

**TOPIC: STRUCTURE OF SCIENCE (CHP 1)**

1. The following are component of the structure of science except
  - ✦ Product
  - ✦ Process
  - ✦ **Ideas**
  - ✦ Ethics
2. A scientifically literate person should possess the following except
  - ✦ A body of scientific knowledge
  - ✦ **The indifferent about the situation around him or her**
  - ✦ A set of scientific skills
  - ✦ Behave scientifically in his or her day to day activities
3. The meaning attach to a giving symbol or label is called \_\_\_\_\_
  - ✦ Fact
  - ✦ Model
  - ✦ Phenomenal
  - ✦ **Concept**
4. The product of science include the following except
  - ✦ **Experiment**
  - ✦ Law
  - ✦ Theory
  - ✦ Fact
5. A brief statement or mathematical formular predicting inter-relationships among concept is refer to as \_\_\_\_\_
  - ✦ Concept
  - ✦ Fact
  - ✦ **Law**
  - ✦ Theory
6. The method and skills that scientist employ in their work include \_\_\_\_\_
  - ✦ Observing
  - ✦ Measuring
  - ✦ Classifying
  - ✦ **All of the above.**
7. Scientist possess the following ethical attributes except
  - ✦ Curiosity
  - ✦ **Prejudice**
  - ✦ Open mindedness
  - ✦ Positive approach to failure.
8. A scientifically literate person should show the following attribute in his or her behavior except
  - ✦ Objectivity
  - ✦ Respect for the ideas of others
  - ✦ Willingness to suspend judgement
  - ✦ **Believe in superstition**
9. Concept that cannot exist on their own but depend on two or more concept are refer to as \_\_\_\_\_
  - ✦ Empirical concept
  - ✦ Molecular concept
  - ✦ **Relational concept**
  - ✦ Theoretical concept
10. Science can be define as \_\_\_\_\_
  - ✦ Body of knowledge
  - ✦ A way of investigating or method
  - ✦ A way of thinking in the pursuit of understanding of nature
  - ✦ **All of the above.**

**TOPIC: SCIENTIFIC METHOD AND REVOLUTION(CHP2)**

1. All of the following scientist were involved in scientific method except
  - ✦ Francis Bacon
  - ✦ Rene Descartes
  - ✦ Robert Boyle's
  - ✦ **Archimedes**
2. Novum Organum was a book written by
  - ✦ **Francis Bacon**
  - ✦ Yakubu M.T
  - ✦ Rene Descartes
  - ✦ Akanji M.A
3. The highlight of Francis Bacon can be summarize into how many
  - ✦ 1
  - ✦ 2
  - ✦ 3
  - ✦ **4**
4. Which of the following adopted mathematical reasoning in the formulation of scientific method
  - ✦ **Rene Descartes**
  - ✦ Francis Bacon
  - ✦ Archimedes
  - ✦ William Harvey
5. The first Air thermometer invented by Galileo Galilee is refer to as
  - ✦ Alcohol thermometer
  - ✦ **Air thermometer**
  - ✦ Mercury thermometer
  - ✦ All of the above
6. Galileo Galilee study which of the following planet
  - ✦ Mars
  - ✦ **Jupiter**
  - ✦ Earth
  - ✦ Pluto
7. William Harvey was unable to establish the connections between the arteries and veins
  - ✦ **True**
  - ✦ False
  - ✦ Either true or false
  - ✦ None of the above
8. Sir Isaac Newton represented the height of scientific revolution
  - ✦ **True**
  - ✦ False
  - ✦ Either true or false
  - ✦ None of the above
9. The binomial theorem was put forward by which of the following scientist
  - ✦ William Harvey
  - ✦ Francis Bacon
  - ✦ Rene Descartes
  - ✦ **Sir Isaac Newton**
10. The white light is made up of how many colours
  - ✦ 5
  - ✦ 6
  - ✦ **7**
  - ✦ 8
11. The band of colour that make up the white light is called
  - ✦ Colours
  - ✦ **Spectrum**
  - ✦ Mathematics
  - ✦ Physical science
12. 'Optics' the book written by sir Isaac Newton was published in which year
  - ✦ 1991
  - ✦ 1906

- ◆ 1705
  - ◆ 1704
13. During the later year Sir Isaac Newton played public role in the following except
- ◆ Parliament in 1689
  - ◆ ----- 1662
  - ◆ Master of the mint in 1699
  - ◆ Knight hood in 1705
14. Sir Isaac Newton died in which year
- ◆ 1998
  - ◆ 1720
  - ◆ 1722
  - ◆ 1727
15. Scientific societies were formed with the following reason except
- ◆ To disseminate scientific information
  - ◆ To exchange scientific ideas
  - ◆ To share common ground on scientific matter
  - ◆ To borrow money
16. The royal academy of science started with formal meeting in Paris in which year
- ◆ 1660
  - ◆ 1666
  - ◆ 1667
  - ◆ 1668
17. The royal academy of science published their first journal in which year
- ◆ 1608
  - ◆ 1618
  - ◆ 1638
  - ◆ 1668
18. The full meaning of Nigeria academy of science is otherwise called NAS is a society found in
- ◆ Britain
  - ◆ Nigeria
  - ◆ United Kingdom
  - ◆ Hong Kong
19. The royal society of London is otherwise refer to as
- ◆ Invisible college
  - ◆ College of Arabic
  - ◆ Visible college
  - ◆ None of the above.

## **TOPIC: PHYLOSOPHY PROBLEMS AND SCIENTIFIC EXPLANATION.(CHP3)**

1. The science derived from the Latin word 'sciential' referred to as
- ◆ Wisdom
  - ◆ Learning
  - ◆ Knowledge
  - ◆ Studying

2. Philosophy of science is concerned with which of the following
  - ◆ Assumption of science
  - ◆ Foundation of science
  - ◆ Method and implication of science
  - ◆ **All of the above**
3. Philosophy of biology deals with which of the following
  - ◆ Metaphysics
  - ◆ Ethics
  - ◆ Epistemology
  - ◆ **All of the above**
4. Which of the following is a method that is used to render science accessible to people
  - ◆ Philosophy of psychology
  - ◆ Philosophical context
  - ◆ **Original Philosophical method**
  - ◆ All of the above
5. Which of the followings is one the models for scientific explanation
  - ◆ Empirical verification
  - ◆ Objectivity
  - ◆ **Statistical inference**
  - ◆ All of the above
6. Which of the following is correct about the D-N model
  - ◆ It account for judgement of explanatory relevance
  - ◆ It pay sufficient attention to the explanatory role of causal relation
  - ◆ **It attempt to subsume a phenomenon under general law**
  - ◆ It support every event by siting a law
7. The following are basis for the validity scientific explanation except
  - ◆ Induction
  - ◆ Empirical verification
  - ◆ Reproducibility
  - ◆ All of the above
8. Which of the following is the reason for objectivity of observation in science
  - ◆ Reliability
  - ◆ Accuracy
  - ◆ Standardization
  - ◆ **All of the above**

## **TOPIC: FOOD SPOILAGE AND PRESERVATION.(CHP14)**

1. Under the category of food spoilage, yam belongs to
  - ✦ Stable
  - ✦ **Semi-perishable**
  - ✦ Perishable
  - ✦ None of the above
2. The temperature range that is conducive for agent of food spoilage to thrive is
  - ✦ 20°C – 63°C
  - ✦ 40°C – 73°C
  - ✦ 10°C – 43°C
  - ✦ **20°C – 43°C**
3. Blanching is a method used in the process of preserving
  - ✦ Yam
  - ✦ **Vegetables and Fruits**
  - ✦ Fruits and Rice
  - ✦ All of the above
4. The major component of food that could easily predispose to spoilage is
  - ✦ Protein
  - ✦ Carbohydrates
  - ✦ **Moisture Content**
  - ✦ Lipid
5. Which of the following is not an agent of food spoilage
  - ✦ Mice
  - ✦ Sparrow
  - ✦ Yeast
  - ✦ **Man**
6. The major component of food that is usually sort after in order to preserve the food is
  1. Protein
  2. Carbohydrate
  3. **Water level**
  4. The lipid
7. To which category of food spoilage does fruit belong
  - ✦ Semi-perishable
  - ✦ **Perishable**
  - ✦ Stable
  - ✦ None of the above
8. Irradiation could predispose man to cancer because of the residual effect of it especially when use in large dosage in food .  
**True / False**
9. Why is it that agent of food spoilage will spoil meat that is placed on the table and not the table
  - ✦ Because the table contain a lot of nutrient
  - ✦ **Because the table lack all the nutrient that is sort after by agent of food spoilage**
  - ✦ A&B
  - ✦ None of the above
10. Which one of the following could spoil quickly
  - ✦ Lime
  - ✦ **Orange**
  - ✦ Sugar
  - ✦ Onion

## TOPIC: HISTORY AND APPLICATION OF COMPUTERS(CHP10)

1. The afforded opportunity in computing of using menu and clicking of the menu started in which generation of computer
  - ◆ First generation of computer
  - ◆ Third generation of computer
  - ◆ **Forth generation of computer**
  - ◆ Fifth generation of computer
  - ◆ All of the above
2. The first operational digital computer was
  - ◆ Abacus Machine
  - ◆ Babbage analytical Engine
  - ◆ **Konrad Zuse's electromechanical machine**
  - ◆ All of the above
3. Personal computer can be classified under which category of computer by size
  - ◆ Main Computer
  - ◆ Mini Computer
  - ◆ Mainframe Computer
  - ◆ **Micro Computer**
4. History of computer can be traced to two type of technology which include automatic calculations and that
  - ◆ Being electronic in nature
  - ◆ **Being programmable**
  - ◆ A system with a processor
  - ◆ All of the above
5. The two categories of software are
  - ◆ Window software and DOS
  - ◆ Document creation and Graphical
  - ◆ **System software and Application software**
  - ◆ Industrial software and individual software
6. You are expected to identify under which category of software uniloin registration programme classify as
  - ◆ Organizational software
  - ◆ Institutional software
  - ◆ System software
  - ◆ **Application software**
7. Computer is Intelligent  
YES/NO
8. All of the following are some of the factors that drive movement from one generation to another generation of computer
  - ◆ Size of the computer
  - ◆ Amount of energy required
  - ◆ Efficiency of the computer
  - ◆ **The Producer of the computer**
9. Using access to automated teller machine on the street is one of the dividends of having
  - ◆ Universal computing
  - ◆ **Ibikitus computing**
  - ◆ Universal ATM access
  - ◆ All of the above
10. What was the reason why as wonderful as Charles babbage analytical engine was then to have combined both the programmability feature and automatic calculating feature was not implemented
  - ◆ Lack of acceptability
  - ◆ Inefficiency of the system
  - ◆ **Lack of finance**
  - ◆ All of the above

11. The following can be identify as external memory except
  - ✦ Hard disk
  - ✦ Flash Drive
  - ✦ CD-ROM
  - ✦ **Keyboard**
12. .... was used as the first input device in the history of computer
  - ✦ Keyboard
  - ✦ Mouse
  - ✦ **Punch card**
  - ✦ Join stick
13. The personal interaction with computer, with the use keyboard and monitor started in which generation of computer
  - ✦ Fifth generation
  - ✦ Forth generation
  - ✦ Second generation
  - ✦ **Third generation**
14. The following can be identify as output device except
  - ✦ Printer
  - ✦ Monitor
  - ✦ **Keyboard**
  - ✦ Screen
  - ✦ All of the above
15. The part of computer that performs the processing being it Arithmetic or Logical is called
  - ✦ Memory Unit
  - ✦ Control Unit
  - ✦ **Arithmetic and Logical Unit**
  - ✦ External memory Unit

## **TOPIC: CONCEPT OF MATTER(CHP4)**

1. Which one of these mixtures is heterogeneous
  - ✦ A mixture of oil and water
  - ✦ **A mixture of water and ethyl alcohol**
  - ✦ A salt water solution
  - ✦ Silicon
2. One of these is an element
  - ✦ **Helium**
  - ✦ Mud
  - ✦ Steam
  - ✦ Tap water
3. Which one of these is a chemical change
  - ✦ Gasoline evaporate off the ground
  - ✦ A glass vase is shattered
  - ✦ **Sodium react with chlorine forming sodium chloride**
  - ✦ Dry grass burn in a large fire
4. When uranium disintegrate, one of these is the end product of the reaction
  - ✦ Neutron
  - ✦ Alpha particle
  - ✦ Beta particle
  - ✦ **Gamma paticle**
5. These reaction shown above the reaction between lithium element and hydrogen atom produce ..... and .....
  - ✦ **Alpha particle**
  - ✦ Beta particle
  - ✦ Gamma particle
  - ✦ Neutron

6. When lithium is being bombarded with neutron, one of these is the product generated or one of these radiation is formed
  - ✦ Hydrogen
  - ✦ **Helium**
  - ✦ Silicon
  - ✦ Sodium
7. When there is a nuclear threat or nuclear disaster, the side effect or side reaction of the threat produces one of these
  - ✦ **Deformation or earth hazard**
8. Which law summarises the concept of matter
  - ✦ **Dalton law**
  - ✦ Law of constant composition
  - ✦ Gay-Lussac's law
  - ✦ Avogadro's law
9. Which of the laws brought about  $PV = nRT$ 
  - ✦ Gay-Lussac's law and Avogadro's law
  - ✦ Law of multiple proportion
  - ✦ **Charles law and Boyle's law**
  - ✦ Dalton's law

## **TOPIC: BIOMASS AS SUSTAINABLE SOURCE OF RENEWABLE ENERGY.(CHP7)**

1. Identify the odd one out of the listed
  - ✦ Bio fuel
  - ✦ Bio diesel
  - ✦ Bio gas
  - ✦ **Biomass**
2. One of the disadvantages of conversion of biomass to renewable energy is to
  - ✦ Create wealth from waste
  - ✦ Create gainful employment through various productions chain during conversion of biomass to fuel
  - ✦ Generate sustainable sources of energy from plant material
  - ✦ **Possibility of food insecurity for converting food crop to energy**
3. The method of presenting quality grade and standard of bio fuel is known as
  - ✦ **E-scale**
  - ✦ Super or ordinary
  - ✦ Obtained rating
  - ✦ Ledded or unledded oil
4. Biomass is a form of renewable energy because
  - ✦ **Biomass can be regenerated in a short period of time**
  - ✦ The source of cannot be exhausted
  - ✦ The source renewable energy cannot be replenish naturally in a short period of time
  - ✦ The energy sources comes out of ground as liquid, gas and solid
5. Will farmers produce the energy of the future
  - ✦ **YES/NO**
6. Bio fuel! Why now

## **TOPIC: SCIENCE AND TECHNOLOGY IN THE SERVICES OF MAN.(CHP9)**



1. What is Science?
  - ◆ Investigation into life and all event of life
2. What is superstition?
  - ◆ Unverifiable facts
3. Which of the following as nothing to do with science
  - ◆ Observation
  - ◆ Inference
  - ◆ Experimentation
  - ◆ Hypothesis
  - ◆ None of the above
4. Arrange in the normal order of scientific process
  - ◆ Hypothesis, Observation, Experimentation, Curiosity
  - ◆ Curiosity, Observation, Hypothesis, Experimentation
  - ◆ Observation, Curiosity, Experimentation, Hypothesis
  - ◆ Experimentation, Observation, Curiosity, Hypothesis
5. Science was brought to the world by
  - ◆ Asians
  - ◆ Americans
  - ◆ Richard London
  - ◆ Dele Awojobi
  - ◆ None of the above
6. The story of creation as recorded in the Holy books has scientific basis.
  - ◆ YES/NO
7. Myths are scientific theories
  - ◆ TRUE/FALSE
8. Scientific theory is a product of
  - ◆ Legal and Constitutional declaration
  - ◆ Personal opinion and prejudices
  - ◆ Proofs on what we can see, touch and hear
  - ◆ Opinions based on reforando
9. Which of these is not correct..... Science
  - ◆ Broaden our oryzor about our environment
  - ◆ Teaches us about human rights and so on
  - ◆ Replaces superstition with fact obtained from scientific data
10. List essential requirements for a valid experiment
  - ◆ Large data, observation must be under diverse condition, All statement made must conform with universal laws
11. What is Technology?
  - ◆ Technology is the way of improving or the way we do things with the objective of sustaining lives making use of the environment
12. Modern as a word does not define a generation or year. Discuss
  - ◆ Modernism is not static, it is about a period in development.....
13. Which of the following was not impacted upon by Technology
  - ◆ Transportation
  - ◆ Farming
  - ◆ Language
  - ◆ Teaching
14. Which of the following are suitable bi-product of technology
  - ◆ Leisure
  - ◆ Unemployment
  - ◆ Mass production
  - ◆ All of the above
15. Technology is good, it has been so good as it has improved lives and not harmful in any way
  - ◆ TRUE/FALSE
16. The concept green energy is about
  - ◆ Converting the minis of motor accidents
  - ◆ Helping in strengthnen technological capacity
  - ◆ Enhancing national unity

- ♦ **Reducing atmospheric pollution by carbon-monoxide,**
17. Technology is a double ended sword...this means
    - ♦ Technology has the capacity to produce double ended sword
    - ♦ **Technology though useful but also harmful**
    - ♦ Technology has double ends
    - ♦ None of the above
  18. Who in the end defines morality , especially as it affect the deployment of technology
    - ♦ The religions
    - ♦ **The society**
    - ♦ God Himself
    - ♦ None of the above

**TOPIC: KNOWLEDGE MANAGEMENT BY INFORMATIO  
TECHNOLOGY.(CHP18)**

1. Are there difference between information and knowledge?
  - ♦ **YES/NO**
2. What Knowledge Management (KM) about
  - ♦ **Is all that it takes, the process , the activities it takes to derive the economy value from knowledge by KM dimension which is creation, storing**
3. Mention three mean dimension of KM
  - ♦ **Knowledge creation, Knowledge storing and Knowledge sharing**
4. What are the seven KM function
  - ♦ **Searching, Categorizing, Composing, Summarizing, Storing, Distributing and Workflow**
5. Searching, categorizing, composing and summarizing falls under which dimension of KM
  - ♦ **Knowledge creation**
6. The appropriate information technology for searching is
  - ♦ **Search Engines**
7. Workflow as knowledge management functionality can be achieved using .....
  - ♦ **Groupware**
8. List major component of knowledge management system
  - ♦ **Input devices, Repository,Intelligence devices and output devices**

**TOPIC: CONCEPT OF HYPOTHESIS TESTING IN SCIENCES AND HUMANITIES**

1. One the prime objectives of statistical hypothesis testing is

- ◆ To enable general judgement to be made about the population of interest based on the information contain in the sample selected
  - ◆ To be able to compute all the summary statistics based on the sample selected
  - ◆ To be able to collect sufficient information from the population
  - ◆ To be able to accept information contained in the population based on the selected sample
2. Which of the following statement is not correct about the statistical hypothesis test
- ◆ Statistical Hypothesis testing is the process that enable one to understand how reliable one can generalize the result obtained from sample on entire population of interest
  - ◆ Statistical Hypothesis testing is the process through which one is able to determine the veracity of the claim about the population based on the information in the sample collected
  - ◆ Statistical Hypothesis testing is the process that enable one the validity or otherwise of a common position on the information contained in the sample collected
  - ◆ Statistical Hypothesis testing is the process through which one is able to probe into the population through the selected sample for the sole aim of making reasonable inference on the sample
3. One of the desirable features of sample to be used for statistical hypothesis testing
- ◆ The sample unit must emanate from a process that is completely random
  - ◆ The sample selected must possess all the characteristics of the population of interest
  - ◆ The sample size must be large
  - ◆ The information in the sample must be well understood
4. Consider the following research statement, THE PERFORMANCE OF STUDENT IN GNS311 CBT EXAM IS DIFFERENT FROM THEIR PERFORMANCE IN THE MBT EXAM IN THE COURSE.....The statement is suitable for the construction of...
- ◆ One tail alternative hypothesis test
  - ◆ Two tail alternative hypothesis test
  - ◆ One tail non-hypothesis test
  - ◆ Two tail non-hypothesis test
5. Consider the following research statement, THE PERFORMANCE OF STUDENT IN GNS311 CBT EXAM IS NOT DIFFERENT FROM THEIR PERFORMANCE IN THE MBT EXAM IN THE COURSE.....The statement is suitable for the construction of.....
- ◆ One tail alternative hypothesis test
  - ◆ Two tail alternative hypothesis test
  - ◆ One tail non-hypothesis test
  - ◆ Two tail non-hypothesis test
6. Consider the following research statement, THE PERFORMANCE OF STUDENT IN GNS311 CBT EXAM IS NOT MORE THAN THEIR PERFORMANCE IN THE MBT EXAM IN THE COURSE.....The statement is suitable for the construction of.....
- ◆ One tail alternative hypothesis test
  - ◆ Two tail alternative hypothesis test
  - ◆ One tail non-hypothesis test
  - ◆ Two tail non-hypothesis test
7. Consider the following research statement, THE STUDENT FROM THE FACULTY OF ART ARE AS GOOD AS THEIR COUNTERPART IN SCIENCE IN THE GNS 311 EXAM.
- ◆ One tail alternative hypothesis test
  - ◆ Two tail alternative hypothesis test
  - ◆ One tail null hypothesis test
  - ◆ Two tail non-hypothesis test
8. Type 1 error in statistical hypothesis test is defined as...
- ◆ The error committed when a true null hypothesis is rejected by the test
  - ◆ The error committed when a false non hypothesis is not rejected by the test
  - ◆ The level of significance of the test
  - ◆ The probability that the non-hypothesis is true
9. The result from statistical hypothesis test is said to be significant
- ◆ When the test fails to reject the non-hypothesis in favour of the alternative hypothesis
  - ◆ When the test reject the alternative hypothesis
  - ◆ When the value of the test statistic is less than 0.05
  - ◆ When the test reject the null hypothesis in favour of the alternative hypothesis
10. Type 2 error in statistical hypothesis test is defined as...
- ◆ The error committed when a true non hypothesis is rejected by the test

- ♦ The error committed when a false null hypothesis is not rejected by the test
  - ♦ The level of significance of the test
  - ♦ The probability that the non-hypothesis is true
11. In statistical hypothesis test about the mean population, the samples are generally assume to come from one of the following statistical distribution.
- ♦ Skewed normal distribution
  - ♦ Normal distribution
  - ♦ Abnormal distribution
  - ♦ High score distribution
12. The P-value of statistical test
- ♦ Is the probability that the non hypothesis is true
  - ♦ Is the probability of obtaining the value of the test statistic or a value that us more extreme given that the non-hypothesis is true
13. A statistical test is said to be significant
- ♦ If the p-value of the test is relatively smaller than the preconceive significant level, alpha by the investigator
14. One of the following statement is correct about the statistical significance test
- ♦ The level significant alpha is correct for all test
  - ♦ The level significant alpha of the test is 0.05
  - ♦ The level significant alpha of the test should be choosen depending on the situation been investigated
  - ♦ The level significant alpha of the test should be greater than 0.05
15. Arrange the following in order of step required in statistical hypothesis testing
1. Specify the null and alternative hypothesis
  2. Compute the p-value or critical value of the test satistic
  3. Chose and calculate the test statistic
  4. Make a decision
  5. Draw a conclusion from the test's results
  6. State the research question or problem
- ♦ 6, 1, 3, 2, 4 5