

Sample MCQ's Biotechnology Department

- 1) Which is the leading cause of blindness in children worldwide?
 - (a) Glaucoma
 - (b) Cataracts
 - (c) Colour blindness
 - (d) Vitamin A deficiency

- 2) Which of the following diseases is caused by the deficiency of Niacin?
 - (a) Scurvy
 - (b) Rickets
 - (c) Pellagra
 - (d) Pernicious anaemia

- 3) Weakness in muscles and increase in the fragility of red blood cells is caused due to the _____.
 - (a) Deficiency of vitamin E
 - (b) Deficiency of vitamin D
 - (c) Deficiency of vitamin C
 - (d) Deficiency of vitamin A

- 4) Name the disease caused by the deficiency of Niacin?
 - (a) Pellagra
 - (b) Rickets
 - (c) Scurvy
 - (d) Pernicious anemia

- 5) An example of a digestive hormone is
 - (a) Lipase
 - (b) Pepsin
 - (c) Amylase
 - (d) Gastrin

6) Which vitamin is required for calcium absorption from the small intestine?

- a) Vitamin A
- b) Vitamin D
- c) Vitamin E
- d) Vitamin K

7) The stimulus for producing insulin is _____.

- a) low blood sugar level
- b) low glycogen level
- c) High blood sugar level
- d) high glycogen level

8) Excess growth hormone would cause all the following EXCEPT

- a) **Suppression of cancer**
- b) Gigantism in children
- c) Acromegaly in adults
- d) Diabetes

9) Insulin enhances the membrane glucose transport in all of the following except -----

- a) Skeletal muscles
- b) Adipose tissue
- c) **Brain**
- d) Myocardium

10) The secretions from which of these glands differs between males and females?

- a) Adrenal
- b) Parathyroid
- c) **Gonadal**
- d) Pancreas

11) The posterior pituitary stores and releases:

- a) Growth hormone and prolactin
- b) Prolactin and oxytocin
- c) **Oxytocin and antidiuretic hormone (ADH)**
- d) ADH and growth hormone

12)-----hormone brings about contraction of uterine muscles during childbirth

- a) Oxytocin
- b) Hcg
- c) Prolactin
- d) Oestrogen

13) which of the following is not peptide hormone

- a) Onsulim
- b) Growth hormone
- c) prolactin
- d) Oestrogen

14) -----hormone is tested for confirmation of pregnancy

- a) Prolactin
- b) Hcg
- c) Progesterone
- d) Oestrogen

15) Group 1 hormone binds to -----receptors

- a) Cell surface
- b) Extracellular
- c) Intracellular
- d) None of these

16) Which of the following hormones are responsible for the "fight-or-flight" response?

- a) Epinephrine and norepinephrine
- b) Insulin and glucagon.
- c) Esterogen and progesterone
- d) Thyroxin and melatonin

17) The secretions from which of these glands differs between males and females?

- a) Adrenal
- b) Parathyroid
- c) Gonadal
- d) Pancreas

18) ADH is also called as -----

- a) Adrenocorticotrophic hormone
- b) Growth hormone
- c) Glucocorticoid hormone
- c) Vasopressin

19) What is another name for Thyroxine

- a) Tetraiodothyronine
- b) Triiodothyronine
- c) Thyroid
- d) Thymus

20) Vitamins of then acts as an

- a) Cofactor
- b) Holoenzyme
- c) Coenzyme
- d) Apoenzyme

21) Insulin enhances the membrane glucose transport in all of the following except -----

- a) Skeletal muscles
- b) Adipose tissue
- c) Brain
- d) myocardium

22) 1) Peptide bond is a _____

- a) Covalent bond
- b) Ionic bond
- c) Metallic bond
- d) Hydrogen bond

23) Which of the following bonds are not involved in tertiary type of protein structure?

- a) Disulfide bond
- b) Hydrogen bonding
- c) Salt bridges
- d) Hydrophilic interactions

24) Which of the following is false about fibrous protein?

- a) It is in rod or wire like shape
- b) Keratin and collagen are the best examples
- c) Hemoglobin is the best example
- d) It provides structural support for cells and tissues

25) Which of the following is false?

- a) Heme consists of a complex organic ring structure, protoporphyrin
- b) Protoporphyrin is bound to a single iron atom in its Fe^{+3} state
- c) Iron atom has 6 coordination bonds
- d) Heme is found in a number of oxygen transporting proteins

26) Myoglobin and the subunits of hemoglobin have _____

- a) Very different primary and tertiary structures
- b) Very similar primary and tertiary structures
- c) Very similar primary structures, but different tertiary structures
- d) Very similar tertiary structures, but different primary structures

27) Light band has which of the following filament protein?

- a) Actin
- b) Myosin
- c) Actin and myosin
- d) Tubulin

28) Which of the following allosterically activate glycogen phosphorylase

- 1) ATP
- 2) AMP
- 3) Glucose 6 phosphate
- 4) Glucose 1 phosphate

29) Which is the first intermediate in cholesterol synthesis?

- a) Mevalonate
- b) Isoprene
- c) Squalene
- d) Ethylene

30) Which of the following is the integral membrane protein of smooth ER?

- a) Thiolase
- b) HMG co-A synthase
- c) HMG co-A reductase
- d) Pyruvate kinase

31) Steroids have _____

- a) Sterol nucleus with two alkyl chain attached to the ring D of cholesterol
- b) Sterol nucleus with two CH_3 between C and D ring and A and B ring of cholesterol
- c) Sterol nucleus without CH_3 between C ring and D ring of cholesterol
- d) Sterol nucleus but lack the alkyl chain attached to the ring D of cholesterol

32) Which of the following is the major point of regulation on the pathway to cholesterol?

- a) Thiolase
- b) HMG co-A synthase
- c) HMG co-A reductase
- d) Pyruvate kinase

33) Which compounds are responsible for the coordinated regulation of glucose and glycogen metabolism?

- a) NADH
- b) NAD^+
- c) Acetyl co-A
- d) Fructose 2, 6-bisphosphate

34) The essential intermediates in the pathway from acetate to cholesterol are

-
- a) Acetic acid
 - b) Ethylene
 - c) Isoprene units
 - d) Methane

PHARMACOLOGY

- 1) Molecular structure present on the cell surface _____
 - a) Receptor
 - b) RBC
 - c) WBC
 - d) Ca⁺
- 2) Chemical that interact with receptor and intrate cellular reaction _____
 - a) Receptor
 - b) Agonist
 - c) Antagonist
 - d) Substance
- 3) Neurotransmitter act as a _____
 - a) Receptor
 - b) Endogeneous substances
 - c) Exogeneous substances
 - d) Response
- 4) The combination of a drug and receptor results in a molecular change called _____
 - a) Response
 - b) Receptor
 - c) Mimic
 - d) Substance
- 5) The end plate region of skeletal muscle contain large number of _____
 - a) Sequence

b) Neurotransmitter

c) Zinc

d) Drug

6) When a number of open channel reaches a critical value Na^+ enter to disturb _____

a) RBC

b) WBC

c) Ionic Balance

d) Zinc

7) Depolarisation is also known as _____

a) Action potential

b) Receptor

c) Response

d) Drug

8) Nicotine receptor is a _____

a) Carbohydrate

b) Glycolipid

c) Glycoprotein

d) RNA

9) Bond formed between Antibiotic and cell _____

a) Covalent bond

b) Ionic bond

c) Hydrogen bond

d) Vander Waal's bond

10) The strength of this bond is 5Kcal/mol _____

- a) Covalent bond
- b) Ionic bond
- c) Hydrogen bond
- d) Vander Waal's bond

11) It plays an important role in determining the drug receptor capacity

- a) Covalent bond
- b) Ionic bond
- c) Hydrogen bond
- d) Vander Waal's bond

12) The binding of drug and receptor depends upon _____

- a) Density and concentration
- b) Energy and concentration
- c) Weight and concentration
- d) None

13) The response between the dose and quality of drug defined _____

- a) Vander Waal's bond
- b) Dose response curve
- c) Magnitude
- d) Pain killer

14) Pheno barbitol control seizure so it is called as _____

- a) Anticonvulsant
- b) Protected
- c) Enteric coated
- d) Pain killer

15) Direct interaction between agonist and antagonist is called _____

- a) Receptor
- b) Chemical Antagonism
- c) Functional Antagonism
- d) Neurological

16) The interaction of two agonist that act independently _____

- a) Receptor
- b) Functional Antagonism
- c) Chemical Antagonism
- d) None

17) The bond formed in competitive Antagonism is _____

- a) Ionic bond
- b) Vander Waal's bond
- c) Covalent bond
- d) Hydrogen bond

18) In competitive Antagonism , Antagonist combine agonist at _____

- a) Beyond of receptor
- b) Lower of receptor
- c) Same site of receptor
- d) All

19) In Non competitive Antagonism, Antagonist combine agonist at _____

- a) Beyond of Receptor
- b) Lower of receptor
- c) Same site of receptor

d) All

20) ED's stands for in therapeutic index _____

a) Early dose

b) Easy dose

c) Effective dose

d) Entry dose

21) LD stand for in therapeutic index _____

a) Late dose

b) Latent dose

c) Lag dose

d) Lethal dose

22) G protein involves in mechanism as _____

a) Primary messenger

b) Tertiary messenger

c) Secondary messenger

d) None

23) Antihypertensive drug deazoxide are useful _____

a) Competitive antagonist

b) Non competitive antagonist

c) Both

c) None

24) Chemical chelator in treatment of Mercury poison _____

a) Dimercaprol

b) Paracetamol

c) Pantaprazol

d) Phenobarbital

25) The graded response is a single animal given _____

a) Single dose

b) Graded dose

c) Higher dose

d) Lower dose

26) Drug absorption is more rapid in _____

a) Intermuscular

b) Intravenous

c) Subcutaneous

d) All

27) The most common mean of injection _____

a) Intramuscular

b) Intravenous

c) Subcutaneous

d) All

28) The best pharmacological effect is seen in _____

a) Intravenous

b) Intramuscular

c) Subcutaneous

d) All

29) The best mode of drug absorption in lung is _____

a) Interamuscular

b) Aerol

c) Oral

d) None

30) The best way to treat skin through application of ointment by _____

a) Aerol

b) Localised application

c) Oral

d) Injection

31) The part of the skin is well supplied by blood and lymph capillaries _____

a) Dermis

b) Epidermis

c) Hair Follicle

d) All

32) The gastric emptying time is _____

a) Rate of absorption of drug

b) Rate of stool passing

c) Rate of gastric juice flow

d) None

33) Drug Absorption in GIT can be influenced _____

a) Increased gastrointestinal motility

b) Decreased gastrointestinal motility

c) Swallowing fast

d) None

34) Tetracyclin combine with Ca^{++} ions in membrane lead to _____

- a) Increase in rate of absorption
- b) Decrease in rate of adsorption
- c) Partially adsorbed
- d) None

35) Drug Administration in aqueous solution are adsorbed _____

- a) Faster
- b) Slower
- c) None
- d) All

36) The binding of drug to plasma protein will _____ effective plasma to tissue concentration gradient .

- a) Increase
- b) Decrease
- c) Partially
- d) wholly

37) The most important contributor to the drug binding _____

- a) Albumin
- b) Globulin
- c) Platelets
- d) None

38) Albumin has a net negative charge at _____

- a) Serum pH
- b) Ionic pH
- c) Acidic pH
- d) Neutral

39) The binding of drug to plasma protein _____

- a) Specific
- b) Not specific
- c) Partially specific
- d) None

40) Drug penetrate tightly which _____

- a) High lipid water partition
- b) Low lipid water partition
- c) Soluble
- d) Insoluble

41) The blood vessel of the fetus and mother is separated by _____

- a) Placental barrier
- b) Vein
- c) Tendons
- d) None

42) Lipid soluble substance cross the barrier with relatively _____

- a) Easily
- b) Difficulty
- c) Partially
- d) None

43) Oral mucosa is _____

- a) Highly vascularised
- b) Low vascularised
- c) No vascular system

d) Partially vascularised

44) The primary function of stomach is not _____

a) Adsorption

b) Gastric acidity

c) Gut microbiota

d) None

45) The epithelial lining of small intestine is _____

a) Double layer

b) Triple layer

c) Single layer

d) Many layers

46) Factors affecting drug distribution are _____

a) Capillary permeability

b) blood flow

c) Plasma Protein

d) All

47) Total intracellular waste is the sum of _____

a) Plasma and intestinal water

b) RBC & WBC

c) Platelets & Plasma

d) None

48) The drug distribution is depends on _____

a) Sex

b) Age

c) Weight

d) All

49) Anticoagulant dicumarol has a affinity for lipid water partition _____

a) High

b) Low

c) 50%

d) None

50) Adsorption of most drug is reduced by the presence of _____

a) Water in the gut

b) Food in the gut

c) Chocolate in the gut

d) Chemical substance

51) Study of adverse effect of chemical or physical agent on living organism

a) Chemicology

b) Paleontology

c) Physics

d) toxicology

52) Quantitative assessment of a potential effect on humans _____

a) Risk assessment

b) Communication

c) Pharmacology

d) Mechanism

53) It is concerned with identified and understanding toxic effect on humans

- a) Mechanistics
- b) Descriptive
- c) Regulatory
- d) All

54) Toxic effect of organophosphorous be predicted on the basis of inhibition of acetylcholine is a work of _____

- a) Mechanistics
- b) Descriptive
- c) Regulatory
- d) All

55) Drug such as beta-mercaptapurine is used in the treatment of leukemia is the work of _____

- a) Mechanistic
- b) Regulatory
- c) Descriptive
- d) All

56) Toxicologist provide information for safety evaluation _____

- a) Mechanistic
- b) Descriptive
- c) Regulatory
- d) All

57) Toxicologist provide information on chemical mechanism of action _____

- a) Mechanistic
- b) Descriptive

c) Regulatory

d) All

58) Toxicologist decide whether the drug possess risk to human or animal_____

a) Mechanistic

b) Descriptive

c) Regulatory

d) All

59) EPA stands for _____

a) Environment Protection Agency

b) Environment Protection Act

c) Environment People Act

d) None

60) TSCA stands for _____

a) Toxic Substance Control Act

b) Toxic Substance Convention Agency

c) Toxic Stimulant Carcinogen Agency

d) None

61) RCRA stands for _____

a) Red Corner Responsible Agency

b) Red Conservation and Recovery Act

c) Reserve Conservation and Recovery Act

d) None

62) FIFRA stands for _____

a) Functional insttution of fungus rodent agency

- b) Famous in full response act
- c) Federal insecticide fungicide rodenticide Act
- d) None

63) Alkylating agents are inhibitor of _____

- a) Met haemoglobin
- b) Carbohydrate
- c) Protein
- d) All

64) Anthropogenic activities are _____

- a) Manmade
- b) Calamities
- c) Storm
- d) None

65) Molds are responsible for producing toxicants such as _____

- a) Zeralamone
- b) Inhibitor
- c) Creatinine
- d) All

66) It is a reaction or interaction of drug with the point _____

- a) Allergy
- b) Immunity
- c) Toxic
- d) All

67) Type 1 Immunity _____

- a) Ab- dependent
- b) Immediate
- c) Immune complex
- d) Lymphocyte mediated

68) Type 2 Immunity _____

- a) Ab-dependent
- b) Immediate
- c) Immune complex
- d) Lymphocyte mediated

69) Type 3 Immunity _____

- a) Ab-dependent
- b) Immediate
- c) Immune response
- d) Lymphocyte mediated

70) Type 4 Immunity _____

- a) Ab-dependent
- b) Immediate
- c) Immune response
- d) Lymphocyte mediated

71) Allergy within a group of drug _____

- a) Mixed Allergy
- b) Second Allergy
- c) Cross Allergy
- d) Anti Allergy

72) The allergy to a particular drug is established and patient shows _____

- a) Radiation
- b) Eczema
- c) Dehydration
- d) All

73) The effect of prolonged administration of drug is shown _____

- a) Hand
- b) Ear
- c) Organ
- d) Foot

74) Tardive dyskinesias _____

- a) Voluntary movement
- b) Involuntary movement
- c) Muscular movement
- d) None

75) Polyneuritis is _____

- a) Numbness in feet and palm
- b) Headache
- c) Gastritis
- d) All

76) Chloroquine can cause _____

- a) Eczema
- b) Dandruff
- c) Cataract

d) Bluster

77) Thioledazine causes _____

a) Retinal injury

b) Hand injury

c) Leg injury

d) Head injury

78) Amiodazone may cause _____

a) Pulmonary fibrosis

b) Kidney failure

c) Headache

d) Memory loss

79) Vigabatrin causes _____

a) Memory loss

b) Visual field defect

c) Tumor

d) Palpitation

80) Long term use of estrogen in post menopause causes _____

a) Birth defect

b) Cancer

c) Epilepsy

d) None

81) Oral contraceptive causes _____

a) Organ defects

b) Gastric

c) Both

d) None

82) Drugs given during labour causes _____

a) Headache

b) Respiratory depression

c) Eczema

d) Acidity

83) Chelating agents are used for _____

a) Skin infection

b) Labour pain

c) Removing poison

d) None

84) Tobacco smoking causes _____

a) Anatomical abnormalities

b) Brain development

c) Reabsorption of water

d) Skin infection

85) Physical agents _____

a) X-ray

b) Flies

c) Rodents

d) Bats

86) Chemical agents are _____

a) Alkylating agent

b) Gamma rays

c) Virus

d) Bacteria

87) Organophosphorous causes inhibition of _____

a) Acetylcholine

b) Enzyme

c) Fat

d) Carbohydrate

88) Biological agents are _____

a) X-ray

b) Mutagen

c) Virus

d) Chlorine

89) Biochemical agents are _____

a) Gamma rays

b) Inhibitor

c) Virus

d) Chlorine

90) The regulated pathway is utilized for secretion of hormones and neurotransmitter in response to _____

a) Chemical stimuli

b) Electrical stimuli

c) All

d) None

91) Many neurotransmitter are prolonged into _____

- a) Organ
- b) Tissue
- c) Synaptic vesicles
- d) All

92) At the end of neuron is _____

- a) Dendrites
- b) Axon
- c) Cell body
- d) All

93) Grey matter is present in _____

- a) Cerebral Hemisphere
- b) Pons
- c) Medulla oblongata
- d) Cortex

94) Brain stem consist of _____

- a) Medulla Oblongata
- b) Thalamus
- c) Barrier
- d) Choroid

95) The two cerebral hemisphere are connected by _____

- a) Corpus callosum
- b) Basal Ganglia
- c) Hypothalamus
- d) Choroid

96) Sensory neuron is _____

- a) Efferent
- b) Afferent
- c) Both
- d) None

97) Motor neuron is _____

- a) Efferent
- b) Afferent
- c) Both
- d) None

98) Somatic motor neuron operater_____

- a) Voluntary muscle
- b) Involunatry muscle
- c) Both
- d) All

99) Chemical basis of nerve impulse is _____

- a) Membrane
- b) Action potential
- c) Pleasure
- d) All

Marine biotech

1. The most commonly used vector and host for constructing _____ library.

A) **metagenomic**

C) fosmids

B) vectors

D) hosts

2. agar plate based screening have the _____ not requiring expensive dives.

A) **advantage**

C) antibiotics

B) disadvantage

D) gene

3. molecular screening involve the use of primers or _____

A) agar

C) antibody

B) **probes**

D) none of this

4. the marine environment a unique and prolific source of _____ nature production

A) microbiology

C) marine biotech

B) **bioactive**

D) none of this

5. the field of marine nature products is now close to _____ year old.

A) 30

C) 20

B) 40

D) **50**

6. biological activity in different therapeutic setting has been discovered during the _____ of decades.

A) **last couple**

C) first couple

B) both A and B

D) none of this

7. w-conotoxins are poisons produced by _____ snails

A) black

B) red

B) **piscivorous cone**

D) none of this

8. the venom this gastrod molecules is a combination of _____ peptide.

A) 200-400

C) 300-500

B) **100-200**

D) 100-500

9. **w-** conotoxins MVIIA is linear 25 amino acid ___ peptide contain six cysteine residues.

A) **polycationic**

C) many

B) long

D) none of this

10. identification the _____ type vol.sensitive calcium channels (NUSCCs) were its target site

A) **N**

C) P

B) H

D) B

11. **w-** conotoxin MVIIA from conus is commercially know as _____

A) phynotypic

C) **zinconotide**

B) analysis

D) none of this

12. marine alkaloid anticancer agents isolated from_____ turbinate. A)
ecteinascidia C) ET-743

B) **both A and B**

D) none of this

13. ET-743 also is named tra bactedin or goes under the trade name _____

A) **yondlis**

C) mondlis

B) G2 lm

D) none of this

14. analysis of the effect of _____ in vivo in vitro systems

A) bacteria

C) virus

B) **trabactedin**

D) algae

15. cytotoxin compound that inhibits _____ polymerase

A) RNA

C) **DNA**

- B) leukemia
D) antiviral
16. _____ also know eribulin mesylate(E 7389)
A) **halichondrin B**
C) lymphoblastics
B) cytotoxin B
D) none of this
17. the bryozoan bugula neritna was obtained from the gulf of _____ in 1968
A) **mexico**
C) USA
B) UIE
D) London
18. _____ is a water soluble aminosteroid
A) squalus
B) **squalamine**
B) acanthias
D) none of this
19. the potential of marine natural products to become new _____ raises the question
A) **pharmaceuticals**
C) biotechnological
B) industrual
D) marine biotech
20. _____ bind to palmitoyl protein thioesterase .
A) toxicity
C) hemiasterlin
B) **didemnin B**
D) none of this
21. the tripeptide antimitotic hemiasteslin was isolated from the _____
A) survival
C) natural
B) **marine**
D) glycoprotein
22. the limited supply or large scale exploitation can destroy the _____
A) city
C) country
B) **environment**
D) none of this

23. _____ compound can be produced by micro organism.

A) **bioactive**

C) industrial

B) turbinated

D) none of this

24. the sustainable biotechnology production of _____ important metabolites

A) **pharmacologically**

C) natural

B) economic

D) phenotype

25. the term _____ which was first defined in 1949 by the international society or medical.

A) **peloid**

C) geological

B) physical

D) sea water

1. Currently _____ generated high throughput automated methods are being developed

A) **second**

C) third

B) first

D) last

2. most of the strains able to grow on _____ dishes

A) food

C) **petri**

B) mixture

D) fish

3. the theory of _____ of dormant cells proposes.

A) biology

C) chemical

B) **scouting**

D) physical

4. Gene coding for key enzymes participating in different _____

A) **environmental**

C) oxidation

C) biodegradation

D) hydrocarbon

5. functional genes have the potential to be used as _____ in assays

A) developed

C) **biomarkers**

B) biotechnology

D) molecular

6. one of the long standing goals of environmental is _____

A) **microbiology**

C) marine biology

B) biotechnology

D) food biotechnology

7. the most widely used method is DNA SIP in which DNA is separated in _____ -

A) sodium chloride

C) potassium chloride

B) **caesium chloride**

D) none of this

8. microscopy provides information about _____ and physical organization of cell

A) **spatial arrangement**

C) assemblage

C) complex

D) symbiotic

9. the large scale study of genes is called _____

A) **genomics**

C) microbiological

B) biotechnology

D) marine biotech

10. the publication of the genome of the bacterium _____ influenza KD in 1995.

A) bacterial

B) **harmophilus**

B) H1 N1

D) virus

11. institute created the initiative genomic _____ of bacteria and archaea.

A) Gordon

C) **encyclopedia**

B) microbiology

D) marine habitats

12. _____ analysis of isolation can severely underestimate .

A) genotypic

C) **phenotypic**

B) marine

D) genetic

13. the mining for genes or gene _____ in microbial genomes .

- A) **clusters**
- B) expression
- C) heterologous
- D) exploited

14. ecologically relevant micro organism isolated from diverse _____ habitats .

- A) **marine**
- B) phynotypic
- C) chemical
- D) genetic

15. the chemical structure of new compound by a combination of _____ and chemistry .

- A) biotechnology
- B) bioprospection
- C) **bioinformatics**
- D) genome

16. used a public database to identify a genome fragment from the _____ strain.

- A) **vibrio spendidus**
- B) bacterial
- C) algae
- D) alginate

17. _____ production from macroalgae via a consolidated process

- A) methanol
- B) petrol
- C) **bioethanol**
- D) biofuel

18. technological advance in the field of _____ spectrometry.

- A) **mass**
- B) gene
- C) phenotype
- D) molecular

19. ethanol sensitive of cyanobacteria currently restricts efforts to increase _____ production level.

A) macroalae

B) ethanol

B) molecular

D) **biofuel**

20. the analysis of _____ cell is an approach with multiple biotechnological application.

A) double

C) **single**

C) triple

D) complex

21. advantage and drawbacks of the different devices used for _____ sorting .

A) **cell**

C) mass

B) DNA

D) RNA

22. _____ is considered powerful complement of both cultivation and metagenomics

A) FCA

C) HGA

B) **SCG**

D) none of this

23. the direct analysis of the genomes contained in a _____ community.

A) biotech

C) **microbial**

B) marine

D) environmental

24. metabolic analyses typically start with the purification _____

A) RNA

C) t-RNA

B) **DNA**

D) r-RNA

25. two different strategies can be use for the screening of a _____ library.

A) **metagenomic**

C) sequence

B) function

D) probes

Industrial Microbiology

1. fermentation to produce alcohol by yeast saccharomyces is due to

A) zymase

C) galactose

B) trysaccharide

D) saccharide

2. yeast can not br ferment starch and complex cabohydrates because they

A) drug

C) lack zymase

B) lack diastase

D) lack lipase

3. source of riboflavin is

A) ashby yeast

C) environmental

B) aquatic

D) fungi

4. yeast grows abundantly on _____

A) organic matter rich in sugar

C) nectar

B) fungi

D) virus

5. citric acid is produced by

A) mucor

C) aspergillus

B) rhizopus

D) erythrocytes

6. gluconic acid is produced by fungi _____

A) aspergillus niger

C) antigen

B) both A and B

D) none of this

7. an amylase enzyme is produced by fungus

- A) *A. niger*
- B) *trichodema*
- C) **aspergillus oryzae**
- D) toxins

8. citric acid find application in _____

- A) ink making
- B) **soft drinks**
- C) printing
- D) none of these

9. farmyard manure and compost are prepared by bacterial action from farm _____

- A) *pseudomonas*
- B) animal excreta
- C) garbage
- D) **all of these**

10. an antifungal drug is obtained from _____

- A) ***P. griseofulvum***
- B) *R. roqueforti*
- C) *R. camemberti*
- D) *P. notatum*

11. fungus used in preparation of soya sauce shoyu is _____

- A) **penicillium glaucum**
- B) *mucor javanicus*
- C) *aspergillus oryzae*
- D) *rhizopus oryzae*

12. *saccharomyces cerevisiae* is used in _____

- A) tanning brewing
- B) **brewing**
- C) baking
- D) both A and B

13. the bacterium which is used in preparation vitamin riboflavin is

- A) *leuconostoc*
- B) *lactobacillus*
- C) ***clostridium butylicum***
- D) none of this

14. lactic acid is used in _____

- A) preservation
- B) plastic making
- C) tanning
- D) **all of these**

15. vitamin B₂ is produced by

- A) propionic bacterium
- B) saccharomyces
- C) **ashbye gooyphi**
- D) rhizopus

16. heat killing of all mic-organism is done in the process called _____

- A) immunization
- B) **sterilization**
- C) pasteurisation
- D) none of these

17. during alcoholic fermentation , conversion of sugar into alcohol is due to direct action

- A) temperature
- B) concentration of sugar
- C) PH
- D) **zymase enzyme**

18. curd cheese and butter are produced by

- A) yeast
- B) **streptococcus**
- C) penicillium
- D) none of these

19. anaerobic respiration of yeast produces

- A) alcohol
- B) **alcohol,carbon dioxide and other**
- C) carbon dioxide
- D) none of the above

Beverages

20. dosa and idli are prepared by the action of _____

A) L. bacillus

C) S. cerevisiae

B) **B. subtilis**

D) R. oryzae

21. sausages are fermented

A) vegetables

C) **meats**

B) milk

D) sauce

22. passage of effluents into oxidation tank is for

A) primary treatment

C) **secondary treatment**

B) both A and B

D) tertiary treatment

23. the first antibiotic was discovered by

A) R. Koch

C) Louis Pasteur

B) **A. Fleming**

D) W. Fleming

24. an enzyme produced commercially from saccharose _____

A) lactase

C) **invertase**

B) amylase

D) maltase

25. streptomycin is prepared from _____

A) **Streptomyces antibioticus**

C) Streptomyces

B) Streptomyces nodosus

D) Streptomyces riveyi

Environment USBT-604

1 . A Descriptive _____ is concentrated directly with toxicity testing.

- A) **toxicologist**
- B) mechanistic
- C) both a and b
- D) none of this

2. _____ produced by a mold is a toxic

- A) nicotine
- B) mixture
- C) **zeralanone**
- D) pesticide

3. The _____ is also responsible for enforcing the CERCI act.

- A) FDA
- B) **EPA**
- C) RCRA
- D) TSCA

4. _____ is specialized area within environmental toxicology that focus on ecosystem.

- A) **ecotoxicology**
- B) biodegradation
- C) oxidation
- D) descriptive

5. A molecule that must combine with an endogenous protein to elicit reaction is called _____

- A) antibody
- B) biotechnology
- C) **hapten**
- D) molecule

6. Binding of certain _____ to the protein initiates degeneration of long axons.

- A) **organophosphates**
- B) molecule
- C) succinylcholine
- D) indiosyncreasy

7. _____ is concentrated in adipose tissue but produces no .know toxic effects in tissue.

A) NTE

C) potassium chloride

B) **DDT**

D) none of this

8. _____ antagonism occurs when two chemicals counterbalance each other by producing opposite effect.

A) **functional**

C) receptor

C) complex

D) chemical

9. _____ exposure is defined as exposure to a chemical for less than 24 hours

A) **acute**

C) subacute

B) biotechnology

D) chroni

10. The bell shaped curve in the middle protion of close range is known as _____

A) bacterial

B) **normal frequency distribution**

B) resistant

D) virus

11. On a normally distributed population the mean ISD represents _____ of the population

A) 50%

C) **68.3%**

B) 99.7%

D) 45%

12. The region of dose response relationship for essential nutrient is commonly referred as _____

- A) genotypic
- B) toxicity
- C) **deficiency**
- D) response

13. The _____ is not a biological constant

- A) **LD₅₀**
- B) LD₆₀
- C) LD₈₀
- D) LD₁₀

14. _____ combines with cyanide to form cyanocobalamin and is excreted by kidney

- A) **glucose**
- B) dimethylcysteine
- C) penicillamin
- D) none of this

15. _____ is used as a part of sewerage systems

- A) marox
- B) vitox
- C) **primox**
- D) none of this

16. There are _____ metals with a density above 5-4 g/cm³ Reported as heavy metals

- A) **53**
- B) 50
- C) 54
- D) 87

17. _____ in association with lipid and protein represent the main constituents of fungal cell wall

- A) methanol
- B) rhizopus
- C) **polysaccharides**
- D) biofuel

18. _____ are also found to be associated with mental Binding

A) **protein**

C) hydroxyl

B) phosphate

D) molecular

19. _____ has been used for accumulation of uranium and thorium

A) macroalae

B) aspergillus niger

B) stretovertcillum

D) **rhizopus**

arrhizus

20. In _____ phosphate residue was suggested to be the primary continent responsible for uranium Binding

A) bacillus subtilis

C) **streptomycin longwoodensi**

C) zooglea ramigera

D) compex

21. By _____ solar energy can be converted into biomass which in turn can be stored and used as fuel.

A) **photosynthesis**

C) mass

B) hydrogen

D) gassification

22. energy concept is not viable in the

A) **U.K**

C) india

B) china

D) none of this

23. _____ is not a barrier in methano genesis process.

A) spectrum

C) CO₂

B) lignin

D) none of this

24. _____ is a major gas component in biogas

A) CO_2

C) H_2O

B) methane

D) O_2

25. _____ is a non- biological process

A) fermentation

C) gasification

B) biomass

D) none of this

1. The hydrothermal vents were discovered in _____ year.

A)1977

C)1999

B)1800

D)2000

2.The oceans encompass habitats from _____ and sedimentary habitats.

A) land sea

C) Deep ocean

B) rocky

D) non of this

3. the use of marine _____ in folk medicine is very restricted.

A) organisam

C) bacteria

B) virus

D) fungus

4.marine macroalgae or seaweeds as they are more generally known have been used as _____

A) drug

C)crude oil

B) medicine

D) food

5. _____ atropurpurea has been used in Hawaii to dress wounds.

A) gynaecology

C) porphyra

B) seaweed

D) cystoseira

6.terpenes are derived from _____ carbon isoprene.

A) five

C) two

B) three

D) ten

7. marine have been studied as a source of _____ active substance.

A) micro-biologically

C) biologically

B) 800 mg/L

D) none of this

8. energy concept is not viable in the

A) **U.K**

C) india

B) china

D) none of this

9. _____ is not a barrier in methano genesis process.

A) spectrum

C) CO₂

B) lignin

D) none of this

10. _____ is a major gas centrifbrtes in biogas

A) Co₂

C) H₂O

B) methane

D) O₂

11. _____ is a non- biological process

A) entrepiction

C) gasification

B) biomass

D) none of this

12. fermentation to produce alcohol by yeast saccharomyces is due to

A) zymase

C) galactose

B) trysaccharide

D) saccharide

13 yeast can not br ferment starch and complex cabohydrates because they

A) drug

C) lack zymase

B) lack diastase

D) lack lipase

14 Biofuel production is _____ conversions process.

A) Biological

C) physical

B) None of this

D) chemical

15.A biodiesel fuel _____ can be used straight or in blend with petrol.

A) **REF**

C) IRF

B) RES

D) RSS

16. _____ is not considered as green house gas

A) Methane

C) O₂

B) Co₂

D) all of this

17.algae is grown in a vessel known as _____

A) **Biocoil**

C) biopass

B) Biological

D) chemical

18..hydroge gas is produced by anarobic bacteria _____

A) Lactone

C) clostridia

B) Alkaloid

D) none of this

19. Which digester is not used for biogas production _____

A) **Two blade reater**

C) anarobic

B) fluid

D) PFR

20. _____ process must achieve close to 10% solar energy
- A) organophosphate
B) **biophotolysis**
C) thermolysis
D) all of this
21. Pyrogen is produced by _____
- A) **gram -ve bacteria**
B) fungus
C) gram +ve bacteria
D) yeast
22. When pyrogen is introduced in the body it causes
- A) fever
B) nausea
C) none of this
D) **both A and B**
- 23.. LAL stands for
- A) **lemulus ameobocytes lysate**
B) lysogenic
C) lead ameobocytes
D) none
- 24.. The positive results of LAL obtained in the form of
- A) machine
B) **gel clot**
C) acidic reaction
D) basic reaction
- 25.in pyrogen testing of rabbit the sample infected by _____
- A) Intramuscular
B) **earvein**
C) progenomic
D) none of this

