

TRENDING-GHANA EXAMINATIONS CONSULTS

(INTELLIGENCE IS OUR HALLMARK)

SUBJECT: *Integrated Science*

SECTION B

- 2a. (i) What is *technology*?
(ii) State **one** use of technology in communication
- b. Write and balance each of the following chemical equations:
(i) $\text{Fe} + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3$;
(ii) $\text{Na} + \text{Cl}_2 \rightarrow \text{NaCl}$;
(iii) $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$
- c. State **one** function of each of the following components of atypical cell:
(i) nucleus (ii) chloroplast (iii) mitochondrion
- d. Mention **four** cultural practices in vegetable crop production
- e. Name **two** agencies in food safety and quality assurance in Ghana.
- 3a. Explain why a tomato plant is likely to wilt if too much fertilizer is applied to it.
- b. i) Give **two** differences between electrical insulators and electrical conductors.
ii) State **two** effects of illegal electrical connections in the home.
- c. Explain each of the following terms as used to describe change of state of matter:
i) condensation;
ii) freezing
- d. i) State **two** diseases of the circulatory system in humans
ii) Mention **two** ways in which each of the diseases you have stated in (d)(i) can be prevented.
4. (a) (i) What is a transistor?
(ii) Give two uses of a transistor
- (b) Mention the suitable solvent for each of the following solutes:
(i) grease;
(ii) ink stain
(iii) starch
(iv) cube sugar
(v) oil paint
(vi) iodine
- c(i) What is a respiratory organ?
(ii) Name two structures of the respiratory system of humans.
- d(i) What is agricultural chain?
(ii) Name two types of agricultural chain
- 5(a) (i) What are stars?
(ii) Arrange in order, starting from the sun, the first four planets in the solar system.
- (b) State
(i) two differences between plants and animals;
(ii) two similarities between plants and animals
- (c) Explain each of the following farming systems:
(i) pastoral farming
(ii) ecological farming

- (d) State the properties of water in terms of
(i) odour, (ii) taste, (iii) effect on litmus

6. (a) What are
(i) annual plants?
(ii) perennial plants?
(b) Mention one danger involved in each of the following activities in the laboratory:
(i) eating or drinking water in the laboratory;
(ii) washing hands with unknown liquid in a beaker;
(iii) walking bare footed.
c(i) What is a digestive enzyme?
(ii) Give two examples of digestive enzymes in humans.
(d) Give two differences between conduction and radiation of heat

SECTION A

1. The instrument used to measure relative humidity is
a) hydrometer b) hygrometer c) rain gauge d) wind vane
2. The S.I unit for density is
a) ms^{-1} b) ms^{-2} c) kgm^{-3} d) mkg^{-1}
3. One of the characteristics of solid is that
a) its particles are tightly closed b) it assumes the shape of the container it occupies
c) it has no fixed volume d) its particles can easily be separated
4. The instrument used to measure current in an electric circuit is the
a) ammeter b) photometer c) thermometer d) Voltmeter
5. Which of the following substances can rust?
a) Aluminum b) Bauxite c) copper d) steel
6. Mole is the S.I unit of
a) amount of substances b) luminous intensity c) temperature d) mass of substance
7. Which of the following substance normally occur during old age in humans?
a) Gray hair starts appearing b) Mental alertness increases
c) Broadening of the chest d) Attraction to the opposite sex
8. The organ which occupies the largest portion of a plant cell is the
a) Chloroplast b) mitochondrion c) nucleus d) vacuoles
9. Which of the following substances about soil profile is/are correct? It helps the farmer to determine
I- Soil fertility
II- water holding capacity
III- depth of the soil
a) I only b) I and II only c) II and III only d) I, II and III only

10. The relative proportion of the sand, silt and clay in a given sample of soil is the soil?
 a) profile b) Porosity c) structure d) texture
11. The Joule is the S.I unit for
 a) energy b) force c) power d) pressure
12. The function of the hair in the nose of humans is to
 a) make breathing easier b) keep nose moist
 c) filter dust from the air breathed in d) keep the nose warm
13. In which of the following structures in a living cell is cellulose found?
 a) Chloroplast b) Mitochondrion c) cell membrane d) cell wall
14. Gases enter and leave the leaf of a plant through the
 a) mesophyll cells b) stomata c) pith d) palisade cells
15. The feeling of soil between fingers is used to determine
 a) texture of the soil b) drainage of the soil
 c) capillarity of the soil d) water holding capacity of the soil
16. The part of the flower that develops into a fruit is the
 a) ovary b) ovule c) stamen d) style
17. The instrument used in measuring the speed of wind is called?
 a) thermometer b) wind vane c) anemometer d) hygrometer
18. A piece of stone sinks in water because
 a) its density is the same as that of water b) it is able to displace its own height of water
 c) its density is less than that of water d) its density is greater than that of water
19. The basic unit of matter is the
 a) atom b) compound c) ion d) element
20. The three states of matter are
 a) water, liquid and gas b) gas, liquid and solid
 c) gas, liquid and earth d) solid, liquid and air
21. The component of the soil which is made up of the finest particles is
 a) clay b) humus c) loam d) sand
22. The breaking down of the rocks into smaller particles is known as
 a) decomposition b) erosion c) ploughing d) weathering
23. One benefit of technology to industrialization is
 a) environment pollution b) reduction in skillful labor
 c) provision of machinery d) increase in cost of production of goods
24. Which of the following subjects is/are considered as applied science?
 I – Biology II – Medicine III – Psychology
 a) I only b) I and II only c) II only d) III only

25. All the following are products of science and technology except
 a) computer b) mobile phones c) soil d) electric pressing iron
26. 1000kg/m^3 is equivalent to
 a) 1g/cm^3 b) 100g/cm^3 c) 10g/cm^3 d) 40g/cm^3
27. Which of the following is not an applied science?
 a) Biology b) Engineering c) Medicine d) Agriculture
28. The part of the soil profile where most soil organisms are found is
 a) B – horizon b) C – horizon c) D – horizon d) A – horizon
29. The warning and safety signs on containers are represented by a symbol placed within a
 a) circle b) rectangle c) square d) triangle
30. Substances that burn living tissues when they come into contact with those tissues are considered?
 a) corrosive b) flammable c) irritant d) toxic
31. Signs that informs us to take certain actions are called?
 a) Prohibitory signs b) Mandatory signs c) Warning signs d) Safe condition signs
32. The main source of soil water is
 a) lake b) dew c) rain water d) stream
33. A multicellular organism
 a) consists of only one cell b) does not reproduce
 c) does not respire d) consists of many different cells
34. When a piece of candle is heated, it changes from
 a) liquid to gas b) liquid to flame c) solid to liquid d) solid to gas
35. A suitable instrument that could be used to measure the internal diameter of a bamboo flute is
 a) beam balance b) meter rule c) surveyor's tape d) vernier calipers
36. Anything dangerous to one's health or safety is
 a) medicine b) acid c) hazard d) plants
37. A meter rule is used for measuring the
 a) volume of a liquid b) area of a ball c) length of a fabric d) diameter of a wire
38. The study of living things and their interrelationship is
 a) Biology b) Chemistry c) Physics d) Zoology
39. The use of scientific knowledge is called
 a) wisdom b) science c) technology d) scientific method
40. Volume is defined as the
 a) amount of space occupied by substances b) ability of an object to move
 c) amount of energy in matter d) amount of matter a substance contains