

MASTERCLASS REVISION TEST # 6**[90 Question – 50 Minutes (including OMR Filling)]****28 Chapter List for the Test**

- 1) Digestion and Absorption
- 2) Breathing and Exchange of Gases
- 3) Body Fluids and Circulation
- 4) Excretory Products and their Elimination
- 5) Locomotion and Movement
- 6) Neural Control and Coordination
- 7) Chemical Coordination and Integration
- 8) Human Reproduction
- 9) Reproductive Health
- 10) Transport in Plants
- 11) Mineral Nutrition
- 12) Photosynthesis in Higher Plants
- 13) Respiration in Plants
- 14) Plant Growth & Development
- 15) Organisms & Populations
- 16) Ecosystem
- 17) Biodiversity and Conservation
- 18) Environmental Issues
- 19) Biomolecules
- 20) Anatomy of Flowering Plants
- 21) Cell - The Unit of Life
- 22) The Living World
- 23) Animal Kingdom
- 24) Structural Organisation in Animals
- 25) Morphology of Flowering Plants
- 26) Biological Classification
- 27) Plant Kingdom
- 28) Cell Cycle and Cell Division



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- All the following would be true for thyroxin except:
 - needed for normal mental growth
 - increases carbohydrate utilization
 - decreases lipid synthesis
 - decreases protein synthesis
- The hypersecretion of which of the following endocrine glands can sometimes be corrected by radioactive iodine uptake?
 - pineal
 - thyroid
 - testes
 - Pituitary
- The posterior pituitary gland is not a 'true' endocrine gland because.
 - it is provided with a duct
 - it only stores and releases hormones
 - it is under the regulation of hypothalamus
 - it secretes enzymes
- Lymph does not contain:
 - proteins
 - microorganisms
 - red blood cells and platelets
 - Minerals
- The lymph eventually enters the circulation by draining into two specific _____.
 - arteries
 - arterioles
 - capillaries
 - Veins
- Doctors use a stethoscope to hear the sounds produced during each cardiac cycle. The second sound is heard when
 - AV valves open up
 - Ventricular walls vibrate due to gushing in of blood from atria
 - Semilunar valves close down after the blood flows into vessels from ventricles
 - AV node receives the signal from SA node
- Why would hemoglobin deliver oxygen to the tissues?
 - oxygen concentration of tissue fluid is lower
 - carbon dioxide concentration of tissue fluid is lower
 - carbon dioxide concentration of tissue fluid is higher
 - the oxygen concentration of blood is lower
- Hemoglobin carrying carbon dioxide is called as:
 - Deoxyhemoglobin
 - Carbaminohemoglobin
 - Carboxyhemoglobin
 - Oxyhemoglobin
- The part of the nephron that is least permeable to water is the:
 - ascending limb of the loop of Henle
 - descending limb of the loop of Henle
 - collecting duct
 - proximal convoluted tubule
- Glomerular ultrafiltrate would normally not contain:
 - plasma proteins
 - glucose and amino acids
 - water
 - Urea

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11. Uricotelic mode of passing out nitrogenous wastes is found in
1. birds and annelids
 2. amphibians and reptiles
 3. insects and amphibians
 4. reptiles and birds
12. The middle ear:
1. is responsible for balancing the body.
 2. is responsible for transmitting sound waves from the outer ear to the inner ear
 3. contains the otolith organs
 4. is a cavity in parietal bone.
13. The highest visual acuity in the human eye is at:
1. optic tract
 2. macula lutea
 3. fovea centralis
 4. optic disc
14. Destruction of the anterior horn cells of the spinal cord would result in loss of
1. sensory impulses
 2. voluntary motor impulses
 3. commissural impulses
 4. integrating impulses
15. Maximum enzyme activity will be seen in:
1. duodenum
 2. stomach
 3. oral cavity
 4. ileum
16. The shortest part of the human intestine is the:
1. transverse colon
 2. duodenum
 3. descending colon
 4. Jejunum
17. Male fertility primarily depends on sperm count. Sterility is likely if the count is below:
1. 100,000,000 / ml
 2. 20,000,000 / ml
 3. 100,000 / ml
 4. 1,000 / ml
18. Oviparous mammals are:
1. marsupials
 2. placental mammals
 3. monotremes
 4. None
19. In the stomach, gastric acid is secreted by the:-
1. parietal cells
 2. peptic cells
 3. acidic cells
 4. gastrin secreting cells
20. Approximately seventy percent of carbon dioxide absorbed by the blood will be transported to the lungs
1. as bicarbonate ions
 2. in the form of dissolved gas molecules
 3. by binding to RBC
 4. as carbamino-haemoglobin
21. The number of pairs of vertebrochondral ribs in humans are:
1. 3
 2. 2
 3. 7
 4. 10

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22. The cartilages that attach the ribs to the sternum are called as:

1. elastic cartilages
2. costal cartilages
3. calcified cartilages
4. fibrous cartilages

23. Select the correct matching of the type of the joint with the example in human skeletal system

Types of joint Example

1. Cartilaginous joint Between frontal and parietal
2. Pivot joint Between third and fourth Cervical vertebrae
3. Hinge joint Between humerus and pectoral girdle
4. Gliding joint Between carpals

24. Select the incorrect statement

1. LH and FSH triggers ovulation in ovary
2. LH and FSH decrease gradually during the follicular phase
3. LH triggers secretion of androgens from the Leydig cells
4. FSH stimulates the Sertoli cells which help in spermiogenesis

25. Barrier methods for contraception work on the principle of:

1. Preventing fertilization
2. Preventing implantation
3. Preventing ovulation
4. Preventing embryo development

26. A major non contraceptive advantage of barrier contraceptives is that they prevent:

1. Cancer breast

2. STI

3. Ectopic pregnancies
4. Menstrual irregularities

27. The rupture and fractionation do not usually occur in the water column in vessel/tracheids during the ascent of sap because of

1. lignified thick walls
2. cohesion and adhesion
3. weak gravitational pull
4. transpiration pull

28. A childless couple can be assisted to have a child through a technique called GIFT. The full form of this technique is

1. Gamete Inseminated Fallopian Transfer
2. Gamete Intra Fallopian Transfer
3. Gamete Internal Fertilization and Transfer
4. Germ Cell Internal Fallopian Transfer

29. The apoplast:

1. is continuous throughout the plant
2. does not involve crossing the cell membrane
3. is independent of the gradient
4. provides a barrier to water movement

30. The movement of water through the root layers is ultimately:

1. apoplastic along the walls
2. active transport by porins
3. symplastic in the endodermis
4. symplastic in the xylem

31. Nitrifying bacteria

1. convert free nitrogen to nitrogen compounds

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2. convert proteins into ammonia
 3. reduce nitrates to free nitrogen
 4. oxidize ammonia to nitrates
32. The deficiency of nitrogen or molybdenum can call all except:
1. Chlorosis
 2. Inhibition of cell division
 3. Necrosis of leaf tissue
 4. Delay in flowering
33. Any mineral ion concentration is considered toxic to plants if it reduces the dry weight of tissues by:
1. 5 %
 2. 10 %
 3. 25 %
 4. 50 %
34. The oxygen evolved during photosynthesis comes from water molecules. Which one of the following pairs of elements involved in this reaction?
1. Manganese and chlorine
 2. Manganese and potassium
 3. Manganese and molybdenum
 4. Manganese and chlorine
35. Again an intext question in NCERT, Section 13.7.2. How many ATP and NADPH are respectively required to make one molecule of glucose through the Calvin pathway?
1. 3 and 2
 2. 6 and 6
 3. 9 and 6
 4. 18 and 12
36. Identify the incorrect statement regarding the comparison of C_4 plants to the C_3 plants:
1. They tolerate higher temperatures
 2. They show a response to high light intensities
 3. They have a lower productivity of biomass
 4. They lack photorespiration
37. The energy-releasing metabolic process in which substrate is oxidised without an external electron acceptor is called
1. glycolysis
 2. fermentation
 3. aerobic respiration
 4. Photorespiration
38. During the conversion of succinyl CoA to succinic acid in TCA cycle:
1. One molecule of ATP is directly synthesized
 2. NAD^+ is reduced
 3. FAD is reduced
 4. One molecule of GTP is synthesized
39. The electron transport system in mitochondria is located in the:
1. Inner mitochondrial membrane
 2. Outer mitochondrial membrane
 3. Inter membrane space
 4. Matrix
40. A few normal seedlings of tomato were kept in a dark room. After a few days they were found to have become white-coloured like albinos. Which of the following terms will you use to describe them?
1. Mutated
 2. Embolised

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3. Etiolated
4. Defoliated
41. Plants follow different pathways in response to environment or phases of life to form different kinds of structures. This ability is called:
1. Efficiency index
 2. Plasticity
 3. Norm of reaction
 4. Developmental noise
42. Difference in shapes of leaves produced in air and those produced in water represents heterophyllous development due to environment in:
- | | |
|-------------|---------------|
| 1. Cotton | 2. Coriander |
| 3. Larkspur | 4. Butter cup |
43. The maximum growth rate occurs in
1. Senescent phase.
 2. Lag phase.
 3. Exponential phase.
 4. Stationary phase.
44. Photoperiod affects:
1. Plants only
 2. Animals only
 3. Both plants and animals
 4. Neither plants nor animals
45. Which of the following algae is likely to be found in the deepest waters?
1. Green
 2. Brown
 3. Red
 4. All are found at equal depths
46. An easily disturbed ecosystem which can recover after some time after the stoppage of damaging factor is of
- (AIPMT 2004)
1. Low stability and high resilience
 2. High stability and high resilience
 3. Low stability and low resilience
 4. High stability and low resilience
47. What percentage of photosynthetic active radiation is captured by plants?
1. 1 – 5
 2. 2 – 10
 3. 50
 4. 90
48. Sun's radiant energy to make food from simple inorganic materials fixed by:
- I. Plants II. Photosynthetic bacteria III. Chemosynthetic bacteria
1. I only
 2. I and II only
 3. I and III only
 4. I, II and III
49. Which one is endangered medicinal plant (AIPMT 2007)
1. Ocimum
 2. Nepenthes
 3. Podophyllum
 4. Garlic
50. Which of the following species of tiger has not got extinct?

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1. Bali
 2. Javan
 3. Caspian
 4. Siberian
51. The largest carnivorous marsupial that got extinct in 20th century was:
1. Dodo
 2. Quagga
 3. Thylacine
 4. Stellar's sea cow
52. Identify the correctly matched pair (AIPMT 2005)
1. Basel convention - Biodiversity conservation
 2. Kyoto protocol - Climate change
 3. Montreal protocol - Global warming
 4. Ramsar convention - Ground water pollution
53. The correct descending order of the relative contribution of various greenhouse gases to total global warming is:
1. carbon dioxide; methane; nitrous oxide; CFCs
 2. carbon dioxide; CFCs; methane; nitrous oxide
 3. carbon dioxide; CFCs; nitrous oxide; methane
 4. carbon dioxide; methane; CFCs; nitrous oxide
54. An abnormal warming of surface ocean waters in the eastern tropical Pacific is termed as:
1. El Nino
 2. La Nina
 3. ENSO
 4. Ocean hazard
55. Enzymes enhance the rate of reaction by
1. forming a reactant-product complex
 2. changing the equilibrium point of the reaction
 3. combining with the product as soon as it is formed
 4. lowering the activation energy of the reaction
56. Quaternary structure is seen in proteins that:
1. act as biochemical catalysts
 2. are embedded within the plasma membrane
 3. are assembly of more than one subunits
 4. do not have any structural role in the cell
57. The double helix model of DNA by Watson and Crick exhibits its:
1. Primary structure
 2. Secondary structure
 3. Tertiary structure
 4. Quaternary structure
58. The strands of the DNA double helix are:
1. identical
 2. coiled around each other
 3. parallel to each other
 4. complementary to each other
59. As per fluid mosaic model, lipids and integral proteins can diffuse randomly. The model has been modified in several aspects. Which of the following statements is

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incorrect? (AIPMT - 2005)

1. Protein of cell membrane can travel within lipid bilayer
2. Protein of cell membrane can undergo flip-flop movement in lipid bilayer
3. Protein can remain confined within certain domains of the membrane
4. Many proteins remain completely embedded within lipid bilayer.

60. A basal body is a part of bacterial:

1. Inclusion bodies
2. Chromosomal DNA
3. Flagellum
4. Plasmid

61. The surface appendage on the bacterial cells that helps in conjugation is:

1. Flagellum
2. Fimbria
3. Pilus
4. Cilia

62. Identify the incorrect statement regarding bacterial ribosomes:

1. They are associated with plasma membrane
2. They are 70 S with two subunits being 30 S and 40 S
3. Several ribosomes may attach to a single mRNA
4. They translate the mRNA into proteins

63. Botanical gardens provide (AIPMT 2005)

1. Beautiful area for recreation

2. Reservoir for tropical plants
3. Ex situ conservation of germplasm
4. Natural habitat for wildlife

64. Earthworms have no skeleton but during burrowing, the anterior end becomes turgid and acts as a hydraulic skeleton. It is due to (AIPMT 2008)

1. Gut peristalsis
2. Setae
3. Coelomic fluid
4. Blood

65. Closed circulatory system is not seen in:

1. Vertebrates
2. Annelids
3. Cephalopod Mollusks
4. Aquatic Arthropods

66. Which of the following statements is not true about Nematodes?

1. They are bilaterally symmetrical, un-segmented worms
2. They are covered with a flexible, thick cuticle that is molted four times as they grow
3. They possess cilia or flagella on their reproductive cells
4. They possess a hydrostatic skeleton

67. What is not true regarding Cnidarians?

1. Body is made of distinct tissues but true organs have not evolved
2. They are carnivores
3. They may have two body forms – polyps and medusa
4. The digestion is completely intra-cellular

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68. Collagen is a [AIPMT 2002]

1. fibrous protein
2. globular protein
3. lipid
4. Carbohydrate

69. Smooth muscles are found in all the following locations except:

1. Wall of blood vessels
2. Wall of stomach
3. Wall of ureter
4. Wall of abdomen

70. Communication junctions found at some fusion points that allow the cardiac muscle cells to contract as a unit are called as:

1. Intercalated discs
2. Sarcolemma
3. Nodes of Ranvier
4. Motor end plates

71. Apart from the neuron, the neural tissue in the body is also made up of:

1. Neuroglial cells
2. Dendritic cells
3. Myoepithelium
4. CD4 cells

72. Pectin deposited in plant cell walls is (AIPMT-2001)

1. excretory product
2. secretory product
3. both above
4. never deposited

73. Sweet potato is a modified (NEET-2018)

1. Stem
2. Rhizome
3. Tap root
4. Adventitious root

74. Which of the following statements about viruses is correct ?(AIPMT-2004)

1. Viruses contain either DNA or RNA
2. Viruses possess their own metabolic system
3. Viruses are facultative parasites
4. Viruses are readily killed by antibiotics

75. What is exclusive for angiosperms (AIPMT-2002)

1. Vessels
2. Secondary growth
3. Double fertilisation
4. Autotrophic nature

76. At what stage of the cell cycle are histone proteins synthesized in a eukaryotic cell (AIPMT 2005)

1. During telophase
2. During S-phase
3. During G₂ stage of prophase
4. During entire prophase

77. A lateral branch arises from the base of the main axis and after growing aerially for some time arch downwards to touch the ground in:

1. Opuntia and Euphorbia
2. Mint and Jasmine
3. Pistia and Eichhornia
4. Banana and Pineapple

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78. Apocarpous gynoecium is seen in:

1. Lotus
2. Mustard
3. Micehlia
4. Tomato

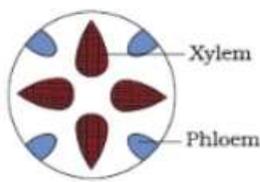
79. All the following statements regarding the anatomy of a typical dicotyledonous root are correct except:

1. Many cells of the epiblema protrude in the form of unicellular root hairs.
2. The innermost layer of the cortex is called as the endodermis
3. Pericycle is made up of collenchymatous cells
4. Parenchymatous conjunctive tissue lie between the xylem and phloem

80. All the following regarding parenchyma tissue in plants are correct except:

1. Cells are generally isodiametric
2. Cell walls are generally thick
3. Cell walls are made of cellulose
4. Perform photosynthesis, storage and secretion

81. The type of vascular bundles shown in the given figure would most likely be seen in:



1. Dicotyledonous stem
2. Roots
3. Monocotyledonous stem
4. Leaves

82. Prophase of mitosis is not characterized by:

1. condensation of chromatin
2. migration of centrosomes to opposite poles
3. formation of mitotic apparatus
4. pairing of homologous chromosomes

83. Onion root tip cell has 16 chromosomes in each cell. How many chromosomes will the cell respectively have at G1 phase, after S phase and after M phase?

1. 16, 32, 16
2. 16, 32, 8
3. 16, 16, 8
4. 16, 16, 16

84. Viruses are non-cellular organisms but replicate themselves once they infect the host cell. To which of the

Following kingdom do viruses belong to?

1. Monera
2. Protista
3. Fungi
4. None of the above

85. Members of phycomycetes are found in

- i. Aquatic habitats
 - ii. On decaying wood
 - iii. Moist and damp places
 - iv. As obligate parasites on plants
- Choose from the following options

1. None of the above
2. i and iv
3. ii and iii
4. All of the above

86. The dominant generation in a fern is the:

1. gametophyte
2. haploid
3. sporophyte
4. haplont

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87. The leaf-like photosynthetic organ in brown algae is called as:

1. Holdfast
2. Stipe
3. Frond
4. Rhizoid

88. Wheat belongs to the Order:

1. Poaceae
2. Poales
3. Monocotyleonae
4. Angiospermae

89. As we go down in the taxonomic hierarchy, the number of characters shared by the members of the taxon:

1. Increase
2. Decrease
3. Remain same
4. Can increase or decrease

90. Which of the following are synonymous?

1. Living state and Metabolism
2. Growth and Reproduction
3. Coma and Brain death
4. Homeostasis and Thermoregulation