

TOOLS,TECHNIQUES AND BIOSTATISTICS

SEMESTER-2 INTERNAL -1

1.MULTIPLE CHOICE QUESTIONS

1. THE ELECTROPHOROTIC MOBILITY IS DENOTED AS μ MATHEMATICALLY EXPRESSED AS [B]
A) νE B) ν/E C) E/ν D) $1/E\nu$
2. WHICH OF THE FOLLOWING CANNOT BE USED FOR THE SEPARATION OF NUCLEIC ACID [A]
A)SDS- PAGE B)PAGE C) NORTHERN BLOTTING D)PAGE
3. PULSE FIELD GEL ELECTROPHORESIS SEPARATES DNA MOLECULES OF SIZE [C]
A)10-20BP B)20-30BP C)30-50BP D)40-50BP
4. A PULSE FIELD GEL ELECTROPHORESIS WAS DEVELOPED BY [D]
A)COLLIS AND JOHN B)KARY MULLIS C)PATRICK O FARRELL D)SCHWART AND CANTOR
5. FOR THE SEPARATION OF DNA BY ELECTROPHORESIS WHICH OF THE FOLLOWING METHOD [B]
A)AGAROSE-VERTICAL B)AGAROSE-HORIZONTAL C)PAGE-VERTICAL D)PAGE-HORIZONTAL
6. SODIUM DO DECYL SULPHATE USED IN SDS PAGE IS [A]
A)ANIONIC DETERGENT B)A CATIONIC DETERGENT C) NON-IONIC DETERGENT D)ANION EXCHANGER
- 7.IN SDS-PAGE , MIGRATION OF PROTEIN EFFECTED BY [C]
A)CHARGE OF PROTON B)NET CHARGE OF PROTON C)SIZE OF PROTON D)ALL OF THESE
8. THE TRACKING DYE USED IN SDS PAGE WILL BE [A]
A) ANIONIC B) CATIONIC C)NON-IONIC D) AMPHIPATHIC
- 9.WHICH TECHNIQUE SEPARATE CHARGED PARTICLES USING ELECTRIC FIELD [C]
A)HYDROLYSIS B) PROTEIN SYNTHESIS C) ELECTROPHORESIS D) PROTEIN DENATURATION
10. STEPS IN MICROTOMY [A]
A) STAINING&MOUNTING B)ONLY STAINING C) A & B D)NONE
11. LIGHT SOURCE USED IN UV SPECTROSCOPY [B]
A)XEXON B)TUNGSTEN C) RED D) NONE
- 12.THICKNESS OF GELATINE SUBSTANCE IN SPECTROSCOPY [B]
A) 6.60 B)5.50 C)5.60 D)7.00
- 13.PHOTOBLEACHING KNOWN AS [A]
A)ABSORBS LIGHT B)EMITS LIGHT C)A&B D)NONE
- 14.WHICH TYPE OF IMAGE IS FORMED IN CONFOCAL MICROSCOPE [B]
A)INVERTED B)3D C)ERECT D)NONE

15. MIRRORS USED IN FLOURESENT [B]

A)CONVEX B)DICHROMATIC C)CONCAVE D)NONE

16.TYPES OF PATCH CLAMP RECORDINGS [B]

A)2 B)4 C)3 D)8

17.DURATION OF P WAVE IN ECG [B]

A)0.8SEC B)0.1 SEC C)0.2SEC D)0.12SEC

18.CAT ALSO KNOWN AS [B]

A)MRI B)CT SAN C)A & B D)NONE

19.MOBILE PHASE MOLECULES [D]

A)NITROGEN B)HELIUM C)WATER D)ALL THE ABOVE

20. TYPES OF LIVE HOMOGENATE [D]

A)SUPERNATANT B)PELLETE C)MICROSOMES D)A & B

2. FILL IN THE BLANKS

1.IN CHROMATOGRAPHY THE STATIONARY PHASE CAN BE LIQUID SUPPORTED ON A SOLIDE

2.WHICH OF THE FOLLOWING BASES PAIRS WITH QUANINE CYTOSINE

3.GENOMIC DNA IS MRNA RESULTING IN THE PRODUCTION OF PROTEINS

4.A PIECE OF DOUBLE STANDARDED DNA HAS 30% A WILL BE THE 70% OF G

5.THE RESOLVING POWER OF TEM IS DERIVED FROM WAVELENGTH OF ELECTRONS

6.IMAGE FORMATION IN ELECTRON MICROSCOPE BASED ON SCATTERING OF ELECTRONS

7.THE CATHODE OF TRASMISSION ELECTRON MICROSOPE CONSITS OF A TUNGSTEN FILAMENT

8.WHAT IS THE FULL FORM OF CAD COMPUTED AIDED DESIGN

9. WHAT IS MEANT BY AV BLOCK ATRIA AND VENTRICLES ARE DISTRUPTED

10.WHAT IS THE MAIN SYMPTOM OF HEART FAILURE SHORTNESS OF BREATH

11.LIGHT USED IN FLORESCENCE XEXON

12.RAYS INVOLED IN AUTORADIOGRAPHY α β γ

13.DNA CHIP ALSO KNOWN AS BIOCHIP

14.EXAMPLES OF STSTIONARY PHASE MOLECULES SILICA GEL , CELLULOSE

15.MRNA CONVERTS TO PROTEIN CHAIN

16.TYPES OF ELECTRON MICROSCOPY SEM AND TEM

17. TUNGSTEN FILAMENT USED IN SEM

18. WAVES OF ECG P,Q,QRS

19. EXPAND PET POSITRON EMISSION TOMOGRAPHY

20. TYPES OF ULTRA CENTRIFUGE ANGLE ROTAR, SWINGING BUCKET ROTAR

3. ANSWER THE FOLLOWING QUESTIONS

1. WHAT IS MICROTOMY ?

A TOOL USED TO CUT THE SAMPLE INTO EXTREMELY SMALL SLICES

2. PRINCIPLE OF CENTRIFUGATION ?

SEPARATION OF PARTICLES BASED ON THE SIZE AND CENTRIFUGAL FORCE

3. ELECTROPHORESIS?

MIGRATION OF IONS IN AN ELECTRIC FIELD

4. ELECTRON MICROSCOPY ?

USED A BEAM OF ELECTRONS INSTEAD OF LIGHT TO FORM IMAGES

5. CHROMATOGRAPHY ?

IT IS A COMPONENT OF MIXTURE ARE SEPARATED BASED ON THE DIFFERENTIAL MIGRATION

6. PRINCIPLES OF FLOURESCENCE?

TRANSMITS LIGHT ENERGY FROM SINGLET EXCITED STATE TO GROUND STATE

7. MONOCHROMATOR ?

WHICH ISOLATES A SPECIFIC WAVELENGTH OF LIGHT FOR ANALYSIS

8. MICROARRAY?

A TECHNIQUE USED TO ANALYSE THE BIOLOGICAL SAMPLES

9. TRANSCRIPTION?

TRANSFER OF DNA SEQUENCE INTO RNA SEQUENCE

10. PRINCIPLES OF GAS CHROMATOGRAPHY ?

ANALYSE OR TO SEPARATE THE VAPORIZED COMPOUNDS