

## EVERYDAY SCIENCE : BIOLOGY -NO.4

Time: 30 minutes

Marks: 100

1. Which of the following is correctly matched?  
A. Helps in breathing - Stomach  
B. Stores red blood cells - Spleen  
C. Stores glycogen - Diaphragm  
D. Protein digestion occurs here - Liver
2. Which of the following is correctly matched?  
A. Coeloblastula - Bilateral symmetry  
B. Disco blastula - Pig embryo  
C. Placenta - Extra-embryonic membrane  
D. Epiboly - Movement of cells during embryo formation
3. One of the characteristics that differentiates procaryotes from eucaryotes is  
A. RNA B. DNA  
C. Protein D. Membrane -bound organelles
4. Match List I with List II correctly and select your answer using the codes given below:  
List I (Pathogens) List II (Diseases)  
A. *Entamoeba histolytica* 1. Whooping cough  
B. *Clostridium tetani* 2. Amoebiasis  
C. *Bordetella pertussis* 3. Filariasis  
D. *Wuchereria bancrofti* 4. Tetanus  
Codes:  
A B C D  
a) 2 4 1 3  
b) 2 4 3 1  
c) 4 2 1 3  
d) 2 1 3 4
5. Oxytocin is secreted by  
A. adrenal gland B. pituitary gland C. ovary D. testis
6. Rickets disease is due to deficiency of  
A. Vitamin C B. Vitamin D C. Vitamin E D. Vitamin A
7. The blood vessel that carries deoxygenated blood from the right ventricle to lung is  
A. aorta B. pulmonary artery C. pulmonary veins D. coronary artery
8. The amount of saliva secreted daily ranges between  
A. 500-1000 ml B. 800 - 1500 ml C. 300 - 600 ml D. 100 - 1500 ml
9. The conversion of absorbed food materials into protoplasm is  
A. assimilation B. egestion C. absorption D. ingestion

10. The respiratory pigment present in our blood is  
A. Haemoerythrin B. Chlorocrurin C. Haemocyanin D. Haemoglobin
11. Disease formed due to deficiency of cyanocobalamine (vitamin B<sub>12</sub>) is  
A. Scurvy B. Pernicious anaemia C. Rickets D. Pellagra
12. The length of large intestine is about  
A. 2.5 metres B. 2 metres C. 1.5 metres D. 1 metres
13. Of the following which one acts as an antibacterial agent?  
A. Lysosome B. Heparin C. Lysin D. Lysozyme
14. The muscular plate that separates the body cavity into abdomen and thorax is  
A. Diaphragm B. Endometrium C. Cartilage D. Intercoastal septum
15. The length of our alimentary canal is  
A. 10 metres B. 8 metres C. 20 metres D. 16 metres
16. The lungs are enveloped by  
A. Epidermis B. Pericardium C. Pleura D. Sarcolemma
17. The process of conversion of complex organic food substances into simpler substances is  
A. assimilation B. absorption C. digestion D. active transport
18. The number of alveoli in human lung is  
A. 300 million B. 100 million C. 200 million D. 400 million
19. Deficiency of ascorbic acid (vitamin C) leads to  
A. Scurvy B. Beri-beri C. Pellagra D. Rickets
20. The central pumping station of circulatory system is  
A. vein B. capillary C. artery D. heart
21. Deficiency of vitamin B<sub>1</sub>, (thiamine) leads to  
A. Scurvy B. Pernicious anaemia C. Pellagra D. Beri-beri
22. The function of heart and circulatory system was first discovered by  
A. William Harvey B. Bateson C. Hackle D. Mayor
23. The chemical name for vitamin B<sub>2</sub> is  
A. Retinol B. Niacin C. Thiamine D. Riboflavin
24. The membrane that covers the heart is  
A. Sarcolemma B. Arachnoid membrane  
C. Pleura D. Pericardium
25. Deficiency of nicotinic acid leads to  
A. Scurvy B. Beri-beri C. Rickets D. Pellagra

26. The number of chambers in human heart is  
 A. Two                      B. Four                      C. One                      D. Three
27. *Columba livia* is the scientific name for  
 A. pigeons                      B. snake                      C. rabbit                      D. shark
28. It is believed that life evolved in its early stage under oxygen free condition. Which of the following organisms might have been able to survive in that environment?  
 A. Obligate anaerobic bacteria                      B. Obligate halophytes  
 C. Lichens                      D. Thermophilic algae
29. Match List with List II correctly and select your answer using the codes given below:  
 A. List I                      List II  
 A. Virus                      1. Robert Hooke  
 B. Bacteria                      2. Robert Brown  
 C. Nucleus                      3. Dmitry Ivanowsky  
 D. Cell                      4. Antonie van Leeuwenhock  
 Codes:  

	A	B	C	D
a)	3	4	2	1
b)	4	2	1	3
c)	1	2	3	4
d)	2	3	4	1
30. Spermatids derive the nourishment from  
 A. nucleus                      B. cytoplasm                      C. ciliated epithelial cell                      D. Sertoli cell
31. The shape of human immunodeficiency (HIV) virus is  
 A. Spherical in shape                      B. Rod-like in shape  
 C. Spiral-like in shape                      D. Comma-like in shape
32. Mitosis actually means  
 A. Division of cytoplasm only                      B. Division of nucleus only  
 C. Reduction in number of chromosome                      D. Both nuclear and cytoplasmic division
33. Polyploidy is most common in  
 A. Animal Kingdom                      B. Plant Kingdom  
 C. Fungi                      D. Protista
34. Mitochondria will be found in abundance, where there is  
 A. A wound activity in the body                      B. Maximum activity in the body  
 C. Least activity in the body                      D. Average activity in the body
35. The chromosome number is reduced to half during  
 A. mitosis                      B. meiosis                      C. amitosis                      D. apogamy
36. The process of transfer of desirable characters from one species to other is known as  
 A. introduction                      B. selection                      C. emasculation                      D. hybridization

37. Which of the organelles given below is known as “the powerhouse” of the cell?  
 A. Lysosome      B. Golgi body      C. Mitochondrion      D. Ribosome
38. Mycotoxins are pollutants because they affect most commonly  
 A. water      B. soil      C. food      D. air
39. Which one of the following is correctly matched?  
 A. Haemoglobin is found in - Calcium  
 B. Green plants contain - Blood  
 C. The largest gland in human body is - Liver  
 D. The most abundantly found metal in the human body - Starch
40. Nitrogen fixation is generally brought about by  
 A. Bacteria      B. Bacteria and blue-green algae  
 C. Algae      D. Fungi
41. Which one of the following is correctly matched?  
 A. Salivary gland - Gastric Juice  
 B. Liver -Amylase  
 C. Pancreas - Trypsinogen  
 D. Stomach - Bile
42. Which one of the following is correctly matched?  
 A. Primary Consumer - Locust      B. Secondary Consumer-Plants  
 C. Tertiary Consumer - Snake      D. Products - Kite
43. The blood vessels that bring the oxygenated blood from the lungs to the heart is  
 A. aorta      B. pulmonary artery      C. pulmonary veins      D. mesenteric artery
44. The deficiency of iodine leads to  
 A. hyperthyroidism      B. goitre      C. midget      D. diabetes
45. The amount of blood received by the kidney per minute is about  
 A. 1500 ml      B. 1300 ml      C. 1200 ml      D. 1600 ml
46. The functional units of kidneys are:  
 A. nephrons      B. neurons      C. yellow fibres      D. axons
47. The study of nervous system is  
 A. embryology      B. Neurophysiology      C. Ecology      D. Histology
48. Prothrombin is produced at  
 A. Liver      B. Pancreas      C. Bone marrow      D. Heart
49. Checker board was first used by  
 A. Tschermak      B. Punnett      C. Correns      D. Mendel
50. The average life span of red blood corpuscles is about  
 A. 100-120 days      B. 160-180 days      C. 100-150 days      D. 150-200 days

51. The weight of brain is about  
A. 1.64 kg                      B. 1.36 kg                      C. 1.46 kg                      D. 1.63 kg
52. The chemical substance secreted by the endocrine gland is  
A. plasma                      B. thymus                      C. enzymes                      D. hormone
53. The vitamin necessary for coagulation of blood is  
A. Vitamin B                      B. Vitamin C                      C. Vitamin K                      D. Vitamin E
54. Which one of the following is an endocrine gland?  
A. sweat glands                      B. thyroid                      C. mammary glands                      D. lacrimal glands
55. The pigment which gives red colour to blood is  
A. Haemoglobin                      B. Hemocyanin                      C. Haemoerythrin                      D. Venadin
56. Which one of the following is an exocrine gland?  
A. sweat glands                      B. thyroid                      C. mammary glands                      D. lacrimal glands
57. A decrease in the number of RBC is called  
A. anaemia                      B. polycythemia                      C. thrombosis                      D. embolous
58. The area of cerebral cortex that controls vision is  
A. frontal                      B. parietal                      C. occipital                      D. temporal
59. Coronary thrombosis leads to  
A. heart failure                      B. heart attack                      C. stroke                      D. heart block
60. The part of the brain which controls respiration and circulation is  
A. medulla oblongata                      B. spinal cord  
C. hindbrain                      D. forebrain
61. The blood corpuscles which play a very important role in bringing about the coagulation of blood is  
A. White blood corpuscles                      B. Thrombocytes  
C. Red blood corpuscles                      D. Basophil
62. The part of the brain which controls involuntary action is  
A. hypothalamus                      B. hind brain                      C. spinal cord                      D. forebrain
63. An increase in the number of RBC is called  
A. Leukemia                      B. Thrombosis                      C. Anaemia                      D. Polycythemia
64. The life span of WBC is  
A. 2-3 weeks                      B. 3-4 weeks                      C. 4-5 weeks                      D. 5-6 weeks
65. To which kingdom bacteria belong?  
A. Plantae                      B. Protista                      C. Animalae                      D. Monera

66. Which one of the following is mismatched?  
 A. Salivary gland - An endocrine gland  
 B. Pancreas - Islets of Langerhans  
 C. Birds - Aves  
 D. Kidney - Ultrafiltration
67. An ecosystem has two components, namely  
 A. weeds and trees B. biotic and abiotic C. frogs and men D. plants and animals
68. DNA structure was first described by  
 A. Crick B. Lederberg C. Nirenberg D. Watson and Crick
69. Which of the following micro-organisms are involved in nitrogen fixation?  
 I. Blue-green Algae  
 II. Azotobacter  
 III. Rhizobium  
 Of the statements  
 A. II and III are correct B. I and III are correct  
 C. I and II are correct D. I, II and III are correct
70. The food which gives an athlete instant energy is  
 A. Glucose B. Butter C. Protein D. Vitamin
71. Which one of the following is correctly matched?  
 A. Platyhelminthes - Sponge  
 B. Ciliophora - Paramecium  
 C. Sarcodina - Malarial parasite  
 D. Porifera - Tapeworm
72. The genetic material of a cell resides in  
 A. cytoplasm B. protoplasm C. ribosome D. DNA
73. Identical twins are born, when  
 A. two sperms fertilize two ova B. two sperms fertilize one ovum  
 C. one sperm fertilizes one ovum  
 D. one sperm fertilizes one ovum. Zygote cleaves into two cells that develop independently
74. The chromosome composition of man is  
 A. 44AA + XY B. 44AA + XX C. 22A + X D. 22A + Y
75. Mutation theory was proposed by  
 A. Darwin B. Morgan C. Lamarck D. Hugo de Vries
76. Hyaluronidase is found in  
 A. the acrosome of mammalian sperm B. the centrosome of mammalian ovum  
 C. the lysosome of ovum D. the lysosome of sperm

77. Development of a sporophyte directly from the sporophytic tissue is called  
 A. Double fertilization B. Triple fusion  
 C. Apospory D. Syngamy
78. The term “test-tube baby” refers to  
 A. baby developed in a test-tube B. an artificial baby developed in a test-tube  
 C. *in vitro* fertilization and embryo replacement  
 D. a baby developed from ovum without fertilization
79. Autotrophs in an ecosystem are called  
 A. producers B. consumers C. decomposers D. abiotic constituents
80. The cytoplasm surrounding the mitochondria found in the middle piece of the sperm is called  
 A. acrosome B. centrosome C. microsome D. manchette
81. The ABO bloodgroups were discovered by  
 A. Charles Darwin B. Gregor Mendel C. Karl Landsteiner D. Waston
82. Acromegaly is caused by irregular secretion of  
 A. Pituitary B. Thyroid C. Adrenal D. Pancreas
83. The kinds of ribonucleic acid present in any plant cell will be  
 A. 2 B. 3 C. 4 D. 5
84. Which part of the human brain is the centre of memory, learning, thinking and reasoning?  
 A. Cerebrum B. Cerebellum C. Hypothalamus D. Medulla
85. Mark the correct statement  
 A. All sperms fertilize all eggs B. Eggs are fertilized by many sperms  
 C. Each egg is usually fertilized by one sperm D. Each sperm fertilizes one egg.
86. This pteridophyte produces two kinds of spores  
 A. Lycopodium B. Selaginella C. Psilotum D. Adiantum
87. Mark the correct statement  
 A. Foramen magnum is in the skull B. Foramen magnum is an aperture in the heart  
 C. Foramen magnum is a large hole in the voice box  
 D. Foramen magnum does not exist anywhere
88. Gene mutation takes place in  
 A. Deoxyribonucleic acid B. Mitochondrion C. Chloroplast D. Ribosome
89. ‘Survival of the fittest’ was proposed in his theory of evolution by  
 A. Darwin B. Mendel C. Lamarck D. Hugo de Vries

90. Which of the following hormones is responsible for the emotional states such as fear, anger and tension and a rise in blood pressure and heart rate?  
 A. Somatotrophin    B. Thyroxine    C. Oxytocin    D. Adrenaline
91. Which one of the following is correctly matched?  
 A. Charles Darwin - Theory of Parthenogenesis  
 B. Hugo de Vries - Cell theory  
 C. Lamarck - Theory of mutation  
 D. Spencer - Theory of inheritance of acquired character
92. Example of Unsaturated Oil?  
 A. Sun flower Oil    B. Animal fat    C. Coconut Oil    D. Palm Oil
93. Match List I correctly with List II and select your answer using the codes given below:  
 List I  
 a. Trypanosoma gambiense  
 b. Leishmania donovani  
 c. Plasmodium ovale  
 d. Trichomonas hominis  
 Codes:  

	a	b	c	d
A.	3	4	1	2
B.	4	1	2	3
C.	3	1	2	4
D.	4	1	3	2

 List II  
 1. Malaria  
 2. Diarrhoea  
 3. Sleeping sickness  
 4. Kala-azar
94. The children of a colour-blind mother and a normal father will be  
 A. normal daughters and sons    B. normal sons and carrier daughters  
 C. colour blind sons and carrier    D. colour blind sons and daughters
95. The blood which leaves the liver and moves to the heart has a higher concentration of  
 A. glucose    B. bile    C. bile pigments    D. urea
96. Which one of the following types of microorganisms is most widely used in industries?  
 A. Bacteria    B. Bacteria and fungi  
 C. Bacterial and algae    D. Bacteria, micro-algae and fungi
97. Match List I with List II and select the correct answer using the codes given below the lists:  

List I	List II
A. Theory of mutation	1. Beadk and Tatum
B. Theory of evolution	2. Jacob and Monod
C. One gene one enzyme hypothesis	3. Darwin
D. Operon concept	4. de Vries



98. The largest bacteria is  
 A. *Bacillus lacti* B. *Vibrio comma*  
 C. *Thiomargarita namibiensis* D. None of these
99. The cell division responsible for the formations of gametes is  
 A. direct division B. indirect division C. meiotic division D. binary fission
100. Saprophytic organism is  
 A. earthworm B. euglena C. amoeba D. fungi

### ANSWERS

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