ADDIS ABABA ADMINISTERATION YEKA SUB CITY EDUCATION OFFICE

2016 E.C GENERAL SCIENCE 1ST SEMESTER MODEL EXAM FOR GRADE EIGHT

NUMBER OF QUESTION 60 **TIME ALLOWED 1HOUR**

GENERAL DIRECTIONS

THIS BOOKLET CONTAINS **GENERAL SCIENCE** EXAMINATION. IN THIS EXAMINATION, THERE ARE A TOTAL OF **60 MULTIPLE CHOICE QUESTIONS**. CAREFULLY SELECT THE BEST ANSWER AND **BLACKEN** ONLY THE LETTER OF YOUR CHOICE ON THE SEPARATE ANSWER SHEET PROVIDED. FOLLOW THE INSTRUCTIONS ON THE ANSWER SHEET AND THE EXAMINATION PAPER CAREFULLY. USE ONLY **PENCIL** TO MARK YOUR ANSWERS. YOUR ANSWER MARK SHOULD BE **HEAVY** AND **DARK**, COVERING THE ANSWER SPACE COMPLETELY. PLEASE ERASE ALL UNNECESSARY MARKS COMPLETELY FROM YOUR ANSWER SHEET.

YOU ARE ALLOWED TO WORK ON THE EXAM FOR **1 HOUR**. WHEN TIME IS CALLED, YOU MUST IMMEDIATELY STOP WORKING, PUT YOUR PENCIL DOWN, AND WAIT FOR FURTHER INSTRUCTIONS.

ANY FORM OF CHEATING OR AN ATTEMPT TO CHEAT IN THE EXAMINATION WILL RESULT IN AN AUTOMATIC DISMISSAL FROM THE EXAMINATION HALL AND CANCELLATION OF YOUR SCORE (S).

PLEASE MAKE SURE THAT YOU HAVE WRITTEN ALL THE REQUIRED INFORMATION ON THE ANSWER SHEET BEFORE YOU START TO WORK ON THE EXAMINATION.

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO.

CHOOSE THE CORRECT ANSWER FROM THE GIVEN ALTERNATIVES

LIVEWORKSHEETS

1. **An indigenous method of measuring length that measure from the tip of little finger to tip of thumb is :**

   A. Hand span **C. pace**
   B. Cubit **D. arm span**

2. **Which of the following indigenous unit is different from the other?**
   A. Hand span **B. Arm span** **C. cubit** **D. Feresula**
3. **Which of the following sets contains only derived physical quantities?**
   A. mass, Time and length **C. Time, length and density**
   B. temperature, area and volume **D. speed, density and area**
4. **The accepted value of a certain body is 35^0c. If the student measures the body with in a laboratory and obtains the results, 25^0c, 25.3^0c and 24.8^0c, then the measurement is:**
   A. Accurate not precise **C. Both precise and accurate**
   B. Precise not accurate **D. Neither accurate nor precise**
5. **Which one of the following number is <u>not</u> correctly matched with its prefixes?**
   A. 0.000,001 = micro **C. 1000,000 = mega**
   B. $\frac{1}{1000}$ = kilo **D. $\frac{1}{100}$ = centi**
6. **Which one of the following is equal to 1.5 tone?**
   A. 1500g **B. 150kg** **C. 1500mg** **D. 15 quintal**
7. **Which one of the following physical quantities is <u>not</u> correctly matched with its SI unit?**
   A. Mass → kilogram **C. speed →meter per second**
   B. Length →meter **D. density →kelvin**
8. **The amount of matter in a substance is called _____.**
   A. volume **B. length** **C. density** **D. mass**
9. **Which of the following is the last step of scientific investigation?**
   A. Communicating the result **C. establishing hypothesis**
   B. Testing hypothesis **D. observation**
10. **A tentative explanation for a set of observation in scientific method is:**
    A. Asking question **C. Analyzing the result**
    B. Hypothesis **D. Draw conclusion**
11. **The closeness of measurement values to each other is called :**
    A. Precision **B. Accuracy** **C. prefixes** **D. scientific method**
12. **Which one of the following device is used to measure the temperature of a body?**
    A. Spring Balance **C. Stop watch**
    B. Thermometer **D. Vernier caliper**
13. **Which one of the following components comes before others in the application of a scientific method?**
    A. Analyzing the result **C. Testing the hypothesis**
    B. Draw conclusion **D. Do background research**

14. **Which one is <u>not</u> correct about Continuous Theory of matter?**
    A. Matter is infinitely divisible.
    B. Reject the idea of atoms.
    C. It was proposed by Democritus.
    D. Did not believe in microscopic building particle of matter.
15. **The idea of atoms first proposed by the Greek philosopher called:**

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A. Rutherford B. Aristotle C. Democritus D. Dalton

16. In an atom of Zinc $^{65}_{30}Zn^{2+}$ the numbers of neutron, proton and electron respectively are :

A. 35, 30, 32 C. 30, 30, 28

B. 35, 30, 28 D. 65, 30, 32

17. Which one of the following is correct about nucleus of an atom?
    A. It consists of proton and neutron.
    B. It covers the largest region of an atom.
    C. It contains electron and proton.
    D. It is negatively charged.

18. Relative masses of proton, neutron and electron in an atom respectively are:
    A. 1, 1, 0 B. 1, 0, 1 C. 0, 1, 1 D. 1, 1, 1

19. An atom which contains 13 protons, 13 election and 14 neutrons has mass number:
    A. 40 B. 26 C. 14 D. 27

20. Which one of the following molecule is molecule of elements?
    A. H_2O B. NH_3 C. HCl D. Cl_2

21. Which one of the following sets contains only diatomic molecule of elements?
    A. Radon , xenon, Argon
    B. nitrogen, fluorine , chlorine
    C. sulfur, phosphorus, ozone
    D. xenon, sulfur , oxygen

22. Which of the following is the first organic compound synthesized from inorganic compounds?
    A. AgCNO B. NH_4CNO C. NH_4Cl D. $(NH_2)_2CO$

23. What is the formula of the alkene that contains seven carbon atoms?
    A. C_7H_{12} B. C_7H_{14} C.C_7H_{16} D. C_7H_{13}

24. The general formula of alkyne is:
    A. C_nH_{n+2} B. CnH_2n_{+2} C. C_nH_{2n-2} D. C_nH_{2n}

25. Which one of the following group of hydrocarbon represents homologous series?
    A. C_3H_6-→ C_4H_8→ C_5H_{12} C. C_4H_6→C_5H_8→ C_6H_{12}
    B. C_2H_6→ C_4H_8→ C_5H_{12} D. C_2H_6→ C_3H_8→ C_4H_{10}

26. The name of hydrocarbons C_2H_4, C_7H_{16} and C_8H_{14} respectively are:
    A. Ethene, heptane and octyne C. octyne, heptyne and ethane
    B. Heptyne ,propane and propene D. Ethane, heptyne and octene

27. Which one of the following hydrocarbon used in intoxication ingredient of many alcoholic beverages such as beer, wine and tella?
    A. Ethanol B. Ethyne C. Butane D. Formalin

28. What is the number of hydrocarbon called alkane that contains 18 hydrogen atoms?
    A. 36 B. 38 C. 8 D. 9

29. Which of the following is NOT true about acidic oxides?
    A. They are mostly non-metallic oxides.
    B. They react with water to give acids.
    C. They are mostly metallic oxide.
    D. SO_2 and CO_2 are acidic oxides

30. Which of the following oxide cannot form base or basic solution when it reacts with water?

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A. MgO B. Li_2O C. CaO D. CO_2

Question number 31 and 32 can be answered based on the following list of properties

1. **They have sour taste**
2. **PH value greater than seven**
3. **They have bitter taste**
4. **They release hydroxide ions(OH^-)**
5. **PH value less than seven**
6. **They release hydrogen ion(H^+)**

31. From the above list of properties which of them are properties of base?

A. 5, 3,1 C. 1,3,6 B. 1,5,6 D. 3,4,2

32. From the above list of properties which of them are properties of acid?

A. 1, 5, 6 B. 3, 4, 2 C. 5, 3, 1 D. 1,3,6

33. what does `x` represent in the following reaction $SO_3 + H_2O \rightarrow X$

A. H_2SO_4 B. $HSO_2 + H_2$ C. SO_4 D. S_2OH

34. An acid formed from anion of Sulfite is:

A. hydro sulfuric acid C. Sulfurous acid

B. Sulfuric acid D. hydro sulfurous acid

35. A chemical formula for Sodium Sulphate salt with cation Na^+ and anion SO^{2-}_4 is given by:

A. Na_2SO_4 B. $NaSO_4$ C. $NaSO_2$ D. Na_2SO

36. The reaction of acid and base is called :

A. decomposition B. neutralization C. decantation D. sublimation

37. The reaction of acid and carbonate produces:

A. salt, water and carbon dioxide C. salt and water

B. salt, base and hydrogen gas D salt and carbon dioxide

38. Which one of the following layer of skin is contains fatty tissue and used to store energy?

A. Epidermis B. Dermis C. Middle layer D. hypodermis

39. Which one of the following skin disease is caused by human papilloma virus?

A. Cold sore B. Carbuncle C. Warts D. Blister

40. Which one of the following gland is located in the dermis and excretes or produces sweat?

A. Ceruminous gland C. Mammary gland

B. Sebaceous gland D. Sudoriferous gland

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41. Which one of the following muscle can be consciously or voluntarily controlled?

A. heart muscle **B. skeletal muscle** **C. cardiac muscle** **D. smooth muscle**

42. The ability of the muscle to be stretched is called :

A. Elasticity **B. Extensibility** **C. Contractility** **D. Excitability**

43. A disease of muscular system sometimes called pulled muscle is:

A. Osteopenia **C. muscle strain**

B. muscle dystrophy **D. tendon**

44. Which one of the following is the part of axial skeleton?

A. Shoulder bone **B. Humerus** **C. Hip bones** **D. Vertebral column**

45. Which one of the following type of joint allows movement in all direction?

A. Gliding **B. Ball and socket** **C. Hinge** **D. Scapula**

46. Which one of the following disease is cancer of the body's blood forming tissues?

A. Leukemia **B. Fracture** **C. Osteopenia** **D. Osteoarthritis**

47. Connective tissue that connects bones to muscle is called.

A. Ligament **B. Cartilage** **C. Joint** **D. Tendon**

48. The total number of teeth on the upper jaw for an organism having a dental formula of $I = \frac{3}{3},\ C = \frac{1}{1}, P = \frac{4}{4}, M = \frac{2}{3}$ is:

A. 42 **B. 10** **C. 22** **D. 20**

49. Which one of the following parts of alimentary canal is a place where food is absorbed and digestion of food is completed?

A. Stomach **B. Small intestine** **C. liver** **D. Large intestine**

50. Which one of the following teeth type is chisel shaped and frontal teeth with sharp edge?

A. Premolars **B. Incisors** **C. Canines** **D. Molars**

51. Which one of the following respiratory component is any of the many air sacs in the lungs?

A. Alveoli **B. Bronchioles** **C. Bronchus** **D. Trachea**

52. Which one of the following is <u>incorrect</u> statement?

A. Inhalation is taking of carbon dioxide into the body.

B. Cellular respiration is the combination of food and oxygen inside the body.

C. Exhalation is removal of carbon dioxide out of the body.

D. Breathing is the process of inhalation and exhalation.

53. Which one of the following respiratory components is the large membrane tube reinforced by rings of cartilage?

A. Bronchioles **B. Alveoli** **C. Bronchus** **D. Trachea**

54. Which one of the following respiratory system disease is pain full swelling of the tissues inside the nose?

A. Bronchitis **B. Asthma** **C. Influenza** **D. Sinusitis**

55. Chamber of the heart that receives oxygenated blood from the lungs is called:

A. right ventricle **B. left atrium** **C. left ventricle** **D. right atrium**

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56. A blood vessel that carries blood away from the heart into different body part is:

A. capillary **B. artery** **C. vein** **D. septum**

57. Which one is correct pathway of oxygenated blood flow in the body?

A. Body→pulmonary vein→left atrium→left ventricle→aorta→body tissue
B. lung→pulmonary vein→left atrium→left ventricle→aorta→body tissue
C. Body→venacava→right atrium→right ventricle→ pulmonary artery →lung
D. lung→venacava→right atrium→right ventricle→ pulmonary artery →body

58. A male sex hormone produced during puberty is :

A. testosterone **B. estrogen** **C. sperm** **D. progesterone**

59. Which one of the following is <u>not</u> female secondary sexual characteristic?

A. Widening of hips. **C. Voice becomes thinner**

B. Shoulder and chest broaden **D. Start of menstruation**

60. Which one of the following is <u>not</u> correct statement?

A. Oviduct is a site of fertilization.
B. Clitoris is an erectile and sensitive tissue in female.
C. Uterus is a site of pregnancy.
D. Ovary is female sex hormone.

LIVEWORKSHEETS