# MDCAT Biology Chapter 8 Evolution Online Test

| Sr | Questions | Answers Choice |
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| 1 | Mutation of one or two N-bases is | A. Inversion<br>B. Point mutation<br>C. Deletion<br>D. Chromosomal aberrations |
| 2 | A blue cone monochormate | A. Can perceivetwo colours<br>B. Can't perceiveany colour<br>C. Can perceive only blue colour<br>D. Can perceive only red colour |
| 3 | Genes can be mapped on chromosomes on the basis of | A. Sex linkage<br>B. Assortment<br>C. Recombination frequency<br>D. Gene sequencing |
| 4 | SRY in located at the tip of | A. Short arm of X-chromosome<br>B. Short arm of Y-chromosome<br>C. Long arm of Y-chromosome<br>D. Long arm of X-chromosome |
| 5 | Interaction of two loci | A. Pleiotropy<br>B. Epistasis<br>C. Dominance<br>D. Differentiation |
| 6 | Which phenomenon reduces the chances of genetic recombination and variations among offspring ? | A. linkage<br>B. crossing over<br>C. independent assortment<br>D. dominance |
| 7 | What are chances for having Rh-ve baby if one parent is Rh+ve and (homozygous) and other is Rh-ve | A. 25%<br>B. 50%<br>C. 100%<br>D. 0% |
| 8 | Which can convert glucose to glucose 6 phosphate | A. Hexokinase<br>B. Glucokinase<br>C. Phospho fructokinase<br>D. Both a & b |
| 9 | There are _____ total possible genotypes of blood group ABO system | A. 3<br>B. 4<br>C. 6<br>D. 7 |
| 10 | Point mutation occurs in | A. Sickle cell anemia<br>B. Phenylketonuria<br>C. Alkaptonuria<br>D. All |
| 11 | Who for the first time found white eye mutant in drosophila ? | A. Morgan<br>B. Bridges<br>C. Correns<br>D. De Varies |
| 12 | Blood pressure is also an example of _____ trait | A. Multifactorial<br>B. Qualitative<br>C. Single genic<br>D. Both a & b |
| 13 | Which of these traits zigzags from meternal grand father through a carrier daughter to a grandson ? | A. autosomal<br>B. X-linked<br>C. Y-linked<br>D. X and Y linked |
| 14 | Pseudo-autosomal genes are present on | A. X-chromosome<br>B. Y-chromosome<br>C. Both a & b<br>D. Autosomes |
| 15 | Mutatuons are inherited only if they occur in the | A. Gland cells<br>B. Gametes<br>C. Muscle cells<br>D. Somatic cells |

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| 16 | Which of the following traits is not sex-linked recessive ? | A. haemophilia<br>B. colour blindness<br>C. hypophosphatemic ricket<br>D. tfm syndrome |
| 17 | Queen victoria was having which kind of haemophilia | A. A<br>B. B<br>C. C<br>D. None |
| 18 | How many kinds of rhodopsins, a blue cone monochromate will have | A. 3<br>B. 2<br>C. 1<br>D. No rhodopsins |
| 19 | In case of sickle cell anemia, in place of glutamic acid, _____ is found | A. Histidine<br>B. Valine<br>C. Proline<br>D. Leucine |
| 20 | Rh factor is encoded by | A. 2 genes which occupy 3 loci<br>B. 3 genes which occupy 2 loci<br>C. 2 genes which occupy 2 loci<br>D. 3 genes which occupy 3 loci |
| 21 | What happens when both alleles of a gene pair independently express in a heterozygote? | A. dominance<br>B. incomplete dominance<br>C. over dominance<br>D. codominance |
| 22 | In sickle cell beta chain glutamic acid is replaced by valine which is sixth amino acid from | A. N-Terminal<br>B. C-Terminal<br>C. R-Terminal<br>D. H-Terminal |
| 23 | Diabetes is the leading cause of | A. Kidney failure<br>B. Adult blindness<br>C. Heart disease<br>D. All of these |
| 24 | What will be the risk of heamophilia in sons if father is haemophilic and mother is normal | A. 0%<br>B. 20%<br>C. 25%<br>D. 50% |
| 25 | Bilirubin | A. Turns skin Yellow<br>B. Damages brain cells<br>C. Causes jaundice<br>D. All of these |
| 26 | Which of the following traist is transmitted directly from an affected to only its sons? | A. autosomal<br>B. X-linked<br>C. Y-linked<br>D. X and Y linked |
| 27 | If six cells out of 10, do crossing over what will be percentage of cross over gametes | A. 60%<br>B. 30%<br>C. 40%<br>D. 50% |
| 28 | Man has _____ linkage group | A. 23<br>B. 21<br>C. 25<br>D. 46 |
| 29 | Mutation may be caused by | A. Chemicals<br>B. Radiations<br>C. Mutagens<br>D. All of these |
| 30 | The two linked genes A and B with a 30% recombination frequency must be | A. 15 units apart<br>B. 30 units apart<br>C. 60 units apart<br>D. 90 units apart |
| 31 | If the distance of 20 map units is found among two linked loci what would be the percentage of cross gametes | A. 40%<br>B. 60%<br>C. 20%<br>D. 10% |
| 32 | What is the 5th amino acid in sickle cell beta chain | A. Histidine<br>B. Proline<br>C. Leucine<br>D. Valine |
| 33 | Sickle cell mutation affects | A. One beta chain<br>B. Both beta chains<br>C. Only alpha chain |

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| | | C. Only alpha chain<br>D. None of the alpha or beta chain |
| 34 | What is the probability of having albino child if father and mother both are carrier(Aa) | A. 25%<br>B. 30%<br>C. 50%<br>D. 75% |
| 35 | Homogenetistic acid is oxidized rapidly when exposed to air, turning the urine | A. White<br>B. Purple<br>C. Blue<br>D. Black |
| 36 | How may gene pairs contribute to the wheat grain colour? | A. one<br>B. two<br>C. three<br>D. four |
| 37 | The chances of which hemophilia is equal in males & females | A. A<br>B. B<br>C. C<br>D. All |
| 38 | Insulin receptors are present in | A. Cytoplasm of muscle cells<br>B. Cell membrane of liver cells<br>C. Cell membrane of muscles and liver cells<br>D. Cell membrane of all body cells |
| 39 | A carrier mother for colour blindness does not have | A. A normal boy<br>B. A carrier boy<br>C. A colour blind boy<br>D. A normal daughter |
| 40 | When a single gene has multiple phenotypic effects, the phenomenon is called: | A. condominance<br>B. epistasis<br>C. pleiotropy<br>D. sex-linkage |
| 41 | Color blindness, haemophilia and gout form linkage group onj | A. Chromosome 9<br>B. Chromosome 19<br>C. x-chromosome<br>D. y-chromosome |
| 42 | When a haemophilic carrier woman marries a normal man, who among her offspring may be affected | A. all her children<br>B. all her daughter<br>C. half of her daughter<br>D. half of her sons |
| 43 | Degenerated testes are present in abdomen in which of these cases | A. Down's syndrome<br>B. Klinefelter's sysndrome<br>C. Turner's syndrome<br>D. Testicular ferminization |
| 44 | A phenotype which can't be expressed in heterozygous state but can only be expressed other in homo or hemi form, would be | A. Dominant<br>B. Bombay<br>C. Recessive<br>D. Ordinary |
| 45 | Two parents of blood group A had a child of blood group O, what will be percentage chances of having such child again | A. 25%<br>B. 50%<br>C. 75%<br>D. None |
| 46 | Anti-Rh antibodies appear in plasma | A. During first few months<br>B. During last months<br>C. Only when stimulated<br>D. If Rh<sup>+</sup>individual mistakenly receives Rh<sup>-</sup>blood |
| 47 | Which enzyme deficiency leads to phenylketonuria | A. Phenylalanine oxidase<br>B. Phenylalanine hydroxylase<br>C. Phenylalanine synthase<br>D. Phenylalanine carboxylase |
| 48 | A heterrozygote offspring quantitatively exceeds the phenotypic expression of both the homozygote parents due to: | A. dominance<br>B. incomplete dominance<br>C. over dominance<br>D. codominance |
| 49 | A change in one or more bases of DNA, which results in the formation of an abnormal protein is | A. Moulting<br>B. Transformation<br>C. Mutation<br>D. Fission |
| 50 | Genes for alpha and beta chains of hemoglobin are found on which chromosomes? | A. Chromosome 16 alpha; chromosome 11 beta<br>B. Chromosome 11 alpha; |

chromosome 16 beta
C. Chromosome 11
D. Chromosome 16