NIFAS SILK LAFTO SUB-CITY EDUCATIONAL OFFICE FIRST SEMESTER *GENERAL SCIENCE* MODEL EXAMINATION

FOR GRADE EIGHT IN 2018 E.C

NUMBER OF QUESTIONS: 60

TIME ALLOWED: - 1HOUR

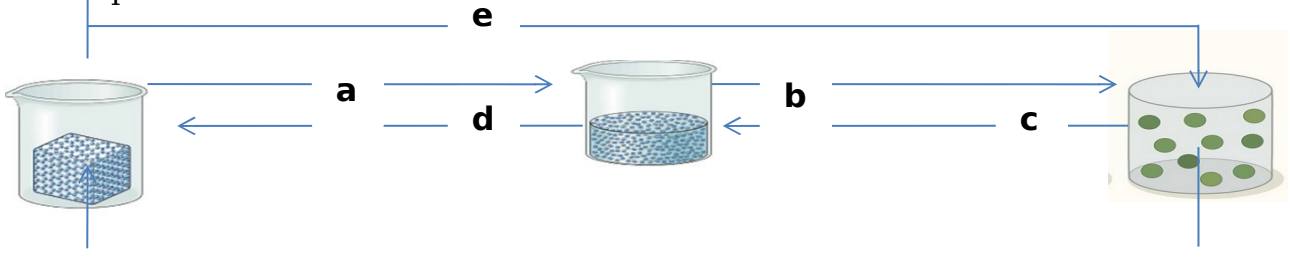
GENERAL DIRECTIONS

- THIS BOOKLET CONTAINS GENERAL SCIENCE EXAMINATION.
- IN THIS EXAMINATION,THERE ARE A TOTAL OF 60 MULTIPLES CHOICE QUESTIONS.
- CAREFULLY SELECT THE BEST ANSWER AND BLACKEN ONLY THE LETTER OF YOUR CHOICE ON THE SEPARET ANSWER SHEET PROVIDED.
- FOLLOW THE INSTRUCTIONS ON THE ANSWER SHEET AND THE EXAMINATION PAPER CAREFULY.
- USE ONLY PENCIL TO MARK YOUR ANSWER.
- YOUR ANSWER MARK SHOULD BE **HEAVEY** AND **DARK**, COVERING THE ANSWER SPACE COMPLETELY.
- PLACE ERASE ALL UNNECESSARY MARKS COMPLETELY FROM YOUR ANSWER SHEET.
- YOU ARE ALLOWED TO WORK ON THE EXAM FOR 1HOUR.
- 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).
- PLACE MAKE SURE THAT YOU HAVE WRITTEN ALL THE REQUIRED INFORMATION ON THE ANSWER SHEET BEFORE YOU START TO WORK ON THE EXAMINATION.

DONOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO

INSTRUCTION: CHOOSE THE BEST ANSWER FROM THE FOLLOWING ALTERNATIVES

1. Which one of the following is the main difference between indigenous science and conventional science?
   A. Indigenous science based on certain laws
   B. Conventional science depends on empirical knowledge
   C. Indigenous knowledge based on social, physical and spiritual understandings
   D. Indigenous science is universal
2. which one of the following is the study of physical phenomena and physical process in living things ?
   A. Physical chemistry C. Biochemistry
   B. Biophysics D. Geophysics
3. which one of the following is the Ethiopian famous scientist who discovers the impact of pesticides on human health?
   A,Dr, Aklilu Lemma C. Isaac Newton
   B. Prof. Gebisa Ejeta D. Prof, Yalemtsehay Mekonnen
4. Which of the following laboratory tool is used to grow micro organism and count bacteria in a laboratory?
   A. Petridish B. Tongs C, Beaker D. Bunse burner
5. Which one of the following is not true about the particle theory of matter?
   A. The particles of matter move continuously
   B. The particles have spaces between them
   C. Adding heat to matter makes the particle move slower
   D, All matter is made up of tiny particles
6. In which states of matter diffusion is very fast?
   A. Diffusion in liquids C. Diffusion in fluids
   B. Diffusion in gases D. Diffusion in solids
7. Among the following one is true about the properties of solids?
   A. There is no attractive force between particles
   B. The particles are randomly arranged
   C. They have low density than liquid and gases
   D. They have definite shape and volume
8. What is the process represented by letter "e" on the figure bellow?
   A. Sublimation C. Deposition
   B. Evaporation D. Condensation



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9. Which one of the following physical properties detected by sense organs ?
A. Melting point B. Taste C. Electrical conductivity D. Density

10.Which of the following statements describe chemical property of a substance?

A. Ethyl alcohol boils at 78^{o}C
B. Mercury is silvery –white liquid metal
C. Charcoal burns in air to form carbon dioxide
D. Sulphur is a yellow solid at room temperature

11.Which one of the following is true about physical properties?

A. The composition of substance not change
B. New substance is formed
C. Their properties can not be determined by viewing or touching
D. Flammability and reactivity are physical properties

12. Which of the following is a pure substance that can not be broken down in to simpler substances by ordinary chemical means ?

A. Compound B. Element C. mixtures D. Oxides

13. Which of the following is examples of metallic element?

A. Carbon B. Sulfur C. Oxygen D. Sodium

14. one of the following is true about the properties of non-metals?

A. They are shiny in nature
B. They are good conductors of electricity
C. Their density and melting point is very low
D. They are electro positive in nature

15. Among the following which one is heterogenous mixtures ?
A, sea water B. Blood C. Air D. Bronze

16. Among the following which one is a physical change ?
A. Burning of charcoal B. Fermentatio of alcohol C. Rusting of Iron D. Melting of ice

17. Which one of the following describes a chemical change ?

A. The change is not easily reversed
B. The composition of substance is not altered
C. Energy changes is not necessarily
D. New substance is not formed

18. Which of the following is a useful effects of physical change?

A. Photosynthesis which occurs in plants
B. Energy production in hydroelectric power
C. Rusting of iron by moist air
D. Evaporation and condensation create water cycle

19. A mixture of alcohol and water can be separated by

A. Evaporation B. Simple distillation C. Filtration D. Sedimentation

20. Which one of the following apparatus is used to separate two immiscible liquids ?

A. Filter paper B. Magnet C. Thermometer D. Separatory Funnel

21. Which of the following is the correct chemical symbol for **Tungsten**?

A. T B. Te C. W D. Tn

22. Which of the following is the correct name of **$FeCl_3$** ?

A. Iron chloride B. Iron (III) chloride C. Iron (II) chloride D. Iron carbide

23. Which one of the following is the correct chemical formula of Aluminum sulphate?

A. AlS_3 B. $Al_2(SO_4)_3$ C. $Al_3(SO_4)_2$ D. $AlSO_4$

24. Which chemical change occurs during a chemical reactions ?

A. Change in shape B. Change in state C. Formation of bubbles D. Morphological change

25. Balance the following chemical equation by inspection method . Then what is the coefficient of **Al** ?

$$Al + O_2 \rightarrow Al_2O_3$$

A.2 B. 3 C. 5 D. 4

26. Which one of the following is not true about the uses chemical reactions ?

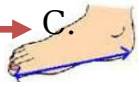
A. Making of Wine B. Burning of fuels C. Oil spills D. Making pottery

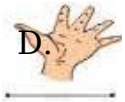
27. Which one of the following chemical reactions takes place in our daily life ?

A. Synthesis of ammonia C. Combustion of hydrogen

B. Synthesis of sulfuric acid D. Digestion of food in our stomach

28. Which of the following indigenous measurement of length is miss-matched with its symbol?

A. Digit  C. Foot 

B. Cubit  D. pace 

29. Which of the following sets contains only derived physical quantities?

A. Time, length, density C. Mass, time, length

B. Mass, area , volume D. Volume , density , area

30. The known mass of certain body is 5Kg , If students measure it's mass inside a laboratory

and obtain 4.99 Kg, 4.98 Kg, and 4.97 Kg. then the measurement is ?

A. Both precise and accurate C. Accurate not precise

B. Precise not accurate D. Neither accurate nor precise

31. Which one of the following components of scientific investigations refers to tentative explanations for a set of observation?

A. Ask questions B. Hypothesis C. Background of research D. Draw conclusion

32. Which one of the following is not correct experimental title in scientific investigations?

A. What is the effect of sunlight on the growth of bean plant?

B. What are the causes of molding bread /injera?

C. The evolution of human beings

D. How garbage in school compound can be disposed without affect the environment?

33. Grade 8 students want to do an activity. They first take a candle, fix it on a table and light the

candle and the candle will continue to be burned due to the presence of oxygen. Which

Scientific investigation do the students confirm in their activity?

A. Background research C. Formulate hypothesis

B. Ask questions D. Test the hypothesis by experiment

34. Which one of the following is not true about scientific method/ investigation ?

A. Scientific investigation typically begins with observation

B. The hypothesis must be tested by conducting experiment

C. Formulating hypothesis is the last steps of scientific investigations

D. The hypothesis is a tentative explanation for a set observations

35.Which of the following is true about the idea of Democritus?

A. Believed in the existence of atoms C. Matter is infinitely divisible

B. Rejected the idea of atoms D. There is no limit to which matter is broken

36. Which of the following is true about the structure of an atom?

A. proton and neutron have the same charge

B. proton and electron have the same mass

C. proton and neutron are found in the nucleus

D. neutron is positively charged sub atomic particles

37. Which one of the following is the relative mass of electrons ?

A. 1 B. 0 C.-1 D. 2

38. For $^{59}_{28}Ni^{+4}$ how many protons, neutrons and electrons in an atom respectively?

A. 28, 31, 28
B. 59, 31, 24
C. 28, 31, 32
D. 28, 31, 24

39. Which one of the following is poly atomic molecules?

A. O_3 B. N_2 C. He D. H_2

40. Which one of the following is the chemical formula of Alkynes that contain 8 hydrogen atoms?

A. C_8H_{14} B. C_2H_2 C. C_5H_8 D. C_4H_8

41. What is the name of an Alkene that have seven carbon atoms?

A. Pentene B. Hexene C. Heptyne D. Heptene

42. The organic compound that produce oxyacetylene flame, which is used in the cutting and welding of steel and iron is

A. CH_3COOH B.C_2H_2 C. CH_4 D.C_3H_6

43. Which one of the is following is not correctly matched?

A. Metallic oxides → CaO
B. Non -metallic → SO_2
C. Salts →$CaCl_2$
D. Base → Na_2SO_4

44. Which of the following is **not** the properties of acids?

A. Acids change blue litmus paper in to red

B. Acids have sour taste

C. Acids have slippery or soapy feeling

D. Acids neutralize bases

45. For the reaction, **$Ca(OH)_2 + H_2SO_4 \rightarrow X + 2H_2O$**

'' **X**'' Represents _____

A. CaO B. $CaSO_4$ C. CO_2 D. SO_2

46. Let some **Y** school grade 8 students carried out an experiment, they used Bunsen burner as a source of heat to

burn the sulfur powder, they add small amount of water in to the resulted powder in the gas jar . Finally they

records all the results what they observed? Which one of the following is the results of their experiment?

A. Formation of acidic solutions C. Formation of basic solutions

B. Formation of neutralization reaction D. Formation of salt

47. Which one of the following is application of neutralization reaction at home?

A. Anti-acids contains bases such as aluminum hydroxide $Al(OH)_3$and magnesium hydroxide $Mg(OH)_2$ to neutralize the excessacid in the stomach.
B. Acidic soil is treated with powdered lime, limestone,or ashes of burnt wood.
C. Toothpaste contains bases that neutralize the acid produced by bacteria in our mouth.
D. Baking powder is alkaline which is used to cure bee stings

48. Which one of the following salt known as limestone or chalk and used to treat acidity of soil?

A. NaCl B. $CaCO_3$ C. Na_2CO_3 D. KNO_3

49. Which one of the following parts of integumentary systems correctly matched with their functions?

A. Skin - keeps your skull warm C. Glands - covers the internal parts of the body

B. Nail - protect inner part of finger D. Hair -secret important substances

50. The skin disease which is a bubble of fluid under the skin result clear watery liquid inside it is _____?

A. Chicken pox B. Blister C. Carbuncle D. Acne

51. Which components of muscular system is found inside of vital organs such as stomach, intestine, reproductive

organs and urinary tracts?

A.Skeletal muscle B. Heart Muscle C. smooth muscle D. Cardiac muscle

52. Which group of bones are examples of short bones?

A. Arm, leg and thigh bones C. hip, facial and vertebral column

B. Wrist, finger, toes and ankle bones D. ribs, sternum, cranial and scapula

53. Which of the following is not functions of skeletal system?

A. Digestion of food C. Produce blood cell

B. Protection and support D. Movement

54. Esophagus, stomach and intestines are parts of

A. Nervous system C. Digestive system

B. Skeletal system D. Respiratory system

55. One organism have I= 2/2, C= 3/3, P = 2/2, M = 3/3. Then, what is the total number of teeth?

A. 34 B. 40 C. 32 D. 29

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

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

57. The disease that can be due to infections, allergies, or autoimmune problem ?

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

58. Which types of blood cells are colorless and used for inciating the blood clotting?

A. RBC B. platelets C. WBC D. Leucocytes

59. Which one of the following is a major disease of circulatory systems is occurs when the blood supply to part of your brain is interrupted or reduced?

A. Strokes B. Hypertension C. Heart attack D. Anemia

60. A female primary sexual characteristics that is used for sexual intercourse and birth canal?

A. Uterus B. Oviduct C. Vagina D. Cervix