldness is dominant in males and recessive in females

D. gene are not involved and baldness is due to male hormones only

Answer: C

Watch Video Solution

245. Pattern baldness, moustanches and beard in human males are examples of :

A. sex-linked traits

B. sex-limited traits

C. sex-determing traits

D. sex-differentiating traits

Answer: B

Watch Video Solution

246. A bald headed (Bb) man marries a non-bald woman(Bb),their progeny if all are females,the probable bald to non-bald ratio in their progeny would be :

A. $1:1$

B. $3:1$

C. $1:3$

D. $3:3$

Answer: C

Watch Video Solution

247. The traits which are expressed in only a particular sex though their genes occurs in the opposite sex too are known as :

A. sex influenced trait

B. sex limited traits

C. sex linked trait

D. non of these

Answer: B

Watch Video Solution

248. Sex-limited and sex-linked genes are located on:

A. Autosomes

B. X-chromosome

C. Y-chromosome

D. Both (b) and (c)

Answer: A

Watch Video Solution

249. Genes which are cofined to differential region of the Y-chromosome only are called :

A. mutant

B. holandric

C. autosomal

D. completely sex-linked

Answer: B

Watch Video Solution

250. A normal woman is married to a man having hypertrichosis.They got one daughter and one son .What is the possibility of this daughter to show hypertichosis condition ?

A. 1

B. 0.25

C. 0.5

D. 0.75

Answer: A

Watch Video Solution

251. A man who carries holandric gene in his Y-chromosome marries a normal woman.The said gene will be transmitted to:

A. all their sons

B. all their daughters

C. 50% of their sons

D. 50% of their daughters

Answer: A

Watch Video Solution

252. Ram has hairy ears (hypertrichosis),a trait carried by a gene in his Y-chromosome .What is the chance that his grandson will inherit the from him?

A. 0

B. 0.25

C. 0.5

D. 1

Answer: D

Watch Video Solution

253. A man who carries a holandric gene will transmit it to:

A. $1/2$ his male offspring

B. all his male offspring

C. $1/2$ his female offspring

D. all his females offspring

Answer: B

Watch Video Solution

254. If a character is always transmitted directly from a father to all his sons and from their sons to all their sons,then which chromosome carries the gene for this character ?

A. Autosome X-xhromosome

B. X chromosome

C. Y-chromosome

D. non of these

Answer: C

Watch Video Solution

255. An example for holandric inheritance is :

A. Haemophilia

B. Webbed toes

C. Epidermolysis Turner syndrome

D. Turner syndrome

Answer: B

Watch Video Solution

256. In human beings,blue eye colour is recessive to brown eye colour .A brown -eyed man has a blue -eyed mother .

(i) The genotype of man and his mother are respectively

1. b^+b, bb 2. b^+b, bb 3. bb, b^+b 4. b^+b, bb^+ :

The genotype of his father is :

1. b^+b^+ 2. bb 3. b^+b 4. b^+b or b^+b^+

A. 1,3

B. 2,3

C. 2,4

D. 1,1

Answer: C

View Text Solution

257. A woman with straight hair marries a man with curly hair and who is known to be heterozygous for the trait .What is the chance that their first child will have curly hair ?

A. no chance

B. one in two

C. it is certain

D. one in four

Answer: B

Watch Video Solution

258. polydactyly in man is due to :

A. autosomal doinant gene

B. autosomal recessive gene

C. sex -linked dominant gene

D. sex-linked recessive gene

Answer: A

Watch Video Solution

259. ABO blood group were discovered by :

A. Lejune

B. Lederburg

C. Landsteiner

D. Leeuwenhoek

Answer: C

Watch Video Solution

260. Blood group is due to :

A. type of haemoglobin present in blood

B. specific antigen on the surface of RBC

C. specific antigen on the surface of WBC

D. specific antibodies on the surface of RBC

Answer: B

Watch Video Solution

261. Which one of the following correctly repesents the nature of blood ghroups pertaining to the presence of antigens and antibodies?

A. Blood group A - Antibody 'a' and antigen B

B. Blood group B - Antigen B and antibody 'a'

C. Blood group AB - Both antobodies 'a' and 'b'

D. Blood group O - No antigens and no antibodies

Answer: B

Watch Video Solution

262. Inheritence of ABO blood groups illustrates :

A. epistasis

B. polyploidy

C. multiple allelism

D. incomplete dominance

Answer: C

Watch Video Solution

263. ABO blood groups is determined by three alleles:

A. all of which are recessive

B. all of which are dominant

C. of which two are condominant

D. of which two are recessive and the third is dominant

Answer: C

Watch Video Solution

264. In ABC blood groups, how many phenotypes are found?

A. 1

B. 4

C. 6

D. 8

Answer: B

Watch Video Solution

265. The genotypes of blood groups A are:

A. $I^A I^B, I^A i$

B. $I^A I^A, I^A i$

C. $ii, I^A i$

D. none of these

Answer: B

Watch Video Solution

266. A man with blood group B marries a women with blood group A and their first child ois having blood group B. What is the genotype of child

A. $I^B i$

B. $I^B I^B$

C. $I^A I^B$

D. $I^A i$

Answer: A

Watch Video Solution

267. A woman with blood group 'A' marries a woman with blood group 'B', the possible groups of offsprings are:

A. A,B

B. A,B,O

C. A,B,AB,O

D. A,AB,B

Answer: C

Watch Video Solution

268. A child with mother pof blood group 'A' and father of blood group 'AB', will not have which of the following blood group?

A. A,B

B. A

C. B

D. O

Answer: C

Watch Video Solution

269. Three children in a family have blood types O,AB and B respectively. What are the genotypes of their parents?

A. $I^A i$ and $I^B i$

B. $I^A I^B$ and ii

C. $I^B I^B$ and $I^A I^A$

D. $I^A I^A$ and $I^B i$

Answer: A

Watch Video Solution

270. If blood group of parents are AB and O, the possible bloodd groups of children are:

A. A or B group

B. O^+ group only

C. O^- group only

D. AB group only

Answer: A

Watch Video Solution

271. A boy of blood group 'O' has mother with blood group 'A' and father 'B'. How many of their children have the same group as the boy?

A. 4 out of 4

B. 2 out of 4

C. 3 out of 4

D. 1 out of 4

Answer: D

Watch Video Solution

272. A child of blood group 'O' cannot have parents of blood groups:

A. A and A

B. A and B

C. B and B

D. AB and O

Answer: D

Watch Video Solution

273. Parents of blood group 'O' and 'AB' cannot have a child of group AB because:

A. gene L^O is dominant over the genes L^A

B. gene L^O is dominant over the genes L^B

C. gene L^A or L^B is absent in one of the parents

D. gene L^A or L^B are absent in both of the parents

Answer: C

Watch Video Solution

274. A man with type A blood group marries a woman who has AB group. We do not know whether the man is homozygous or heterozygous for I^A allele. Which one of the following types in the progony of this couplewould indicate that the man is heterozygous?

A. Type A

B. Type B

C. Type O

D. Type AB

Answer: B

Watch Video Solution

275. A man with blood group 'AB' marries a women with 'O' blood groups,

In this situation:

A. A and A

B. A and B

C. B and O

D. AB and O

Answer: D

Watch Video Solution

276. A man with blood group 'AB' marries a women with 'O' blood groups, In this situation:

A. the blood group of the children differs from both the parents

B. the blood group orf theior children will be the same as that of the mother

C. while 50% of the children will have father's blood group, the remaining will have the mother's blood groups

D. none of the above

Answer: A

Watch Video Solution

277. What should be the blood types of parents types of parents if their childern can have only A and B types of blood ?

A. A and O

B. AB and O

C. A and B

D. AB and A

Answer: B

Watch Video Solution

278. A person with antigen A in the RBC and antibody B in plasma belongs to the blood group :

A. B

B. O

C. A

D. AB

Answer: C

Watch Video Solution

279. If a sample of bood shows cluming with antiserum 'A' but not with antiserum 'B',then it is :

A. A group

B. B group

C. AB group

D. O group

Answer: A

Watch Video Solution

280. What is true of boold group B ?

A. The person can from antibody B

B. The person cannot from antibody B

C. The person cannot donate blood to AB group

D. The person cannot be given blood of O group

Answer: B

Watch Video Solution

281. What is correct for a person with blood group 'O' ?

A. The person has no antigen 'A'and 'B' antibodies on his RBCs.

B. His blood plasma has antibodies for both 'A' and 'B' antigens

C. Both (a) and (b)

D. None of these

Answer: C

Watch Video Solution

282. In which blood group,antibodies are absent ?

A. A

B. B

C. O

D. AB

Answer: D

Watch Video Solution

283. In which blood group antigens are absent ?

A. A

B. B

C. O

D. AB

Answer: C

Watch Video Solution

284. Agglutinoges are not found in blood group:

A. A

B. O

C. AB

D. B

Answer: B

Watch Video Solution

285. Agglutinoges A and B are foune on :

A. platelets

B. blood plasma

C. plasma member of RBCs

D. plasma member of WBCs

Answer: C

Watch Video Solution

286. What is correct for blood grops O?

A. A' antigen and 'b' antibody

B. Antigen and antibody both absent

C. A' and 'B' antigens and 'a','b' antilbodies

D. NO antigens but both 'a' and 'b' antibodies

Answer: D

Watch Video Solution

287. People of AB blood group have :

A. antigen 'B' and antibodies 'a'

B. antibodies 'a' and 'b',but no antigens

C. antigens 'A' and 'B' but no antibodies

D. antigens 'A' and 'B' and their antibodies

Answer: C

Watch Video Solution

288. During blood typing agglutination indicates that the :

A. RBCs carry certain antigens

B. RBCs carry certain antibodies

C. plasma contains certain antigens

D. plasma contain certain antibodies

Answer: A

Watch Video Solution

289. Antiserum is a serum containing :

A. Antigens

B. leucocytes

C. antibodies

D. none of these

Answer: C

Watch Video Solution

290. Which of the following blood group is known as universal donar ?

A. A group

B. B^+ group

C. B^- group

D. O group

Answer: D

Watch Video Solution

291. A person having blood group 'O' can receive blood of :

A. group O only

B. groups A and B

C. group A,B and AB

D. group A,B,O and AB

Answer: A

Watch Video Solution

292. Which of the following blood groups is a universal recipent in the blood transfusion ?

A. Group O

B. Group A

C. Group B

D. Group AB

Answer: D

Watch Video Solution

293. Which one of the following blood group person cannot donate blood to orhers ?

A. AB blood group

B. O blood group

C. A blood group

D. B blood group

Answer: A

View Text Solution

294. If RBCs of a person have antigens A and B,his serum will have :

A. antibody 'a'

B. antibody 'b'

C. both of these

D. none of these

Answer: D

Watch Video Solution

295. A person of blood A can accept blood safely from:

A. A only

B. A and AB

C. O and A

D. O and AB

Answer: C

Watch Video Solution

296. Which one of the following statement us correct with regard to the principle of safe blood transfusion?

A. The donor's red blood corpuscles should not contain antibodies against the recipient's serum

B. The recipient should not contain antigens againts the donor's antibodies

C. The recipient's serum should not contain antigens against the red blood corpuscles of the donor

D. The recipient's red blood corpuscle should not contain antibodies against the donor's antigen

Answer: C

Watch Video Solution

297. Winch blood can be given to a person of AB blood groups

A. O only

B. A or B

C. AB only

D. all of these

Answer: D

Watch Video Solution

298. Assertion (A): person with blood group AB can take blood from any other person .

Reason(R):Blood group incompatibility is due to antigen-antibody reaction .Blood group AB has no antibody and thus the antigen of other group is not affected.

A. Both(A)and (R)are true and (R)is the correct explanation of (A)

B. Both(A)and (R)are true and (R)is not the correct explanation of (A)

C. (A) is true starement but (R) is false

D. Both(A)and (R)are false

Answer: A

Watch Video Solution

299. An injured person of unknown blood group needing immediate blood transfusion can be given the following blood group:

A. A

B. O

C. B

D. AB

Answer: B

Watch Video Solution

300. In wrong blood transfusion:

A. RBCs of recipient Agglutinate

B. WBCs of recipient Agglutinate

C. RBCs of donated blood Agglutinate

D. WBCs of donated blood Agglutinate

Answer: C

Watch Video Solution

301. What will happen if blood of group 'A' is transfused into the body of a person of groups 'B' ?

A. Recipient dies due to clumping of RBCs of transfused blood

B. Recipient dies due to clumping of his own RBCs

C. Recipient remains normal

D. none of the above

Answer: A

Watch Video Solution

302. Between persons of which two blood group is the blood tranfused not possible :

A. O and B (O donor)

B. O and AB(AB donor)

C. O and A(O donor)

D. O and AB (AB recipient)

Answer: B

Watch Video Solution

303. Donor and recipient in a blood transfusion process can be :

A. only maternal uncle and niece

B. only brother and sister

C. only father and son

D. all of the above

Answer: D

Watch Video Solution

304. A part from its important in blood tranfusion proccess can be :

A. personality

B. settling paternal disputes

C. Both (a) and (b)

D. non of these

Answer: B

Watch Video Solution

305. If a human mother has blood group 'O' the foetus in the womb would die if the blood group of the foetus is :

A. A

B. B

C. AB

D. remains unaffected in very case

Answer: D

Watch Video Solution

306. If the blood group of father is O and of mother is AB which of the following blood group cannot be of their childern ?

A. O

B. A

C. B

D. All of the above

Answer: A

Watch Video Solution

307. The child of 'O' group has 'B' group father .The genotype of the father will be :

A. $I^O I^O$

B. $I^B I^O$

C. $I^A I^B$

D. $I^B I^B$

Answer: B

Watch Video Solution

308. A man of 'A' bood group marries a woman of 'AB' bood group .Which types of progeny would indicate that man is heterozyguos?

A. O

B. B

C. A

D. AB

Answer: B

Watch Video Solution

309. If one parent belongs to the blood group 'A' and the other to 'B' ,their childern can possibly inherit :

A. A and B group only

B. AB only

C. O and AB group only

D. all the four groups

Answer: D

Watch Video Solution

310. The possible blood group of the offspring of the prents with blood group 'O' and 'AB':

A. A and B

B. O and AB

C. A,B and AB

D. O,A,B and AB

Answer: A

Watch Video Solution

311. When both parents are of blood type 'AB', they can have childern with :

A. A and B types

B. A,B and O types

C. A,B and AB types

D. A,AB and O types

Answer: C

Watch Video Solution

312. What is possibility of a child with blood group 'O' being born to a mother and father having blood group 'O' and 'B' respectively ?

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: B

Watch Video Solution

313. A man of blood group 'A' marries a woman of blood group 'B' ,both of them are heterozygygous for blood group ,chances of their first child having blood group 'AB' will be :

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: A

Watch Video Solution

314. A male child colour blind and his blood group is 'AB' Identify the parents from the following pairs :

A. Father - Normal vision,blood group id 'A' mother -colour blind ,blood group 'O'

B. Father -colour blind ,blood group 'O' mother -colour blind ,blood group 'AB'

C. Father -colour blind ,blood group 'A' mother -colour blind ,blood group 'B'

D. Father -colour blind ,blood group 'O' mother -colour blind ,blood group 'B'

Answer: C

Watch Video Solution

315. In the AOB system of blood,group,if both antigens are present but no antibody,the blood group of the individual would be :

A. A

B. B

C. O

D. AB

Answer: D

Watch Video Solution

316. Which of the following is true for person having blood group 'B' ?

A. He can donate blood to person of blood groups AB and B

B. He can accept blood to and from those with blood group B and O

C. He can donate blood to and from person with blood group B only

D. Both (a) and (b)

Answer: D

Watch Video Solution

317. A woman with blood group 'O' has a child with blood group 'O' .If she calims a friends of hers with blood group 'A' as father of the genotype of the father should be :

A. I^oI^o

B. I^AI^B

C. I^BI^o

D. $I^A I^o$

Answer: D

Watch Video Solution

318. Under what circumstances does agglutination occur during blood tranfusion even if the donor and recipient both have the same blood group ?

A. Donor is Rh^+ and recipient is Rh^-

B. Donor is Rh^- and recipient is Rh^+

C. Donor and recipient both are Rh^+

D. Donor and recipient have different kinds of haemoglobin

Answer: A

Watch Video Solution

319. In an accident there is great loss of blood and there is no time to analyse the blood group.Which blood can be safely transferred :

A. O and Rh^-

B. O and Rh^+

C. BB and Rh^-

D. AB and Rh^+

Answer: A

Watch Video Solution

320. In a medico legal case of accidental interchange between two babies in a hospital, the baby of the blood group 'A' could not be rightly given to a couple with:

A. Husband of 'B' group and wife of 'O' group

B. Husband of 'A' group and wife of 'B' group

C. Husband of 'O' group and wife of 'AB' group

D. Husband of 'AB' group and wife of 'A' group

Answer: A

Watch Video Solution

321. A cross between parents with 'A' and that its mother's is 'AB' blood groups result in the offspring with which of the following blood groups ?

A. only A

B. only B

C. only O

D. A,B and AB

Answer: D

Watch Video Solution

322. If the blood group of a child is 'A' and that its mother's is 'B' then the genotype of mother and father may be :

A. BB x AA

B. AB x AB

C. BO X OO

D. BO x AO

Answer: D

Watch Video Solution

323. Which of the following should be avoided in biological marriages ?

A. A^+ boy and A^+ girl

B. A^+ boy and A^- girl

C. O^+ boy and O^+ girl

D. O^- boy and O^+ girl

Answer: B

View Text Solution

324. In a population of 278,if observed number of 'MM','MN' and 'NN' blood group is 78,138 and 62 respectively ,what would be the frequency of 'M'?

A. 0.532

B. 0.499

C. 0.468

D. 0.283

Answer: A

View Text Solution

325. Mother homozygous B,and father is A.What will be the possible blood group in their progeny ?

A. AB and B possible

B. AB and A possibel

C. A and B possible

D. O possible

Answer: A

Watch Video Solution

326. Rh factoe discovered by:

A. Huxley

B. Wiener

C. Landsteiner

D. Landsteiner and Wiener

Answer: D

Watch Video Solution

327. Rh factor is present in:

A. all reptiles

B. all mammals

C. all vertebrates

D. man and rhesus monkey only

Answer: D

Watch Video Solution

328. The Rh factor is concerned with:

A. pig

B. apes

C. gorilla

D. monkey

Answer: D

Watch Video Solution

329. Rh factor derives its name on the basis of :

A. rat

B. man

C. chimpanzee

D. rhesus monkey

Answer: D

Watch Video Solution

330. Which abbreviation stands for a genetic trait in man ?

A. Rh

B. LH

C. pH

D. FSH

Answer: A

Watch Video Solution

331. Which of the following is genetically dominant in human being ?

A. Albinism

B. O' blood group

C. Rh^+ blood group

D. Colour blindness

Answer: C

Watch Video Solution

332. The genotypes of Rh positive person could be :

A. RR(DD)

B. Rr(Dd)

C. rr(dd)

D. both(a) and (b)

Answer: D

Watch Video Solution

333. What is the difference between ABO incompatibility and Rh factor ?

A. Does not require tranfusion

B. Less haemorrhage

C. First child dies

D. all of the above

Answer: C

Watch Video Solution

334. The second pregnancy of a woman terminates due to anaemia of the foetus. She has never had a blood transufion. On the basis of this, which of the following is correc

A. child from the first pregnancy is Rh positive

B. The husband of woman is Rh positive

C. The woman is Rh negative

D. all the above

Answer: D

Watch Video Solution

335. Which of the following would result in haemolysis of foetus ?

A. Rh incompatibility

B. BO incompatibility

C. AB incompatibility

D. AO incompatibility

Answer: A

Watch Video Solution

336. A Rh^- mother carring a Rh^- child then :

A. antibody formed in mother blood is transmitted against the erythrocytes of subsequent foetus

B. the RBC of foetus destroys the antibodies present in mother's blood

C. antigens produced in mother's blood is transmitted againts the antibodies in foetus blood

D. antigens produced in foetus blood is transmitted against the antigens present in mother's blood

Answer: A

Watch Video Solution

337. Rh factor is responsible for:

A. AIDS

B. truner syndrome

C. sickle-cell anaemia

D. Erythroblastosis foetalis

Answer: D

Watch Video Solution

338. In developing foetus ,erthoblastosis foetalis is caused by :

A. haemolysis

B. clumping of RBCs

C. phagocytosis by WBCs

D. failure of blood clotting

Answer: A

Watch Video Solution

339. In erythroblastosis foetails which factors of the mother pass trough placenta into the foetus ?

A. Rh antigens

B. Agglutinins

C. Rh antibodies

D. AOB antibodies

Answer: C

Watch Video Solution

340. A child suffers from erythroblastosis foetalis if :

A. mother is Rh^+ ,father is Rh^-

B. mother is Rh^- ,father is Rh^+

C. both are Rh^-

D. both are Rh^+

Answer: B

Watch Video Solution

341. Biologically marriage between which of the following is prohibited due to erythroblastosis foetalis ?

A. Rh^- boy and Rh^+ girl

B. Rh^- boy and Rh^- girl

C. Rh^+ boy and Rh^+ girl

D. Rh^+ boy and Rh^- girl

Answer: D

Watch Video Solution

342. Erythroblastosis foetalis occurs:

A. when the mother is Rh negative and the child is Rh positive

B. when the mother is Rh negative and the child is Rh negative

C. when the mother is negative and the child is positive

D. when the mother is Rh positive and the child is Rh negative

Answer: A

Watch Video Solution

343. After examining the blood group of husbend and wife ,the doctor advised them not to have more than one child ,the blood group of the couple are likely to be :

A. male Rh^- and female Rh^-

B. male Rh^- and female Rh^+

C. female Rh^- and male Rh^+

D. male Rh^+ and female Rh^+

Answer: C

Watch Video Solution

344. What percentage of homozygous Rh^- will be born amongst 4 childre of a couple where the hudband is heterozygous for Rh^+ and wife is homozygous for Rh^+ gene ?

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: B

Watch Video Solution

345. If the foetus is Rh+ and mother is Rh^- then

A. will transmit antigen to mother's blood

B. will transmit antibody to mother's blood

C. is attacked by antigen to mother's blood

D. is attacked by antibodies to mother's blood

Answer: A

Watch Video Solution

346. An Rh^- individual receives Rh^+ blood.The reipient becomes :

A. sterile

B. dead

C. no reaction

D. iso-immunised

Answer: D

Watch Video Solution

347. Rh-ve person donated blood to Rh+ve person for the second time. Then

A. Rh^- person will die

B. Rh^+ person will die

C. Nothing happens to Rh^+ person

D. Rh^+ blood starts reacting to Rh^- blood

Answer: C

Watch Video Solution

348. The condition of erythroblastosis foetalis occurs only when :

A. the mother is Rh^- and foetus is Rh^+

B. the husband is Rh^+ and foetus is Rh^-

C. the husband is Rh^- and foetus is Rh^+

D. the mother is Rh^+ and foetus is Rh^-

Answer: A

Watch Video Solution

349. Monozygotic twins are formed when:

A. no cleavage takes place in the zygote

B. two ova are fertilized at the same time

C. incomplete cleavage of zygote takes place

D. the cells formed from first cleavage of zygote become independent

Answer: D

Watch Video Solution

350. Nature of identical twins is :

A. dizygotic

B. polyzygotic

C. monozygotic

D. amphizygotic

Answer: C

Watch Video Solution

351. Identical twins are born when:

A. two ova are fertilized

B. one sperm fertilized two ova

C. one ovum is fertilized by two sperms

D. one fertilized ovum divides into two blastomeres and both of them separate

Answer: D

Watch Video Solution

352. Twins are bron because:

A. two sperms fertilize single ovum from two sites

B. two sperms fertilize two ova

C. two sperms fertilize four ova

D. none of the above

Answer: B

Watch Video Solution

353. Fraternal twins in human beings are produced when :

A. two ova are fertilized simulaneously

B. one sperm fertilizes an ovum and first two blastomeres separate from each other

C. two sperms fertilize an ovum and the first two blastomeres seprarate from each other

D. egg develops parthenogenetically and first two blastomeres separate from each other

Answer: A

Watch Video Solution

354. Free-martins are common in :

A. Birds

B. cattle

C. drosophila

D. human beings

Answer: B

Watch Video Solution

355. Free-martins condition is observed in :

A. dizygotic twins

B. monozygotic twins

C. both of these

D. none of these

Answer: A

Watch Video Solution

356. In free-martin condition

A. both female and are sterile

B. both female and are normal

C. female is sterile and male is normal

D. male is sterile and female is normal

Answer: C

Watch Video Solution

357. Free martin is an example of :

A. sex reversal

B. transformer gene

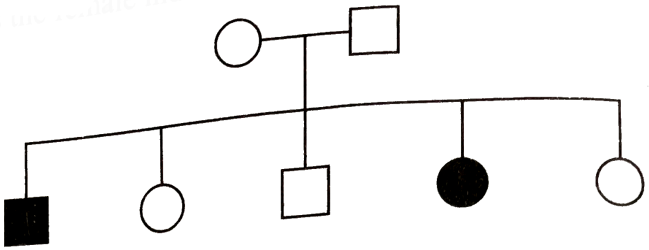
C. hormonal control of sex

D. both (a)and (c)

Answer: D

Watch Video Solution

358. Given ahead is a pedigree chart of a family with five childern .It shows the inheritance of atteched ear-lobes as opposed to the free ones. The squares represent the male and circles the female individuals.



FREE
EAR-LOBE

ATTACHED
EAR-LOBE

Which one of the following conclusion drawn is correct ?

A. The trait is Y-linked

B. The parents are heterozygous

C. The parsents are homozyous recessive

D. The parents are homozygous dominant

Answer: B

Watch Video Solution

359. Which one of the following techniques is emloyed in human genetic counselling ?

A. polyploidy

B. amniocentesis

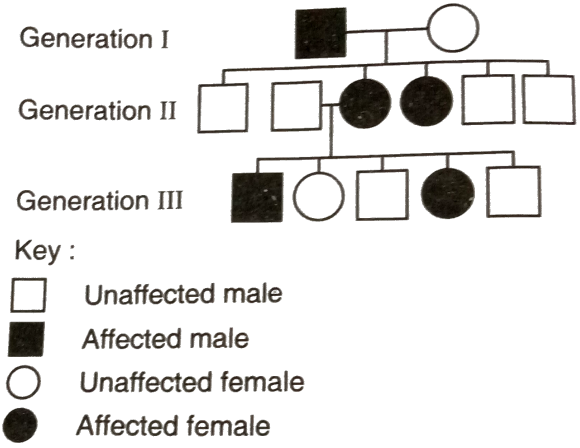
C. pedigree anlaysis

D. genetic engineering

Answer: C

Watch Video Solution

360. Given below is a pedigree chart showing the inheritance of a certain sex-linked trait in humans.



the trait traced in the above pedigree chart is:

A. dominant X-linked

B. recessive X-linked

C. dominant y-linked

D. recessive Y-linked

Answer: A

View Text Solution

361. The status of the foetus for genetic counselling can be determined by :

A. foetocentesis

B. amniocentesis

C. amnioacidpathy

D. all of these

Answer: B

Watch Video Solution

362. Progressive degeneration of brain cells result from :

A. Thalassaemia

B. Cystic fibrosis

C. Marfan syndrome

D. Huntington's disease

Answer: D

Watch Video Solution

363. Gene for huntington's chorea is located on chromosome:

A. 4

B. 6

C. 8

D. 1

Answer: A

Watch Video Solution

364. Von Recklinghausen's disease is another name of :

A. Gaucher's disease

B. Neurofibromatosis

C. Sickle-cell disease

D. Alzheimer's disease

Answer: B

Watch Video Solution

365. Hexosaminidase deficiency results in :

A. Marfan syndrom

B. Tay-sachs disease

C. Sickle-cell disease

D. huntington's disease

Answer: B

Watch Video Solution

366. Tay -sachs disease is an example of :

A. dominant X-linked trait

B. recessive X-linked trait

C. autosomal recessive trait

D. autosomal dominant trait

Answer: C

Watch Video Solution

367. The accumulation of protein called amyloid β peptide in human brain causes:

A. Addison's disease

B. Parkinson's disease

C. Alzheimer's disease

D. Huntington's disease

Answer: C

Watch Video Solution

368. Alzheimer's disease affects:

A. childhood

B. adolescent

C. young pepole

D. elderly people

Answer: D

Watch Video Solution

369. Which of the following is a lethal genetic disease due to an autosomal recessive mutaion ?

A. Cystic fibrosis

B. Haemophilia

C. Neurofibromatosis

D. Huntington's disease

Answer: A

Watch Video Solution

370. A woman with cystic fibrosis ,an autosomal recessive condition marries her first cosin.What is the risk that their first child will have cystic fibrosis ?

A. $1/4$

B. $1/2$

C. $3/4$

D. $1/8$

Answer: D

View Text Solution

371. Which of the following is a genetic trait in man ?

A. Albinism

B. Diphtheria

C. Leucoderma

D. Tuberculosis

Answer: A

Watch Video Solution

372. Which of the following is a and inherited disorder ?

A. AIDS

B. Goiter

C. Leprosy

D. Albinism

Answer: D

Watch Video Solution

373. Albinism is a:

A. deficiency disease

B. sex-linked disease

C. hereditary disease

D. contagious disease

Answer: C

Watch Video Solution

374. Albinism is :

A. recessive

B. ploygenic

C. dominant

D. multiple allelism

Answer: A

Watch Video Solution

375. Albinism in man has been reported in :

A. Negroes

B. Europeans

C. Both Negroes and Europeans

D. None of the above

Answer: C

Watch Video Solution

376. In albinism the absence of the following pigment makes the skin and hair very light coloured :

A. melanin

B. carotene

C. chlorophyll

D. haemoglobin

Answer: A

Watch Video Solution

377. Albinism is a congenital disorder resulting from the lack of the enzyme:

A. catalase

B. melanase

C. tyrosinase

D. xanthine oxidase

Answer: C

Watch Video Solution

378. The correct path way for the synthesis of skin pigment is :

A. $\text{tyrosine} \rightarrow \text{dopa} \rightarrow \text{melanin} \rightarrow \text{dopaquinone}$

B. $\text{tyrosine} \rightarrow \text{melanin} \rightarrow \text{dopaquinone} \rightarrow \text{dopa}$

C. $\text{tyrosine} \rightarrow \text{dopa} \rightarrow \text{dopaquinone} \rightarrow \text{melanin}$

D. dopa $\rightarrow$ tyrosine $\rightarrow$ dopaquinone $\rightarrow$ melanin

Answer: C

Watch Video Solution

379. A normal woman marries an albino man.They have both albino and normal childern .The woman is :

A. homozyous normal

B. heterozgous normal

C. homozyous recessive

D. homozygous dominant

Answer: B

Watch Video Solution

380. Albinism is known to be due to an autosomal recessive mutation. The first child of a couple with normal skin pigmentation was an albino. What is the probability that their second child will also be an albino

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: A

Watch Video Solution

381. If both parents are albino, all the offspring shall be

A. albino

B. normal

C. siuffering from leucoderma

D. Non of the above

Answer: A

Watch Video Solution

382. A normal woman whose father was albino marries an albino,what proportion of normal and albino can be expected among their offspring ?

A. all albino

B. all normal

C. one normal :one albino

D. Two normal :one albino

Answer: C

Watch Video Solution

383. The disoder caused by point mutation is:

A. tetany

B. Down's syndrome

C. Sickle cell anaemia

D. Turner's syndrome

Answer: C

Watch Video Solution

384. The most striking example of point mutation is found in a disease called

A. Thalassaemia

B. Night blindness

C. Down syndrome

D. Sickle -cell anaemia

Answer: D

Watch Video Solution

385. A genetic disorder in African which reduces oxygen uptake is

A. anaemia

B. Haemophilia

C. pernicious anamia

D. Sickle -cell anaemia

Answer: D

Watch Video Solution

386. Both sicke cell anaemia and Huntington's chorea are

A. congenital disorders

B. virus-related diseases

C. bacteria-related disease

D. pollution-induced disorders

Answer: A

Watch Video Solution

387. Sickle -cell anaemia is:

A. X-linked recessive inheritance

B. X-linked dominant

C. Autosomal dominant inheritance

D. Autosomal recessive inheritance

Answer: D

Watch Video Solution

388. Sickle cell anaemia is

A. blood cells

B. bone cells

C. sex chromosome

D. autosomes

Answer: D

Watch Video Solution

389. Autosomal mutant allele Hb^s causes:

A. Albinism

B. Thalassemia

C. Sickle-cell disease

D. Agammaglobulinaemia

Answer: C

Watch Video Solution

390. The genotype of a person with sickle-cell trait is :

A. $Hb^A Hb^A$

B. $Hb^S Hb^S$

C. $Hb^S Hb^A$

D. Non of these

Answer: C

Watch Video Solution

391. Sickle-cell anaemia is caused due to the substitution of :

A. glutamic acid at the 6th position of β globin chain by valine

B. valine at the 6th position of β globin chain by glutamic acid

C. valine acid at the 6th position of α globin chain by glutamic acid

D. glycine at the 6th position of α globin chain by glutamic acid

Answer: A

Watch Video Solution

392. Sickle -cell anaemia is a genetic disorder .The cause of the disease is due to :

The subsitution of glutamic acid in place of aspartic acid

The substitution of proline in place of methionine

Substituion of valine in place of glutamic acid .

A. (ii)alone

B. (i) and (ii)

C. (iii) alone

D. (i),(ii)and (iii)

Answer: C

Watch Video Solution

393. A person may have one gene for adult haemoglobin and one gene for sickle-cell haemoglobin. This heterozygous condition is called:

A. genome

B. anaemia

C. gene trait

D. sickle-cell trait

Answer: D

Watch Video Solution

394. Which one of the following conditions though harmful in itself ,is also a potential saviour from a mosqutio borne infectious disease?

A. Leukaemia

B. Thalassemia

C. Sickle cell anaemia

D. pernicious anaemia

Answer: C

Watch Video Solution

395. Match column I with column II and select the correct option from the given codes

	Column I		Column II
A.	Sickle cell anaemia	(i)	7th chromosome
B.	Pheylketonuria	(ii)	4th chromosome
C.	Cystic fibrosis	(iii)	11th chromosome
D.	Huntington's disease	(iv)	X-chromosome
E.	Colourblindness	(v)	12th chromosome

A. A=4,B=5,C=3,D=2,E=1

B. A=3,B=5,C=1,D=2,E=4

C. A=2,B=1,C=3,D=5,E=4

D. A=1,B=3,C=4,D=2,E=1

Answer: B

Watch Video Solution

396. Which one of the following is a genetic trait ?

A. Thalassaemia

B. Graves' disease

C. Cushing's syndrome

D. Parkinson's Disease

Answer: A

Watch Video Solution

397. Which of the following is genetically determined disease due to formantion of abnormal haemoglobin ?

A. Ebola

B. Mumps

C. Haemophilia

D. Thalassaemia

Answer: D

Watch Video Solution

398. The persons suffering from thalassamia are unable to produce :

A. α-chains

B. β-chains

C. δ-chains

D. all the above

Answer: B

Watch Video Solution

399. Who is know as 'father of physiological genetic' ?

A. Galton

B. Garrod

C. Morgen

D. Mendel

Answer: B

Watch Video Solution

400. Which of the following is/are the genetic disorder?

A. Alkaptonuria

B. Albinism

C. Muscular dystrophy

D. all of these

Answer: D

Watch Video Solution

401. Alkaptonuia is caused by :

A. X-linked recessive gene

B. X-linked dominant gene

C. Autosomal recessive gene

D. Autosomal dominant gene

Answer: C

Watch Video Solution

402. The hereditary disease in which the urine of a person turns black on exposure to air due to the presence of homogentisic acid is known as:

A. ketonuria

B. haematuria

C. phenylketonuria

D. alkaptonuria

Answer: D

Watch Video Solution

403. Blacking of urine when exposed to air a metabolic disorder in human beings. This is due to

A. tyrosine

B. phenylalanine

C. Homogentisic acid

D. valine replacing glutamine

Answer: C

Watch Video Solution

404. Which one is a hereditary disease?

A. Leprosy

B. Cataract

C. Blindness

D. Phenylketonuria

Answer: D

Watch Video Solution

405. Phenylketonuria is a genetic disorder of :

A. X-linked

B. Trisomic condition

C. Monosomic condition

D. Autosomal recessive gene

Answer: D

Watch Video Solution

406. Phenylketonuria is a gentic disorder due to a defect in metabolism of following :

A. vitamins

B. hormones

C. fatty acids

D. amino acid

Answer: D

Watch Video Solution

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

A. valins

B. proline

C. tyrosine

D. histidine

Answer: C

Watch Video Solution

408. Phenylketonuria, Huntington's disease and sickle-cell anaemia are caused respectively due to disorders associated with

A. chromosome 4,chromosome 7 and chromosome 11

B. chromosome 12,chromosome 4 and chromosome 11

C. chromosome 7,chromosome 12 and chromosome 11

D. chromosome 7,chromosome 11 and chromosome 12

Answer: B

Watch Video Solution

409. Gaucher's disease is associated with abnormal metabolism of

A. fat

B. protein

C. nucleic acid

D. carbohydrate

Answer: A

Watch Video Solution

410. All the following traits are X-linked except:

A. Haemophilia

B. galactosaemia

C. colour blindness

D. fragile X-syndrome

Answer: B

Watch Video Solution

411. How can a female be colour blind ?

A. Both parents are normal

B. father normal,mother carrier

C. father colour blind,mother normal

D. father colour blind,mother carrier

Answer: D

Watch Video Solution

412. Who has discovered the taste-blindness of phynyl thiocarbamide?

A. fox

B. folling

C. franklin

D. flemming

Answer: A

View Text Solution

413. Ability of tasting PTC is a hereditary character.T is dominant and 't' recessive .Which genotype will not be able to taste PTC ?

A. TT

B. Tt

C. tt

D. non of these

Answer: C

View Text Solution

414. A man and who both have 'Bb' genotype at a locus will produce what proportion of 'bb' childern ?

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: A

Watch Video Solution

415. Brachydactyly is due to:

A. dominant gene on the sex chromosome

B. dominant gene on the autosome

C. recessive gene on the autosome

D. Non of the above

Answer: B

Watch Video Solution

416. A man is affected with brachydactyly, an autosomal dominant trait that cause shortening of several fingers. What is the risk that the man's first child will have brachydactyly ?

A. 0.25

B. 0.5

C. 0.75

D. 1

Answer: B

Watch Video Solution

417. Wilson disease is asoicated with abnormal matabolism of

A. iron

B. iodine

C. copper

D. potassium

Answer: C

Watch Video Solution

418. Haemolytic jaundice is due to a dominant gene but only 10% of the people develops this disease.A heterozygous male marries a homozygous normal woman.What proprtion of the children in population would be expected to have this disorder ?

A. $1/5$

B. $1/2$

C. $1/10$

D. $1/20$

Answer: D

View Text Solution

419. Which of the following is not a hereditary disease

A. Cretinism

B. Haemophilia

C. Thalassaemia

D. Cystic fibrosis

Answer: A

Watch Video Solution

420. Improvement of the human race by improving the environmental condition is :

A. eugenics

B. euthenics

C. euphenics

D. all of these

Answer: A

Watch Video Solution

421. Eugenics is the study of :

A. evolution

B. development

C. human genetics

D. modern genetics

Answer: C

Watch Video Solution

422. Eugenics pertains to :

A. study of human genetics

B. controlling size of a human family

C. improving of mankind by improving his heredity

D. preserving human sperm for artificial insemination

Answer: C

Watch Video Solution

423. Who is called 'father of eugenics?

A. Galton

B. Garrod

C. Griffith

D. Goldschmidt

Answer: A

Watch Video Solution

424. The term eugenics was coined by :

A. H.C Urey

B. Francis Galton

C. Joshua Lederberg

D. Thomas Hunt Morgan

Answer: B

Watch Video Solution

425. Which one is true about tubectonmy ?

A. cutting the testis

B. to make man sterile

C. blocking of fallopian tube

D. blocking of the vasa differentia

Answer: C

Watch Video Solution

426. Marriage between close relatives should be avoided because it induces more:

A. mutations

B. multiple births

C. blood group abnormalities

D. recessive alleles to come together

Answer: D

Watch Video Solution

427. Genetically identical progeny is produced when the individual

A. practies reproduction

B. preforms self-fertilization

C. produces identical gametes

D. practies inbreeding without meiosis

Answer: C

Watch Video Solution

428. Improvement of genetic characters and persent generationon the basis of best nutrition and tranining is called :

A. eugenics

B. euthenics

C. euphenics

D. geronotology

Answer: B

Watch Video Solution

429. Improvement of human race through improvement of human environment is

A. eugenics

B. euthenics

C. euphenics

D. non of these

Answer: A

Watch Video Solution

430. Improvement of the human race by improving the environmental condition is :

A. eugenics

B. euthenics

C. euphenics

D. dysgenics

Answer: B

Watch Video Solution

431. Branch dealing with genetic engineering is

A. eugenics

B. euthenics

C. euphenics

D. non of these

Answer: C

Watch Video Solution

432. Mental competence in relation to chronological age in man is called :

A. idiocy

B. diligence

C. intelligence

D. intelligence quotient

Answer: D

Watch Video Solution

433. Intelligence qutient (IQ) is a ratio of mental age to :

A. chronological age

B. chronological age divided by 10

C. chronological age multiplied by 10

D. chronological age multiplied by 100

Answer: D

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434. A child of ten years is an intelligent as is normally expected in the child of fourteen years.IQ of this child would be:

A. 110

B. 100

C. 140

D. 160

Answer: C

View Text Solution

435. A child with IQ of 140 belongs to the category :

A. genius

B. superior

C. average

D. most superior

Answer: A

View Text Solution

436. Male XX and female XY sometime occur due to :

A. deletion

B. detection

C. aneuploidy

D. hormonal imbalance

Answer: D

Watch Video Solution

437. X-chromosome of female in a sex - linked inheritance case can be passed on to :

A. only male progeny

B. only female progeny

C. only in grand daughter

D. both male and female progenies

Answer: B

Watch Video Solution

438. X-chromosome of female in a sex - linked inheritance case can be passed on to :

A. only male progeny

B. only female progeny

C. only in grand daughter

D. both male and female progenies

Answer: D

Watch Video Solution

439. Sex linkage was discovered by :

A. Calvin

B. Mendel

C. Morgan

D. Linnaeus

Answer: C

Watch Video Solution

440. In man four phentypes of blood groups are due to the prensence of antigen 'A' and antigens is :

A. X-chromosome

B. 9th chromosome

C. 7th chromosome

D. 21st chromosome

Answer: B

Watch Video Solution

441. Which one pair of parents out of the following is most likely get a child who would suffer from hemolytic dissease fo the newborn ?

A. Rh^+ mother and Rh^- father

B. Rh^- mother and Rh^- father

C. Rh^+ mother and Rh^- father

D. Rh^- mother and Rh^+ father

Answer: D

Watch Video Solution

442. Assertion : Phenylketonuria is a recessive hereditary disease caused by the body 's failure to oxidize an amino acid phenylalanine to tyrosine , because of a defective enzyme.

Reason : It results in the presence of phenylalanine acid in the urine .

A. Both (A) and (R) are true and (R) is the cerrect explanation of (A)

B. Both (A) and (R) are true and (R) is not the cerrect explanation of (A)

C. (A) is true statement but (R) is flase

D. Both (A) and (R)are false

Answer: A

Watch Video Solution

443. Which of the following conditions in humans is correctly matched with its chromosomal abnormality/linkage

Or

An abnormal human male phenotype involving an extra X- chromosomes in a case of

A. Erythroblastosis foetalis -X linked

B. Klinefelter syndrome - 44 autosomes + XXY

C. Down syndrome -44 autosomes +XO

D. Colour blindness -Y linked

Answer: B

Watch Video Solution

444. Down's syndrome is an example

A. loss of one sex-chromosome from the diploid set

B. syndrome caused due to gene mutation

C. aneuploidy of sex chromosome

D. aneploidy of autosome

Answer: D

Watch Video Solution

445. X-linked recessive gene is

A. lethal

B. sub-lethal

C. always expressed in male

D. always expressed in female

Answer: C

Watch Video Solution

446. X-chromosome of female in a sex - linked inheritance case can be passed on to :

A. only male progeny

B. only female progeny

C. only in grand daughter

D. male and female progeny

Answer: D

Watch Video Solution

447. A man cand inherit his X-chromosome from :

A. his father

B. his paternal grand father

C. his maternal grand mother

D. his maternal grand mother or maternal grand father

Answer: D

Watch Video Solution

448. Gene for colour blindness is loacated on :

A. X-chromosome

B. Y-chromosome

C. 21st chromosome

D. 13th chromosome

Answer: A

Watch Video Solution

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

A. Normal sons and carries daughters

B. Colour bind sons and carriers daughters

C. Colour blind sons and 50% carriers daughter

D. 50% colour blind sons blind sons and 50% daughters

Answer: B

Watch Video Solution

450. Which of the following contitions is related to haemophilia ?

A. A recessive gene responsible present in the X-chromosome

B. A dominant gene responsible present in the X-chromosome

C. A responsible dominant gene responsible present in the Y-chromosome

D. A responsible dominant gene responsible present in the autosomal chromosome

Answer: A

Watch Video Solution

451. 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. Both (A) and (R) are true and (R) is the cerrect explanation of (A)

B. Both (A) and (R) are true and (R) is not the cerrect explanation of (A)

C. (A) is true statement but (R) is flase

D. Both (A) and (R)are false

Answer: C

Watch Video Solution

452. Excessive growth fo hair one the pinna is a feature found only in males because :

A. The female sex hormone estrogen suppresses the character in females

B. The gene responsible for the character is present on the y-chromosome only

C. The gene responsible for the charater is recessive in females and dominant only in males

D. The character is induced in males as male produce testosterone

Answer: B

Watch Video Solution

453. Inheritance of blood group is a condition of

(a) Codominance

(b) Incomplete dominance

(c) Multiple allelism

(d) Dominance

A. A,B

B. B,D

C. B,C

D. A,C

Answer: D

Watch Video Solution

454. A man of 'A' bood group marries a woman of 'AB' bood group .Which types of progeny would indicate that man is heterozyguos?

A. B

B. O

C. A

D. AB

Answer: A

Watch Video Solution

455. In heterozygous condition, both the alleles express in

A. Rh factor

B. AB blood group

C. Colour blindness

D. A and B blood group

Answer: B

Watch Video Solution

456. Which blood group can donate the blood to all other persons ?

A. A

B. B

C. AB

D. O

Answer: D

Watch Video Solution

457. Which of these is a dominant factor ?

A. Albinism

B. Rh factor

C. Haemophilia

D. Colour blindness

Answer: B

Watch Video Solution

458. In gynandromorphs :

A. All cells have XX genotype

B. All cells have XY genotype

C. all cells with genotype XXY

D. some cells of body contain XX and some cells with genotype XY

Answer: D

Watch Video Solution

459. Identify a Mendelian disorder from the following

A. Down syndrome

B. Turner syndrome

C. phenylketonuria

D. Klinefelter syndrome

Answer: C

Watch Video Solution

460. Which of these statement about Huntington's disease is true ?

A. There is currently no effective treatment of Huntington's disease

B. Genetic tests to detect the presence of the allele responsible for Huntington's disease do not exist at this time

C. The onset of Huntington's disease si typically between birth and three year of age

D. Huntington's disease is caused by the expression of a recessive allele

Answer: A

Watch Video Solution

461. Persons suffering from sickle cell trait normally do not suffer from:

A. cholera

B. hepatitis

C. malaria

D. high blood pressure

Answer: C

Watch Video Solution

462. Sex chromosme of a female bird are represented by :

A. XO

B. XX

C. XY

D. ZW

Answer: D

Watch Video Solution

463. In a pedigree analysis, $\square = 0$ respresents

A. siblings

B. affected parents

C. unrelated mating

D. consanguineous matting

Answer: D

Watch Video Solution

464. Which of these is not a Mendian disorder ?

A. Heamophilia

B. Cystic fibrosis

C. colour blindness

D. Tuner synderome

Answer: D

Watch Video Solution

465. Genetic counsellors can identify heterozygous individuals by

A. height of individuals

B. colour of individuals

C. screening procedures

D. all of the above

Answer: C

Watch Video Solution

466. How many pairs of homologous chromosome are present in human ?

A. 22

B. 23

C. 46

D. 44

Answer: B

Watch Video Solution

467. A person affected by disease havings chromosome complement XXX is called /having :

A. Super female

B. Turner syndrome

C. Down syndrome

D. Klinefelter syndrome

Answer: A

Watch Video Solution

468. Sickle-cell anaemia is :

A. an autosomal linked dominant trait

B. Caused by a change in a single base-pair of DNA

C. chracterized by elongated sickle like RBC_s with a nucleus

D. caused by substitution of valine by glutamic acid in the β-globin chain of haemoglobin

Answer: B

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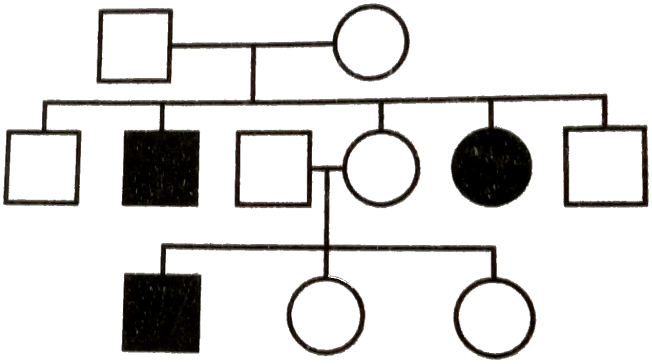
469. Study the pedigree chart given below :



What does it know

A. Inheritance of a recessive sex-linked disease like haemophilia

B. Inheritance of a sex-linked inborn error of like phenylketonuria

C. Inheritance of a condition like phenylketonuria as an autosomal recessive trait

D. The pedigree chart is wrong as this is not possible

Answer: C

Watch Video Solution

470. The most populary known blood grouping is the AOB grouping .It is named AOB and not ABC ,because "O" in it refers to having :

A. no antigens A and B on RBC_s

B. other antigens besides A and B on RBC_S

C. overdominace of this type on the genes for A and B types

D. one antigens only-either anti-A or anti -B on the RBC_S

Answer: A

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471. Select the incorrect statement from the following :

A. Baldness is a sex-limited trait

B. Linkage is an exception to the principle of independent assortment in heredity

C. Galactosaemia is an inborn error of metabolism

D. small population size results in random genetic drift in a population

Answer: A

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472. Alzhimer disease in humans is associated with the deficiency of

A. dopamine

B. glutamic acid

C. acetycholine

D. gamma aminobutyric acid (GABA)

Answer: C

Watch Video Solution

473. The genetic defect-adenosine deaminase (ADA) deficiency may be cured permanently by

A. enzyme replacment therapy

B. periodic infusion of genetically engineered lymphocytes having function ADA c-DNA

C. administering adenosine deaminase activeators

D. introdusing bone marrow cells producing ADA into cells at early embryonic stages

Answer: D

Watch Video Solution

474. A man who is suffering from a recessive X_ linked disease marries a normal women. Then what is true about its progeny

A. all sons are normal

B. all sons are diseased

C. all daughters are diseased

D. none of the above

Answer: A

Watch Video Solution

475. 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

Watch Video Solution

476. Blood group agglutiogen is :

A. glycoprotein

B. phospholipid

C. haemoprotein

D. phosphoprotein

Answer: A

Watch Video Solution

477. The offspring produce from a marriage have only O or A blood groups. Of the genotypes given below ,the possible genotypes of the parents would be :

A. $I^A I^A$ and $I^A I^O$

B. $I^O I^O$ and $I^O I^O$

C. $I^A I^O$ and $I^O I^O$

D. $I^A I^A$ and $I^O I^O$

Answer: C

Watch Video Solution

478. Pick out the correct statement:

(i) Down's syndrome is due to aneuplodiy.

(ii) Haemophilia is a sex-linked recessive disease.

(iii) Phenylketonuria is an autosomal recessive gene disorder.

(iv) Sickle-cell anamia is an X-linked recessive gene disorder.

A. (i) and (iii) are correct

B. (ii) and (v) are correct

C. (i),(iv) and (v) are correct

D. (i),(iii)and (v) are correct

Answer: D

Watch Video Solution

479. Identift the wrong statement :

A. in male grasshoppers 50% of the sperm have no sex chromosome

B. in domesticated fowls the sex progeny depends on the type of sperm that fertilizes the egg

C. usually female birds produce two types of gametes based on sex chromosomes

D. the human males have one of their sex chromosome much shorter than the other

Answer: B

Watch Video Solution

480. The ZZ-ZW sex determination does not exist in :

A. Birds

B. Moths

C. some fishes

D. Drosophila melanogaster

Answer: D

Watch Video Solution

481.

	$ListI$ (X/A)		$ListII$ (Sex)
(A)	0.5	(1)	Metafemale
(B)	1.0	(2)	Metafemale
(C)	1.5	(3)	Male
(D)	0.33	(4)	intersex
(E)	0.67	(5)	female

A. A=3,B=1,C=2,D=4,E=5

B. A=1,B=4,C=2,D=5,E=3

C. A=3,B=5,C=1,D=2,E=4

D. A=2,B=3,C=1,D=4,E=5

Answer: C

View Text Solution

482. Due to the nondisjunctiuon of chromosomes during spermatogenesis, sperms carry both sex chromosomes (22A + XY) and some sperms do not carry any sex chromosome (22A + O). If these sperms fertilise normal eggs (22A + X), what types of genetic disorders appear among the offsprings ?

A. Down syndrome and Turner syndrome

B. Down syndrome and klindfelter syndrome

C. Down syndrome and Cri-du-chat syndrome

D. Turner syndrome and Klinefelter syndrome

Answer: D

Watch Video Solution

483. ABO blood grouping is controlled by gene I which has three alleles and show co-dominance. There are six genotypes: How many phenotypes in all are responsible

A. six

B. four

C. five

D. three

Answer: B

Watch Video Solution

484. Human blood group are example of a :

A. clone

B. grandualism

C. polymorphism

D. gradient of diploidy

Answer: C

Watch Video Solution

485. A mother with blood group B type has a child with blood group type O .What is the possibilty of the genotypes of that mother and father ?

A. I^AI^A(father) and I^BI^O(mother)

B. I^AI^B(father) and I^BI^B(mother)

C. I^AI^O(father) and I^BI^O(mother)

D. I^BI^O(father) and I^AI^O(mother)

Answer: C

Watch Video Solution

486. Which of the following genotypes does notproduce any sugar polymer on the surface of the RBC

A. $I^A I^A$

B. $I^B \_ (i)$

C. $I^A I^B$

D. I I

Answer: D

Watch Video Solution

487. A person with blood group AB has which of the antigens in RBCs.

A. A

B. B

C. AB

D. non of these

Answer: C

Watch Video Solution

488. When the blood group of a fahter and mother respectively are O and A, then the blood group of their child will be :

A. AB

B. A and O

C. A

D. all types

Answer: B

Watch Video Solution

489. When red blood corpuscles containing both A and B antigens are mixed with your blood serum, they agglutinate. Hence you blood group is.....type.

A. O

B. AB

C. A

D. B

Answer: A

Watch Video Solution

490. In a human ,karytype chromosome number 13,14,and 15 are inculed in the group :

A. A

B. D

C. E

D. G

Answer: B

View Text Solution

491. Which of the following condition is not X-linked ?

A. Myopia

B. Haemophilia

C. down syndrome

D. Colour blindness

Answer: C

Watch Video Solution

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

A. $squar$ = ○ =mating between relatives

B. ○ =unaffected male

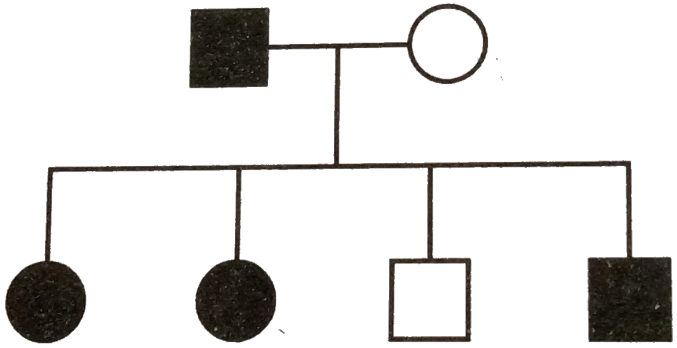
C. □ =unaffected female

D. ◇ = male affected

Answer: A

Watch Video Solution

493. Study the pedigree chart of a certain family given below and select the correct conclusion which can be drawn for the character ?



A. The female present is herterozygous

B. The parents could not have had a normal daughter for this character

C. The trait under study could not be colour blindness

D. The male parent is homozygous doimnant

Answer: A

Watch Video Solution

494. Which one of the following conditions correctly describes the manner of determining the sex in the given example

A. Homozygous sex chromosome (XX) produce male in Drosophila

B. Homozygous sex chromosome (ZZ) determiners female sex in birds

C. XO types sex chromosome determine male sex in grasshopper

D. XO condition in humans as found in tuner syndrome determine females sex

Answer: C

Watch Video Solution

495. A certain road accident patien with unknown blood group needs immediate blood transfusion. His one docter friend at once offers his blood .What was the blood group of the doner ?

A. Blood group B

B. Blood group AB

C. Blood group A

D. Blood group O

Answer: D

Watch Video Solution

496. In blood group typing in human if an allele contributed by one parents is I^A and an allele contributed by the other parent is I,the resulting blood group of the offspring will be :

A. A

B. B

C. AB

D. o

Answer: A

Watch Video Solution

497. Absence of one sex chromosome casuse:

A. Down syndrome

B. Turner syndrome

C. Turner syndrome

D. Tay-Sach syndrome

Answer: B

View Text Solution

498. The number of autosome in human prilmary spermatocyte is :

A. 46

B. 44

C. 23

D. 22

Answer: B

Watch Video Solution

499. XO type of sex determination is seen is :

A. Man

B. Brids

C. Horses

D. Grasshopper

Answer: D

Watch Video Solution

500. 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. $1/2$

B. $1/4$

C. $1/8$

D. $1/16$

Answer: A

Watch Video Solution

501. If a colour blind man marries a woman who is normal but carries this this trait,the progny would be :

A. sons and daughter will be normal

B. sons will a colour blind ,daughters will

C. sons will be normal ,daughter will a carries

D. both sons and daughter will be colour blind

Answer: C

Watch Video Solution

502. Which one of the following conditions of the zygotic cell would lead to the birth of a normal human female child

A. two X-chromosome

B. only one Y-chromosome

C. only one X-chromosome

D. one X and one Y-chromosome

Answer: A

Watch Video Solution

503. Haemophilia is related to which of the following ?

A. Polio

B. Cataract

C. Tumour

D. Colour blindness

Answer: D

Watch Video Solution

504. A man with blood group 'A' marries a woman with group 'B' blood.Their child has blood group 'O' what are the gentypes of the parents ?

A. I^Ai, I^BI^B

B. I^A, I^B

C. I^A, I^A, I^BI^B

D. I^Ai, I^Bi

Answer: D

Watch Video Solution

505. Blood group of mother is A. That of son is B. What is blood group of father

A. B

B. A

C. O

D. non of these

Answer: A

Watch Video Solution

506. The Drosophila female has a pair of sex chromosome :

A. ZZ

B. XX

C. XY

D. ZW

Answer: B

Watch Video Solution

507. Carrier female marries a normal visioned male. How many daughter are colour blind carries ?

A. Zero

B. 0.25

C. 0.5

D. 1

Answer: C

Watch Video Solution

508. A colour blind daughter is born to :

A. Carrier mother and normal father

B. Normal mother and colour blind father

C. Carrier mother and colour blind father

D. Colour blind mother and normal father

Answer: C

Watch Video Solution

509. In XO type of sex determination

A. Female produce two different types of gametes

B. males produce two different types of gametes

C. femlaes produce gametes with Y chromosome

D. males produce gametes with Y chromosome

Answer: B

Watch Video Solution

510. In humans most number of genes are located on chromosome

A. 1

B. 6

C. 21

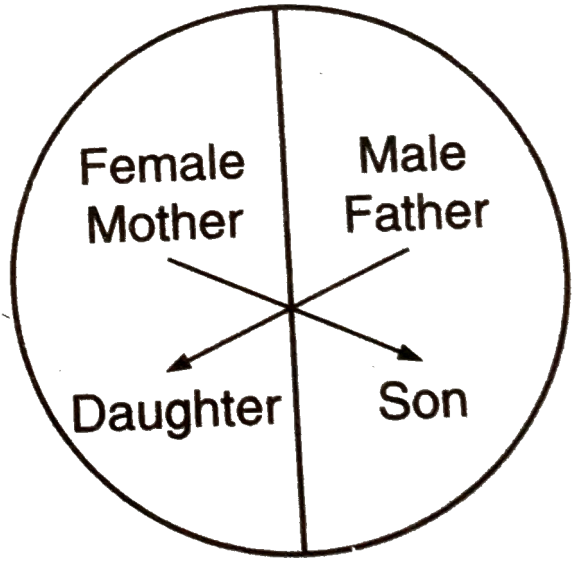
D. X

Answer: A

Watch Video Solution

511. Represented below is the inheritance pattern of certain type of traits in humans. Which one of the followings conditions could be an example

of the pattern ?



A. Haemophilia

B. Thalassemia

C. Phenylketonuria

D. sickle cell anaemia

Answer: A

Watch Video Solution

512. The gene for diabetes mellitus is

A. sex linked dominant

B. sex linked recessive

C. auotsomal recessive

D. auotsomal dominant

Answer: D

Watch Video Solution

513. If father shown normal gentype and mother shown a carrier trait for haemophilia then :

A. all the female offsprings will be normal

B. all the female offsprings will be carriers

C. a male offsprings has 50% chance of active disease

D. a female offspring has probability of 50% to have active disease

Answer: C

Watch Video Solution

514. With regard to the ABO blood typing system if a man who has type B blood a woman who has type O blood were to have childern,what blood types could the childern have ?

A. A or O

B. B or O

C. AB or O

D. A,B,AB or O

Answer: B

Watch Video Solution

515. If both parents are carriers for thalassaemia, which is an automal recessive disorderm what are the chances of pregnancy resulting in an effected child ?

A. 0.25

B. 0.5

C. 1

D. no chance

Answer: A

Watch Video Solution

516. The incorrect statement with regard to haemophilia is

A. It is a recessive disease

B. it is a dominant disease

C. it is a sex-linked disease

D. A single protien involved in the clotting of blood is affected

Answer: B

Watch Video Solution

517. Heterogemety is the where an individual produce two types of gametes. The most appropriate anwer is :

A. Male Drosophilia fly

B. Female Drosophilia fly

C. female bird

D. Both (a) and (c)

Answer: D

Watch Video Solution

518. Which of the following is an X-linked recessive trait with locus in Xq 28 and related with factor VIII?

A. Haemophilia -A

B. Haemophilia -B

C. Christmas disease

D. Both (A) and (B)

Answer: A

View Text Solution

519. Choose a false statement with reference to sickle cell anaemia:

A. Have gentype HbS/Hbs

B. Have genotype RBC

C. Substitution of glutamic acid to valine

D.

Answer: B

Watch Video Solution

520. A man ,who father is colour blind , marries a lady who is daughter of a colour blind man.The offspring will be :

A. all normal

B. all colour blind

C. all sons colour bind

D. some sons colour blind and some normal

Answer: D

Watch Video Solution

521. In which of the following disease , the man has an extra X-chromosome ?

A. Bleeder's disease

B. Turner's syndrome

C. Down's syndrome

D. Klinefilter's syndrome

Answer: D

Watch Video Solution

522. A man whose father was colour blind marries a woman who has a colour blind mother and normal father .What percentage of male childern of this couple will be colour blind ?

A. 0

B. 0.5

C. 0.75

D. 0.25

Answer: B

Watch Video Solution

523. A human female with turner's syndrome

A. is able to produce childern with normal husband

B. has one additional X chromosome

C. Has 45 chromosome

D. exhibits male characters

Answer: C

Watch Video Solution

524. Choose the worng statement

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

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 chromosome besides autosomes.

D. In insects with XO type of sex determination, all sperms bear X chromosomes besides autosomes.

Answer: D

Watch Video Solution

525. In sickle cell anaemia, the sequence of amino acid from first to seventh position of β-chain of haemoglobin S (HbS) is

A. Val,His,Leu,Thr,Pro,Val,Glu

B. His,Leu,Thr,Pro,Glu,Val,Val

C. Val,His,Leu,Thr,pro,Glu,Glu

D. Thr,His,Pro,Val,Pro,Val,Glu

Answer: A

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526. First husband of Asha had ABO blood Type A and Their child had type O.She remarried and her second husband had ABO blood type B and their child had types AB. What is the ABO gentypes of Asha and also name her blood type?

A. ii,Blood types O

B. I_Bi:Blood types B

C. $I_A I_B$,Blood types AB

D. $I_A I$,Blood type A

Answer: D

Watch Video Solution

527. A couple both carriers of sickle cell anaemia planning to get married, wants to know the chances of having anaemic progeny

A. 1

B. 0.75

C. 0.25

D. 0.5

Answer: C

Watch Video Solution

528. Which of the following is correct match ?

	I		II		III
(a)	Thalassemia	(A)	XO	(i)	Flat nose sim
(b)	Down's syndrome	(B)	42 AA +XV	(ii)	Webbing of n
(c)	Tuner's syndrome	(C)	44 AA+XXX	(iii)	Anaemia jaun
(d)	Klinefelter's syndrome	(D)	44 AA + XXY	(iv)	Tall,thin,eun

Watch Video Solution

529. In order to lessen the suffering of Phenylalanie and no tyrosine

A. no phenylalanine and no tyrosine

B. normal recommended amount of phenylalanine

C. low phenulalanine and normal requirement of tyrosine

D. normal recommended amount of both phenylalanine and tyrosine

Answer: C

View Text Solution

530. Sex determination by chromosome diffrence in man and Drosophila is by mechanism called :

A. XX-XO

B. XX-XY

C. ZZ-ZW

D. (a) and (b)

Answer: B

Watch Video Solution

531. Which of the following set of syndrome show 47 chromosome in their genetic make up ?

A. Down syndrome patau's syndrome, Edward's syndrome

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

C. Klinefelter's syndrome,Turne's syndrome,Edward's syndrome

D. all the above

Answer: A

Watch Video Solution

532. Genetic disorder haemophilia is chraracterized by excessive loss of blood.Which of the following statements is not true in relation to this disease ?

A. It is a lethal disease

B. It is a X-linked disease

C. It is an autosomal disease

D. Any of the factor VIII of IX may be absent

Answer: C

Watch Video Solution

533. The nuclear strusture observed by Henkings in 50% of the insect sperm after spermatogenesis was :

A. X-body

B. Autosome

C. Nuleolus

D. Polar body

Answer: A

View Text Solution

534. An abnormal human baby with XXX sex chromosomes was born due to

A. Fusion of the ova and one sperm

B. Fusion of sperms and one ovum

C. formation of abnormal sperms in the father

D.

Answer: C

Watch Video Solution

535. Three alleles namely I^A, I^B and I control the blood grouping in human beings.How many different genotypes are likely to be present in the human population ?

A. 2

B. 4

C. 5

D. 6

Answer: D

Watch Video Solution

536. Match the items in Cloumn-I with those in Cloumn-II and choose the correct the correct answer .

	$Column - I$		$Column - II$
(P)	Klinefelter syndrome	(i)	Mutation in autosomal gene
(Q)	Thalassaemia	(ii)	Mutation in sex chromosome-linked g
(R)	Down syndrome	(iii)	Trisomy of autosomes
(S)	Colour 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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537. Which one of the following statement is relevant to sex linked characters ?

A. They are mostly present on Y chromosome

B. They always follows criss-cross inheritance

C. They do not follow criss-cross inheritance

D. They are only present on X chromosome

Answer: B

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538. With respec to phenylketonuria identify which statement is not correct

A. It is a case of aneuploidy

B. It is a an error in metabolism.

C. It is an example of pleiotropy

D. It is caused by an autosomal recessive trait.

Answer: A

Watch Video Solution

539. In a pedigree analysis, $\square = 0$ respresents

A. Normal mating

B. Sex unspeicfied

C. unaffected offspring

D. cosanguineous marriage

Answer: D

Watch Video Solution

540. Three copies of chromosome -21 in a child with Down's syndrome have been analysed using molecular biology technology to detect any possible DNA polymorphism with reference to different alleles located on chromosome -21.Results showed that out of 3 copies 2 of the chromosome of the child contain the same alleles as one of the mohter's

alleles .Based on this when did the non-disjunction event mostly likely occur:

A. Paternal meiosis-I

B. Maternal meiosis-I

C. Paternal meiosis-II

D. Matrenal meiosis-II

Answer: B

View Text Solution

541. Which one of the following conditions correctly describes the manner of determining the sex in the given example

A. Homozygous sex chromosome (XX) produce male in Drosophila

B. Homozygous sex chromosome (ZZ) determiners female sex in birds

C. XO types sex chromosome determine male sex in grasshopper

D. XO condition in humans as found in tuner syndrome determine females sex

Answer: C

Watch Video Solution

542. Identify the wrong statement

A. Alleles b and c also produce sugar

B. Alleles I^A and I^B produce sugar

C. When I^B and i are present only I^B is expressed

D. Both I^A and I^B are present together and express because of co-dominace

Answer: A

View Text Solution

543. Find the odd one out, with respect to X-linkage

A. Myopia

B. Nephritis

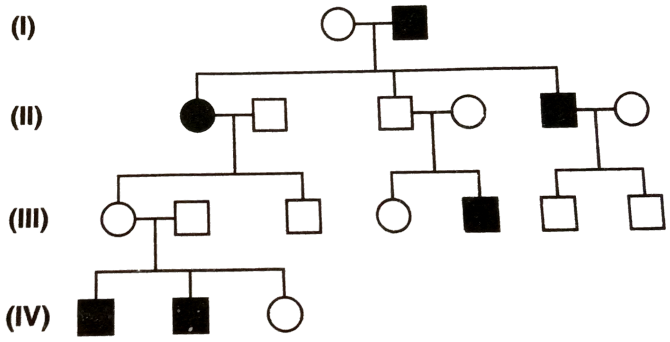
C. Haemophilia

D. Night blindness

Answer: B

Watch Video Solution

544. In the following human pedigree the filled symbols represent the affected individuals. Identify the types of given pedigree:



A. Autosomal dominant

B. X-linked recessive

C. Autosomal recessive

D. X-linked dominant

Answer: C

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545. A colour blind man marries a woman with normal sight who has no history of colour blindness in her family. What is the probability of their grandson being colour blind

A. 0.5

B. 1

C. nil

D. 0.25

Answer: A

Watch Video Solution

546. Pick out the correct statement:

(i) Down's syndrome is due to aneuplodiy.

(ii) Haemophilia is a sex-linked recessive disease.

(iii) Phenylketonuria is an autosomal recessive gene disorder.

(iv) Sickle-cell anamia is an X-linked recessive gene disorder.

A. (i) and (iv) are correct.

B. (ii) and (iv) are correct

C. (i),(ii), and (iii) are correct.

D. (i) ,(iii),the (iv) are correct

Answer: C

Watch Video Solution

547. Which of the following most appropriately describes haemophilia ?

A. Chromosomal disorder

B. Dominant gene disorder

C. Recessive gene disorder

D. X-linked recessive gene disorder

Answer: D

Watch Video Solution

548. If a colour blind mas marries a woman who is homozygous for normal colour vision,the probability of their son being colour blind is :

A. 0

B. 1

C. 0.5

D. 0.75

Answer: A

Watch Video Solution

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

A. polyploidy

B. Aneuploidy

C. Allopolyploidy

D. Monosomy

Answer: B

Watch Video Solution

550. Distance between the genes and percentage of recombination shows

A. no relationship

B. a direct relatioship

C. an inverse relationship

D. a parallel relationship

Answer: C

Watch Video Solution

551. If a genetic disease is transferred from a phenotypically normal but carrier female to only some of the male progeny, the disease is

A. Autosomal dominant

B. Autosomal recessive

C. Sex-linked dominant

D. Sex-linked recessive

Answer: D

Watch Video Solution

552. In sickle cell anaemia glutamic acid is replaced by valine Which one of the following triplets codes for valine ?

A. G U G

B. G A A

C. G G G

D. A A G

Answer: A

Watch Video Solution

553. Person having genotype $I^A I^B$ would show the blood group as AB. Thus is because of

A. Pleiotropy

B. Segregation

C. Co-dominace

D. Incomplete dominance

Answer: C

Watch Video Solution

554. ZZ/ZW type of sex determination is seen in

A. Snails

B. Peaock

C. Platypus

D. Cockroach

Answer: B

Watch Video Solution

555. A cross between two tall plants reseulted in offspring having few dwarf plants. What would be the gentypes of both the parents ?

A. TT and TT

B. Tt and tt

C. TT and Tt

D. Tt and Tt

Answer: D

Watch Video Solution

556. In a dihybrid crossm if you get $9:3:3:1$ ratio it denotes that

A. The allets of two gene are ineracting with each other

B. It is a multigenic inheracting

C. It is a case of multiple allelism

D. The alleles of two genes are segregating independently

Answer: D

Watch Video Solution

557. Which of the following will not result in variations among siblings ?

A. Linkage

B. Mutation

C. Cossing over

D. Inpendent assortment of genes

Answer: A

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558. Mendel's law of independent assortment holds good for genes situated on the

A. Non homologuse chromosomes

B. extra nuclear gentic element

C. homologous chromosomes

D. same chromosome

Answer: A

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559. Occasionally, a single gene may express more than one effect. The phenomenon is called

A. mosaicism

B. poleoptropy

C. polygeny

D. multiple allelism

Answer: B

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560. In a certain taxon of insects some have 17 chromosomes and the others have 18 chromosomes. The 17 and 18 chromosome-bearing organisms are

A. all males

B. all females

C. males and females respectively

D. females and males ,recpectively

Answer: C

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561. The inheritance pattern of a gene over generations amoung human is studied by the pedigree analysis. Character studied in the pedigree analysis is equivalent to

A. Mendelian trait

B. Quantitative trait

C. Polygenic trait

D. Maternal trait

Answer: A

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562. It is said thet Mendel proposed that the factor controlling any character is discrete and independen. His proposition was based on the

A. reults of F^3 generation of a cross

B. observations that the offspring of a cross made between the plants having two contrating characters showns only one character without any blendings

C. self pollination of F^1 offsprings

D. cross pollination of parental generations

Answer: B

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563. Two genes 'A' and 'B' are linked. In a dihybrid cross involving these two genes, the F_1 hetrozygote is crossed with homozygous recessive parental type (aa bb). What would be the ratio of offspring in the next generation?

A. $3:1$

B. $1:1$

C. $1:1:1:1$

D. 9:3:3:1

Answer: C

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564. In the F_2 generation a Mendelian dihybrid cross the number of phenotypes and genotypes are

A. Phenotypes-4-gentypes -16

B. Phenotypes- 9-gentypes -4

C. Phenotypes-4-gentypes -8

D. Phenotypes-4-gentypes -9

Answer: D

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565. Mother and father of a person with 'O' blood group have 'A' and 'B' blood group respectively. What would be the genotype of both mother and father ?

A. Mother is homozygous for A blood group and father is heterzygous for B

B. Mother is heterozygous for A blood group and father is heterzygous for B

C. both mother and father are heterozygous for'A' and B blood group respectively

D. both mother and father are homozygous for'A' and B blood group respectively

Answer: C

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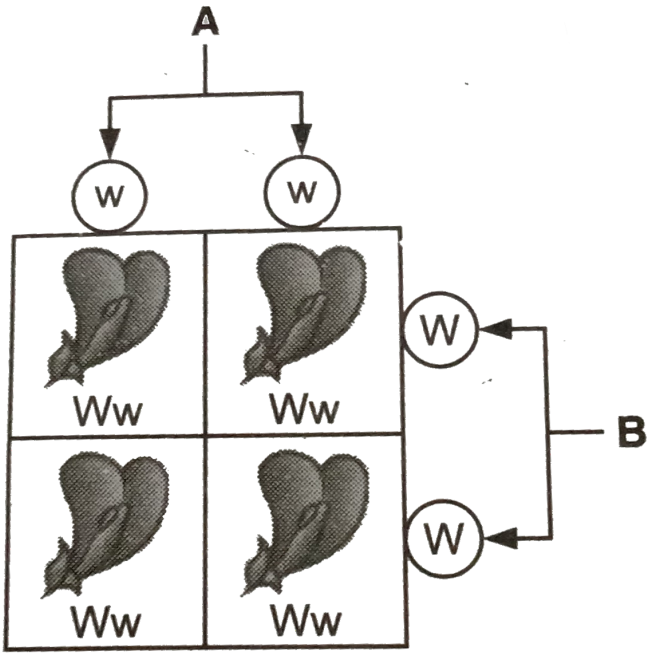
566. Daigrammatic representation of a test cross is given below.Identify A and B and select the correct option:



A. A-Homozygous dominant

B-Homozygous recessive

B. A-Homozygous recessive

Heterzgous doimnant

C. A-Homozygous recessive

Heterzgous doimnant

D. A-Heterzygous recessive

Homozgous doimnant

Answer: C

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567. Read the following five statement five statement (A to E)and select the option with all correct statement :

(A) Down's syndrome id due to trisomy of chromosome 22 ,

(b) Genes are the due of inhetitance

(c) Variation is the degree by which progeny differ from their parents.

(d) In chicken ,sex chromosome in male are ZW ,and in females are ZZ

(E) Sickle cell anaemia is caused due to change of one base in the gene coding for b-chain of haemoglobin

A. (A),(D)and (E)

B. (B),(C) and (E)

C. (A),(C) and (D)

D. (A) ,(B) and (D)

Answer: B

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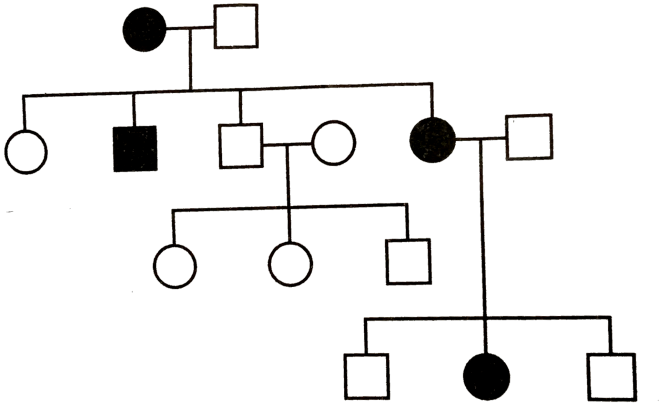
568. Pedigree analysis of a human trait is given below Identify by selecting correct option :



A. Autosomal dominant

B. Sex-linked dominant

C. Autosomal recessive

D. Sex-linked recessive

Answer: A

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569. Which of the following statement regarding Mendelism is are worng?

I.Mendel proposed the principles of inderitance

II.Mendel published his work on inheritant of chracaters in 1865.

III.Mendal law of independent assortment hold true for the ganes that were located on the same chromosomes.

IV. Gregor Mendel conducted hybridisatuion experitments on garden peas for seven years .

V.Mendal experiments had a large sampling size ,which gave greater credibility to the data that he callected.

A. II and IV only

B. III and V only

C. I,II and III only

D. III only

Answer: D

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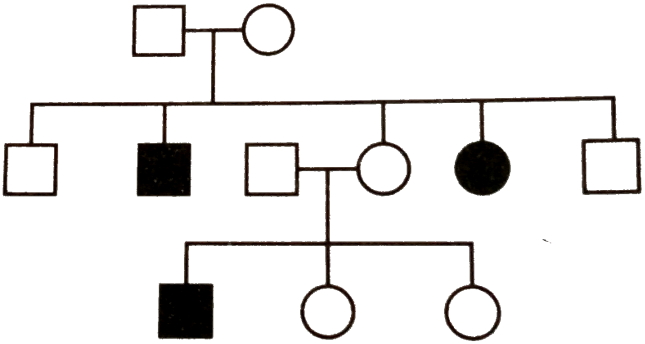
570. Study the pedigree chart of a certain family given below.It is related to sickle cell anaemia



The trait traced in above pedigree chart is :

A. Sex-linked dominant

B. Autosomal dominant

C. Autosomal recessive

D. Sex-linked recessive

Answer: C

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571. Select the correct option of the traits studied by Mendel in Garden pea:

(a)	Stem height	(i)	Violet/white
(b)	Flower colour	(ii)	Axial/terminal
(b)	Flower position	(ii)	Green/yellow
(b)	Pod shape	(ii)	Tall/dwarf
		(v)	Inflated/constricted

A.

(a)	(b)	(c)	(d)
$(a)(iv)$	(i)	(ii)	(iii)

B.

(a)	(b)	(c)	(d)
$(b)(iv)$	(ii)	(v)	(i)

C.

(a)	(b)	(c)	(d)
$(c)(iv)$	(i)	(ii)	(v)

D.

(a)	(b)	(c)	(d)
$(d)(iii)$	(iv)	(ii)	(v)

Answer: C

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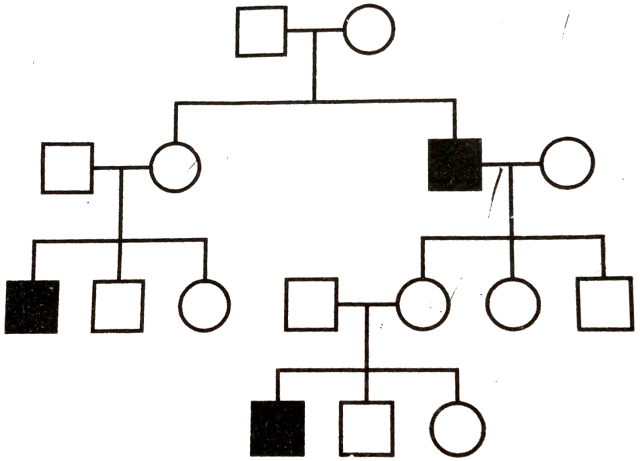
572. Identify the type of inheritance shown in the pedgree chart given below by seleting right option.



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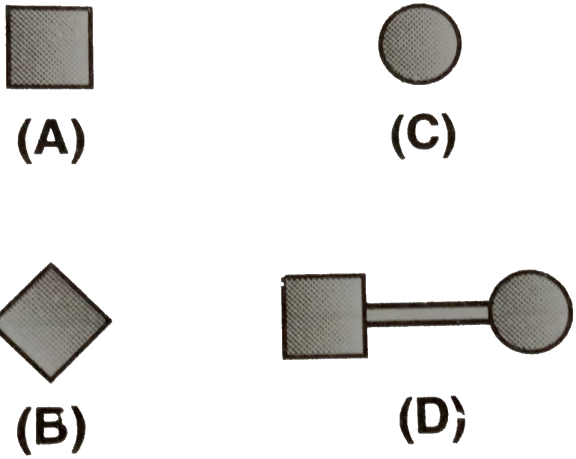
573. Four symbols (A,B,C and D) used in human pedigree analysis are given below.Correctly identify by selecting the option:



A. A,Male,B.Sex unspecified C.Female: D. Consaguineous mating .

B. A. male,B. Female ,C.Sex unspecified, D. Consanguineous mating

C. A.Female,B Male C.Sex unspecified, D.Consanguineous mating.

D. A male ,B.Female, C.Consanguineous mating ,D.Sex unspecified.

Answer: A

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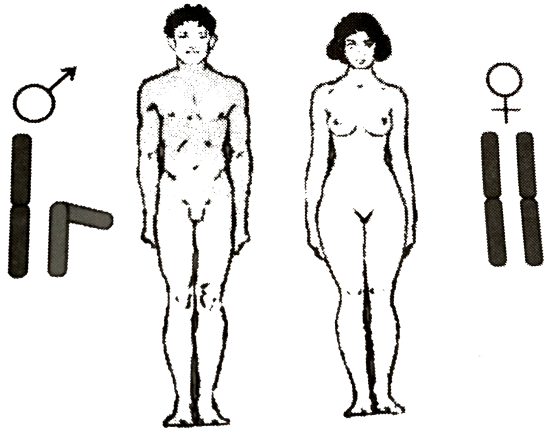
574. Chromosomal basis of human sex determination is diagrammatically given below.



Select the worng statement from the options :

A. Human have sex determination mechanism that depends on Y-chromosome .

B. Human female produce two types of ova .

C. A normal male has 22 pairs of autosomes and a pairs of sex chromosome as XY.

D. Sex is determined at the time of fertilization

Answer: B

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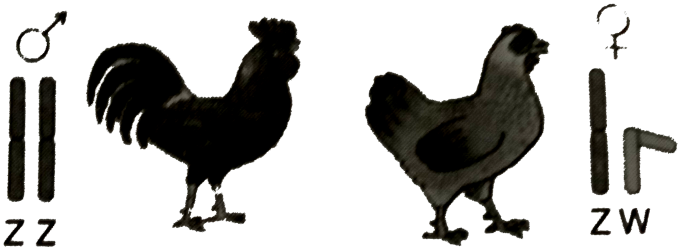
575. Chromosomal mechanism of sex determiation polulry is diagrammatically given below



Select the correct statement form the option :

A. Hen possesses a pair of similar sex chromosomes.

B. Cock exhibits heterogamety

C. A cock has a pair of silimar sex chromosomes.

D. Sex is determined at the time of fertilization by the type of ovum.

Answer: D

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576. Which one of following statement is incorrect ?

A. Cromosomal abrrations are commonly observed in cancer cells.

B. Grasshopper is an examle of XX:XY type of sex determination.

C. Deletions and insertion of base pairs of DNA,causes frame-shift mutations.

D. Human females produce only one type of ovum with an X-chromosome.

Answer: B

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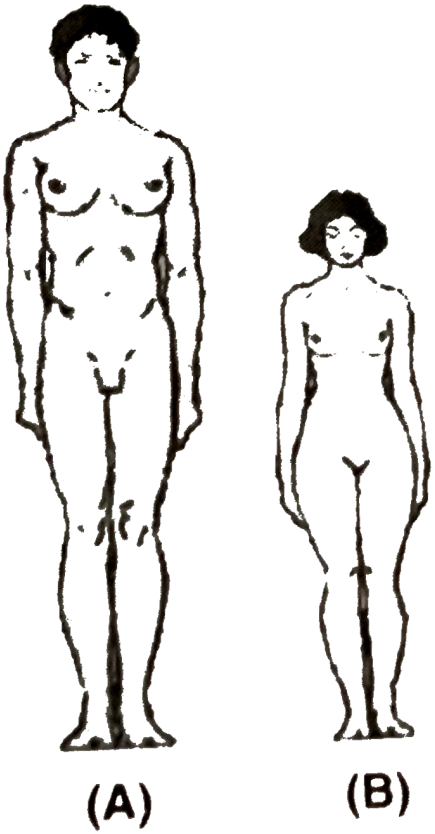
577. Two sex anomalies in human beings (A and B) are given below.



Select the correct option :

A. A- Turner's syndrome with 44+XO

B-Klinefelter's syndrome with 44+XXY

B. A- Turner's syndrome with 44+XXY

B-Klinefelter's syndrome with 44+XO

C. A- Turner's syndrome with 44+XYY

B-Klinefelter's syndrome with 44+XO

D. A- Turner's syndrome with 44+XXY

B-Klinefelter's syndrome with 44+XO

Answer: D

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578. Which one of following statement is wrong ?

A. Medelian disorder cannot be teraced in a family by the pedigree analysis.

B. There are six different genotypes of the human ABO blood types .

C. ABO blood grouping provides a good example of multiple alleles.

D. The genetic make-up of the sperm determiners the sex of the child.

Answer: A

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579. Match column I with colimn II and select the correct option from the given codes

	Column I		Column II
A.	Autosomal recessive trait	(i)	Down's syndrome or mo
B.	Sex-linked rec essive trait	(ii)	Pheylketonuria
C.	Metabolic erorr lined to autosomal recessive trait	(iii)	Haemophilia
D.	Additional 22st chromosome anaemia	(iv)	Sickle cell

A. $\begin{matrix}(a) & (b) & (c) & (d)\\ (a)(iv) & (i) & (ii) & (iii)\end{matrix}$

B. $\begin{matrix}(a) & (b) & (c) & (d)\\ (b)(iv) & (ii) & (iii) & (i)\end{matrix}$

C. $\begin{matrix}(a) & (b) & (c) & (d)\\ (c)(iii) & (i) & (iv) & (ii)\end{matrix}$

D. $\begin{matrix}(a) & (b) & (c) & (d)\\ (d)(iii) & (iv) & (ii) & (i)\end{matrix}$

Answer: C

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