KENDRIYA VIDYALAYA SITAPUR- 2019

 Time:- 180 minute PREBOARD TEST , Subject- science, class X Mm:-80

S.NAME…………………………………….CLASSS & SECTION……………DATE……………SIGN OF INVIGILATOR…………….

 SECTION-A (BIOLOGY)

MCQ- ( 1x8)

 Q.1 The breakdown of Pyruvate to give carbon dioxide, water and energy takes place in

 (a) Cytoplasm (b) Mitochondria (c) Chloroplast (d) Nucleus

 Q.2 The gap between two neurons is called a

 (a) Dendrite (b) Synapse (c) Axon (d) Impulse

 Q.3 The anther contains

 (a) Sepals (b) Ovules (c) Carpel (d) Pollen grain

 Q.4 An example of homologous organs is

 (a) Our arm & a dog’s fore-leg (b)Our teeth & an elephant’s tusk (c)Potato & runners of grass (d) All of the above

 Q.5 Which of the following is a plant hormone ?

 (a)Insulin (b) Oestrogen (c) Thyroxin (d) Cytokinin

 Q.6 The autotrophic mode of nutrition requires

 (a) Chlorophyll (b) Carbon dioxide and water

 © Sunlight (d) All of the above

Q.7 An example of unisexual flower is

 (a)Hibiscus (b) Mustard (c) Papaya (d) All of these

Q.8 Who was educated in the University of Vienna ?

 (a) Charles Darwin (b) Lamarck (c) G.J. Mendel (d) Non of these

 Short Answer Type Question

 Q.9 How are the areas of study—Evolution and classification—interlinked ? 2

 Q.10 How are fats digested in our bodies ? Where does this process take place? 2

 Q.11 Explain the excretory system in human beings with help of diagram. 3

Q.12 Why is DNA copying an essential part of the process of reproduction ? 3

Long answer type questions

 Q.13What is speciation ? List four factors that could lead to speciation. Which of these cannot be a major Factor in the speciation of a self-pollinating plant species ? Explain. 5

 Or

Q .(a) Draw a diagram to show open stomata pore and label on it :

1. Guard cells (ii) chloroplast

 (b) State two functions of stomata.

 ©How do guard cells regulate the opening and closing of stomata pore ?

Q.14 What is meant by reflex-action ? With the help of a labeled diagram trace the sequence of events

 Which occur when we touch a hot object. 5

 Section-B (Physics )

Q.15 Fill in the blanks (1x6=5 )

 (a) Current is measured in………………………….using an………………………..placed in………………in a circuit.

 (b) If a coil is viewed from one end, and current flows in a clockwise direction, then this end is a

 …………………….pole.

 (c) Ohm’s law state a relation between potential difference and………………………………….

 (d) If the magnification has a plus sign, then image is………………………and…………………………

 (e) When light is dim, the pupil becomes…………………………………………………..

 (f) Copper is a good……………………….Plastic is an………………………………..

Short answer type questions

Q.16. Which of the following are conductors which are insulators ? 2

 Sulphur, silver, copper, cotton, Aluminium, Air , Nichrome, Graphite, paper, Mercury, Mica, Bakelite, Polythene, Manganin

Q.17. What is Maxwell crock screw rule ? For what purpose is it used ? 2

 Q.18.Explain any three situations that can cause electrical Hazards in domestic circuits. 3

Q.19 An object 4 cm high is placed at a distance of 10 cm from a convex lens of focal length 20 cm. Find the

position, nature and size of the image. 3

Long answer type Questions

Q.20(a) Explain why there are two separate circuits one for high power rating appliances and other for low power rating appliances. 5

 (b) A domestic circuit has 5A fuse. How many bulb of rating 100W,220V can be safely used in this circuit? Justify your answer.

 OR

Q. What is the difference between direct current generator and alternating current generator ?

Q.21(a) Explain the following terms used in relation to defects in vision and correction provided by them: 5

 (i) Myopia (ii) Bifocal lenses (iii) Far-sightedness

 (b) Why is the normal eye unable to focus on an object placed within 10cm from the eye.

 Section –C (Chemistry )

Q.22 Choose the correct anwesr (1x6)

 (a) A solution reacts with crushed egg-shells to give a gas that turns lime water milky.

 (i) NaCl (ii) HCl (iii) LiCl (iv) KCl

 (b) What happen when dilute hydrochloric acid is added to iron fillings ? Tick the correct answer.

 (i) Hydrogen gas and iron chloride are produced (ii) Chlorine gas and iron hydroxide are produced.

 (iii) No reaction take place (iv) Iron salt and water are produced

 © Which of the following pairs will give displacement reactions ?

 (i)NaCl solution and copper metal (ii) MgCl2 solution and aluminium metal

 (ii)FeSO4 solution and silver metal (iv) AgNO3 solution and copper metal.

 (d) Butanone is a four-carbon compound with the functional group

 (i) Carboxylic acid (ii) Aldehyde (iii) Ketone (iv) Alcohol

 (e) Removal of Oxygen from a substances is called-

 (i) Oxidation (ii) Corrosion (iii) Reduction (iv) Rancidity

 (f) Name of CH3-CH2-OH

 (i) Ethanal (ii) Ethanol (iii) Ethane (iv) Non of these

Short answer type question

Q.21 Balance the following chemical equations 2

 (a) BaCl2 +H2SO4 ---------------------BaSO4 +HCl

 (b) Ca(OH)2 +HNO3 --------------------Ca(NO3)2 + H2O

Q23 Give reason for the following 2

1. School bells are made up of metals
2. Electric wire are made up of copper.

Q24 Write the molecular formula of the following compounds and draw their electron-dot structures: 3

1. Ethane (ii) Ethene (iii) Ethyne (iv) Non of these

Q25.What is a homologous series of compounds ? List any two of its characteristics. 3

Long answer type question

Q26.Explain with the help of diagram, how copper metal can be refined ? Label the important arrangement in the experimental set up. 5

 OR

Q What is difference between minerals and ores ?

Q27 Name the reaction which is commonly used in the conversion of vegetable oils to fats. Explain the reaction involved in detail. 5

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