Annual Examination **BIOLOGY** **2018 - 19**

Section - A

Multiple Choice Questions (MCQ's)

1 Choose the correct answer for each from the given options.

1. Respiration takes place in _____.
   (a) Parenchymatous cells
   (b) Leave cells
   (c) Root cells
   (d) All cells

2. Non directional movement caused by the stimulus of touch is _____.
   (a) Photonasty
   (b) Thermonasty
   (c) Seismonasty
   (d) Haptonasty

3. The number of layers in the wall of an artery are _____.
   (a) Two
   (b) Three
   (c) Four
   (d) Five

4. The group of Funaria is _____.
   (a) Hepaticae
   (b) Musci
   (c) Hornworts
   (d) Anthoceratae

5. Viruses are _____.
   (a) Cellular
   (b) Non Cellular
   (c) Multi-cellular
   (d) Unicellular

6. The characteristic not associated with fungi _____.
   (a) Non-chlorophyllous
   (b) Body called mycelium
   (c) True cellulose
   (d) Coenocytic

7. Agaricus is commonly known as _____.
   (a) Bread mold
   (b) Yeast
   (c) Mushroom
   (d) All of these

8. Plants gain weight due to _____.

(a) Respiration   (b) Transpiration   (c) Photosynthesis   (d) All of these

9. _____ is not a fungus.

(a) Aspergillus   (b) Chlamydomonas   (c) Agaficus   (d) Saccharomyces

10. E. Jennar discovered vaccination method against _____.

(a) Polio   (b) Measles   (c) Small pox   (d) Hepatitis

11. The family of Mustard is _____.

(a) Brassicaceae   (b) Poaceae   (c) Rosacea   (d) Solanaceae

12. Glycogen is a molecule that belongs to _____.

(a) Carbohydrates   (b) Fats   (c) Proteins   (d) Vitamins

13. The loss of water from the mesophyll cells make them _____.

(a) Flaccid   (b) Turgid   (c) Shrink   (d) All of these

14. If no antigen is present on R.B.C the blood group would be _____.

(a) AB   (b) A   (c) B   (d) O

15. Salamander belongs to class _____.

(a) Amphibia   (b) Reptilia   (c) Aves   (d) Mammalia

16. The most important vitamin for human bones are _____.

(a) Vitamin C   (b) Vitamin E   (c) Vitamin D   (d) Vitamin A

17. The deficiency of hemoglobin in a person is caused _____.

(a) Heart attack   (b) Angina   (c) Haemophilia   (d) Anaemia

Section – B

(Short Answers)

Note: Answer any Eight of the following question. Each question carries 05 marks.

Q.2 What are the general characteristics of Phylum Annelida?

Q.3 Write down the services of Bu Ali Sina in the field of Biology?

Q.4 Define Mitosis, name the different stages of Mitosis.

Q.5 Draw a labeled diagram of digestive system of Frog.

Q.6 What is a reflex action?

Q.7 Why do people have to breath deeply after vigorous exercise?

Q.8 Describe plant tissue on the basis of their function.

Q.9 How flowers are important for plants?

Q.10 Give the general characteristics of class Aves.

Q.11 What are the heterotrophic modes of nutrition in plants?

Q.12 Define types of respiration of Frog.

Q.13 What is haemophilia?

Section – C

(Descriptive Answers)

Note: Answer any Two of the following question. Each question carries 14 marks.

Q.14 Discuss the disorders of human respiratory system and explain health risk associated with cigarette smoking.

Q.15 What is a joint? Discuss its types and related disorders.

Q.16 Discuss in detail the discovery, characteristics, structure and types of viruses.

| Annual Examination | CHEMISTRY | 2018 – 19 |

Section – A

Multiple Choice Questions (MCQ's)

Q.1 Choose the correct answer for each from the given options.

1. The heat evolved during the formation of 1 mole of water from H_2 and O_2 is:
   (a) 286 KJ / mole (b) 186 KJ / mole (c) 300 KJ / mole (d) 200 KJ/ mol

2. Deuterium is present in natural hydrogen in the ratio:
   (a) 1 : 12000 (b) 1 : 15000 (c) 1 : 17000 (d) 1 : 18000

3. Diamond is used for abrasive, because it is:
   (a) Hard (b) Soft
   (c) Cubic (d) Bad conductor of electricity

4. The formula of Nitric acid is:
   (a) HNO_2 (b) HNO_3 (c) HNO_5 (d) HNO_7

5. The branch of chemistry which deals to determine the quality and quantity of substance is called:
   (a) Organic (b) Physical (c) Analytical (d) Inorganic

6. 5 moles of H_2O are equal to:
   (a) 70 g (b) 80 g (c) 90 g (d) 100 g

7. Charge on an electron is:
   (a) 1.602×10^{-16} C (b) 1.602×10^{-17} C
   (c) 1.602×10^{-18} C (d) 1.602×10^{-19} C

8. Mendeleev's periodic table contained _____ periods.

   (a) 8   (b) 10   (c) 12   (d) 14

9. The formula of iron pyrite for getting SO_2 from pyrite burner is:

   (a) FeS   (b) Fe_2S_3 (c) FeS_2 (d) Fe_2S_2

10. Which of the following will release chlorine from hydrochloric acid?

    (a) Na   (b) MnO_2 (c) KOH .   (d) $CuSO_4$

11. Chromite is found in Pakistan at:

    (a) Azad Kashmir   (b) Punjab   (c) Sindh   (d) Balochistan

12. The first synthetic organic compound is:

    (a) Methane   (b) Ethane   (c) Urea   (d) Acetic Acid

13. Red ink is normally prepared from:

    (a) Oak Plant   (b) Linseed Oil   (c) Silver Nitrate   (d) Brazil wood

14. Double covalent bond is denoted by:

    (a) Single short line   (b) Two short lines

    (c) Three short lines   (d) None of these

15. Neither definite shape nor volume is property of:

    (a) Solid   (b) Liquid   (c) Gas   (d) Plasma

16. The process in which a solid directly changes to vapours is known as:

    (a) Sublimation   (b) Evaporation   (c) Diffusion   (d) Fusion

17. An ionic compound, that is formed when an acids neutralizes a base is called:

    (a) Acids   (b) Bases   (c) Salts   (d) Neutral

Section – B

(Short Answers)

Note: Answer any Eight of the following questions. Each question carries 05 marks.

Q.2 What is Scientific Law?

Q.3 A compound containing C, H and O, whose molecular formula mass is 180 a.m.u and empirical formula is CH_2O. Determine its molecular formula.

Q.4 Explain the main features of Bohr's Theory.

Q.5 Write note on any ONE of the following.

Metalloids   Metal

Q.6 Give the characteristics of covalent compounds.

Q.7 The pOH of a solution is 9.40. Calculate the (H^+) ion concentration.

Q.8 Differentiate between Solution and Suspension.

Q.9 What is the function of a salt bridge of porous partition in an electrochemical cell?

Q.10 What is Aqua Regia? How does it dissolve gold?

Q.11 Why alkanes are said to be saturated?

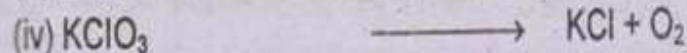Q.12 Calculate the molecular mass of each of the following.

(i) H_2O (ii) H_2O_2 (iii) C_6H_6 (iv) CO_2 (v) C_2H_6O

Q.13 Balance the following chemical equations.

(i) $CaCO_3 + HCl \longrightarrow CaCl_2 + H_2O + CO_2$

(ii) $WO_3 + H_2 \longrightarrow W + H_2O$

(iii) $Cu_2O + C \longrightarrow Cu + CO$

(iv) $KClO_3 \longrightarrow KCl + O_2$

(v) $NH_3 + O_2 \longrightarrow NO + H_2O$

Section – C

(Descriptive Answers)

Note: Answer any TWO of the following question. Each question carries 14 (7 + 7) marks.

Q.14 (a) What do you mean by hard water? How is the hardness of water removed?

(b) Calculate the amount of silver deposited when 10 ampere of current is passed for 50 minutes through a solution of $AgNO_3$. (Z = 0.00118 g/C of Ag)

Q.15 (a) Describe the discovery of proton in detail with neat diagram also write the properties of positive rays.

(b) What are Hydrocarbons? How they are classified?

Q.16 (a) Define heat of neutralization. What would be the value of heat of neutralization when strong acid reacts with strong base?

(b) What do you understand by transition and representative elements?

Section – A

Multiple Choice Questions (MCQ's)

Q.1 Choose the correct answer for each from the given options.

1. _____ number system is ideal for the internal working of electronic computers.

   (a) Decimal   (b) Octal   (c) Binary   (d) Hexa-decimal

2. The data, which consists of alphabets as well as numbers is known as _____.

   (a) String   (b) Graphical   (c) Alphanumeric   (d) None of these

3. Smallest unit of the memory is _____.

   (a) Nibble   (b) Byte   (c) Bit   (d) Kilobyte

4. The _____, also called a male connector.

   (a) Serial Port   (b) Parallel Port   (c) Address Bus   (d) Control Bus

5. The _____ was the main invention of 3rd generation of Computer.

   (a) Vacuum Tube   (b) Integrated Circuit (IC)

   (c) Microprocessor   (d) Transistor

6. _____ command deletes directories and their contents.

   (a) DEL   (b) RMDIR   (c) DELTREE   (d) FORMAT

7. _____ menu presents a list of the internet addresses.

   (a) Program   (b) Start   (c) Favorites   (d) Help

8. There are _____ basic logical operators.

   (a) 2   (b) 3   (c) 4   (d) 5

9. Octal is a _____ word used for eight, it has eight fundamental digit.
   (a) German   (b) Greek   (c) Latin   (d) English
10. The binary equivalent of (15_{10}) is _____
   (a) $(1111)_2$ (b) $(1001)_2$ (c) $(111)_2$ (d) $(1000)_2$
11. CRT stands for _____
   (a) Cathode Resolution Tube
   (b) Carbon Ray Tube
   (c) Cathode Ray Tube
   (d) Carbon Resolution Tube
12. Slide rules was invented by _____.
   (a) Charles Babbage   (b) ABACUS   (c) William Oughtred   (d) John Napie
13. GUI stands for _____.
   (a) General User Interface
   (b) Graphical User Information
   (c) Graphical User Interface   (d) None of these
14. _____ is an input device used for record voice.
   (a) Light Pen   (b) Joy Stick   (c) Microphone   (d) Camera
15. The _____ is a way of communicating with the computer in DOS.
   (a) File   (b) Command   (c) Program   (d) None of these

(Short Answers)

Note: Answer any Nine of the following questions. Each question carries 04 marks.

Q.2 Differentiate between Computer and Interpreter.

Q.3 Define 1ˢᵗ generation of Computer.

Q.4 What is the function of Control Panel?

Q.5 Explain the classification of Computers according to purpose.

Q.6 Define Pascal line (Pascal's calculator).

Q.7 What is the purpose of Control Bus?

Q.8 What is Machine language (Low – Level – Language)?

Q.9 What is the difference between Soft Copy and Hard Copy?

Q.10 Define product of sum (POS).

Q.11 Explain the function of OR (+) operator in Boolean Algebra.

Q.12 Convert the following.

(i) $(147235)_8 = (?)_2$ (ii) $(5D60)_{16} = (?)_{10}$

Q.13 Explain any TWO of the following.

(i) RMDIR   (ii) XCOPY   (iii) DOSKEY

Section – C

(Descriptive Answers)

Note: Answer any Three of the following questions. Each question carries 08 marks.

Q.14 What is Application Software? And also define the types of Application Software.

Q.15 Differentiate between primary storage and secondary storage media.

Q.16 What is central process unit (CPU)? And also define the components of Central Process Unit.

Q.17 Define Keyboard. Explain the different categories of key on a Standard Keyboard.

Q.18 Write notes on any TWO of the following:

Super Computer   Operator Precedence   VIRUS