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| SEMESTER: IV SAMPLE MCQs | | | | | |
| T.Y.B.Sc. ZOOLOGY | | | | | |
| COURSE CODE: USZO603 PAPER: III | | | | | |
| TITLE OF THE PAPER: Molecular Biology , Genetic Engineering , Human Genetics, Bioinformatics | | | | | |
|  |  |  |  |  |  |
|  | **Question** | **Option 1** | **Option 2** | **Option 3** | **Option 4** |
| 1 | **Method used for detection of specific protein molecule.** | Western blotting | Southern blotting | Northern blotting | PAGE |
| 2 | **Type II Restriction Enzymes having recognition site** | 100bp away from the binding site | 0bp | 4-8 bp at binding site | 200bp away from the binding site |
| 3 | **Molecular scissors to cut DNA at specific sites are called** | Restriction endonuclease | Proteolytic enzyme | Lipolytic enzyme | Cofactor |
| 4 | **Eco KI and ECO BI are** | Type II R enzyme | Type III R enzyme | Type IVR enzyme | Type V R enzymes |
| 5 | **Chromosomes 2n-1 is found in** | Downs syndrome | Turners syndrome | Klinefilters syndrome | Jacobs syndrome |
| 6 | **Trisomy of 21 chromosome is genetic condition in** | Downs syndrome | Turners syndrome | Klinefilters syndrome | Jacobs syndrome |
| 7 | **Deletion of both pieces of chromosome is called** | Translocation | Duplication | Inversion | Transcription |
| 8 | **Due to gene duplication** | Multigene families | polygene families are evolved | Evolution stopped | Retroevolution takes place |
| 9 | **Euploid karyotype have** | Cells with normal entire chromosomes | Cells with abnormal chromosomes | Cells with restricted chromosomes | Disjunction |
| 10 | **The Mut L and Mut S are involved in** | Mismatch repair | SOS repair | Protein synthesis | Lipids synthesis |
| 11 | **Amphipathic Alpha helix and hydrophobic amino acid are found in** | Leucine zipper | Adenine zipper | Guanine zipper | Thymine zipper |
| 12 | **AT to TA is due to** | Transversion | Translocation | Transformation | Transition |
| 13 | **Missense mutation requires\_\_\_\_ stop codon** | UAG | UGA | UAA | UGG |
| 14 | **The function of DNA ligase is** | The enzymes which joins the ends of two duplex DNA | The enzymes which breaks two duplex DNA | The enzymes which joins the single helix DNA | The enzymes which joins tRNA |
| 15 | **Plasmid is** | Joining vector | Cloning vector | Coning vector | Multiplying vector |
| 16 | **Selectable markers are** | Antibiotic resistant genes | Immunity resistant genes | Heredity resistant genes | Mutation resistant genes |
| 17 | **In DNA Bar coding\_\_\_\_\_\_ is required** | PCR | Logarithm | Microscope | Burette |
| 18 | **Gregor Mendel known as the father of\_\_\_\_\_\_** | Microbiology | Genetics | Anatomy | Biochemistry |
| 19 | **Metabolic disorder in amino acid metabolism results in** | Phenylketonuria | Colorblindness | Hemophilia | Diabetes |
| 20 | **In G2 Phase** | Gametes can be studied | Genes can be studied | Chromosomes can be studied | Hereditary diseases can be studied |
| 21 | **Genetic abnormalities in human can be detected by** | Pathological investigations | Karyotyping | Morphological changes only | Anatomical structure |
| 22 | **For Genetic analysis in large scale population ,** | Karyotyping is used | PCR is used | Biochemical analysis is used | Biostatical tools are used |
| 23 | **Metacentric chromosomes are** | Chromosome number 1,3,16,19 and 20 are | Chromosome number 2,3,17,18 and 22 are | Chromosome number 5,7,16,19 and 22 are | Chromosome number 4,5,17,19 and 23 are |
| 24 | **Nondisjunction is** | improper segregation of the chromosomes during metaphase | proper segregation in metaphase | improper segregation in anaphase | No segregation |
| 25 | **abnormal structure or number of chromosome is called** | chromosomal innervation | chromosomal aberration | chromosomal alteration | structure of chromosome remains same |
| 26 | **when three sets of chromosomes are present in single cells it is called** | diploid organisms | Triploid organisms | quadruple organism | decuple organism |
| 27 | **When errors present from birth of an individual are called** | after birth error of metabolism | Inborn errors of metabolisms | adult age errors of metabolism | old age metabolism |
| 28 | **Metabolic disorder in amino acid metabolism is called as** | Phenylketonuria | Creatinine urea | polyuria | Hematuria |
| 29 | **Inadequate amount of glucose-6-phosphate dehydrogenase** | G6PD deficiency | Vitamin deficiency | carbohydrate deficiency | adequate amount of G6PD |
| 30 | **Study of the evolutionary history is** | ecosystem study | environmental study | Evolutionary biology | study of ethology |
| 31 | **To locate the genes in the genomic DNA of unknown organism** | logarithmic maps are used | Computerized genomic maps are used | geometric mass are used | mathematical expressions are used |
| 32 | **A database means** | unorganized collection of data | collection of data | Organized collection of data in electronic system is | predicted data |
| 33 | **For storage and retrieval of data ……..is used** | DBM | DNA | DBMS | DMS |
| 34 | **When the database contain the primary sequence or structure alone is called** | primary database | contain the sequence or structure alone | not important | data not authentic |
| 35 | **Secondary databases are** | GenBank | PDB | DDBJ | UniProt |
| 36 | **GenBank is a** | primary database | secondary database | tertiary database | zero database |
| 37 | **GenBank is a** | Database of Nucleotide sequences | secondary database for proteins | tertiary database for genotype | Lipid database |
| 38 | **PDB is** | primary database for proteins | primary database for carbohydrates | secondary database for proteins | secondary database for carbodydrates |
| 39 | **UniProt is** | amino acid sequence database | nucleic acid sequence database | acetic acid database | anatomy database |
| 40 | **Structure of protein is present in** | lipid data bank | protein databank (PDB) | carbohydrates databank | DNA data bank |
| 41 | **PCR is used for amplification of DNA, PCR is..** | Polymerase chain reaction | Point of care unit | Polymer chain rearrangement | Protein chain reaction |
| 42. | **BLAST is a** | Database | Homology search tool | Protein name | Protein sequencing machine |
| 43 | **pBR 322 is s** | Plasmid | Phage | Viral DNA | mRNA |
| 44 | **Relaxed plasmids can replicate and produce** | Only single copy | Many copies in the life cycle of single host cell | Two copies | Zero copies |
| 45 | **Albinisms types are** | OCA 444 | OCA TYPE I | OCA TYPE 22 | OCA TYPE 33 |
| 46 | **Photolyase is** | An enzyme used in repair | An enzyme in protein synthesis | DNA molecule | Protein without enzyme activity. |
| 47 | **Single stranded break in DNA are joined by** | DNA nuclease | DNA ligase | DNA helicases | Proteases |
| 48 | **Leucine zippers are** | For regulation of gene expression in eukaryotes | For breaking the proteins | Used for ATP production | Not associated with transcription |
| 49 | **Alkaline phosphatase removes** | Terminal phosphate from DNA | Middle phosphate from DNA | Terminal protein molecules from chromosomes | Sugar molecules from DNA |
| 50 | **Recombination repair is** | Post replication repair | Pre replication repair | Not linked with replication | Linked with protein synthesis |