

**ADDIS ABEBA, YEKA SUB-CITY EDUCATIONAL OFFICE
BLUE BIRD SCHOOL GENERAL SCIENCE MODEL EXAMINATION
FOR GRADE EIGHT**

MEGABIT 26/2016 E.C/MARCH 2024G.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 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 ANSWER.
- YOUR ANSWER MARK SHOULD BE **HEAVY** AND **DARK**, COVERING THE ANSWER SPACE COMPLETELY.
- ERASE ALL UNNECESSARY MARKS COMPLETELY FROM YOUR ANSWER SHEET.
- YOU ARE ALLOWED TO WORK ON THE EXAM FOR 1 HOUR.
- 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).
- 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

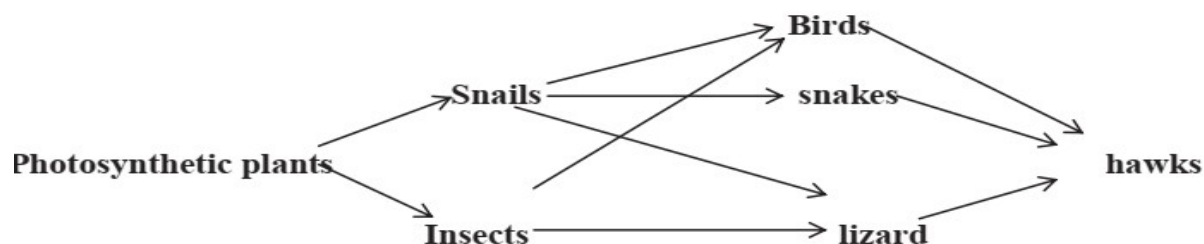
- 1) A non-stop flight from Addis Ababa to Jigjiga is taking 4800 seconds and if we want to express it in other units of time, which one of the following is **not** equivalent to this duration?
A. 4.8×10^5 cs B. 1.3hr C. 4.8×10^9 μS D. 8×10^2 min
- 2) Which one of the following sets of indigenous measurements is used to measure only one specific physical quantity?
A. Digit, feressula, cubit C. Weqet, quintal, feressula
B. Kilogram, gram, tone D. Measuring tape, vernier caliper, meter
- 3) According to which theory, “it would be impossible to reach to the last indivisible particle.”
A. Continuity theory B. Discrete theory C. Dalton theory D. Particle theory
- 4) Which one of the following is positively charged?
A. Atom B. Neutron C. Nucleus D. Electron
- 5) For ${}^{59}_{28}\text{Ni}^{+4}$ how many protons, neutrons and electrons in an atom respectively?
A. 28, 31, 28 C. 28, 31, 32
B. 59, 31, 24 D. 28, 31, 24
- 6) Which one of the following is **not** correct about electron?
A. It is carrying a negative charge
B. It's approximately 2000 times lower than neutron by mass
C. It is found outside the nucleus
D. It occupies small space compared to proton or neutron
- 7) What is the basic anhydride of aluminum hydroxide, $\text{Al}(\text{OH})_3$?
A. Al_2O_3 B. Al_2O C. AlO_2 D. Al_2O_3
- 8) All of the followings are hydrocarbons that have 10 hydrogen atoms, except
A. Butane B. Pentene C. Decane D. Hexyne
- 9) Which one of the following is the **SI** unit of force?
A. Kg.m B. Kg.M/S² C. Kg.M/s D. Kg.m.s⁻²
- 10) We want to measure the mass of a box and we get 95, our value indicates that
A. Accuracy B. Precision C. Lack of measurement D. Certainty
- 11) Which one of the following is **not** showing a measurement?
A. The mass of small micro organisms
B. The distance between the sun and the earth
C. The total number of students in Blue Bird School
D. Time taken for a regular football game
- 12) $500\text{cm} = \underline{\hspace{2cm}}$ μm = $\underline{\hspace{2cm}}$ mm respectively.
A. 5×10^{-6} , 5×10^{-2} C. 5×10^6 , 5×10^{-3}
B. 5×10^6 , 5×10^3 D. 5×10^{-6} , 5×10^{-3}
- 13) Baking powder is alkaline which is used to cure bee stings & ant bites its chemical formula is
A. CH_3COOH B. NaHCO_3 C. $\text{Mg}(\text{OH})_2$ D. CaCO_3
- 14) Which one is the process by which scientists approach their work?
A. Science B. Technology C. Scientific method D. Experiment
- 15) Which one of the following base is used to make soft soap?
A. Caustic soda B. Caustic potash C. Soda D. Milk of magnesia

- 16) Which one of the following activity is **not** prohibited in laboratory during experiment?
 A. If a base come to your eyes wash with hot water C. Smell chemicals before use
 B. Add water to concentrated acid solutions D. If you drink a base take acetic acid
- 17) Blue bird school grade 8 students carried out an experiment, they used Bunsen burner as a source of heat to burn the magnesium ribbon. Then they added small amount of water in to the resulted powder in the crucible. Finally they recorded the results what they observed. Which one of the following is the result of their experiment?
 A. Formation of acidic solution C. Formation of neutralization reaction
 B. Formation of basic solution D. Formation of salts
- 18) Which one of the following is application of neutralization reaction in health?
 A. Anti-acids contains bases such as aluminum hydroxide $\text{Al}(\text{OH})_3$ and magnesium hydroxide $\text{Mg}(\text{OH})_2$ to neutralize the excess acid 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 usually used to help the cake rise.
- 19) Which one is **incorrect** for rules that used to name an acid with the general formula H_nX .
 A. When the name of the anion (X) ends in ide, the acid name begins with the prefix hydro
 B. When the anion ends in -ite, the acid name is the stem of the anion with the suffix -ous
 C. When the anion ends in -ate, the acid name is the stem of the anion with the suffix -ic
 D. When the anion ends in -ous, the acid name is the stem of the anion with the suffix -ite.
- 20) A substance that releases hydroxide ions in aqueous solution is called
 A. Alkali B. acid C. salt D. oxide
- 21) 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
- 22) The dental formula of kangaroo is $\frac{3124}{2024}$ how many incisors are there in the upper jaw?
 A. 3 B. 5 C. 6 D. 4
- 23) Which one of the following is **not** correct about digestive system
 A. Pepsin and hydrochloric solution produced in stomach
 B. End products of fat and protein is fatty acid and amino acid respectively
 C. Bile and pancreatic enzymes produced by small intestine
 D. Both fat and protein's chemical digestion begin in stomach
- 24) Which one the following correctly matched diseases?
 A. Constipation → respiratory disease C. Chickenpox → skin disease
 B. Heart attack → digestive disease D. Leukemia → muscle disease
- 25) Which one of the following are any of the many tiny air sacs in the lungs where the exchange of oxygen and carbon dioxide takes place.
 A. Trachea B. Alveoli C. Lung D. Larynx
- 26) Which one of the following is **incorrect** about circulatory system?
 A. Right ventricle pumps deoxygenated blood in to the lung.
 B. Right atrium carries deoxygenated blood to lung.

- C. Inside the heart the oxygenated and deoxygenated blood cannot be mix together because the heart chamber can be separated by valves.
D. Alimentary canal used to prevent the back flow of the blood.
- 27) Bones are firm, compact or spongy, provide and protect body's organ, this is because of
A. Iron sulfate B. Calcium phosphate C. Magnesium phosphate D. Sodium sulfate
- 28) Which one of the following is the chemical formula of ammonium sulfate?
A. $(\text{NH}_4)_2\text{SO}_4$ B. $\text{NH}_4(\text{SO}_4)_2$ C. NH_4SO_4 D. $(\text{NH}_4)_2(\text{SO}_4)_2$
- 29) Given the following incomplete chemical equation, $\text{Na} + \text{H}_2\text{O} \rightarrow ?$ What are the products?
A. NaO and H_2 B. NaOH and H_2 C. NaOH and H_2O D. NaO and H_2O
- 30) Inorganic compounds can be classified into four groups such as oxides, acids, bases and salts according to their
A. Composition and properties B. Basicity and acidity C. Molecular force D. Reactivity
- 31) Which one of the following is odd?
A. Time $\rightarrow$ clock B. Mass $\rightarrow$ balances C. Length $\rightarrow$ ruler D. Temperature $\rightarrow$ kelvin
- 32) Which one of the following is **not** correct about hypothesis?
A. It includes prediction tested by experiments
B. Even if it is true, it does not accepted until proved by other scientists
C. We should create a new hypothesis, if it didn't match with our expectations when tested
D. Alternative hypothesis is that we try to disprove & null hypothesis is a proved one
- 33) A site where two or more bones or other skeletal components are joined together is called?
A. Tendon B. Ligament C. Joint D. Cartilage
- 34) Which one has red pigmented substance called hemoglobin, carries oxygen in the blood?
A. Thrombocytes B. Leucocytes C. Erythrocytes D. White blood cells
- 35) Which one occurs when blood stops flowing to a part of the heart and the heart muscle is injured because of not receiving enough oxygen?
A. Heart attack B. Stroke C. Heart failure D. Hypertension
- 36) A new born girl may appear somewhat or totally male, this can happen the baby had encountered too much of the hormone
A. Testosterone B. Estrogen C. Progesterone D. Androgen
- 37) Suppose a woman has a regular menstrual cycle. If her menstruation begins on Ginbot 10, the process of ovulation expected to occur in the days between
A. Ginbot 10-14 B. Ginbot 21-26 C. Sene 1-4 D. Sene 10-14
- 38) Which one of the following is correct about acid- base indicators?
A. Sodium chloride solution changes red litmus paper to blue.
B. Ammonium solution changes blue litmus paper to red
C. Magnesium in solution form changes methyl orange to red.
D. Fruits like lemon juice changes blue litmus paper to red.
- 39) The mass number and atomic number of hydrogen is nearly 1 and then what will be the number of electron, proton and neutron at neutral condition respectively?
A. 1,0,1 B. 1,0,0 C. 1,1,0 D. 0,1,0
- 40) Which one is the idea of vital force theory?
A. It is concerned that how living and nonliving things are organized to form compounds.
B. It is a special force theory mainly focuses on the attraction force between two elements.



- C. It is the latest idea for the classification of compounds.
D. It Supplied by livingorganism was necessary for the formation of an organic compound.
- 41) Take the exact value of human temperature is approximately 37°C, and then which one of the following is a more price measurements?
A. 37°C, 38°C, 39°C C. 37°C, 37.5°C, 37°C
B. 40°C, 40.1°C, 40.2°C D. 36.99°C, 38°C, 40°C
- 42) In which one of the following idea molecules and compounds are different?
A. Compounds are composed of one or more atoms but not molecules.
B. Compounds are produced by our experiments but molecules exist free in nature.
C. Molecules are very large in number but Compounds are very restricted in number
D. Compounds can be molecules but molecules cannot be compounds.
- 43) Which one of the following necessarily correct?
A. The mass number of x is 23 & its atomic number is 11, so it has 11 electrons
B. An atom has equal number of protons and electrons
C. The dense outer region of an atom is electron
D. Number of neutrons of an atom may or may not be equal to the number of protons.
- 44) In human the first 20 teeth sets is called
A. Permanent teeth B. Milk teeth C. Wisdom teeth D. Dentition
- 45) Which one of the following statement is **correct**?
A. A complex feeding interrelation is food chain
B. A direct and simple feeding system is food web
C. In food chain Energy flows in only one direction
D. Trophic level consists of different feeding mode of organisms
- 46) Which one the following does not use sunlight to synthesize organic food materials as primary sources of energy?
A. Green plants B. Algae C. Photosynthetic bacteria D. Nitrifying bacteria.
- 47) Which one is an organ that makes hormone digestive juice, sweat, tear saliva or milk?
A. Lung B. Hair C. Insulin D. Gland
- 48) From the feeding relationship given below identify the **correct** statement?



- A. Herbivores are found in first trophic level
B. Totally there are five food webs
C. Bird, snake and lizard are secondary consumers
D. Photosynthetic plants are primary consumers
- 49) Which one of the following is the best example of mutualism symbiosis?
A. Crocodile and teeth cleaning birds C. Flower and pollinating insects

- B. Birds that follow large cows D. Algae and fungi association
- 50) Which one the following statement is **incorrect** in the trophic pyramid from bottom to top?
- A. A decrease in biomass C. Energy is recycled but not flow
- B. A decrease in energy D. Nutrient is recycled
- 51) In the process of nitrogen cycle which one is reduction of nitrate back to inert nitrogen gas(N₂)for completing the nitrogen cycle?
- A. Nitrogen fixation B. Ammonification C. Denitrification D. nitrification
- 52) Which one of the following is **not correct** about soil types?
- A. Sandy soils have relatively poor ability to hold water
- B. Clay soils have highest water holding capacity &largestpore space
- C. Silt soil is intermediate in its water holding properties.
- D. A loam soil contains low nutrients, moisture, and humus
- 53) Which one is worldwide blockage or reduction of sunlight from reaching the earth's surfaceas a result of unborn/unburned hydrocarbon released in to the air?
- A. Global warming B. Acid rain C. Global dimming D. Greenhouse effect
- 54) Some farmers in Ethiopia are ploughingtheir land in different seasons as if there is not sufficient rain they will grow crop thatneeds few water and if there is excess rain they will grow other crops that require more withinthe same land, this techniques of farmers is called
- A. Strip cropping B. Crop rotation C. Contour ploughing D. Afforestation
- 55) Which of one the following is **incorrect**?
- A. Carbon is the most abundant elements to be recycled
- B. The main driving factors of the oxygen cycle is photosynthesis
- C. Hydrogen cycle is the continuous movements of water on the surface of earth
- D. The types of element that is needed more by plants is nitrogen
- 56) Which one of the following is used to in ex-situ Conservation of biodiversity?
- A. Seed banks B. National parks C. Sanctuaries D. Biosphere reserves
- 57) Which one of the following is**not** parts of our solar systems?
- A. Planets B. Satellites C. Moons D. The Sun
- 58) The path where planets revolve around the Sun is known as
- A. Solar system B. Orbit C. Circle D. Road
- 59) Which planet is known as the red planet, because of its reddishcolor?
- A. Mars B. Jupiter C. Saturn D. Uranus
- 60) Which one of the following is**NOT** correct about the inner planets?
- A. They have low mass C. They havehigh average densities
- B. They are made of rock D. They have large number of moons.

GOOD

5

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