



**YEKA SUB CITY ADMINISTRATION EDUCATION
OFFICE
GENERAL SCIENCE MODEL EXAMINATION FOR
GRADE EIGHT (8TH)**



May/2023G.C

Addis Ababa, Ethiopia

Ginbot/2015E.C

NUMBER OF QUESTIONS: 60

TIME ALLOWED:- 1 HOUR

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.

DIRECTION ONE: CHOOSE THE CORRECT ANSWER FROM THE GIVEN FOUR ALTERNATIVES AND BLACKEN THE LETTER OF YOUR CHOICE ON THE ANSWER SHEET PROVIDED.

- Which one of the following is an indigenous method of measuring length?
A. Quntal B. Feresula C. Tassa D. Pace
- Which of the following sets contains only derived physical quantities?
A. mass, Time and length C. Time, length and density
B. mass, area and volume D. volume, density and area
- Which of the following sets of prefixes is **decreasing in** order?
A. micro, kilo, centi, milli C. Mega, kilo, centi, milli
B. milli, mega, centi, kilo D. mega, milli, centi, kilo
- The known mass of a certain body is 19 kg. If students measure its mass inside a laboratory and obtain 18.99 kg, 18.98 kg and 18.97 kg, then the measurement is:
A. Accurate not precise C. Both precise and accurate
B. Precise not accurate D. Neither accurate nor precise
- Which of the following basic quantity is correctly paired with its SI unit?
A. Length--meter C. Temperature—mole
B. mass--kg/m³ D. electric current--Kelvin
- Which one of the following is not true about scientific method/investigation?
A. A scientific investigation typically begins with observations.
B. A hypothesis is a tentative explanation for a set of observations.
C. The hypothesis must be tested by conducting an experiment.
D. Formulating hypothesis is the last steps of in scientific investigation.
- Which of the following statement is correct regarding to fundamental sub-atomic substance?
A. The relative charge of proton is -1. C) The relative charge of electron is +1.
B. The relative charge of proton is +1. D) The relative charge of neutron is -1.
- Identify only diatomic atomic molecule of elements from the given alternatives.
A. xenon, krypton and Argon
B. oxygen, fluorine and chlorine
C. sulfur, phosphorus and ozone
D. chlorine, sulfur and ozone

9. Which of the following is not true about $^{19}_9\text{F}$?
- it has 9 electrons
 - its mass number is 19
 - It has the same number of proton and neutron
 - Its atomic number is 9
10. Which of the following is not true about the idea of Democritus?
- matter is discrete
 - matter is finitely divisible
 - matter is discontinuous
 - matter is infinitely divisible
11. Which of the following is the general formula for alkynes?
- $\text{C}_n\text{H}_{2n-2}$
 - $\text{C}_n\text{H}_{2n+2}$
 - $\text{C}_n\text{H}_{2n-1}$
 - DC_nH_{2n}
12. Which one of the following sets contains hydrocarbons that do not belong to the same homologous series?
- $\text{C}_2\text{H}_6, \text{C}_4\text{H}_{10}, \text{C}_6\text{H}_{12}$
 - $\text{CH}_4, \text{C}_2\text{H}_6, \text{C}_3\text{H}_8$
 - $\text{C}_2\text{H}_2, \text{C}_3\text{H}_4, \text{C}_4\text{H}_6$
 - $\text{C}_2\text{H}_4, \text{C}_3\text{H}_6, \text{C}_4\text{H}_8$
13. Which of the following is NOT true about properties of Acids?
- They release hydrogen ion in aqueous solution
 - They change blue litmus to red
 - They have bitter taste
 - They have sour taste
14. The name of $\text{C}_4\text{H}_6, \text{C}_5\text{H}_8$ and C_6H_{10} respectively are
- Butane, Pentane and Hexane
 - Heptyne, propane and propene
 - Butyne, Pentyne and Hexyne
 - Pentane, heptyne and Pentyne
15. Acidic soil can be treated by one of the following to neutralize the soil's acidity.
- CaO
 - mgO
 - NO_2
 - NaCO_3
16. In an experiment a girl accidentally drink strong acid, What should be taken to neutralize the acid.
- H_2SO_4
 - HNO_3
 - $\text{Mg}(\text{OH})_2$
 - Na_2SO_4
17. One of the following elements, which one forms an acidic oxide?
- Lithium
 - Calcium
 - Sulphur
 - Magnesium
18. Which oxide used to form alkaline solution?
- NO_2
 - NO
 - P_2O_5
 - Mg_2O
19. for the reaction $\text{SO}_3 + \text{Ca}(\text{OH})_2 \longrightarrow \text{CaSO}_4 + \text{X}$, the value of x must be:
- base
 - salt
 - water
 - Acid
20. Which layer of the skin is contains fatty tissue that used to store energy?
- Dermis
 - epidermis
 - middle layer
 - Hypodermis
21. Which of the following types of teeth does not exist in a milk tooth?
- premolar
 - molar
 - canine
 - incisor

22. If a given mammal has a dental formula of $\frac{0\ 0\ 3\ 3}{3\ 1\ 3\ 3}$, so how many total teeth on the upper Jaw have?
- A. 32 B. 12 C. 20 D. 10
23. Which function performed by integumentary systems?
- A. Digestion & respiration C. reproduction & respiration
B. Protection & excretion D. breathing & digestion
24. Which statement is incorrect about skin?
- A. epidermis is made up of dead cells
B. hypodermis protect us from loss of excess heat
C. dermis are responsible for thermo regulation
D. Dermis protects us from uv light.
25. A reaction to certain proteins found in natural rubber is
- A. chicken pox B. latex allergy C. Actinic keratosis D. Blister
26. Which of the following is an example of joints that allow all directional movements?
- A. Ankle and Vertebrae C. Elbow and knee
B. Shoulder and Hip D. skull and sternum
27. After the insemination process, in which order does semen travel in the female reproductive tract.
- A. Vagina, uterus, oviduct and ovary.
B. vagina, cervix, uterus and oviduct
C. Cervix, urethra, uterus and oviduct
D. Cervix, vagina, uterus and oviduct
28. All are skeletal system diseases, except:
- A. Fracture B. Osteoporosis C. Gastritis D. Osteoarthritis
29. Which of the following female reproductive organ is incorrectly matched with its function?
- A. **Womb**—producing sex cell
B. **oviduct**—it is the site of fertilization
C. **Uterus**—it is a site for pregnancy
D. **ovaries**—producing egg cells and sex cell
30. The narrow tube from the ovary to uterus for movement of an egg and the site Fertilization is:
- A. Vagina B. Oviduct C. Cervix D. Womb
31. If a boy looked like a girl in his external appearance this situation could be due to the lack of _____
- A. testosterone B. Oestrogen C. progesterone D. insulin
32. Which one of the following trophic levels is least energy?
- A. second trophic level C. fourth trophic level
B. first trophic level D. third trophic level
33. A form of symbiosis in which one organism is get benefit and the other is harmed from the relation is
- A. commensalism B. mutualism C. Parasitism D. protocooperations

34. Which of the following biological association is not correctly paired with its example?
- A. Parasitism--Tapeworm and Human C. Mutualism---Remora fish and sharks
B. Predation--cat and Rat D. Proto cooperation -- Birds and crocodile

Item number 44, 45, and 46 are based on the following list of terrestrial organism.

Grass → Goat → Tiger → Lion

35. What would be the producer in the above food chain?
- A. Tiger B. Grass C. Lion D. Goat
36. What would be in the tertiary consumer in the above food chain?
- A. Goat B. Grass C. lion D. Tiger
37. What would be in the second and third trophic level in the above food chain?
- A. Goat and Tiger B. Tiger and grass C. Lion and Goat D. grass and lion
38. Which of the following is biotic component of the ecosystem?
- A. Temperature B. Soil C. microorganism D. water
39. Which of the following is correct about food chain?
- A. Show transfer of food from carnivores to producers
B. Begins with an organisms that makes its own food
C. Begins with an organism that found in the last trophic level
D. It is a complex feeding relationship.
40. Which of the following is the most abundant and pure component of the air?
- A. Argon B. Oxygen C. Carbon dioxide D. Nitrogen
41. Which of the following types of soil has highest Water holding capacity?
- A. Sandy B. Clay C. Loam D. Silt
42. Which of the following types of soil is suitable for large number of plants?
- A. Clay B. Sandy C. Loam D low fertile soil

Answer question 43-45 based on the following listed planets.

- | | | |
|-----------|------------|------------|
| 1. Uranus | 4. Neptun | 7. Jupiter |
| 2. Mars | 5. Saturn | 8. Venus |
| 3. Earth | 6. Mercury | |

43. Identify the correct list of planets that contains only inner planets.
- A. 2,4,6,7 B. 6,8,1,4 C. 6,8, 2,3 D. 1,2,3,7
44. Which planet has the highest amount of temperature?
- A. 8 B. 4 C. 1 D. 5
45. Which plane is suitable for living organisms?
- A. 6 B. 8 C. 4 D. 3

46. Which one of the following is an example of dwarf planet?
A. A. Pluto B. Mars C. Neptune D. Uranus
47. Which of the following is true about the characteristics of inner planets?
A. Have large diameter B. Have low average densities
C. Have large number of Moons D. Have low mass
48. The farthest planet from the sun in the solar system is:
A. Uranus B. Neptune C. Saturn D. Mercury
49. Which of the following material is a good reflector of sound?
A. Mountain B. Paper C. Curtain D. Furniture
50. Which of the following is not involved in nitrogen cycle?
A. Ammonification B. Nitrification C. Denitrification D. Condensation
51. Which of the following statement is correct about asteroids?
A. They are found between the orbit of mars and Jupiter.
B. They are commonly known as shooting stars.
C. They can be seen by our naked eye.
D. They have long tail.
52. Which of the following planet has large number of moon?
A. Jupiter B. Saturn C. Mars D. Neptune
53. Which of the following is true about magnetic line of force?
A. They can cross each other.
B. They run from north to South Pole inside a magnet.
C. Magnetic force is stronger at poles.
D. They run from south to north Pole outside a magnet
54. The method of heat transfer by movement of molecules of the medium is:
A. Radiation B. Convection C. Conduction D. Induction
55. Which one of the following material is magnetic?
A. Aluminum B. Gold C. Nickel D. Copper
56. Which one of the following is not the nature of image formed by plane mirror?
A. Erect B. Real C. Virtual D. Laterally Inverted
57. In which way heat is transfer from sun to earth?
A. Conduction B. Radiation C. Convection D. Rubbing
58. The turning back of light ray after striking the surface is called:
A. Reflection of light B. Refraction of light
C. Dispersion of light D. Diffraction of light
59. The splitting of White light into seven different colors using prism is called:
A. Dispersion B. Refraction C. Reflection D. Luminous
60. Which of the following medium transmit sound in fastest speed?
A. Vacuum B. liquid C. gas D. Solid