

## **BIOLOGY**

## BOOKS - VIKRAM PUBLICATION ( ANDHRA PUBLICATION)

## **GENETICS**

**Very Short Answer Questions** 

1. What is Pleiotropy?



2. What are the substances present in blood?



3. Antibodies are



4. What are homozygous alleles?



**5.** Erythroblastosis foetalis develops in newborn due to incomplatibility between



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**6.** A child has blood group o. If the father has blood group A and mother blood group B, work out the genotypes of the parents and the possible genotypes of the other offsprings.



**7.** What are the three main types of blood vessels in the body?



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**8.** What is polygenic inheritance



**9.** The genes for the eye colour and size of the wing in Drosophila are located on the same chromosome. They can be separated by



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**10.** Distinguish between heterogametic and homogametic sex determination systems.



11. What is haplo-diploidy?



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12. No. of Barr bodies in xxxx female



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**13.** How many of the following diseases can be studied with the help of pedigree chart?

Turner's syndrome, Phenylketonuria, Down's

syndrome, Sickel-cell anaemia, Klinefleter's syndrome, Haemophilia, Cystic fibrosis, Myotonic dystrophy.



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**14.** The person with Turner's Syndrome has



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**15.** How many of the following diseases can be studied with the help of pedigree chart? Turner's syndrome, Phenylketonuria, Down's syndrome, Sickel-cell anaemia, Klinefleter's syndrome, Haemophilia, Cystic fibrosis, Myotonic dystrophy.



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**16.** What is Lyonisation.



17. Morgan discovered sex linked inheritance first in



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18. Define hemizygous conditions?



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19. Criss cross inheritance is shown by



**20.** Why are X- linked recessive characters more in male human beings.



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**21.** Morgan discovered sex linked inheritance first in



**22.** What are sex limited characters?



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23. What are sex influenced characters?



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24. The human genome project was started in



**25.** Which of the following bases is not present in DNA



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26. What are VNTRs.



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**27.** Write the applications of DNA finger printing,



## **Short Answer Questions**

**1.** Briefly mention the contribution of T.H. Morgan in genetics.



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**2.** What is pedigree analysis? Suggest how such an analysis, can be useful.

**3.** Which chromosomes determine the sex in human beings?



**4.** Erythroblastosis foetalis develops in newborn due to incomplatibility between



**5.** Mention any two autosomal disorders with their symptoms.



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**6.** A person with unknown blood group under ABO system, has suffered much blood loss in an accident and needs immediate blood transfusion. His friend who has vaild certificate of his own blood type, offers for blood donation without delay. What would have

been the type of blood group of the donor friend?

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7. Describe male heterogamety.



**8.** Describe female hetergamety.



9. In XO type of sex determination



**10.** Explain the inheritance of sex linked recessive character in human being.



**11.** Describe the experiment conducted by Morgan to explain sex linkage.

**12.** Explain the inheritance of sex influenced characters in human beings.



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13. A man and woman of normal vision have one son and one daughter. Son is colour blind and his son is with normal vision. Daughter is with normal vision, but one of her sons is

colour blind and the other is normal. What are the genotypes of the father, mother , son and daugher.



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



**15.** A heterozygous bald man who is non-haemophilic, married a woman who is homozygous for the non bald trait and is haemophilic. What is the probability of her male children become bald and haemophilic?



**View Text Solution** 

**16.** A woman father shows IP but her mother and husband are normally pigmented, What will be the phenotypic ratio of her children.



17. Write the salient features of HGP



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**18.** DNA finger printing involves



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**Long Answer Questions** 

**1.** What are multiple alleles Describe multiple alleles with the help of ABO blood groups in man.



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**2.** The chromosomes associated with sex determination are known as



**3.** Explain the inheritance of sex linked recessive character in human being.



**4.** Write some common measures to be taken to prevent transmission of diseases.



5. The human genome project was started in



**6.** What is DNA fingerprinting? Mention its application.



**Important Questions** 

**1.** What is Pleiotropy?



**2.** What are the antigens causing ABO blood grouping? Where are they present.



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3. Antibodies are



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**4.** What are multiple bonds?



**5.** What is erythroblastosis foetalis?



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6. What is the genetic basis of blood types in

ABO system in man?



**7.** Distinguish between heterogametic and homogametic sex determination systems.

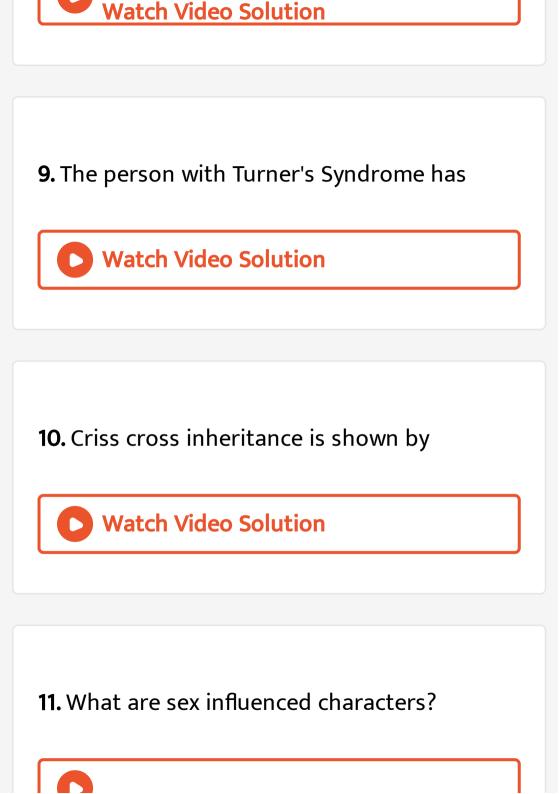


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8. How many of the following diseases can be studied with the help of pedigree chart?

Turner's syndrome, Phenylketonuria, Down's syndrome, Sickel-cell anaemia, Klinefleter's syndrome, Haemophilia, Cystic fibrosis, Myotonic dystrophy.







12. What are VNTRs.



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13. Write the applications of DNA finger printing,

