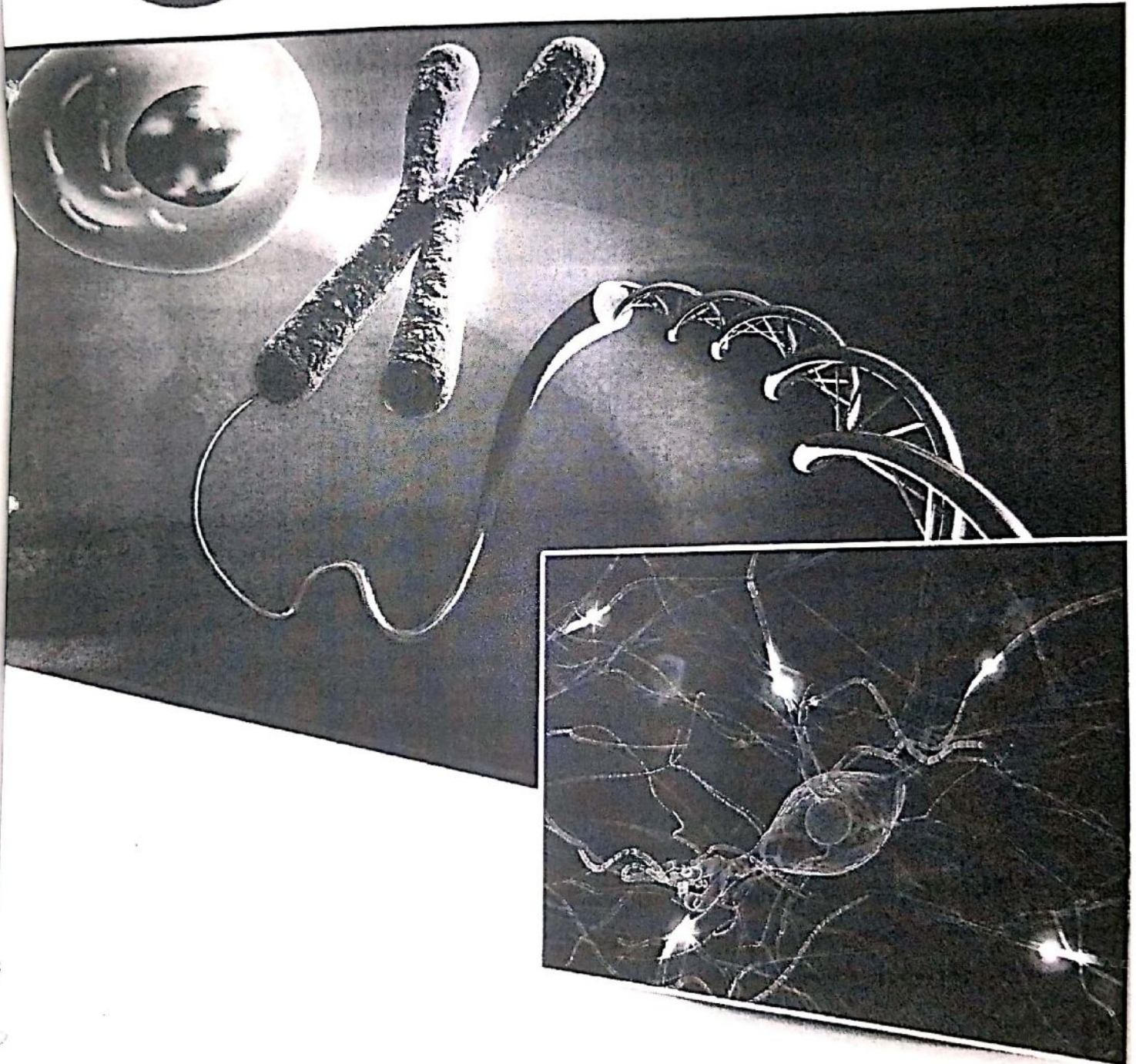


ANEES HUSSAIN
EXCELLENCE IN EDUCATION SINCE 1989

Waqar



BIOLOGY

Tricks And Hints For ETEA MDCAT

PRACTICE EXERCISE

1. Fresh water bony fishes maintain water balance by: _____
 - a. Excreting salt across their gills
 - b. Periodically drinking small amounts of water
 - c. Excreting a hypotonic urine
 - d. Excreting wastes in the form of uric acid
2. Which of these are most likely to excrete a semi solid nitrogenous waste: _____
 - a. Nephridia
 - b. Malpighian tubules
 - c. Human kidneys
 - d. All of these
3. In humans, water is: _____
 - a. Found in glomerular filtrate
 - b. Reabsorbed from nephron
 - c. In the urine
 - d. All of these are correct
4. Pressure filtration is associated with the: _____
 - a. Glomerular capsule
 - b. Distal convoluted tubule
 - c. Collecting duct
 - d. All of these
5. The mechanism by which the internal condition of the living body is properly maintained and regulated is known as _____
 - a. Thermo regulation
 - b. Osmoregulation
 - c. Homeostasis
 - d. All of them
6. The point at which process of ultrafiltration takes place is _____
 - a. Loop of Henle
 - b. Proximal tubule
 - c. Distal tubule
 - d. Glomerulus
7. The type of kidney stones which can also cause infection in kidney are _____
 - a. 5%
 - b. 30%
 - c. 70%
 - d. 25%
8. Oxygen is the byproduct for plants during the process of _____
 - a. Photosynthesis
 - b. Respiration
 - c. Metabolism
 - d. None
9. _____ is responsible to check the concentration of urine.
 - a. Collecting duct
 - b. Glomerulus
 - c. Loop of Henle
 - d. Bowman's capsule
10. In plants the _____ waste product is used in the chemical processes, they are not removed from the body.
 - a. Ions
 - b. Water
 - c. Oxygen
 - d. Nitrogenous
11. A plant like _____ produce roots on the soil surface so they can absorb water very quickly before they evaporate.
 - a. Cactus
 - b. Pinus
 - c. Acacia
 - d. Banyan
12. Some plants do not face dry condition, so they pass this dry condition in the form of seeds, Such plants are called _____
 - a. Ephemeral plants
 - b. Succulent plants
 - c. Xerophytes
 - d. All of them
13. Those animal which can not maintain their body temp are known as _____
 - a. Homeotherms
 - b. Poikilotherms
 - c. Warm blooded
 - d. none of these
14. If 0.9gm of NaCl is dissolved in 100ml of water, it is _____ solution.
 - a. Hypertonic
 - b. Hypotonic
 - c. Isotonic
 - d. None of them
15. _____ fish do not drink water.
 - a. Marine water
 - b. Fresh water
 - c. Both
 - d. None

16. The kidney of Marine water fish will reabsorb _____
 a. Salt
 b. Ammonia
 c. Urea
 (d.) Water
17. Uric acid is generally excreted by: _____
 a. All land animals
 b. Freshwater animals
 (c.) Insects
 d. Amphibians
18. The primary excretory organs found in earthworms are: _____
 a. Flame cells
 b. Malpighian tubules
 (c.) MetaNephridia
 d. Nephridiophores
19. Mammals can lower their body surface temperature through the evaporation of fluids from: _____
 a. loop of henle
 b. saliva
 c. urine
 (d.) sweat glands
20. malpighian body consist of: _____
 (a) glomerulus and bowmann's capsule
 b. bowmann's capsule and ciliated tubules
 c. arteries and collecting duct
 d. ciliated tubules, lined with glandular cells
21. the metabolic waste of a mammal includes all the following except: _____
 a. CO₂
 b. Water
 c. Urea
 (d.) Undigested food
22. Uric acid is _____ soluble in water.
 a. Highly
 b. Less
 (c.) Least
 d. Insoluble
23. _____ molecule is 100000 times less toxic than ammonia.
 a. Uric acid
 (b.) Urea
 c. both
 d. none
24. Simple process of Diffusion is sufficient for excretion in _____
 a. Earthworm
 b. Planaria
 (c.) Hydra
 d. cockroach
25. Metanephridia is excretory organ of _____
 a. Planaria
 b. Hydra
 c. Cockroach
 (d.) none
26. Roots are poorly develop or absent in _____ plants.
 a. Mesophytes
 b. Halophytes
 (c.) Hydrophytes
 d. All
27. At 40°C plants produce _____ to protect their enzymes.
 a. Fatty acids
 b. Cell wall
 (c.) Heat shock proteins
 d. All
28. The internal environment of fresh water fish is _____
 a. Isotonic
 b. Hypotonic
 (c.) Hypertonic
 d. None
29. Waste product of Hydra is _____
 a. Urea
 (b.) Ammonia
 c. Uric Acid
 d. None
30. The storage of fats below skin and erection of hairs on skin occurs during _____
 a. Normal temp
 b. Hot temp
 (c.) Cold temp
 d. None
31. Those blood vessels which surround the proximal tubules are known as _____
 (a) Peritubuler capillaries
 b. Afferent arterioles
 c. Glomerulus
 d. Vasa recta

32. The point at which renal artery and renal vein enter the kidney is known as

- a. Pelvis
- b. Cortex
- c. Medulla
- ☒ d. Hilum

33. The waste product of reptile, bird and insect is _____

- a. Ammonia
- ☒ b. Uric acid
- c. Urea
- d. All

34. Liver can also store which of the following vitamin?

- a. Vitamin A
- b. Vitamin B
- c. Vitamin D
- ☒ d. All

35. Sunken stomata are the only characteristic of _____

- a. Halophytes
- b. Mesophytes
- c. Hydrophytes
- ☒ d. Xerophytes

36. Ammonia combines with _____ to form Urea

- a. oxygen
- b. water molecules
- c. uric acid
- ☒ d. carbon dioxide

37. Kidneys are attached to the

- a. abdominal cavity
- ☒ b. dorsal abdominal wall
- c. lateral abdominal wall
- d. ventral abdominal wall

38. Capillaries present around the Loop of Henle are

- a. afferent arterioles
- ☒ b. efferent arterioles
- c. vasa recta
- d. glomerulus

39. Anti diuretic hormone is secreted at the time of

- a. constipation
- b. micturition
- ☒ c. hypertension
- ☒ d. dehydration

40. How many types of Dialysis are there?

- a. five
- b. three
- ☒ c. two
- ☒ d. one

41. Function of Loop of Henle is

- a. secrete anti diuretic hormone
- b. regulate glucose level
- ☒ c. secrete adrenaline
- ☒ d. checks the conc. of urine

42. Glomerulus is present inside the

- ☒ a. Bowman's capsule
- b. pyramids
- c. medulla
- d. kidney

43. Homeostasis is the process of maintaining a constant _____ environment

_____ despite _____ conditions.

- a. External, internal
- ☒ b. Internal, external
- c. Both A and B
- d. None of these

44. Homeostasis is based on

- a. Thermoregulation only
- b. Catabolism
- ☒ c. Feed back mechanism
- d. Anabolism

45. Two major control centers for homeostasis are

- a. Exocrine and Endocrine glands
- b. Apocrine and Heterocrine glands
- c. Receptors and Effectors
- ☒ d. Brain and Endocrine glands

46. Which of the following activity is regulated by Homeostasis

- a. Temperature
- b. Water balance
- c. Blood sugar level
- ☒ d. All A, B and C

47. What are the components of feed back mechanism?

- a. Receptors, Insulators, Effectors
- b. Receptors, Suppressors, Effectors
- ☒ c. Receptors, Regulators, Effectors
- d. Receptors, Depressors, Effectors

48. The excretory organ of Hydra is _____

- a. Metanephridia
- b. Protonephridia
- c. Flame cell
- ☒ d. None

49. It is not the way of obtaining heat by living organism

- a. Solar energy
- b. Metabolism
- c. Muscle contraction
- ☒ d. Sweating

50. Plant cells do not burst when placed in hypertonic solution because of _____
 a. Vacuole
 b. Cell membrane
 c. Cell wall
 d. All of these
51. The net movement of water molecules remain in equilibrium when the cell is placed in _____
 a. Hypotonic solution
 b. Hypertonic solution
 c. Isotonic solution
 d. None
52. ADH is released by
 a. Kidney
 b. Liver
 c. Adrenal gland
 d. Pituitary gland
53. Glands located on the top of each kidney are
 a. pituitary gland
 b. adrenal gland
 c. parathyroid gland
 d. thyroid gland
54. A cell is placed in a solution and swells. This solution is
 a. Isotonic to cell
 b. Hypertonic to cell
 c. Hypotonic to cell
 d. None of these
55. In an isotonic solution there would be
 a. No net movement of water
 b. Net movement of water into the cell
 c. Net movement of water out of the cell
 d. Bursting of the cell
56. A cell whose internal salt concentration is 0.3 /liter is placed in a solution having salt concentration 0.5 /liter. The solution is
 a. Isotonic to the cell
 b. Hypotonic to the cell
 c. Hypertonic to cell
 d. None of these
57. Osmosis is defined as
 a. Flow of solvent (water) through Semipermeable membrane from higher to less Concentrated solution
 b. Flow of solvent (water) through Semipermeable membrane from less to higher Concentrated solution
 c. Flow of a solute from a Semipermeable membrane
 d. Flow of water without membrane
58. Plasmolysis of a human red blood cell would occur if the cell were
 a. In an isotonic solution
 b. In a hypertonic solution
 c. In a hypotonic solution
 d. None of the above
59. When an animal cell is placed in a hypotonic environment, it will
 a. Undergo cytolysis
 b. Undergo plasmolysis
 c. Be at equilibrium
 d. Its turgor pressure decreases
60. The contractile vacuole of a paramecium should be active when the paramecium is in
 a. An isotonic environment
 b. A hypotonic environment
 c. A hypertonic environment
 d. Any environment
61. A plant without cuticle in leaves and stem, having increased number of stomata, partially or completely submerged in water is
 a. Mesophyte
 b. Hydrophyte
 c. Both A and B
 d. Halophyte
62. The entry of water from salty soil into the roots of halophytes takes place because the root cells of halophytes develop
 a. High water potential
 b. Low osmotic pressure
 c. Low water potential
 d. All of these
63. _____ are animals that do not adjust their internal osmolarity and are isotonic with their environment.
 a. Osmoconformers
 b. Osmoregulators
 c. Thermoregulators
 d. Thermoconformers
64. Plants excrete
 a. Excess water
 b. Excess oxygen
 c. Excess carbon dioxide
 d. All A, B and C

65. Which one of the following has maximum toxicity?
 a. Ammonia
 b. Urea
 c. Uric acid
 d. Creatinine
66. Which one of the following has medium toxicity?
 a. Ammonia
 b. Urea
 c. Uric acid
 d. Water
67. From the distal convoluted tubule, filtrate will then be carried to the:
 a. Renal corpuscle
 b. Collecting duct
 c. Nephron loop
 d. Proximal convoluted tubule
68. All of the following are normally found in urine except
 a. Sodium ions
 b. Uric acid
 c. Creatinine
 d. Glucose
69. _____ hormone regulates the transfer of sodium from the nephron to the blood.
 a. Parathormone
 b. Anti-diuretic
 c. Aldosterone
 d. Vasopressin
70. Which one of the following has least toxicity?
 a. Ammonia
 b. Urea
 c. Uric acid
 d. All are highly toxic
71. Guttation takes place through
 a. Stomata
 b. Injured tissue
 c. Lenticels
 d. Hydathodes
72. The excretory organs of Planaria are known as
 a. Protonephridia
 b. Flame cells
 c. Both A and B
 d. Metanephridia
73. The internal opening of the metanephridium is known as
 a. Nephrostome
 b. Nephridiopore
 c. Excretory pore
 d. All A, B and C
74. In humans, excess nitrogen is eliminated from the body by mainly converting it into
 a. Urea
 b. Uric acid
 c. Ammonia
 d. Amine phosphate
75. The three major body fuels managed by the liver are
 a. Protein, vitamins, and minerals
 b. Carbohydrate, fat, and protein
 c. Glucose, fructose, and sucrose
 d. Glucose, iron, and protein
76. Pigments found in bile are formed during _____ catabolism
 a. Haem catabolism
 b. Globin catabolism
 c. Cholesterol Catabolism
 d. Both A and C
77. The nephron is
 a. The site of urine storage
 b. The functional unit of the kidney
 c. The site where ADH is produced
 d. Also called the "Bowman's capsule"
78. Conversion of ammonia into urea, occurs in _____
 a. Kidneys
 b. Lungs
 c. Intestine
 d. Liver
79. Separation of amino acid into amino and carboxyl group is known as
 a. Amination
 b. Excretion
 c. Deamination
 d. Egestion
80. Uric acid is the chief nitrogenous waste material in the excretory system of
 a. Reptiles
 b. Birds
 c. Insects
 d. All of these
81. Which of the following is not structure of kidney
 a. Cortex
 b. Medulla
 c. Pelvis
 d. Urethra

82. In mammalian kidney, the pyramids are seen in
 a. Cortex
 (b) Medulla
 c. Pelvis
 d. Hilus
83. The number of nephrons in ONE kidney of man is
 a. 4 million
 b. 2 million
 c. 8 million
 (d) 1 million
84. ADH increases _____ of _____ from the collecting duct.
 a. Absorption, sodium
 b. Diffusion, chlorine
 (c) Absorption, water
 d. Diffusion, Ammonia
85. Two counter-current systems are formed in the kidney by the
 a. Henle's loop and PCT
 b. Henle's loop and DCT
 c. Henle's loop and Collecting duct
 (d) Henle's loop and Vasa rectae
86. Daily urine output of man is
 (a) 1-2 liters
 b. 1-3 liters
 c. 1-4 liters
 d. 1-5 liters
87. Tubular structure which carries urine from bladder to outside
 a. Ureter
 b. Hilus
 c. Pelvis
 (d) Urethra
88. Ultrafiltration occurs in
 (a) Bowman's capsule
 b. Proximal convoluted tube
 c. Henle's loop
 d. Distal convoluted tube
89. The greater the demand of conserving water, the greater would be the number of
 (a) Juxta-medullary nephrons
 b. Cortical nephrons
 c. Capillaries of glomerulus
 d. Both A and B
90. Each kidney is enclosed by a thin membranous covering called
 (a) Peritonium
 b. Peritreme
 c. Perizonium
 d. All A, B and C
91. pH of human urine is
 a. 7.4
 b. 3.5
 (c) 5.00
 d. 8.00
108. The hormone which increases the reabsorption of calcium ions in nephron is
 a. Aldosterone
 b. Parathormone
 c. Anti-diuretic
 d. Vasopression
92. The process by which some poisonous substances are secreted from peritubular capillaries into nephric filtrate is termed as
 a. Tubular reabsorption
 (b) Tubular secretion
 c. Counter-current exchange
 d. None of these
93. Blood enters the kidney through a branch of the aorta called
 a. Afferent arteriole
 (b) Renal artery
 c. Efferent arteriole
 d. Renal vein
94. A capillary tuft from which fluid leaves the circulatory system.
 a. Bowman's capsule
 b. Proximal convoluted tube
 (c) Glomerulus
 d. Loop of Henle
95. Dialysis cleans the blood by
 a. An artificial kidney
 b. Filtering it within abdomen
 c. Removing glucose from blood
 (d) Both A and B
96. Haemodialysis means
 a. Removing the blood
 (b) Cleaning the blood
 c. Diluting the blood
 d. All options are correct
97. It is technique of breaking kidney stones inside kidneys, ureters, and urinary bladder
 a. Lithotrophy
 b. Lithography
 (c) Lithotripsy
 d. All options are correct

98. Regulation of body temperature in homeotherms during high environmental temperature involve
 a. Vaso-dilation
 b. Lowering the hairs
 c. Reduction in sub-cutaneous fat
 (d) All A, B and C
99. Regulation of body temperature in homeotherms during cold environmental temperature involve

- a. Vaso-constriction
 b. Erection of hairs
 c. Increase in sub-cutaneous fat
 (d) All A, B and C
100. An animal when taken into hot area loses heat by sweating and when to cold area increases muscular activity to produce more heat. The animal in this thought is
 (a) Homiothermic
 b. Poikilothermic
 c. Ectothermic
 d. None of these

CHAPTER # 15 (HOMEOSTATISIS)

1	c	21	d	41	d	61	b	81	d
2	b	22	c	42	a	62	c	82	b
3	d	23	b	43	b	63	a	83	d
4	a	24	c	44	c	64	d	84	c
5	c	25	d	45	d	65	a	85	d
6	d	26	c	46	d	66	b	86	a
7	d	27	c	47	c	67	b	87	d
8	b	28	c	48	d	68	d	88	a
9	c	29	b	49	d	69	c	89	a
10	d	30	c	50	c	70	c	90	a
11	a	31	a	51	c	71	d	91	c
12	a	32	d	52	d	72	a	92	b
13	b	33	b	53	b	73	a	93	b
14	c	34	d	54	c	74	a	94	c
15	b	35	d	55	a	75	b	95	d
16	d	36	d	56	c	76	b	96	b
17	c	37	b	57	a	77	b	97	c
18	c	38	c	58	b	78	d	98	d
19	d	39	d	59	a	79	c	99	d
20	a	40	c	60	b	80	d	100	a

PRACTICE EXERCISE

1. The inactive non conducting wood is called: _____
a. Sap wood
b. Heart wood
c. Cork
d. Callus
2. Hip joint and shoulder joints are the example of: _____
a. Cartilaginous joint
b. Synovial joint
c. Hinge joint
d. Ball and socket joint
3. Skeletal muscles contain dark band are called: _____
a. A band
b. I band
c. Z band
d. None of these
4. "effective stroke" followed by "recovery stroke" is the mode of locomotion in: _____
a. Jelly fish
b. Amoeba
c. cockroach
d. Euglena
5. Scapula is connected with sternum by: _____
a. Ribs
b. Carpals
c. Clavicle
d. None of the above
6. Resistance to decay and insect attack to plants is provided by: _____
a. Sap wood
b. Heart wood
c. Callus
d. Cork
7. Collagen fibers of bone are hardened by deposition of: _____
a. Ca & PO₄
b. CaCO₃
c. CaSO₄
d. SiO₂
8. Which one of the following is non blood vascular structure?
a. bone.
b. A spongy bone.
c. Cartilage
d. All of these
9. Which of the following bone is not present in the hind-limb?
a. Femur
b. Tibia
c. Radius
d. Fibula
10. How many bones are present in the wrist?
a. 4 bones
b. 6 bones
c. 8 bones
d. 14 bones
11. Which of the following bones are present in the palm of hand?
a. Carpals
b. Metacarpals
c. Phalanges
d. Metatarsals
12. How many vertebrae are present in vertebral column of man?
a. 33 vertebrae
b. 33 pairs of vertebrae
c. 26 vertebrae
d. 31 vertebrae
13. How many pairs of ribs?
a. 7
b. 12
c. 9
d. 4
14. How many vertebrae are present in children?
a. 30
b. 10
c. 33
d. 26
15. How many bones are present in ankle?
a. 7
b. 12
c. 5
d. 4
16. How many bones are present in foot?
a. 7
b. 12
c. 5
d. 4

17. Which of the following bones are present in pectoral girdle?
a. Clavicle
b. Scapula
c. Both of these
d. None of these
18. A joint formed between humerus, radius and ulna is an example of
a. Immovable joint.
b. Slightly movable joint.
c. Freely movable joint.
d. All of these
19. Joint between two parietal bones, which is infact immovable one is an example of
a. Fixed joints.
b. Moveable joints.
c. Synovial joints.
d. None of these
20. Bones are connected to eachother by the help of
a. Synovial membrane.
b. Ligaments
c. Muscles.
d. Tendon
21. Which of the following bones twist around?
a. Between radius and ulna.
b. Between ulna and scapula
c. Between humerus and scapula
d. Between femur and tibia.
22. Which of the following hormone is predominantly responsible for bone weakening in older women?
a. Progesterone.
b. Estrogen.
c. Parathyroid hormone.
d. Calcitonin.
23. Which of the following is a childhood disease resulting from nutritive (Ca) deficiency:
a. Hypocalcaemia Tatanic spasms
b. Osteomalacis.
c. Rickets.
d. Tetany
24. Which of the following statement about osteoporosis is correct.
a. It results from estrogen deficiency
b. Bone become stronger
c. it only occurs in Male
d. common in young age.
25. Which of the following is a uni-nucleated cell?
a. A smooth muscle cell.
b. A cardiac muscle cell.
c. A skeletal muscle cell.
d. All of these
26. A smallest contractile unit of muscle contraction called sarcomere is the area between two:
a. H-zone
b. M-Line
c. Z-Line
d. A band
27. Movement takes place at
a. Cellular level
b. Organ level
c. Organism level
d. All A, B and C
28. Collenchyma can be distinguished from parenchyma by
a. Being dead cell
b. Without large vacuole
c. Increased thickness of their cell walls
d. All A, B and C
29. A tissue whose function is support and it performs that function while it is dead is _____
a. Collenchyma
b. Parenchyma
c. Sclerenchyma
d. A and B
30. In angiosperms the tissue that produces secondary xylem and secondary phloem is
a. Protoderm
b. Ground meristem
c. Intercalary meristem
d. Vascular cambium
31. Secondary growth in plants begins with the formation of
a. Vascular cambium only
b. Cork cambium only
c. Vascular and cork cambium
d. Inter-calary meristems
32. It is the xylem in the center of the tree that has stopped conducting water and minerals and is storing waste products from the plant.
a. Sap wood
b. Heart wood
c. Peripheral wood

- d. Both B and C
33. It is the portion of the xylem that is conducting water and minerals and hasn't started storing waste products.
- Sap wood
 - Heart wood
 - Central wood
 - Both A and C
34. Lenticels are necessary for
- Photosynthesis
 - Gaseous exchange
 - Water absorption
 - All options are correct
35. Tropic movement in response to touch is known as
- Geotropism
 - hydrotropism
 - Thigmotropism
 - Both B and C
36. The growth of the pollen tube is always towards the ovules, it is due to
- Geotropism
 - Thigmotropism
 - Phototropism
 - Chemotropism
37. Molluscs have an exoskeleton in the form of
- Proteinteous shell
 - Siliceous shell
 - Calcareous shell
 - Chitineous shell
38. The periodic shedding of exoskeleton in arthropods is known as
- Moulting
 - Ecdysis
 - Both A and B
 - Stridulation
39. Human endoskeleton is about _____ of the total body weight.
- 80%
 - 70%
 - 40%
 - 18%
40. The tooth bearing bone of lower jaw is
- Atlas
 - Innominate
 - Incus
 - Dentary
41. An adult human endoskeleton consists of
- 363 bones
 - 639 bones
 - 206 bones
 - Number varies by the individual
42. The lower two pairs of ribs are _____
- True ribs
 - False ribs
 - Floating ribs
 - All A, B and C
43. Total number of ribs in your axial skeleton is
- 12
 - 24
 - 33
 - 26
44. The original number of vertebrae in human vertebral column is
- 12
 - 24
 - 33
 - 26
45. The visible number of vertebrae in human vertebral column is
- 12
 - 24
 - 33
 - 26
46. Humerus forms a ball and socket joint with
- Clavicle
 - Sternum
 - Innominate
 - Scapula
47. The bones of lower arm after humerus
- Tibia and fibula
 - Radius and ulna
 - Carpals and metacarpals
 - Phalanges
48. Which one of these makes bones hard?
- Carbohydrates
 - Fats
 - Proteins
 - Minerals
49. Which of the following is not part of the axial skeleton
- Sternum
 - Vertebrae
 - Femur
 - Skull
50. In human's back bone the Caudal vertebrae are reduced to 4 in number and are fused to

- form the
- Sacrum
 - Innominate
 - Coccyx
 - Ischium
51. Bones are joined to each other at joints by
- Tendons
 - Ligaments
 - Hyaline cartilage
 - Both A and B
52. Muscles are attached to bones by
- Tendons
 - Ligaments
 - Synovial membrane
 - Both A and C
53. It is a _____ joint that allows the skull to rotate on our spine.
- Hinge joint
 - Fibrous joint
 - Sliding joint
 - Pivotal joint
54. The normal backbone is not straight, but has four curves. The curve in the region of the neck is composed of seven vertebrae and is known as the
- Lumbar region
 - Sacral region
 - Coccygeal region
 - Cervical region
55. The 12 vertebrae in the second curve of vertebral column are known as
- Cervical vertebrae
 - Thoracic vertebrae
 - Lumbar vertebrae
 - Sacral vertebrae
56. The shoulder girdle consists of two bones
- Humerus and Scapula
 - Humerus and Ulna
 - Clavicle and Scapula
 - Ilium and Ischium
57. The pelvic girdle is composed of three pairs of fused bones
- Ilium, Ischium and frontal
 - Clavicle, Scapula and pubis
 - Malleus, Incus and stapes
 - Ilium, Ischium and pubis
58. The bones of the wrist are called
- Carpals
 - Metacarpals
 - Tarsals
 - Metatarsals
59. The joint found between the flat bones of the skull is classified as
- Immovable
 - Movable
 - Slightly movable
 - None of these
60. These cells are located in bone tissue
- Chondroblasts
 - Osteocytes
 - Fibroblasts
 - Chondrocytes
61. Gliding joints are present between
- Carpals and tarsals
 - Humerus and ulna
 - Femur and innominate
 - Vertebrae
62. Which type of joint is the most mobile?
- Pivot joint
 - Gliding joint
 - Ball and socket joint
 - Fibrous joint
63. The main protein in the matrix of cartilage is
- Collagen
 - Osteonectin
 - Keratin
 - Actin
64. The total number of bones in your right arm is
- 30
 - 32
 - 35
 - 60
65. Which bone in Man is concerned with locomotion
- Ulna
 - Femur
 - Humerus
 - All of these
66. In which skeletal deformity pain is felt in the lower back, buttock, and/or various parts of the leg and foot.
- Sciatica
 - Osteoporosis
 - Arthritis
 - All of these
67. Which of the following groupings is incorrect?
- Skeletal, striated, voluntary

- b. Smooth, unstriated, involuntary
c. Cardiac, striated, voluntary
d. Cardiac, striated, involuntary
68. The muscle tissue that can be consciously controlled is
a. Smooth
b. Skeletal
c. Intercalated
d. Cardiac
69. Skeletal muscle is described by all of the following EXCEPT
a. Striated
b. Voluntary
c. Multinucleate
d. Autorhythmic
70. The walls of digestive tract and blood vessels contain this muscle tissue
a. Striated
b. Skeletal
c. Cardiac
d. Smooth
71. The smallest contractile unit of skeletal muscle is a
a. Sarcomere
b. Motor unit
c. Synapse
d. Thin filament
72. The major regulatory proteins in muscle tissue are
a. Myosin and tropomyosin
b. Myosin and actin
c. Actin and troponin
d. Troponin and tropomyosin
73. Muscles that straighten two bones at joints are called extensors. What is the name for muscles that cause two bones to bend at joints?
a. Protractors
b. Flexors
c. Adductors
d. Abductors
74. Which of the following is the best description of cardiac muscle?
a. Non-striated - Involuntary
b. Non-striated - Voluntary
c. Striated - Involuntary
d. Striated - Voluntary
75. The loss of bone density is called _____ and can cause bones to become light, brittle, and easily broken.
a. Spondylosis
b. Arthritis
c. Sciatica
- d. Osteoporosis
76. Inflammation of the joint is known as
a. Sinusitis
b. Arthritis
c. Both A and B
d. Nephritis
77. The bicep and tricep muscles are found in
a. Leg
b. Shoulder
c. Upper arm
d. Lower jaw
78. During muscular contraction
a. Actin slide over myosin
b. ATP supplies energy
c. calcium ions (Ca++) are involved
d. All of these
79. A skeletal muscle cell
a. has light and dark bands
b. has only one nucleus
c. is under involuntary control
d. None of the above are true
80. A disk-like protein which is centrally located in sarcomeres is
a. H line
b. M line
c. Z line
d. I line
81. Within a sarcomere _____ thin filaments are arrayed around each thick filament.
a. 4
b. 6
c. 2
d. 8
82. Changes in sarcomere length are caused by the thin filaments being pulled along the thick filaments in the direction of the
a. H zone
b. M line
c. Z line
d. I band
83. Tetany characteristically is considered to result from a severe degree of
a. Hyperglycemia
b. Hypercalcaemia
c. Hypocalcaemia
d. Hypoglycemia
84. The contraction of muscles depends upon
a. Nerve impulse

- b. Energy
c. Calcium ions
d. All of these
85. Human eye muscle contracts in
a. 0.01 seconds
b. 0.05 seconds
c. 0.08 seconds
d. All options are incorrect
86. Bicep muscles are
a. Flexor muscles
b. Extensor muscles
c. Adductor muscles
d. Abductor muscles
87. Tricep muscles are
a. Flexor muscles
b. Extensor muscles
c. Adductor muscles
d. Abductor muscles
88. A muscle which moves a body part away from the mid line of the body is
a. Flexor muscle
b. Extensor muscle
c. Adductor muscle
d. Abductor muscle
89. A muscle which moves a body part towards the mid line of the body is
a. Flexor muscle
b. Extensor muscle
c. Adductor muscle
d. Abductor muscle
90. In earth worm contraction of _____ muscles shortens the body.
a. Longitudinal
b. Circular
c. Protractor
d. Adductor
91. In earth worm contraction of _____ muscles lengthens the body.
a. Longitudinal
b. Circular
c. Retractor
d. Abductor
92. The state of physiological inability of a muscle to contract due to accumulation of lactic acid is referred to as
a. Rigor mortis
b. Muscle fatigue
c. Muscle tetany
d. Muscle cramp
93. The stationary part of skeletal muscle is known as
a. Origin
b. Insertion
c. Belly
d. Ligament
94. The movement in Jelly fish is called
a. Bell propulsion
b. Jet propulsion
c. Float propulsion
d. None of these
95. Cross bridges form between
a. Troponin and tropomyosin
b. Calcium and sodium
c. Sarcolemma and sarcoplasm
d. Myosin head and Actin filament
96. The limb bones first appeared in
a. Jawless fishes
b. Lobe finned fishes
c. Amphibians
d. Reptiles

CHAPTER # 16 (SUPPORT AND MOMENT)

1	b	21	a	41	c	61	d	81	b		
2	d	22	b	42	c	62	c	82	b		
3	a	23	c	43	a	63	a	83	c		
4	d	24	a	44	c	64	a	84	d		
5	c	25	a	45	d	65	b	85	a		
6	d	26	c	46	d	66	a	86	a		
7	a	27	d	47	b	67	c	87	b		
8	c	28	c	48	d	68	b	88	d		
9	c	29	c	49	c	69	d	89	c		
10	c	30	d	50	c	70	d	90	a		
11	b	31	c	51	b	71	a	91	b		
12	c	32	b	52	a	72	b	92	b		
13	b	33	a	53	d	73	b	93	a		
14	c	34	b	54	d	74	c	94	b		
15	a	35	c	55	b	75	d	95	d		
16	c	36	d	56	c	76	b	96	b		
17	c	37	c	57	d	77	c				
18	c	38	c	58	a	78	d				
19	a	39	d	59	a	79	a				
20	b	40	d	60	b	80	b				

PRACTICE EXERCISE

1. Nociceptors produce the sensation of: _____
 - a. Pain
 - b. Taste
 - c. Light
 - d. Hearing
2. The cytoplasmic processes conducting impulses away from the cell body of neuron are termed as: _____
 - a. Dendrites
 - b. Axon
 - c. Myelin
 - d. Synapse
3. The actual junction where one neuron communicates with another is called: _____
 - a. Synapse
 - b. Dendrite
 - c. Receptor
 - d. Effector
4. Which of the following is an example of neurotransmitter: _____
 - a. Acetylcholine
 - b. Serotonin
 - c. Dopamine
 - d. All of these
5. Which of the following is a controlling function of hypothalamus: _____
 - a. Swallowing
 - b. Vision
 - c. Water balance
 - d. Memory
6. Excessive secretion of somatotropin releasing factor or growth hormone in adult leads to: _____
 - a. Epilepsy
 - b. Grave's disease
 - c. Acromegaly
 - d. Steroid
7. Which of the following is not a function of sympathetic system: _____
 - a. Accelerates the heart beat
 - b. Dilates the bronchi
 - c. Contracts the pupil
 - d. Inhibits the digestive tract
8. Beta cells of pancreas secrete: _____
 - a. Glucagon
 - b. Insulin
 - c. Trypsin
 - d. Pancreas lipase
9. Working out a mathematics problem is an example of: _____
 - a. Insight learning
 - b. An involuntary act
 - c. An instinct
 - d. Reflex
10. Imprinting is: _____
 - a. Learning behavior
 - b. Conditional behavior
 - c. Insight behavior
 - d. Instinctive behavior
11. Myelin sheath is formed by _____
 - a. Plasma membrane
 - b. Neuroglia
 - c. Ganglion
 - d. Protein
12. Depolarization and Repolarization occurs during _____
 - a. Action potential
 - b. Resting membrane potential
 - c. Nerve impulse
 - d. None
13. Plants produce the following compounds against microorganisms _____
 - a. Cytotoxins
 - b. Chemotoxins
 - c. Phytoalexins
 - d. None of them
14. The hormone which is also used as a weedicide is _____
 - a. Cytokinin
 - b. Gibberellin
 - c. Auxin
 - d. Ethene
15. Which of the following is not an example of Reflex action? _____
 - a. Blinking of eyes
 - b. Salivation
 - c. Respiration
 - d. Movement of body
16. Hypothalamus, amygdala and hippocampus are the part of _____
 - a. Telencephalon
 - b. Limbic system
 - c. Thalamus
 - d. Hypothalamus

17. Cluster or a group of few neuron is known as _____
 - a. Neuroglia
 - b. Brain
 - c. Nervous system
 - d. Ganglion
18. Threshold potential during the Nerve impulse generation is _____
 - a. +30mv
 - b. -50mv
 - c. -65mv
 - d. -30mv
19. Which of the following is not a neurotransmitter _____
 - a. Acetylcholine
 - b. GABA
 - c. Dopamine
 - d. Tetra iodo thyroxine
20. ADH and Oxytocin are produced by _____
 - a. Hypothalamus
 - b. Pituitary gland
 - c. Thymus gland
 - d. Thalamus
21. The immune system is influenced by _____
 - a. Pancreas
 - b. Thymus gland
 - c. Thyroid gland
 - d. None
22. Plant hormone responsible for apical dominance is _____
 - a. Cytokinin
 - b. Auxin
 - c. Ethene
 - d. None
23. Deficiency of Iodine Causes _____
 - a. Edema
 - b. Inflammation
 - c. Goiter
 - d. Tonsils
24. Digestion decreased, pupil dilated and heart beat increases in _____
 - a. Parasympathetic N.S
 - b. Sympathetic N.S
 - c. Both
 - d. None
25. Two Hormones which are antagonist to each other are _____
 - a. Insuline, aldosterone
 - b. Glucagon, LH
 - c. Insuline, Glucagon
 - d. LH, FSH
26. Skinner Box is used in which of the following type of animal behavior? _____
 - a. Operant behavior
 - b. Classic conditioning
 - c. Latent learning
 - d. Insight learning
27. Anger of a Bull, by seeing Red colour includes which behavior? _____
 - a. Classic conditioning
 - b. Operant behavior
 - c. FAP
 - d. Taxes
28. The Inborn Non directional behavior is _____
 - a. Kinases
 - b. Taxes
 - c. FAP
 - d. All of them
29. Acromegaly is the disorder of _____
 - a. Hypothalamus
 - b. Pituitary Gland
 - c. Thyroid gland
 - d. Lymphatic system
30. A cell or group of cells specialized to detect changes in the environment and trigger impulses are known as _____
 - a. Effectors
 - b. Receptors
 - c. Suppressors
 - d. B and C
31. You duck your head when a baseball is thrown toward your face. You are responding to _____
 - a. An internal stimulus
 - b. Pigments
 - c. Hormones
 - d. An external stimulus
32. A plant's response to touch is called _____
 - a. Photoperiodism
 - b. Geotropism
 - c. Thigmotropism
 - d. Phototropism
33. The biological clock is an independent, _____, time measuring system.
 - a. Endogenous
 - b. Exogenous
 - c. Both A and B
 - d. None of these

34. If bio-rhythm occurs with a frequency of 24 hours, it is called
 a. Circadian rhythm
 b. Circa-annual rhythm
 c. Lunar rhythm
 d. All of the choices are correct
35. The influence of daily cycle of light and darkness on the physiology and behaviour of an organism is known as
 a. Mechanical rhythm
 b. Chemoperiodism
 c. Photoperiodism
 d. Thigmotropism
36. The synthesis and release of abscisic acid in a plant is response to
 a. Water deficit
 b. Oxygen deprivation
 c. Salt stress
 d. Herbivory
37. Circadian rhythms are based on approximately a
 a. 2-hour period
 b. 7-day period
 c. 24-hour period
 d. 365-day period
38. Which of the following describes a plant's response to heat stress?
 a. Production of heat shock proteins
 b. Closing of stomata
 c. Production of Absciscic acid
 d. Production of phytoalexins
39. The first line of defense against pathogen in plant is
 a. Gene for gene-recognition
 b. Production of oligosaccharides
 c. Production of Phytoalexins
 d. Physical barrier of epidermis
40. Auxin causes
 a. Promotion of apical dominance
 b. Formation of Adventitious roots
 c. Growth of fruit
 d. All of the choices are correct
41. _____ in combination with Auxin stimulates cell division in plants and determines the course of differentiation.
 a. Ethylene
 b. Gibberellins
 c. Absciscic acid
 d. Cytokinin

42. "Foolish seedling" disease in rice is caused by
 a. Ethylene
 b. Gibberellins
 c. Absciscic acid
 d. Cytokinin
43. One of the most important uses of Auxin is the
 a. Initiation of abscission
 b. Stimulation of abscission
 c. Prevention of abscission
 d. Acceleration of abscission
44. Absciscic acid
 a. Induces bud dormancy
 b. Causes the stomata to close
 c. Promotes senescence
 d. All of the choices are correct
45. Which of the following is weedicide hormone?
 a. Auxin
 b. Gibberellin
 c. Absciscic acid
 d. Ethylene
46. Gibberellic acid was discovered by
 a. Hoshimata and Rappaport
 b. Donoho and Walker
 c. Yabuta and Hayashi
 d. Litrochet ad Dolk
47. Plants may be made to grow taller by applying the chemical
 a. Dichlorophenoxy acetic acid
 b. Trichlorophenoxy acetic acid
 c. Gibberellic acid
 d. Phosphon
48. The hormone responsible for delay of senescence is
 a. Ethene
 b. Gibberellin
 c. Absciscic acid
 d. Cytokinin
49. Gibberellin
 a. Stimulate flowering
 b. Promote bud sprouting
 c. Stimulate growth of Pollen tube
 d. All A, B and C
50. Absciscic acid
 a. Is growth inhibitor
 b. Produced during adverse conditions
 c. Induces seed dormancy
 d. All of the choices are correct
51. Which of the following is NOT function of Auxin?
 a. Induces Parthenocarp
 b. Promote Apical dominance
 c. Promote Abscission

- d. All of the choices are correct
52. Neurons are the cells which make up the nervous system. They consist of
 a. An axon
 b. 2 or more dendrites
 c. A cell body containing a nucleus
 d. All A, B and C
53. _____ send information from the sense organs to the C.N.S.
 a. Sensory neurons
 b. Motor neurons
 c. Interneurons
 d. Neuroglia
54. _____ send information from the C.N.S to the Effectors.
 a. Sensory neurons
 b. Motor neurons
 c. Interneurons
 d. Neuroglia
55. _____ connect different neurons together, send information between neurons. They have short dendrites and short axons
 a. Sensory neurons
 b. Motor neurons
 c. Interneurons
 d. Neuroglia
56. What is the part of neuron that carries the signals away from the soma
 a. Axon
 b. Dendrite
 c. Transmitter
 d. Synapse
57. The neurons that form myelin sheath, provide nutrition and are involved in phagocytic activity are known as
 a. Sensory neurons
 b. Motor neurons
 c. Interneurons
 d. Neuroglia
58. It is an automatic neuromuscular action elicited by a defined stimulus.
 a. Voluntary action
 b. Reflex action
 c. Motor action
 d. All of the choices are correct

59. A reflex action involving one or more Interneurons between sensory and motor neuron is termed as
 a. Monosynaptic reflex
 b. Polysynaptic reflex
 c. Hemisynaptic reflex
 d. None of these
60. At resting potential, the ion distribution inside and outside of a neuron is such that _____ ions are most abundant on the outside of the cell, while _____ ions are on the inside of the cell.
 a. Potassium; sodium
 b. Sodium; potassium
 c. Calcium; phosphate
 d. Sulfate; potassium
61. Which of these is true when a neuron is at rest
 a. The outside is positive
 b. The outside is negative
 c. There is no voltage
 d. The inside is positive
62. Influx of _____ causes depolarization of the membrane, which is the first phase of the action potential.
 a. K⁺
 b. Na⁺
 c. K⁺ and Na⁺
 d. Ca⁺
63. Diffused nervous system is present in _____ animals.
 a. Asymmetrical
 b. Bilaterally symmetrical
 c. Radially symmetrical
 d. All A, B and C
64. Central nervous system is present in _____ animals.
 a. Asymmetrical
 b. Bilaterally symmetrical
 c. Radially symmetrical
 d. All A, B and C
65. How many interneurons does the CNS contain approximately?
 a. 1 Trillion
 b. 100 million
 c. 1 million
 d. 100 billion

66. The brain stem is composed of
 a. The spinal cord, axon, vertebra
 b. The cerebrum, cerebellum, pons
 c. The medulla, pons, mid brain
 d. The thalamus. Mid brain, pons
67. Which part of the brain is the seat of conscious activities?
 a. Limbic brain
 b. Brain stem
 c. Cerebral cortex
 d. Occipital lobe
68. A large number of bundle fibers that connect the left and right cerebral hemispheres is
 a. Lateral sulcus
 b. Broca's area
 c. Corpus callosum
 d. Ventral sulcus
69. The diencephalon consists of
 a. Thalamus and Hypothalamus
 b. Pons and Medulla oblongata
 c. Hypothalamus and limbic system
 d. Thalamus and limbic system
70. When your finger accidentally gets caught in a door, the pain message is sent to your brain through
 a. Medulla oblongata
 b. Homeostasis
 c. Sensory receptors
 d. Caffeine
71. Which of these is the largest part of your brain
 a. The cerebellum
 b. The cerebrum
 c. The medulla
 d. The pons
72. The division of the peripheral nervous system that regulates your heart beat is
 a. The somatic system
 b. The muscular system
 c. The autonomic system
 d. The skeletal system
73. In which portion of the spinal cord do the interneurons lie
 a. Cervical enlargement
 b. Lumbar enlargement
 c. Gray matter
 d. White matter
74. The embryonic hindbrain gives rise to what structures in the brain
 a. Cerebrum and basal ganglia
 b. Diencephalon
 c. Midbrain
 d. Cerebellum, pons, & medulla oblongata
75. The _____ is a portion of the brain that maintains homeostasis by linking activities of the endocrine and nervous systems together
 a. Thalamus
 b. Hypothalamus
 c. Pons
 d. Medulla oblongata
76. Which structures would NOT be innervated by the sympathetic nervous system
 a. Skeletal muscles
 b. Glands
 c. Smooth muscles
 d. Cardiac muscles
77. Which term should be last in this reflex sequence
 a. Sensory neuron
 b. Motor neuron
 c. Effector
 d. Receptor
78. Parkinson disease tremors are the result of which condition
 a. Dopamine excess
 b. Norepinephrine deficiency
 c. Norepinephrine excess
 d. Dopamine deficiency
79. The centers for thermoregulation, osmoregulation, are located within
 a. Thalamus
 b. Hypothalamus
 c. Amygdala
 d. Hippocampus
80. Which brain area acts to screen all incoming sensory data
 a. Thalamus
 b. Hypothalamus
 c. Cerebral cortex
 d. Cerebellum
81. Which brain area coordinates skeletal muscle movements
 a. Thalamus
 b. Hypothalamus
 c. Amygdala
 d. Cerebellum
82. Peripheral nervous system in Man consists of
 a. 31 spinal and 12 cranial nerve pairs
 b. 33 spinal and 12 cranial nerve pairs
 c. 12 spinal and 31 cranial nerve pairs
 d. 31 spinal and 31 cranial nerve pairs

83. They detect sound, motion, position in relation to gravity, touch, pressure.
 a. Chemoreceptors
 b. Photoreceptors
 c. Mechanoreceptors
 d. Nociceptors
84. Nociceptors are _____ skin receptors.
 a. Free nerve ending
 b. Hot
 c. Cold
 d. Encapsulated nerve ending
85. Meissner's corpuscle and Pacinian corpuscle are _____ skin receptors.
 a. Free nerve ending
 b. Hot
 c. Cold
 d. Encapsulated nerve ending
86. The receptors which note the changes in blood pressure are
 a. Caloreceptors
 b. Frigidoreceptors
 c. Baroreceptors
 d. Nociceptors
87. Dorsal root of spinal cord is
 a. Sensory
 b. Motor
 c. Mixed
 d. All a, b and c
88. The branch of the autonomic nervous system that induces the "flight or fight" response is the
 a. Sympathetic
 b. Parasympathetic
 c. Vagus nerve
 d. Somatic nerve
89. Nicotine
 a. Reduces fatigue
 b. Raises blood pressure
 c. Increases alertness
 d. All of the choices are correct
90. It is a disorder involving repeated seizures of any type.
 a. Parkinson's disease
 b. Alzheimer's disease
 c. Epilepsy
 d. All of the choices are incorrect
91. Alzheimer's disease (AD), is a progressive, degenerative brain disease. Its symptoms include
 a. Dementia
 b. Hallucination
 c. Delusions
 d. All A, B and C
92. Endocrine glands typically
 a. Are ductless
 b. Release enzymes
 c. Release neurotransmitters
 d. Release their contents out of the body
93. Islets of Langerhans are found in the
 a. Thyroid
 b. Thymus
 c. Pancreas
 d. Pituitary
94. Cortisol is released from the
 a. Parathyroid
 b. Adrenal cortex
 c. Hypothalamus
 d. Posterior pituitary
95. Calcium is released from bone into the bloodstream due to the action of
 a. ADH
 b. GnRH
 c. LH
 d. PTH
96. Aldosterone is produced by the _____ gland and it causes reabsorption of _____.
 a. Thyroid; sodium
 b. Pituitary; water
 c. Adrenal; sodium
 d. Thymus; white blood cells
97. Blood calcium is lowered by the hormone
 a. Calcitonin
 b. Glucagon
 c. Adrenalin
 d. Thyroxine
98. An oversecretion of GH (or STH) would lead to
 a. Goiter
 b. Diabetes
 c. Infertility
 d. Gigantism
99. Which pair of hormones act antagonistically
 a. Glucagon and Cortisol
 b. Insulin and Adrenalin
 c. Glucagon and Insulin
 d. Glucagon and Adrenalin

100. This hormone would be at an increased level in a mother who is breast feeding
 a. Thyroxine
 b. Prolactin
 c. Aldosterone
 d. Insulin
101. Hormones are made from
 a. Amino acids
 b. Modified amino acids
 c. Steroid
 d. All of the choices are correct
102. As the sun comes up in the morning, your blood level of _____ goes down and you wake up
 a. Melatonin
 b. Cortisol
 c. Glucagon
 d. Adrenalin
103. Which hormone is most commonly associated with the "fight or flight" response to stress
 a. Insulin
 b. Adrenalin
 c. Calcitonin
 d. Prolactin
104. These two hormones are produced by the hypothalamus but stored in the posterior pituitary
 a. Insulin and Glucagon
 b. ADH and Oxytocin
 c. Growth hormone and prolactin
 d. Thymosin and adrenalin
105. Thyroxin (or thyroid hormone) travels through the bloodstream acting on many target calls to increase
 a. Blood sugar
 b. Blood calcium
 c. Metabolism
 d. Anti-inflammatory reactions
106. The major target for ACTH is the
 a. Pancreas
 b. Thyroid
 c. Liver
 d. Adrenal
107. Too much ACTH release could cause hyperglycemia (high blood sugar). Since sugar is a solute, this could also cause
 a. Increased blood pressure
 b. Increased blood calcium
 c. Decreased body temperature
 d. Decreased metabolism
108. A patient suffering from dwarfism is most likely deficient in
 a. ADH
 b. PTH
 c. STH
 d. GnRH
109. A patient that is losing weight and suffering from an increased body temperature could be hypersecreting
 a. Thyroxin
 b. PTH
 c. STH
 d. GnRH
110. Hormones that enter target cells and bind to receptors in the cytoplasm and then enter the nucleus are called
 a. Steroid hormones
 b. Water soluble hormones
 c. Peptide hormones
 d. Second messengers
111. All of the following are hormones of the anterior pituitary EXCEPT
 a. Human growth hormone (GH)
 b. Follicle-stimulating hormone (FSH)
 c. Parathyroid hormone (PTH)
 d. Thyroid-stimulating hormone (TSH)
112. The gland which can be classified as an endocrine and an exocrine gland is the
 a. Thyroid
 b. Thymus
 c. Pancreas
 d. Pituitary
113. Excess level of Cortisol results in
 a. Addison's disease
 b. Cretinism
 c. Cushing's syndrome
 d. Diabetes insipidus

114. Hormone responsible for differentiation of T-lymphocytes is
 a. Cortisol
 b. Melatonin
 c. Thyroxin
 d. Thymosin
115. A 30 years old male complains of being over weight, sluggish in nature, hair loss, dry skin, and intolerance of cold, he is suffering
 a. Cretinism
 b. Myxedema
 c. Addison's disease
 d. Huntington's disease
116. Learning to not respond to a stimulus is called
 a. Imprinting
 b. Sensitization
 c. Kinesis
 d. Habituation
117. A "Skinner box" is used for experiments in
 a. Operant conditioning
 b. Classical conditioning
 c. Migration
 d. Aggression
118. Dog salivating at the ringing of a bell is associated with what type of behavior?
 a. Classical conditioning
 b. Operant conditioning
 c. Imprinting
 d. Habituation
119. Humans ignoring night sounds while asleep is an example of
 a. Classical conditioning
 b. Operant conditioning
 c. Imprinting
 d. Habituation
120. A rat in a box learns to associate pressing a lever with obtaining food
 a. Operant conditioning
 b. Classical conditioning
 c. Imprinting
 d. Aggression

CHAPTER # 17 (COORDINATION AND CONTROL)

1	a	21	b	41	d	61	a	81	d	101	d
2	b	22	b	42	b	62	b	82	a	102	a
3	a	23	c	43	c	63	c	83	c	103	b
4	d	24	b	44	d	64	b	84	a	104	b
5	c	25	c	45	a	65	d	85	d	105	c
6	c	26	a	46	c	66	c	86	c	106	d
7	c	27	c	47	c	67	c	87	a	107	a
8	d	28	a	48	d	68	c	88	a	108	c
9	a	29	b	49	d	69	d	89	d	109	a
10	a	30	b	50	d	70	c	90	c	110	a
11	b	31	d	51	c	71	b	91	d	111	c
12	a	32	c	52	d	72	c	92	a	112	c
13	c	33	a	53	a	73	c	93	c	113	c
14	c	34	a	54	b	74	d	94	b	114	d
15	d	35	c	55	c	75	b	95	d	115	b
16	b	36	a	56	a	76	a	96	c	116	d
17	d	37	c	57	d	77	c	97	a	117	a
18	d	38	a	58	b	78	d	98	d	118	a
19	a	39	d	59	b	79	b	99	c	119	d
20	b	40	d	60	b	80	a	100	b	120	a

CHAPTER # 18 (REPRODUCTION)

Precautions and Treatment

- Sexual contact with affected person should be completely avoided.
- Testing of blood before donation.
- Reuse of used syringes should be controlled.
- Drugs like azidothymidine, zidovudine, submarine may be used, but not cure the disease.

CHP#18 Reproduction

PRACTICE EXERCISE

- One of the following is not a method of asexual reproduction:
 - Sporulation
 - Apomixes
 - Gametogenesis
 - Parthenogenesis
- The animal which give birth to their young ones are called:
 - Oviparous
 - Viviparous
 - Ovoviviparous
 - None
- All of the following are the parts of male reproductive system except one:
 - Urethra
 - Spermatid
 - Uterus
 - scrotum
- the phytochromes are blue light sensitive pigments made up of:
 - carbohydrates
 - minerals
 - lipids
 - proteins
- the hormone florigen is produced in:
 - flower
 - roots
 - stem
 - leaves
- in flowering plants, one form of parthenogenesis is called:
 - apomixes
 - photoperiodism
 - vernalization
 - metamorphosis
- oxytocin hormone is released by:
 - pituitary gland
 - thyroid gland
 - adrenal gland
 - parathyroid gland
- syphilis is caused by:
 - treponema pallidum
 - sexual contact
 - spirochetes
 - type 2 virus
- _____ is(are) basis for asexual reproduction.
 - Mitosis
 - Meiosis
 - Sex hormones
 - All A, B and C
- What is advantage of asexual reproduction?
 - Organisms increases rapidly
 - Organisms are morphologically alike
 - Organisms are genetically alike
 - All A, B and C
- What is advantage of sexual reproduction?
 - Genetically varied individuals are born
 - Chances of survival increases
 - Chances of evolution increases
 - All A, B and C
- Natural method(s) of asexual reproduction in plants is (are)
 - Spores
 - Vegetative propagation
 - Apomixis
 - All A, B and C
- Artificial method(s) of asexual reproduction in plants is (are)
 - Spore formation
 - Tissue culture
 - Both A and B
 - Alternation of generation
- A single mushroom may produce _____ spores a

minute at the peak of its reproduction.

- 500,000
 - 50,000
 - 80,000
 - 200,000
- Perennating organs are associated with which type of asexual reproduction?
 - Sporulation
 - Apomixis
 - Vegetative propagation
 - Cutting
 - In apomixis, an embryo is created from a diploid cell in the
 - Pollen tube
 - Leaf
 - Ovule
 - All of the choices are correct
 - Asexual reproduction differs from sexual reproduction in that it does not require
 - 1 parent
 - 2 parents
 - Spores
 - Vegetative parts
 - Asexual reproduction does not introduce
 - Variation
 - Similarity between parents & offsprings
 - Same chromosomal number in offsprings
 - All of the choices are incorrect
 - Which of the following statements is true of clones?
 - Clones show variation
 - Clones have DNA identical to parent
 - Clones are formed by meiotic division
 - All the choices are incorrect
 - Vegetative propagation does not involve
 - Root parts
 - Stem parts
 - Leaf parts
 - Flower parts
 - At the cut end of shoot a mass of dividing undifferentiated cells is called
 - Callus
 - Periblem
 - Dermatogen
 - Pericycle
 - Tissue culture is a technique used to produce a large number of _____ plants quickly.
 - Variable
 - Unicellular
 - Identical
 - All A, B and C
 - Which of the following disadvantages applies to Tissue culture?
 - Clone may be genetically unstable
 - Clone may be infertile
 - Clone karyotype may be altered
 - All of the choices are correct
 - A flagellated motile sperm fertilizing a non-motile egg, this syngamy is called
 - Isogamy
 - Anisogamy
 - Oogamy
 - All of the choices are correct
 - A type of syngamy in which both fusing gametes are flagellated and same in size are known as
 - Isogamy
 - Anisogamy
 - Oogamy
 - All of the choices are correct
 - In gymnosperms the main plant is diploid and
 - Homosporous
 - Heterosporous
 - Microsporous
 - Megasporous
 - In gymnosperms female gametophyte consists of
 - Pollen tube
 - Microspore
 - 2 to 5 Archegonia
 - Both B and C
 - In gymnosperms male gametophyte develops from
 - Microspore
 - Megaspore
 - Embryo sac
 - Synergids
 - _____ angiosperms gives rise seed after fertilization.
 - Microsporangium
 - Pollen tube
 - Mega sporangium
 - None of these
 - In gymnosperms and angiosperms, the egg is produced

- in a female structure called
- A seed
 - A stamen
 - An ovule
 - A pollen grain
31. If someone gives you a plant and tells you that it is an angiosperm, you know that during its life cycle it will produce
- Swimming sperm
 - A prothallus
 - Flowers
 - Cones
32. The transfer of pollen grains to the female part of the plant is called
- Germination
 - Reproduction
 - Pollination
 - Fertilization
33. The production of new plants from underground stems is an example of reproduction
- Two parents
 - Asexual
 - Zygote
 - Sexual
34. Which one of the following is the male reproductive part of a flower
- Stamen
 - Sepal
 - Petal
 - Pistils
35. In seed plants, sperm travel down a(n) _____ to reach the egg
- Stigma tube
 - Ovule tube
 - Pollen tube
 - Stamen tube
36. The sepals and petals are
- Reproductive parts of flower
 - Non-reproductive parts of flower
 - Parts of Gametophyte
 - Both A and C
37. The ovule contain
- Microsporangium
 - Male gametophyte
 - Embryo sac
 - All A, B and C
38. Each of the following is a part of a seed Except the
- Embryo
 - Endosperm
 - Seed-coat
 - Gametophyte
39. The _____ ultimately matures into a fruit.
- Integument
 - Ovary
 - Archegonium
 - Ovule
40. Which of the following is part of the third whorl?
- Calyx
 - Corolla
 - Petal
 - Stamen
41. Which of the following is formed in the double fertilization and becomes an endosperm?
- Synergid cells
 - Antipodal cells
 - Primary endosperm nucleus
 - Triploid (3n) nucleus
42. A pollen grain is a
- Immature male gametophyte
 - Spore
 - Fruiting body
 - Mature male gametophyte
43. From life cycle point of view the most important part of a zangiosperm plant is
- Flower
 - Leaf
 - Stem
 - Root
44. The fertilization occurs in
- Ovary
 - Ovule
 - Embryo sac
 - Nucleus
45. The part of embryo just below the cotyledons that terminates into radicle is called
- Epicotyl
 - Hypocotyl
 - Plumule
 - None of these
46. The part of embryo just above the cotyledons that terminates into plumule is called
- Epicotyl
 - Hypocotyl
 - Radicle
 - Coleorhiza
47. In _____ inflorescence flowers develop

- into acropetal succession?
- Racemose
 - Cymose
 - Dichasial cyme
 - Scorpioid cyme
48. In which type of inflorescence flowers are covered by large bracts called spathes
- Spike
 - Spadix
 - Capitulum
 - Spikelet
49. A(n) _____ is type of racemose inflorescence with a short axis and multiple floral pedicels of equal length that appear to arise from a common point.
- Corymb
 - Umbel
 - Raceme
 - Spike
50. A type of uniparous cyme in which succeeding branches are produced on same side is termed is
- Helicoid cyme
 - Scorpioid cyme
 - Dichasial cyme
 - None of these
51. A type of uniparous cyme in which succeeding branches are produced on alternate sides is termed is
- Helicoid cyme
 - Scorpioid cyme
 - Dichasial cyme
 - None of these
52. It is type of racemose inflorescence that is flat-topped or convex because the outer pedicels are progressively longer than the inner ones.
- Corymb
 - Capitulum
 - Spadix
 - Spike
53. For breaking seed dormancy _____ is required?
- Water
 - Suitable temperature
 - Both A and B
 - None of these
54. The process in which seed develops without fertilization is called
- Parthenogenesis
 - Parthenocarpy
 - Viviparous germination
 - Apomixis
55. The pollen grain consist of
- Exine part
 - Intine part
 - Tube nucleus & generative nucleus
 - All A, B and C
56. Hypogeal germination takes place due to rapid growth of
- Epicotyl
 - Hypocotyl
 - Cotyledon
 - All A, B and C
57. Epigeal germination takes place due to rapid growth of
- Epicotyl
 - Hypocotyl
 - Cotyledon
 - All A, B and C
58. A special type of reproduction in which seed starts germination inside fruit is
- Epigeal germination
 - Hypogeal germination
 - Viviparous germination
 - All choices are correct
59. The first organ to emerge from the germinating seed is
- Radicle
 - Plumule
 - Cotyledon
 - Epicotyl
60. Promotion of flowering by cold treatment given to imbibed seeds or young plants is known as
- Parthenocarpy
 - Parthenogenesis
 - Apomixis
 - Vernalization
61. Phytochrome exist in two forms i.e. P660 and
- P307
 - P370
 - P703
 - P730
62. A form of asexual reproduction in which new individual grows out as small out growth and eventually

separates from parent body is called

- a. Forming a spore
- b. Budding
- c. Regeneration
- d. Fission

63. Formation of Embryo without fertilization is termed as

- a. Parthenogenesis
- b. Parthenocarp
- c. Regeneration
- d. Budding

64. The technique of producing a genetically identical copy of an organism by replacing the nucleus of an unfertilized ovum with the nucleus of a body cell from the organism is

- a. Budding
- b. Cloning
- c. Parthenocarp
- d. Fission

65. Fraternal twins

- a. Can be only two boys
- b. Can be only two girls
- c. Can not be one boy and one girl
- d. Can be one boy and one girl

66. Sexual reproduction is important to avoid

- a. Variation
- b. Chances of survival
- c. Genetic monotony
- d. All A, B and C

67. Which of the following cell type is haploid?

- a. Primary spermatocyte
- b. Spermatogonium
- c. Sertoli cell
- d. Secondary spermatocyte

68. Spermatogenesis and oogenesis both involve

- a. Mitosis only
- b. Meiosis only
- c. Both mitosis and meiosis
- d. All a, b and c are incorrect

69. After meiosis, the _____ differentiates into the mature sperm.

- a. Primary spermatocyte
- b. Spermatid
- c. Secondary spermatocyte
- d. Spermatogonium

70. The animals which lay eggs are called

- a. Oviparous

- b. Viviparous
- c. Dioecious
- d. Neuter

71. In terrestrial conditions which type fertilization is more common

- a. External
- b. Internal
- c. Self
- d. None of these

72. In mammalian males, the reproductive and excretory system share the same

- a. Ureter
- b. Vas deferens
- c. Urinary bladder
- d. Urethra

73. External Male genitalia are

- a. Vasa efferentia and Penis
- b. Seminiferous tubules and Penis
- c. Scrotum and Penis
- d. None of these

74. Human testes are packed with about _____ seminiferous tubules which produce about _____ million sperms every day.

- a. 200, 20
- b. 300, 40
- c. 500, 30
- d. 500, 10

75. Three sets of glands secrete fluids which combine with the sperm to form

- a. Interstitial fluid
- b. Semen
- c. Amniotic fluid
- d. Both A and B

76. A human female has around _____ oocytes in each of her ovary.

- a. 30,000
- b. 200,000
- c. 300,000
- d. 20,000

77. Fertilization of human eggs most often takes place in the

- a. Ovary
- b. Uterus
- c. Oviduct (Fallopian tube)
- d. Cervix

78. In human female only one ovum is usually discharged from the

Tricks And Hints For ETEA MDCAT

ovary at one time it is called

- a. Parturition
- b. Menstruation
- c. Ovulation
- d. Implantation

79. The uterus opens into the _____ through

- a. Fallopian tube
- b. Urethra
- c. Vagina
- d. All of the choices are correct

80. The follicle cells, after release of the egg, are modified to form a special structure called

- a. Endometrium
- b. Perimetrium
- c. Graffian follicle
- d. Corpus luteum

81. In mammals that are seasonal breeders, females are receptive only once a year. This is called

- a. A follicular cycle
- b. An estrous cycle
- c. A menstrual cycle
- d. A luteal cycle

82. The lining or inner layer of the uterus is called the _____.

- a. Myometrium
- b. Perimetrium
- c. Endometrium
- d. Both A and C.

83. What event occurs in the menstrual cycle when the level of progesterone decline

- a. Ovulation
- b. Beginning of menses
- c. Formation of corpus luteum
- d. Maturation of ovarian follicle

84. _____ is produced mainly by the corpus luteum in the ovary following ovulation

- a. Progesterone
- b. Follicle stimulating hormone
- c. Luteinizing hormone
- d. Chorionic gonadotrophic hormone

85. The process by which _____ becomes embedded in Endometrium is called _____.

- a. Morula, parturition
- b. Blastocyst, parturition
- c. Blastocyst, implantation
- d. Morula, implantation

86.

controls the release of milk from the mammary glands.

- a. Oxytocin
- b. Follicle stimulating hormone
- c. Luteinizing hormone
- d. None of these

87. An egg fertilized in the laboratory and then implanted in the uterus for development is called

- a. Cloning
- b. Test tube baby
- c. Both A and B
- d. In vivo fertilization

88. The period starting from conception up to the birth of baby is called

- a. Implantation period
- b. Gestation period
- c. Extra uterine period
- d. Imprinting period

89. Menopause in female comes at the age of

- a. 30 to 40 years
- b. 45 to 50 years
- c. 60 to 65 years
- d. 70 years

90. This hormone from the hypothalamus stimulates release of FSH from the anterior pituitary

- a. Gonadotropin
- b. Oxytocin
- c. Luteinizing hormone
- d. Progesterone

91. Sexually transmitted disease (STD) caused by Treponema pallidum is

- a. Syphilis
- b. Genital herpes
- c. Gonorrhea
- d. AIDS

92. Genital herpes is type of STD caused by

- a. A bacterium
- b. A sporozoan
- c. A virus
- d. A fungus

93. If the egg is not fertilized in human female, _____

occurs

- a. Menstruation
- b. Pregnancy
- c. Implantation
- d. All A, B and C

94. It is a tube that connects a developing embryo or fetus to the placenta.

- a. Amnion
- b. Chorionic Villum
- c. Umbilical cord
- d. Allantois

95. Gonorrhea is

- a. Bacterial disease
- b. Viral disease
- c. Protozoanal disease
- d. Fungal disease

96. Infertility is overcome by a technique known as

- a. In vitro fertilization
- b. In vivo fertilization
- c. Both A and B
- d. None of these

97. The tissue attaching the embryo to the wall of uterus is

- a. Graffian follicle

- b. Corpus luteum
- c. Placenta
- d. All choices are incorrect

98. The contractions of the muscles of uterus during labour are stimulated by

- a. Prolactin
- b. GnRH
- c. FSH
- d. Oxytocin

99. During females fertile years only about _____ oocytes develop into mature eggs.

- a. 20,000
- b. 250,000
- c. 300,000
- d. 450

100. Which hormone stimulates process of ovulation

- a. Prolactin
- b. LH
- c. FSH
- d. Oxytocin

CHAPTER # 18 (REPRODUCTION)

1	c	21	a	41	d	61	d	81	b		
2	b	22	c	42	d	62	b	82	c		
3	c	23	d	43	a	63	a	83	b		
4	d	24	d	44	b	64	b	84	a		
5	a	25	a	45	b	65	d	85	c		
6	a	26	b	46	a	66	c	86	a		
7	a	27	c	47	a	67	d	87	b		
8	a	28	a	48	b	68	c	88	b		
9	a	29	c	49	b	69	b	89	b		
10	d	30	c	50	a	70	a	90	a		
11	d	31	d	51	b	71	b	91	a		
12	d	32	c	52	a	72	d	92	c		
13	b	33	b	53	c	73	c	93	a		
14	a	34	a	54	d	74	c	94	c		
15	c	35	c	55	d	75	b	95	a		
16	c	36	b	56	a	76	b	96	a		
17	b	37	c	57	b	77	c	97	c		
18	a	38	d	58	c	78	c	98	d		
19	b	39	b	59	a	79	c	99	d		
20	d	40	d	60	d	80	d	100	b		

CHP# 29 GROWTH AND DEVELOPMENT

PRACTICE EXERCISE

BIO

1. meristems found at the tips of root and shoot are called: _____
 - a. intercalary
 - b. apical
 - c. lateral
 - d. none of them
2. during cell division the number of cells increase by: _____
 - a. mitosis
 - b. deletion
 - c. maturation
 - d. elongation
3. at the cephalic end of primitive streak, closely packed cells form a local thickening known as: _____
 - a. splanchnic mesoderm
 - b. somatic mesoderm
 - c. hensen's node
 - d. gastrocoel
4. the cavity formed between somatic and splanchnic mesoderm is: _____
 - a. neurocoel
 - b. primitive streak
 - c. gastrocoel
 - d. coelom
5. in 24 hours chick embryo, the folding of neural tube is clearly visible in: _____
 - a. neurula
 - b. morula
 - c. gastrula
 - d. blastula
6. the size of Acetubularia may upto several centimeters, though it has: _____
 - a. one nucleus
 - b. two nuclei

- c. no nucleus
d. many nuclei
7. The negative physiological changes in our body are called: _____
a. Abnormalities
b. Regeneration
c. Aging
d. Growth
8. In microcephaly, the individuals are born with small: _____
a. Humerus
b. Skull
c. Radius
d. Ulna
9. Gradual growth through a series of progressive changes is called
a. Growth
b. Development
c. Cleavage
d. Transduction
10. The study of developmental changes is known as
a. Embryology
b. Developmental biology
c. Both A and B
d. Chrono-biology
11. As a fertilized egg develops into an embryo, it undergoes
a. One meiotic cell division, only
b. Many meiotic cell divisions
c. One mitotic cell division, only
d. Many mitotic cell divisions
12. Undifferentiated tissue from which new cells are formed, as at the tip of a stem or root.
a. Meristele
b. Merithallus
c. Meristem
d. All a, b and c
13. Primary growth depends upon activity of
a. Apical meristem
b. Secondary meristem
c. Lateral meristem
d. Vascular cambium
14. Secondary growth is made possible by the _____ which increases the girth of plant.
a. Primary meristem
b. Apical meristem
c. Lateral meristem
d. None of the above
15. In _____ plants whole body is capable of growth.
a. Angiosperms
b. Gymnosperms
c. Bryophyta
d. All of these.
16. The correct sequence of growth phases in plants is
a. Elongation-Formative-Maturation
b. Maturation-Elongation-Formative
c. Formative-Maturation-Elongation
d. Formative-Elongation-Maturation
17. During which phase the elongated cells are modified into permanent cells.
a. Formative phase
b. Elongation phase
c. Both A and B
d. Maturation phase
18. The growth in diameter is called
a. Primary growth
b. Secondary growth
c. Apical growth
d. Intercalary growth
19. During secondary growth xylem rings are produced on the _____ side of dividing cambium.
a. Inner side
b. Outer side
c. Both inner and outer sides
d. None of these
20. During secondary growth phloem rings are produced on the _____ side of dividing cambium.
a. Inner side
b. Outer side
c. Both inner and outer sides
d. None of these
21. At high temperature the rate of growth stops due to
a. Excessive transpiration
b. Enzyme loss
c. Both A and B
d. All of the choices are incorrect
22. In plants red light favours
a. Elongation of cells
b. Maturation of cells
c. Formation of cells
d. Division of cells
23. Generally, light influences growth by
a. Intensity
b. Quality
c. Duration

- d. All A, B and C
24. A metabolic pathway that consumes O_2 , releases CO_2 , generates no ATP and decreases photosynthetic output is
a. Photorespiration
b. Photorespiration
c. Photophosphorylation
d. Photoreactivation
25. The internal factors that influence the growth of plants are
a. Hormones
b. Genes
c. Both A and B
d. None of these
26. One of the most important correlative effects in plants is
a. Morphogenesis
b. Apical dominance
c. De-differentiation
d. Re-differentiation
27. The removal of apex releases the lateral buds from apical dominance, it is known as
a. Inhibitory effect
b. Reciprocal effect
c. Compensatory effect
d. Apical effect
28. The correct sequence of process of development after fertilization and cleavage is
a. Gastrulation-Organogenesis-Growth
b. Organogenesis-Gastrulation-Growth
c. Gastrulation-Blastulation-Growth
d. Organogenesis-Morulation-Blastulation
29. It is series of mitotic cell division that changes zygote into multicellular embryo
a. Gastrulation
b. Gametogenesis
c. Blastulation
d. Cleavage
30. Cell divisions, migrations, and rearrangements produce three germ layers in
a. Morulation
b. Blastulation
c. Gastrulation
d. All, A, B and C
31. The egg of Hen is
a. Alecithal
b. Melecithal
c. Mesolecithal
d. Polylecithal
32. During development of chick the fertilized egg is laid _____ hours after the fertilization.
a. 24
b. 36
c. 40
d. 45
33. After _____ days of incubation, the chick finally begins its escape from the shell.
a. 16
b. 19
c. 20
d. 21
34. The pattern of cleavage in which only part of the ovum is divided into cells. It is also called incomplete cleavage and is usually observed in embryos with large amounts of yolk.
a. Meroblastic cleavage
b. Discoidal cleavage
c. Holoblastic cleavage
d. Both A and B
35. The peripheral region of the chick blastodisc surrounding the area pellucida and in direct contact with the yolk is
a. Area ascarosida
b. Area vitellina
c. Area opaca
d. Area vasculosa
36. One of a pair of twisted, cords of albumen found at each of an egg, joining the shell membrane to the yolk and supporting the yolk centrally within the shell is
a. Nucleus
b. Chalaza
c. Choenoderm
d. Latebra
37. The central region of blastodisc is known as
a. Area pellucida
b. Area vitellina
c. Area opaca
d. Area vasculosa
38. Animals begin their lives as a single, diploid cell called
a. Zygote
b. Embryo
c. Gastrula

d. All A, B and C
39. Increase in size of organs to attain maturity is called

- Differentiation
- Localization
- Growth
- Both B and C

40. Due to the migration of mesodermal cells from the epiblast, a groove is formed known as

- Neural groove
- Primitive groove
- Somatopleure
- Splanchnopleure

41. The hypoblast is mainly presumptive

- Ectoderm
- Endoderm
- Mesoderm
- Blastoderm

42. Coelom is formed from

- Epimere
- Hypomere
- Mesomere
- None of these

43. In 24 hours chick embryo the foldings of neural plate are clearly visible. At this stage embryo is called

- Morula
- Blastula
- Neurula
- Blastocyst

44. A tube of tissue formed by a thickening and rolling up of the neural plate during embryonic neurulation. It will later form the brain and spinal cord of the animal. This is called

- Neurocoel
- Neural groove
- Neurospore
- Neural tube

45. _____ is the process of selection of activation of some genes by a cell, which are not activated by other cells of the embryo.

- Cell induction
- Cell transformation
- Cell differentiation
- Cell mediation

46. When the primitive streak reaches its maximum length, the cells of the most anterior region of the streak appear morphologically distinct. This region is known as

- Node of Ranvier
- Schwan's node
- Henson's node
- None of these

47. The situation where one embryonic tissue influences another so that the responding tissue differentiates is known as

- Instruction
- Evocation
- Induction
- None of these

48. The control development of cap in Acetabularia is through production of developmentally active substance in

- Nucleus
- Cytoplasm
- Gray crescent
- Both A and B

49. The study of degenerative changes in aging is called

- Developmental biology
- Paedology
- Gerontology
- Choronology

50. The science of studying and treating malformations and monstrosities of organisms is called

- Gerontology
- Teratology
- Dermatology
- Etiology

51. The normal process of development is disturbed by abnormalities. These abnormalities are due to

- Abnormal functioning of glands
- Abnormal Chromosomal number
- UV radiations
- All of these

52. Notochord is formed from

- Epimeres
- Mesomeres
- Hypomeres
- Henson's node

53. A condition in which heart is present towards right side of the chest is called

- Sinistocardia
- Dextrocardia
- Laterocardia
- Both A and B

54. Decreased ability or inability of blood to clot is

- Thalassemia
- Sickle cell anemia
- Haemophilia
- Haemolysis

55. Turner's syndrome is

- Female sexual defect
- Male sexual defect
- Autosomal recessive trait
- Infectious disorder

56. A condition characterized by split in the upper lip and gap in the roof of mouth is

- Microcephaly

- Polydactyly
- Klinefelter's syndrome
- Cleft palate

57. Which one of the following is correct about Thalassemia

- Decreased clotting ability
- Increased clotting ability
- Abnormal sickle shaped RBC
- Fragile RBC with abnormal Hb

58. Which one of the following is correct about Microcephaly

- Small skull
- Five fingers
- Gap in the roof of the mouth
- Upper lip folded

59. Gray crescent is present in

- Eye of frog
- Retina of cockroach
- Brain of frog
- Zygote of frog

60. The flowering process is a _____ response.

- Phototropic
- Photoperiodic
- Gravitropic
- Thigmotropic

CHAPTER # 19 (GROWTH AND DEVELOPMENT)

1	b	11	d	21	b	31	d	41	b	51	d
2	a	12	c	22	d	32	a	42	c	52	b
3	c	13	a	23	d	33	d	43	c	53	b
4	d	14	c	24	b	34	d	44	d	54	c
5	c	15	c	25	c	35	c	45	c	55	a
6	a	16	d	26	b	36	b	46	c	56	d
7	c	17	d	27	c	37	a	47	c	57	d
8	b	18	b	28	a	38	a	48	a	58	a
9	a	19	a	29	d	39	b	49	c	59	d
10	c	20	b	30	c	40	b	50	b	60	b

PRACTICE EXERCISE

1. The three pyrimidine bases in Nucleic acids are
 - a. Thymine, Guanine and Cytosine
 - b. Adenine, Thymine and Guanine
 - c. Cytosine, Thymine and Uracil
 - d. Adenine, Uracil and Guanine
2. In a nucleic acid, the bases are always attached to the _____ carbon of the sugar.
 - a. 5'
 - b. 4'
 - c. 3'
 - d. 1'
3. The fact that DNA was responsible for the production of bacterial capsules in Griffith's experiments was discovered by
 - a. Avery, MacLeod, and McCarthy
 - b. Noah Alan and Joshua Ryan
 - c. Watson and Crick
 - d. Messelson and Stahl
4. The tRNA anticodon, GAC, is complementary to the mRNA codon with the sequence _____.
 - a. CAG
 - b. CTG
 - c. GAC
 - d. CUG
5. Distance between two nucleotides in a strand of DNA is
 - a. 34A
 - b. 20A
 - c. 3.6A
 - d. 3.4A
6. Which of the following is a stop Code
 - a. UGA
 - b. AUG
 - c. UUU
 - d. UUA
7. Best present in DNA but not in RNA
 - a. Adenine
 - b. Guanine
 - c. C₅H₁₀O₄
 - d. C₅H₁₀O₅
8. Which part of the DNA is never expressed
 - a. Heterochromatin
 - b. Euchromatin
 - c. Nucleosome
 - d. None
9. The transfer of genetic material between two non-homologous chromosomes is known as
 - a. Variation
 - b. Transposition
 - c. Translocation
 - d. Transformation
10. The term chromosome was coined by German embryologist
 - a. Darwin
 - b. Ernest Hackle
 - c. Walter Fleming
 - d. Schwann Schleiden
11. _____ are DNA threads which appear inside the nucleus at the time of cell division.
 - a. Spindle fibers
 - b. Centrioles
 - c. Asters
 - d. Chromosomes
12. The chromosomes are composed of
 - a. DNA
 - b. Histone proteins
 - c. RNA
 - d. All A, B and C
13. What is diploid number of chromosomes in Sugar cane.
 - a. 20
 - b. 40
 - c. 80
 - d. 60
14. What is diploid number of chromosomes in Frog.
 - a. 26
 - b. 28
 - c. 24
 - d. 20

15. What is diploid number of chromosomes in Fern.
 - a. 1000
 - b. 500
 - c. 400
 - d. 200
16. Which of the following human cells contains 23 chromosomes
 - a. Zygote
 - b. Normal liver cell
 - c. Skin cell of female
 - d. An ovum
17. Sister chromatids are attached at an area called the
 - a. Centrosome
 - b. Centriole
 - c. Centromere
 - d. All of the choices are correct
18. The chromatids of two different chromosomes are called
 - a. Sister chromatids
 - b. Non-sister chromatids
 - c. Chromonemata
 - d. Kinetochore
19. DNA threads of chromosomes are termed as
 - a. Chromonema
 - b. Plasmodesmata
 - c. Chiasmata
 - d. Kinetochore
20. Centromere contain a disc shaped protein _____ to which the spindle fibers are attached.
 - a. Chiasmata
 - b. Pellicle
 - c. Kinetochore
 - d. Perkin's Aniline
21. A pair of morphologically similar chromosomes is known as
 - a. Homologous chromosomes
 - b. Heterologous chromosomes
 - c. X and Y male chromosomes
 - d. Both A, and C
22. _____ is a sex chromosome.
 - a. An autosome
 - b. X chromosome
 - c. Y chromosome
 - d. Both B and C
23. _____ chromosomes have arms of equal length with the centromere in the middle.
 - a. Submetacentric
 - b. Acrocentric
 - c. Telocentric
 - d. Metacentric
24. _____ chromosomes have short and long arms of unequal length with the centromere more towards one end.
 - a. Submetacentric
 - b. Telocentric
 - c. Metacentric
 - d. All of the choices are correct
25. _____ chromosomes have a centromere very near to one end and have very small short arms.
 - a. Acrocentric
 - b. Telocentric
 - c. Metacentric
 - d. Submetacentric
26. The most abundant chromosomal proteins are called
 - a. Scaffold
 - b. Polymerases
 - c. Histones
 - d. None of these
27. Highly condensed and transcriptionally inactive DNA form
 - a. Heterochromatin
 - b. Euchromatin
 - c. Autochromatin
 - d. Isochromatin
28. Which of the following is NOT a characteristic of DNA?
 - a. Composed of nucleotides
 - b. Complementary
 - c. Contains ribose
 - d. Double-stranded
29. Which structure becomes visible when cell starts dividing: _____
 - a. Nucleus
 - b. Cell membrane
 - c. Chromosomes
 - d. Nuclear membrane

30. The bond exists between Nitrogenous bases of DNA is: _____
 a. Hydrogen
 b. Covalent
 c. Ionic
 d. Phosphodiester
31. Attachment of Okazaki fragments to DNA's lagging strand is facilitated by: _____
 a. Ligase
 b. Polymerase II
 c. Polymerase III
 d. DNA ase
32. Formation of RNA from DNA is called: _____
 a. Transcription
 b. Translation
 c. Replication
 d. None
33. UAA represents: _____
 a. Stop codon
 b. Nonsense codon
 c. Promoters
 d. Both a and b
34. The caps and tails attached to mRNA protects it from: _____
 a. Polymerases
 b. None
 c. Ligases
 d. Phosphatases and nucleases
35. The strand of DNA being transcribed is called template or: _____
 a. Sense
 b. Antisense
 c. Coding
 d. Both a and c
36. If mutation occur in one or few base pairs then it is called: _____
 a. Gene mutation
 b. Stop mutation
 c. Point mutation
 d. None
37. The replication of DNA is always: _____
 a. 5 to 3 end
 b. Both
 c. 3 to 5
 d. None
38. How many proteins are present in a nucleosome?
 a. Five
 b. Six
 c. Eight
 d. Four
39. If the strand of DNA from a single chromosome were laid out in a straight line, it would be more than
 a. 4 feet
 b. 5 feet
 c. 5 meters
 d. 7 feet
40. The DNA duplex in a chromosome is coiled around a core of 8 histone proteins every 200 nucleotides, forming a complex called
 a. Nucleosome
 b. Supercoil
 c. Spireme
 d. Kinetochore
41. The chromosomal theory of heredity was first formulated by
 a. Karl Correns
 b. McCarthy
 c. Messelson
 d. Walter Sutton
42. The result of Hershey and Chase's experiments showed that the _____ of the virus enters the host where viral replication takes place.
 a. Protein
 b. DNA
 c. RNA
 d. Both Protein and DNA
43. Hershey and Chase used radioactive _____ to label the DNA core of the bacteriophage.
 a. Phosphorous
 b. Nitrogen
 c. Carbon
 d. Sulfur
44. In Griffith's experiment
 a. Heat-killed S strain bacteria killed the mice
 b. R strain bacteria killed the mice
 c. A mixture of heat-killed S strain bacteria and R strain bacteria failed to kill the mice
 d. Live S strain bacteria killed the mice

45. What are base-pairing rules for DNA?
 a. A=G, T=C
 b. A=C, T=G
 c. A=U, C=G
 d. A=T, G=C
46. A DNA strand having the sequence C-G-A-T-T-G would be complementary to the sequence
 a. C-G-A-T-T-G
 b. T-A-G-C-C-T
 c. G-G-T-A-A-G
 d. G-C-T-A-A-C
47. In the DNA Double Helix, complementary base pairs are held together by
 a. Peptide bonds
 b. Ionic bonds
 c. Hydrogen bonds
 d. N-glycosidic bonds
48. Each unit of a nucleic acid consisting of a sugar, attached phosphate group, and base is a
 a. Nucleolus
 b. Nucleotide
 c. Nucleosome
 d. Histone
49. Thymine T and cytosine C are pyrimidine bases which have a _____ ring.
 a. Single
 b. Double
 c. Triple
 d. Both A and B
50. The rungs of ladder (DNA) are the _____
 a. Deoxyribose sugars
 b. Phosphate groups
 c. Hydrogen-bonded bases
 d. Ribose sugars
51. Which two scientists proposed the "one gene-one enzyme" hypothesis?
 a. Watson and Crick
 b. Beadle and Tatum
 c. Wilkins and Franklin
 d. Hershey and Chase
52. The process of gene expression occurs in
 a. Transcription
 b. Translation
 c. Both A and B
 d. Transduction
53. What name is given to the process in which the information encoded in a strand of mRNA is used to construct a protein?
 a. RNA processing
 b. Gene expression
 c. Transcription
 d. Translation
54. What name is given to the process in which a strand of DNA is used as a template for the manufacture of a strand of mRNA?
 a. Polypeptide formation
 b. Gene expression
 c. Transcription
 d. Translation
55. For 20 different kinds of amino acids there should be
 a. 20 codons
 b. 44 codons
 c. 64 codons
 d. 40 codons
56. The initiation codon for every gene is
 a. AUG
 b. UUU
 c. GCT
 d. CGC
57. The genetic code uses sequence of _____ nitrogenous bases to encode an amino acid.
 a. 2
 b. 3
 c. 4
 d. All A, B and C
58. Codon is present in
 a. mRNA
 b. tRNA
 c. rRNA
 d. All A, B and C
59. The binding of codon and anticodon is known as
 a. Coding
 b. Decoding
 c. Transcription
 d. All choices are correct
60. Which of the following is stop codon
 a. UAG
 b. UAA
 c. UGA
 d. All A, B and C

61. A permanent alteration in the DNA of an organism is called a(n)
 a. Mutation
 b. Hereditary marker
 c. Replicon
 d. Allele
62. What genetic term describes the situation when a part of chromosome is broken off and lost?
 a. Duplication
 b. Inversion
 c. Deletion
 d. Nondisjunction
63. An exchange of segments between non-homologous chromosomes is called
 a. Inversion
 b. Polyploidy
 c. Translocation
 d. Transduction
64. What genetic term describes the situation when a part of chromosome may be present in excess to the normal chromosome?
 a. Duplication
 b. Inversion
 c. Deletion
 d. Nondisjunction
65. Transcription is initiated by an enzyme
 a. DNA-polymerase
 b. RNA-polymerase
 c. Endonuclease
 d. Exonuclease
66. Sickle cell anemia is caused by a change in the amino acid sequence of the two beta chains in the hemoglobin molecule. How many amino acids have been changed in each beta chain, compared to normal hemoglobin?
 a. 1
 b. 5
 c. 10
 d. 100
67. Phenylketonuria is
 a. An eating disorder
 b. A inherited disease that is treated by diet
 c. A neurotransmitter deficiency disease
 d. Caused by an accident after birth
68. _____ is a chromosome rearrangement in which a segment of a chromosome is reversed end to end.
 a. Duplication
 b. Inversion
 c. Deletion
 d. Translocation
69. RNA molecules that carry amino acids to the growing polypeptide is
 a. messenger RNA
 b. ribosomal RNA
 c. transfer RNA
 d. small nucleolar RNA
70. In sickle cell anemia glutamic acid is replaced by
 a. Threonine
 b. Leucine
 c. Histidine
 d. Valine
71. Formation of DNA copy is known as
 a. Duplication
 b. Replication
 c. Transcription
 d. None
72. Which of the following is Start Code
 a. UAA
 b. AUU
 c. AUG
 d. GUA
73. The RNA which provide site of attachment on ribosome is known as
 a. m-RNA
 b. r-RNA
 c. t-RNA
 d. RNA
74. DNA is Wrapped around the Eight Histone proteins after _____ nucleotides
 a. 500
 b. 10
 c. 300
 d. 200
75. Walter Fleming, stained some cells with _____ to see how chromosomes would look under the microscope.
 a. Perkin's dye
 b. Iodine Dye
 c. Methyl blue Dye
 d. All A, B and C

76. What is diploid number of chromosomes in *Drosophila*.
 a. 4
 b. 6
 c. 8
 d. 12
77. The diameter of DNA molecule is
 a. 20 Å
 b. 50 Å
 c. 100 Å
 d. 200 Å
78. Sugar-phosphate backbones make up the _____ of the ladder (DNA).
 a. Anterior rungs
 b. Posterior rungs
 c. Uprights
 d. Both uprights and rungs
79. DNA replication is best described as
 a. Completely conservative
 b. Semiconservative
 c. A very slow process
 d. Error free
80. Replication of DNA requires
 a. Unwinding
 b. Complementary base pairing
 c. Joining
 d. All of the above
81. DNA replication is called Semiconservative because _____ of the original duplex appears in the duplex formed in replication.
 a. None
 b. Most
 c. Half
 d. Hardly any
82. DNA replication occurs in the
 a. Nucleus
 b. Cytoplasm
 c. Extracellular fluid
 d. On the ribosome surface
83. _____ is an inherited condition that causes urine to turn black when exposed to air.
 a. Alkaptonuria
 b. Phenylketonuria
 c. Diabetes insipidus
 d. Diuresis
84. In Human beings the _____ is whole hereditary information that is encoded in the DNA of 22 pairs of autosome and one pair of sex chromosomes.
 a. Muton
 b. Intron
 c. Exon
 d. Genome
85. A photographic representation of the chromosomes of a single cell including the number, size and structure of the chromosomes in the nucleus of a cell is termed as
 a. Biotype
 b. Karyotype
 c. Cytotype
 d. All a, b and c

CHAPTER # 20 (CHROMOSOMES & DNA)

1	c	16	d	31	a	46	d	61	a	76	c
2	d	17	c	32	a	47	c	62	c	77	a
3	a	18	b	33	a	48	b	63	c	78	c
4	d	19	a	34	d	49	a	64	a	79	b
5	d	20	c	35	c	50	c	65	b	80	d
6	a	21	a	36	c	51	b	66	a	81	c
7	c	22	d	37	b	52	c	67	b	82	a
8	a	23	d	38	c	53	d	68	b	83	a
9	c	24	a	39	d	54	c	69	c	84	d
10	c	25	a	40	a	55	c	70	d	85	b
11	d	26	c	41	d	56	a	71	b		
12	d	27	a	42	b	57	b	72	c		
13	c	28	c	43	a	58	a	73	b		
14	a	29	c	44	d	59	b	74	d		
15	a	30	a	45	d	60	d	75	a		

PRACTICE EXERCISE

1. The period of cell cycle between two consecutive divisions is termed as:
 - a. Prophase
 - b. Metaphase
 - c. Telophase
 - d. Interphase
2. Mitosis is divided into:
 - a. Karyokinesis
 - b. Cytokinesis
 - c. Interphase
 - d. Both a and b
3. The significance of mitosis is:
 - a. To bring about cell division
 - b. To produce daughter cells with the same genetic makeup as the parent cell
 - c. To control the size of the cell
 - d. To control cell contents
4. Which of the following is known as non-division phase
 - a. Metaphase
 - b. Interphase
 - c. Leptotene
 - d. Zygotene
5. The homologous chromosomes come close to each other and make their pair. This is known as
 - a. Terminalization
 - b. Synapsis
 - c. overlapping
 - d. crossing over
6. Down's syndrome is a condition of
 - a. Monosomic
 - b. Trisomic
 - c. Both
 - d. None
7. Which of the following is a correct sequence of prophase I
 - a. Leptotene, Pachytene, Diplotene
 - b. Leptotene, Zygotene, Pachytene
 - c. Pachytene, Leptotene, Diakinesis
 - d. None of them is correct
8. Homologous chromosome include
 - a. one smaller and one bigger chromosome
 - b. one chromosome of same shape from each parent
 - c. one complete and one incomplete chromosome
 - d. none of the above
9. Down syndrome is caused due to nondisjunction of chromosomes at
 - a. Anaphase of mitosis
 - b. Metaphase I of meiosis
 - c. Anaphase I of meiosis
 - d. Telophase I of meiosis
10. If cell has 46 chromosomes at the beginning of mitosis, then at anaphase there would be a total of
 - a. 23 chromatids
 - b. 46 chromatids
 - c. 46 chromosomes
11. The stage in which daughter chromosomes move toward the poles of the spindle is
 - a. Anaphase
 - b. Metaphase
 - c. Prophase
 - d. Telophase
12. Protein subunit found within microtubules is
 - a. Collagen
 - b. Tubulin
 - c. Myosin
 - d. DNA
13. Crossing-over results in
 - a. Recombination of linked alleles
 - b. Dominance of alleles
 - c. Segregation of cells
 - d. Linkage between genes
14. Which phase of mitosis is associated with chromosomes aligned at the center of the cell and centromeres divide?
 - a. anaphase
 - b. interphase
 - c. metaphase
 - d. prophase

15. The centromeres move toward the poles in _____.
- anaphase
 - interphase
 - metaphase
16. Which of the following is not a part of a human chromosome in any phase?
- Centriole
 - Histone
 - Nucleosome
 - Centromere
17. Microtubules grow from the poles to kinetochores of each chromatid during _____.
- prophase
 - metaphase
 - anaphase
 - telophase
18. It is the period of extensive metabolic activity: _____.
- G₀
 - G₁
 - G₂
 - S
19. The sex chromosomes complement in individual with Klinefelter syndrome is: _____.
- XXY
 - XY
 - XXYY
 - XXXX
20. Small localized tumors are called: _____.
- Benign
 - Malignant
 - Cancer
 - Interdigitate
21. Which is not true for crossing over?
- It occurs during prophase I
 - It occurs during prophase II
 - It occurs between homologues
 - It is seen as X shaped structure called chiasmata
22. The difference between mitosis and meiosis is that
- Mitosis is reduced
 - meiosis occurs in somatic cells
 - Two daughter cells produced in meiosis
 - Two daughter cells produced in mitosis
23. 18 to 24 hrs is the duration of cell cycle of
- Plant
 - Bacteria
 - Fungi
 - Animal
24. The separation of chromosomes from each other is known as
- Terminalization
 - Extracting
 - Both
 - None of them
25. Which of the following sequence is correct?
- G₁, G₀, S
 - G₁, G₂, G₀, S
 - G₁, G₀, G₂
 - G₁, S, G₂
26. The attachment site of spindle fiber on chromosome is
- Centromere
 - Kinetochores
 - Chromonema
 - Chromatid
27. At which stage chromosome arranged at the equatorial position
- Anaphase
 - Prophase
 - Telophase
 - Metaphase
28. A cell in G₁ of interphase has 12 chromosomes how many chromatids will be found during metaphase two of meiosis
- 6
 - 12
 - 18
 - 24
29. How many mitotic division must occur in a cell of the root tip to form 128 cells
- 7
 - 8
 - 64
 - 128
30. Chromosomes exhibit minimum coiling during
- Prophase
 - Metaphase
 - Anaphase
 - Telophase

31. DNA sequence responsible for chromatid separation
- centromere
 - telomere
 - kinetochore
 - satellite
32. During cell cycle sister chromatids are pulled apart during
- Metaphase
 - Anaphase
 - Prophase
 - Interphase
33. During oogenesis the cell that is fertilized by a sperm to become an egg is
- primary spermatocyte
 - secondary oocyte
 - primary oocyte
 - secondary spermatocyte
34. Chromosomes can be counted best at the stage of
- Metaphase
 - Late anaphase
 - Telophase
 - Late prophase
35. Chiasmata are first seen in
- Pachytene
 - Zygotene
 - Leptotene
 - Diplotene
36. Cell plate grows from
- One wall to another
 - Centre to wall
 - Wall to centre
 - Simultaneously
37. Which of the following cellular structures always disappears during mitosis and meiosis?
- Plasma membrane
 - Nucleolus and nuclear envelope
 - Plastids
 - none of these
38. Centromere is a constituent of
- Ribosome
 - ER
 - Chromosome
 - Mitochondrion
39. Cytoplasmic division of a cell is called
- Cell plate formation
 - Cytokinesis
 - Mitosis
 - Synapsis
40. In the cell cycle replication of the genome occurs in the
- G₁ phase
 - G₂ phase
 - M phase
 - S phase
41. Sequences that correctly describes the cell cycle is
- G₁ → G₂ → S → mitosis → cytokinesis
 - S → G₂ → mitosis → cytokinesis → G₁
 - G₁ → S → G₂ → karyokinesis → cytokinesis
 - cytokinesis → karyokinesis → G₁ → S → G₂
42. The term, not related to mitosis is
- Gametes
 - chromosomes
 - DNA replication
 - somatic cells
43. In which phase, each chromosome replicates to produce two sister chromatids?
- Anaphase
 - Interphase
 - Metaphase
 - Prophase
44. The phase of mitosis which is associated with the formation of the nuclear envelope, is
- prophase
 - metaphase
 - anaphase
 - telophase

CHAPTER # 21 (CELL CYCLE)

1	d	11	a	21	b	31	a	41	c	
2	d	12	b	22	d	32	b	42	a	
3	b	13	a	23	d	33	b	43	b	
4	b	14	c	24	a	34	d	44	d	
5	b	15	a	25	d	35	d			
6	b	16	a	26	b	36	b			
7	b	17	b	27	d	37	b			
8	b	18	b	28	b	38	c			
9	a	19	a	29	a	39	b			
10	c	20	a	30	d	40	d			

PRACTICE EXERCISE

1. Crossing over produces genetic _____ among offsprings.
 - a. Abnormalities
 - b. Mutations
 - c. Aberrations
 - d. Variations
2. All chromosomes other than sex chromosomes are called: _____
 - a. Autosome
 - b. Mesosome
 - c. Polysome
 - d. lysosome
3. DNA stores all sorts of biological information coded in the sequence of its bases in _____ order
 - a. Linear
 - b. Zigzag
 - c. Crisscross
 - d. Spiral
4. The total aggregate of genes within population is known as
 - a. Gene frequency
 - b. Total Genes
 - c. Gene Pool
 - d. Genetics
5. Mendel study Pea plant for _____ number of characters
 - a. Eight
 - b. Five
 - c. Six
 - d. Seven
6. The alternate form of a gene in living organism is known as
 - a. Chromosome
 - b. DNA
 - c. Allele
 - d. Nucleotide
7. If a colourblind woman marries a normal visioned man, their sons will be
 - a. Three-fourths colourblind and one-fourth normal
 - b. One-half colourblind and one-half normal
 - c. All normal visioned
 - d. All colourblind
8. A person with unknown blood group under ABO system, has suffered much blood loss in an accident and needs immediate blood transfusion. His one friend who has a valid 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?
 - a. Type A
 - b. Type B
 - c. Type AB
 - d. Type O
9. In which of the following cases, genotypic and phenotypic ratio will remain same in F₂ generation
 - a. Law of independent assortment
 - b. Law of Segregation
 - c. Test cross
 - d. Incomplete dominance.
10. Which of the following characters of pea plant is dominant?
 - a. Axial flowers
 - b. Yellow pods
 - c. 'White flowers'
 - d. Wrinkled seeds
11. Filial is a Latin word. It means
 - a. Spring
 - b. Issue
 - c. Progeny
 - d. Descendent
12. A pure breeding tall plant was crossed to dwarf plant. What would be probability of "Tt" genotype in F₂
 - a. 0.25
 - b. 0.5
 - c. 0.75
 - d. 1.0

13. If crossing over does not occur, the gametes formed are of _____
 a. Non parental
 b. Parental
 c. Inert
 d. None of the above
14. tongue rolling ability in humans is due to single _____
 a. dominant
 b. recessive
 c. co-dominant
 d. over dominant
15. To determine Genotype of living organism _____ is performed
 a. Test cross
 b. hybridization
 c. fertility
 d. None
16. Blood group O+ can be given to which of the following?
 a. A
 b. AB-
 c. AB+
 d. O-
17. Appearance of both traits in the next generation is _____
 a. Incomplete dominance
 b. Dominance
 c. Co-dominance
 d. None
18. Husband Blood group is A and Wife has AB, which of the following will not be their baby
 a. A
 b. AB
 c. B
 d. O
19. When a single gene has effect on more than one traits, it is known as
 a. Polygenic inheritance
 b. Pleiotropy
 c. Epistasis
 d. All

20. The tendency of genes to remain together is known as
 a. Synapsis
 b. Gene linkage
 c. Genetic bonding
 d. Co-dominance
21. Which of the following is Hybrid _____
 a. YY
 b. rr
 c. gg
 d. Gg
22. A character which is expressed in a hybrid is called
 a. Dominant
 b. Recessive
 c. Co-dominant
 d. Epistatic
23. How many different kinds of gametes will be produced by a plant having the genotype AABbCC?
 a. Three
 b. Four
 c. Nine
 d. Two
24. A man and a women, who do not show any apparent signs of a certain inherited disease, have seven children (2 daughter and 5 sons). Three of the sons suffer from the given disease but none of the daughters are affected. Which of the following mode of inheritance do you suggest for this disease?
 a. Sex-linked recessive
 b. Autosomal dominant
 c. Sex-limited recessive
 d. Sex-linked dominant
25. Haemophilia is more commonly seen in human males than in human females because
 a. This disease is due to a Y-linked recessive mutation
 b. This disease is due to an X-linked recessive mutation
 c. This disease is due to an X-linked dominant
 d. A greater proportion of girls die in infancy

26. A pure breeding tall pea plant was crossed to dwarf plant what will be the frequency of dwarf plants in F₁,
 a. 0.25
 b. 0.50
 c. 0.75
 d. 0.0

27. In above question what will be frequency of dwarf plants in F₂ -
 a. 0.25
 b. 0.50
 c. 0.75
 d. 0.0

28. How many pairs of homologous chromosomes are present in Pisum sativum
 a. Five pairs
 b. Six pairs
 c. Seven pairs
 d. Eight pairs

29. A pea plant with yellow seed was crossed to a plant having green seeds. What will happen in F₁; if plants are true breeding
 a. All seeds will be yellow
 b. Half of seeds will be yellow
 c. All the seeds will be green.
 d. Both will be present in ratio of 1:2:1

30. The position of a gene on chromosome is called
 a. Habitat
 b. Position
 c. Locus
 d. Location

31. Which of the following condition is hybrid
 a. TT
 b. Tt
 c. tt
 d. All of these.

32. Which of the following is monohybrid cross
 a. TT x tt
 b. TTYy x Ttyy
 c. Both of these
 d. None of these.

33. A monohybrid cross yield 3:1, What could be mode of inheritance?
 a. Segregation
 b. Independent assortment
 c. Both of these
 d. None of these.

34. If a heterozygous individual shows the complete effect of both alleles, the type of inheritance would be
 a. Complete dominance
 b. Non dominance
 c. Incomplete dominance
 d. Co-Dominance

35. The gene which controls ABO group has how many alleles in an individual
 a. One
 b. Two
 c. Three
 d. Four.

36. How many genes control Rh blood group system?
 a. One
 b. Two
 c. Three
 d. Four

37. A man with blood group "A" marries a woman of blood group "B". Both are heterozygous. What is the offsprings having phenotype "o"
 a. Zero
 b. 25%
 c. 50%
 d. 75%.

38. Baldness is most frequent in
 a. Men
 b. Women
 c. Children
 d. Girls.

39. In nature, Garden pea is "
 a. Self-fertilized
 b. Cross fertilized
 c. Cross pollinated
 d. None of these.

40. The genes which do not follow law of independent assortment
 a. Crossed genes
 b. Linked genes
 c. Recessive genes
 d. Dominant genes

41. Phenotype represents

- a. Morphology,
- b. Physiology
- c. Genetics
- d. None of these

42. During test cross, if all off springs are phenotypically dominant then parent is

- a. Homozygous
- b. Heterozygous
- c. One homozygous other heterozygous
- d. None of these

43. True breeding variety is produced by

- a. Self fertilization
- b. Cross fertilization
- c. Both of these
- d. None of these

44. Genotype ratio of Mendel's law of independent assortment is

- a. 3:1
- b. 1:2:1
- c. 9:3:3:1
- d. None of these

45. Which of the following is universal donor?

- a. A+
- b. B
- c. AB+
- d. O-

46. Inheritance in man is traced by

- a. Mathematical method
- b. Genetic method
- c. Statistical method
- d. Pedigree method

47. Which of the following blood group is always heterozygous?

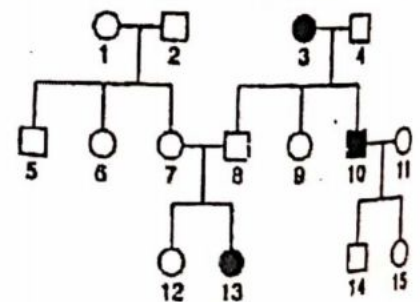
- a. A
- b. B
- c. AB
- d. o

48. Interaction between genes occupying different loci is

- a. Dominance
- b. Epistasis
- c. Pleiotropy
- d. all of these

49. The family tree shows inheritance of a condition caused by recessive allele (r). Which of the females are certain to have the genotype (Rr).

- a. 1, 6 and 7
- b. 1, 7 and 12
- c. 7, 6 and 15
- d. 7, 9 and 15



key

- normal female
- normal male
- affected female
- affected male

CHAPTER # 22 (VARIATION & GENE)

1	d	11	c	21	d	31	b	41	a		
2	a	12	b	22	a	32	a	42	a		
3	c	13	b	23	d	33	a	43	c		
4	c	14	b	24	a	34	d	44	c		
5	d	15	a	25	b	35	b	45	d		
6	c	16	c	26	d	36	b	46	d		
7	d	17	c	27	a	37	b	47	c		
8	d	18	d	28	c	38	a	48	b		
9	d	19	d	29	a	39	a	49	d		
10	b	20	b	30	c	40	b	50	b		

PRACTICE EXERCISE

- The gene therapy is used to repair:
 - Affective genes
 - Faulty gene
 - Expressive gene
 - Suppressive gene
- Genes can be isolated from the chromosomes by cutting the chromosomes by enzymes called:
 - Restriction nucleases
 - Restriction exonucleases
 - Restriction endonucleases
 - Reverse transcriptase
- To cure Parkinson's disease dopamine producing cells could be grafted directly into the:
 - Blood
 - Kidneys
 - Liver
 - Brain
- An undifferentiated group of cells is called:
 - Thallus
 - Callus
 - Calyx
 - Sepals
- A technique for the culturing of plant tissue is called:
 - Tissue culture
 - Meristem culture
 - Cell sculpture
 - Cell suspension
- Ligation is the process of joining of
 - Two different DNA
 - DNA and Protein
 - RNA
 - None of them
- The enzyme used to seal the DNA is known as
 - Restriction enzyme
 - Ligase enzyme
 - polymerase enzyme
 - None
- Multifactorial defects refers to the
 - Many genes
 - One gene
 - Many genes with environmental factors
 - All
- Amniocentesis is the extraction of fluid from
 - Uterus
 - Cervix
 - Stomach
 - Amniotic membran
- A cell with complete genetic potential is known as
 - Diploid cell
 - Animal cell
 - Plant cell
 - Totipotent cell
- Those organisms which are recessive can be produced by the
 - Transgenesis
 - Tissue culture
 - Anther culture
 - CLonning
- The enzyme which is not produced during SCID is
 - Adenosine Deamina
 - Polymerase
 - Ligase
 - Lipase
- There are how many genetic diseases?
 - 2000
 - 8000
 - 500
 - 4000
- Intron and Exon are the
 - parts of Genes
 - Parallel
 - Twist around each other
 - Non-coding

- rDNA is that type of DNA which contain
 - DNA of two different organisms
 - Ribosomal RNA
 - Reduced DNA
 - None
- A molecular technique in which DNA sequences between two oligonucleotide primers can be amplified is known as
 - southern blotting
 - northern blotting
 - polymerase chain reaction
 - DNA replication
- In genetic engineering, a chimera is
 - an enzyme that links DNA molecules
 - a plasmid that contains foreign DNA
 - a virus that infects bacteria
 - a fungi
- The deliberate modifications of an organism's genetic information by directly changing its nucleic acid content is a subject matter of
 - genetic engineering
 - population genetics
 - microbiology
 - protein engineering
- A genomic library is
 - a database where the sequence of an organism's genome is stored
 - a collection of many clones possessing different DNA fragments from the same organisms bound to vectors
 - a book that describes how to isolate DNA from a particular organism
- Which of the following is obtained using processed mRNA molecules as a template?
 - rDNA
 - mDNA
 - cDNA
 - tDNA
- Vectors are
 - molecules that degrade nucleic acids
 - molecules that help in replication
 - molecules that are able to covalently bond to and carry foreign DNA into cells
 - molecules that protect host cells from invasion by foreign DNA
- What is the normal role of restriction endonucleases in bacterial cells?
 - To degrade the bacterial chromosome into small pieces during replication
 - To degrade invading phage DNA
 - To produce RNA primers for replication
 - All of the above
- Which of the following is commonly used as vector?
 - chromosome
 - RNA
 - Fungi
 - Plasmid
- a place where the information of the genetic organization of organisms are kept.
- Which of the following enzyme is used to covalently bond foreign DNA to a vector plasmid?
 - DNA polymerase
 - Restriction endonuclease
 - DNA ligase
 - DNA helicase

CHAPTER # 23 (BIOTECHNOLOGY)											
1	b	6	a	11	c	16	c	21	c		
2	c	7	b	12	a	17	b	22	d		
3	d	8	c	13	a	18	a	23	d		
4	b	9	d	14	d	19	b	24	c		
5		10	d	15	a	20	c				

PRACTICE EXERCISE

- 1) How is natural variation used in artificial selection?
 - a. Nature provides the variation among different organisms and humans select this differences
 - b. Nature only produces the most fit species
 - c. Humans chose to bred animals with little or no natural variation
 - d. Natural variation is not used in artificial selection.
- 2) Natural selection acts on _____ which in turn may result in the evolution of _____ over time.
 - a. Populations, individuals
 - b. Individuals, populations
 - c. Species, species
 - d. Individuals, families
- 3) Pandas developed longer wrists to better eat bamboo over time and in turn increase their chance of survival. This is an example of:
 - a. Fitness
 - b. Comparative Anatomy
 - c. Artificial Selection
 - d. Adaptation
- 4) Which of the following does NOT provide evidence for evolution?
 - a. Cytology
 - b. Biochemical Processes
 - c. Fitness
 - d. Comparative Anatomy
- 5) How does natural selection contribute to the theory of evolution?
 - a. Over time, natural selection results in changes in the inherited characteristics of a population.
 - b. Natural selection selects for the same animals every time
 - c. Natural selection acts on populations
 - d. Over time, natural selection evolves population
- 6) The struggle for existence refers to:
 - a. The hardships newborn offspring face due to predation
 - b. The struggle for animals who cannot breathe
 - c. Members of each species compete regularly to obtain food and living space
 - d. The hardships between parents of raising offspring
- 7) What is the relationship between natural selection and fitness?
 - a. Descent with modification
 - b. Changes in inherited characteristics of a population increase a species' fitness in its environment.
 - c. Natural selection selects for traits of the most fit animals to pass on genes to the next generation.
 - d. b & c
- 8) The streamline shape of sharks and whales, similar but not due to a common ancestor is an example of:
 - a. Analogous traits
 - b. Homologous traits
 - c. Artificial selection
 - d. Fitness
- 9) Metabolism of organisms based on the same complex compounds, like protein cytochrome c, essential for aerobic respiration, is an example of:
 - a. Biochemical processes
 - b. Cellular respiration
 - c. Cytology
 - d. Entomology
- 10) What trait separates the LEAST closely related organism from the other animals?
 - a. Hair
 - b. Legs
 - c. Backbone
 - d. None of the above

- 11) The process that has transformed life on earth from its earliest forms to vast diversity is
- Mutation
 - Evolution
 - Migration
 - Genetic drift
- 12) What was the source of hydrogen for first photosynthetic organisms?
- Water
 - Hydrogen present in soil
 - Hydrogen sulphate
 - Hydrogen sulphide
- 13) Important points of Lamarck's theory
- use and disuse of organs
 - inheritance of acquired characters
 - Natural selection
 - both a and b
- 14) Who developed a theory of natural selection
- Lamarck
 - Darwin
 - Weismann
 - None
- 15) The actual remains or traces of organisms that lived in ancient geological times
- vestigial remains
 - Fossils
 - Fuel
 - None of these
- 16) Which statement is incorrect?
- Homologous organs are functionally different but structurally alike
 - Analogous organs are functionally different but structurally alike
 - Examples of homologous structures are arms of man, forelimb of cat, flipper of whale
 - Examples of analogous structures are wings of bats, birds and insects.
- 23) Which of the following organs serve no apparent purpose
- Vestigial organs
 - Non vestigial organs
 - Homologous organs
 - Analogous organs
- 17) A group of interbreeding individuals belonging to a particular species and sharing a common geographic area is called
- Community
 - Family
 - Population
 - Order
- 18) Natural selection can amplify or diminish variations that are
- Non heritable
 - Heritable
 - Both heritable and non heritable
 - Acquired
- 19) The total aggregate of genes in a population at any one time is called populations
- Genome
 - Genomic library
 - Genetic group
 - Gene pool
- 20) If all members of a population are homozygous for the same allele, that allele is said to be
- Fixed in gene pool
 - Mobile in gene pool
 - Random in gene pool
 - Stationary in gene pool
- 21) According to Hardy - Weinberg theorem, frequencies of alleles and genotypes in a populations gene pool remain
- Mobile
 - Stationary
 - Constant
 - Constant unless acted upon by agents other than sexual recombination
- 22) The ultimate source of all changes is
- Mutation
 - Migration
 - Genetic drift
 - Selection

- 24) Which of the following processes had resulted in the production of different breeds of domestic dogs and pigeons?
- Natural selections
 - Cross breeding
 - Artificial selection
 - Self breeding
- 25) If we consider Hardy - Weinberg law, then following is incorrect in its sense
- Mutations cause changes in genetic frequency
 - Migration changes allelic frequency
 - There should not be selection
 - Non random making will reduce chances of evolution

CHAPTER # 24 (EVOLUTION)

1	d	6	c	11	b	16	b	21	d		
2	a	7	b	12	a	17	a	22	a		
3	d	8	d	13	d	18	b	23	a		
4	c	9	b	14	b	19	d	24	b		
5	a	10	d	15	d	20	a	25	c		

PRACTICE EXERCISE

- The term niche was first proposed by:
 - Charles Eton
 - Joseph Grinnell
 - Ernst Haeckel
 - Hardy Weinberg
- One of the following is not a biotic factor:
 - Lithosphere
 - Producer
 - Consumer
 - Decomposer
- A short food chains of two or three links support a community:
 - Efficiently
 - Inefficiently
 - More efficiently
 - Less efficiently
- Lichens are example of:
 - Root nodule
 - Mycorrhiza
 - Mutualism
 - Succession
- Study of a single population relationship to its:
 - Synecology
 - Autecology
 - Ecology
 - Psychology
- Major regional ecological community of plants and animals forms:
 - Niche
 - Habitat
 - Biosphere
 - Biome
- Owls prey on rabbits and mice, this an example of:
 - Food chain
 - Food web
 - Community
 - Autecology
- While studying community the number of level of integration is:
 - Two level
 - Three level
 - Four level
 - Five level
- All the food chain and food web begin with:
 - Producers
 - Consumers
 - Tertiary consumers
 - Decomposers
- The legume plants, pea and bean are the hosts:
 - To symbiont algae
 - To symbiont bacteria
 - To symbiont virus
 - To symbiont mosses
- Study of relationship of organisms to their environment is
 - Ecology
 - Palaentology
 - Geology
 - None of these
- All populations within an ecosystem interconnected to one another are known as
 - Species
 - Family
 - Community
 - Biomes
- Major regional ecological community of plants and animals forms
 - Biosphere
 - Biomass
 - Biomes
 - Bioecosystem
- The actual location or place where an organism lives is
 - Environment
 - Biosphere
 - Biomass
 - Habitat
- The activities of a specie plays in a community including behavior, requirements and influence is
 - Nichon
 - Niche
 - Autecology
 - Profession

- Study of a single population's relationship to its environment is called
 - Ecology
 - Synecology
 - Autecology
 - Niche
- Which of the following is not true for food web?
 - Formed from food chain
 - Complex than food chain
 - Stable than food chain
 - Starts with primary consumers
- Abiotic components include
 - Atmosphere
 - Hydrosphere
 - Lithosphere
 - All of these
- Which statement is true?
 - Producers are heterotrophic organisms
 - Consumers are autotrophic organisms
 - Fungi and bacteria are decomposers
 - Consumers release chemical elements as ions
- Sequence of changes in community and its non-living environment over a period of time is
 - Niche
 - Succession
 - Alterations
 - Neo-ecology
- Plants growing in xeric conditions are called
 - Spherophytes
 - Mesophytes
 - Xerophyte
 - Teridophytes
- Fungi and algae form
 - Climax community.
 - Lichen community
 - Initiator community.
 - Seral community
- successful and stable community at the end of succession is
 - Climax community
 - Pioneers community
 - Top community
 - Stable community
- Secondary succession starts from
 - A bar rock sand
 - Clear glacial pool
 - From remains of previous ecosystem
 - Fire
- Hydrosere is
 - Secondary succession starting in a pond
 - Primary succession starting in a pond
 - primary succession starting on a dry soil
 - All of these
- Mosses are
 - Bryophytes
 - Ptredophytes
 - Tracheophytes
 - Both b and c
- Wood forests form the
 - Pioneers community
 - Climax community
 - Top community
 - Transient community
- Legume plants are the hosts to
 - Rhizobium
 - Mycorrhiza
 - Lichen
 - Algae
- A dual organism composed of symbiotic association of an alga living within a fungus mycelium is
 - Mycorrhiza
 - Rhizobium
 - lichen
 - Legume
- Symbiosis relationship in which only one organism is benefited is
 - Symbiosis
 - Commensalism
 - Mutualism
 - Unism

CHAPTER # 25 (ECOSYSTEM)

1		6	d	11	a	16	c	21	c	26	a
2	a	7	b	12	c	17	d	22	b	27	b
3	a	8	d	13	c	18	d	23	a	28	a
4	c	9	a	14	d	19	c	24	c	29	c
5	b	10	b	15	b	20	b	25	a	30	b

PRACTICE EXERCISE

1. The biome which supports the greatest species diversity is:
 - a. Tropical rain forest
 - b. Deciduous rain forest
 - c. Coniferous forest
 - d. Grassland
2. The biome which supports the least species diversity is:
 - a. Tropical rain forest
 - b. Grassland
 - c. Desert ecosystem
 - d. Tundra
3. The biome which is characterized by plants that lose their leaves each autumn is:
 - a. Desert
 - b. Deciduous forest
 - c. Coniferous forest
 - d. Grassland
4. Coniferous forests of high altitudes are known as:
 - a. Boreal
 - b. Alpine
 - c. Arctic
 - d. Tundra
5. Cactus and euphorbia are desert plants which store water in their:
 - a. Stem
 - b. Root
 - c. Leaves
 - d. Buds
6. The zone of deep standing water under the limnetic zone is known as:
 - a. Profundal zone
 - b. Littoral zone
 - c. Benthic zone
 - d. Limnetic zone
7. Distribution of biomes on earth is primarily due to the patterns of:
 - a. Soil and animals
 - b. Wind and soil
 - c. Temperature and rainfall
 - d. Animal and predators
8. Permafrost is the feature of the:
 - a. Taiga
 - b. Antarctic
 - c. Tundra
 - d. Temperate forest
9. Weather refers to
 - a. Short-term fluctuations in temperature, cloud cover, wind and precipitation
 - b. It prevails over periods of hrs or days
 - c. Overall patterns of weather that prevail from year to year
 - d. Both a and b
10. Which statement about Aquatic ecosystem is incorrect?
 - a. Salt water ocean and sea are the largest ecosystems on earth
 - b. Salt water ecosystem covers about 70% earth surface
 - c. Fresh water ecosystem covers less than 1% of earth surface
 - d. It temperature is more moderate to support life
11. Productivity of an ecosystem is indicated by
 - a. Number of plants in that ecosystem
 - b. The density of that ecosystem
 - c. Consumption of carbon dioxide and evolve of oxygen
 - d. Both a and b
12. zone is present near the equator.
 - a. Arctic zone
 - b. Sub.arctic zone
 - c. Temperate zone
 - d. Tropical zone
13. Which statement about Aphotic zone is correct?
 - a. Plants are unable to anchor due to absence of light

- b. Phytoplanktons in this region are cyanobacteria
- c. Depth is 200 m
- d. Water lilies are abundant
14. The most tough of all ecosystem in
 - a. Grassland
 - b. Coniferous
 - c. Desert
 - d. Tundra
15. Upwelling process occurs in the
 - a. Aphotic zone
 - b. Oceanic zone
 - c. Euphotic zone
 - d. Neritic zone
16. Evolution of vascular bundles in plants and skeleton in animals is an adaptation for
 - a. Hydrospheric ecosystem
 - b. Aquatic ecosystem
 - c. Terrestrial ecosystem
 - d. All of these
17. Development of bark in plants and skin in animals is a method for
 - a. Providing support
 - b. Protection from enemies
 - c. Reducing water loss
 - d. Helping in food production
18. Which statement is incorrect?
 - a. The most hot desert Sahara
 - b. Deciduous forest is Evergreen
 - c. Wind speed 160km/hr in tundra
 - d. Below 25cm rain fall is Desert
19. Bread basket of the world is
 - a. Savannah
 - b. Tropical Rain forest
 - c. Grass land
 - d. Tundra
20. The Point At Which River Meet Ocean is known as
 - a. Eutarian
 - b. Lotic
 - c. Estuarian
 - d. Lentic
21. The rainfall which is unequal but 120 cm is
 - a. Forest
 - b. Savanna
 - c. Desert
 - d. Tundra
22. Zone of Ocean water which is of open water near the shore is
 - a. Oceanic
 - b. Bathyal
 - c. Neritic
 - d. Benthic
23. The most stable Ecosystem is
 - a. Coniferous
 - b. Aquatic
 - c. Temperate deciduous.
 - d. Grassland
24. In Euphotic zone of ocean light can reach upto
 - a. 180m
 - b. 2000m
 - c. 1180m
 - d. 200m
25. Annual rainfall in grass land is
 - a. 15cm-25cm
 - b. 75cm-150cm
 - c. 25cm-75cm
 - d. 250-500 mm
26. One of the most important cause of desertification is
 - a. Floods
 - b. Wind blowing
 - c. Raining
 - d. Deforestation
27. End of earth' is related to
 - a. Tropical rain forest
 - b. Temperate deciduous forest
 - c. Savanna
 - d. Tundra

CHAPTER # 26 (SOME MAJOR ECOSYSTEM)

1	d	6	a	11	a	16	c	21	b	26	d
2	d	7	c	12	d	17	b	22	c	27	d
3	b	8	c	13	a	18	b	23	b		
4	a	9	d	14	d	19	c	24	d		
5	a	10	a	15	d	20	c	25	c		

PRACTICE EXERCISE

- Nonrenewable sources includes various metals, non-metallic minerals and
 - Air
 - Water
 - Plants
 - Fossil fuels
- The nuclear energy is derived by the splitting of nucleus of:
 - Radioactive compound
 - Radioactive atoms
 - Radioactive cell
 - Radioactive substance
- Population growth is an environmental issue because:
 - Human create pollution
 - Human population are growing quickly
 - Humans are dependent on the environment for their existence
 - All of the above
- The burning of fossil fuels contributes to all of the following one except one:
 - Global warming
 - Acid rain
 - Ozone depletion
 - It contributes to all of above
- Which of the following substance contribute to greenhouse effects:
 - O₂
 - CO₂
 - Methane
 - Nitrogen
- What is the primary cause of species extinction today:
 - Over hunting
 - Habitat loss
 - Introduction of competing species
 - Population
- Eutrophication of a lake occurs as results of:
 - Biological magnification
 - Acid rain
 - Nutrient overload
 - Pesticide run off
- A chemical, which kills the weed in a crop known as:
 - Insecticide
 - Pesticide
 - Herbicide
 - Germicide
- Which one is a non-renewable resource?
 - Wild life
 - Forests
 - Natural gas
 - Land
- Process that supplies food to living things through decaying and decomposition is called
 - Food cycle
 - Nutrient cycle
 - Dead-live cycle
 - None of these
- Balance in the nutrient cycle can be upset when
 - Too much food is consumed
 - Not enough food is produced
 - Decayed nutrients are not returned to the ground
 - All of these
- In air nitrogen is
 - 57%
 - 20%
 - 78%
 - 30%
- In air % of oxygen and carbon dioxide is
 - Oxygen 21%, CO₂ 0.03%
 - Oxygen 50%, CO₂ 50%
 - Oxygen 30%, CO₂ 0.05%
 - Oxygen 25%, CO₂ 0.02%
- Wild life refers to
 - All plants of the world
 - All non cultivated plants
 - Non domesticated animals
 - Both b and c

- Endangered species are
 - Dangerous for the life of humans
 - Reduced in number
 - Already extinct
 - All of these
- % of our energy requirements are met from fossil fuels
 - 50%
 - 10%
 - 90%
 - 20%
- Hydroelectricity is generated by using of falling water.
 - Potential energy
 - Gravitational energy
 - Kinetic energy
 - All of these
- Driving force for all the cycles in ecosystem is
 - Water
 - Soil
 - Sun
 - Air
- Wind blows from area of
 - Low pressure to high pressure
 - High pressure to low pressure
 - Moderate pressure to high pressure
 - Low pressure to low pressure
- Geothermal energy is
 - Energy obtained from nuclear fuel
 - Energy obtained from burning natural fuels
 - Heat energy trapped underground
 - Energy obtained from blowing hot winds
- Replantation of plants in the areas where they were present earlier is called
 - Deforestation
 - Aforestation
 - Forestation
 - Reforestation
- Which is environmental buffer?
 - Mountains
 - Deserts
 - Forests
 - Oceans
- About half of the rain which falls in tropical forests comes from
 - High winds
 - Cold surroundings
 - Transpiration of plants
 - Surrounding seas
- Biodiversity is
 - Total number of species in a community
 - Total number of species in an ecosystem
 - Total number of genus in an ecosystem
 - None of these
- Which sound is consider as noise?
 - Below 80db
 - Above 80db
 - Below 200db
 - Above 20db
- Ozone depletion is commonly caused by
 - CFC gas
 - Industrial smoke
 - Heavy nitrogen gasses
 - Carbon dioxide
- Diseases caused by UV rays in humans
 - Skin cancers
 - Cataracts
 - Night blindness
 - Both a and b
- Which gas commonly causes green house effect?
 - Hydrogen sulphide
 - Carbon dioxide
 - Nitrogen gas
 - Carbon monoxide
- Causes of green house effect are
 - Over urbanization
 - Deforestation
 - Industrialization
 - All of these
- Incomplete burning of carbon compounds cause release of
 - Carbon dioxide
 - Carbon monoxide
 - Oxides of nitrogen
 - CFC

CHAPTER # 27 (MAN & HIS ENVIRONMENT)

1	d	6	a	11	d	16	c	21	b	26	a
2	b	7	c	12	c	17	b	22	c	27	a
3	d	8	c	13	a	18	c	23	c	28	b
4	d	9	c	14	d	19	b	24	a	29	d
5	b	10	b	15		20	c	25	b	30	b