THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
PRIMARY SCHOOL LEAVING EXAMINATION

05E **SCIENCE**

Time: 1:30 Hours **Wednesday, 19th September 2012 a.m**

Instructions

1. This paper consists of **fifty (50)** questions.
2. Answer **all** the questions.
3. Read all the given instructions in the **special answer sheet (OMR)** and fill in **all** the required information.
4. Write your **Examination Number** and then **shade the digits** of the number in the respective place in your answer sheet.
5. **Shade** the letter of the correct answer for each question in the answer sheet provided, for example, if the correct answer is A shade as follows:

[A]	[B]	[C]	[D]	[E]

6. If you have to change your answer, you must rub out the shading **very neatly** before shading the new one. Use a **clean rubber**.
7. Use **HB pencil** only.
8. Cellular phones are **not allowed** in the examination room.

0 5 E P S L E 2 0 1 2

Choose the correct answer and **shade** its **letter** beside each question in the answer sheet provided.

1. In order to sustain a healthy body we are supposed to
   A do physical exercise, eat quality food and rest
   B sleep for a long time, eat quality food and play
   C avoid tough work, do physical exercise and sleep
   D do physical exercise and participate in sports and games
   E eat well and do physical exercises all the time.

2. Which of the following is an important nutrient for a pregnant woman to get in large quantities?
   A Protein B Carbohydrates C Fats
   D Mineral salts E Vitamins.

3. Urinating frequently, producing large quantities of urine and frequent thirst are symptoms of which disease?
   A Cancer B Diabetes mellitus C Kwashiorkor
   D Whooping cough E Anaemia.

4. Which of the following is most appropriate in helping a person who has touched a bare live electric wire and is experiencing an electric shock?
   A Quickly push him/her away with bare hands
   B Pull out the electric wire causing shock
   C Put off the electricity by using water
   D Pull him/her away by using insulated materials
   E Leave him/her till the power is cut off automatically.

5. _____ is a disease which if left untreated for a long time causes heart and brain problems or even death.
   A Chlamydia B Gonorrhoea C Trichomona
   D AIDS E Syphilis.

6. Which of the following is **not** a symptom of AIDS?
   A Swollen lymph nodes B Loss of weight
   C Persistent diarrhoea D Unusual prolonged coughing
   E Unusual sweating during night.

7. The following are the ways of preventing hazards in the environment **except**
   A digging trenches
   B building houses far from volcanic mountains
   C having food storage
   D living nomadic life
   E maintaining cleanliness in our environment.

8. Which of the following is a mixture of different gases?
   A Light B Air C Kerosene
   D Carbon dioxide E Vapour

9. Which of the following is **not** a cause of environmental degradation?
   A Burning of papers B Industrial development
   C Bathing in the lake D Use of farmyard manure
   E Car washing along rivers.

10. The King of the forest commanded that all animals which eat meat must be killed. What do you think will happen to the forest after many years?
   A Plants will grow in larger quantity
   B The number of insects will not change
   C Plants will decrease
   D Animals eating plants will decrease
   E The environment will remain in a good and attractive condition.

11. Natural forces cause one of the following changes in the environment:
   A Disappearance of fishes B Earthquake
   C Increase of plants D Shortage of electricity
   E Drying of rivers.

12. Which of the following is **not** the right way of maintaining soil fertility in a farm?
   A Crop rotation B Growing leguminous plants
   C Leaving the land uncultivated D Applying fertilizers
   E Growing the same crop consecutively.

13. How many major stages of growth does a frog undergo?
   A One B Seven C Six D Five E Eight.

14. Which of the following insects undergoes incomplete metamorphosis?
   A Mosquito B Butterfly C Housefly D Bee E Cockroach.

15. A rat which was kept in a cage containing a piece of meat died after two days. Why did the rat die?
   A Ate the rotten meat
   B Lacked carbon dioxide
   C Lacked oxygen
   D Lacked enough water after eating the meat
   E Lacked light which is essential for the growth of animals.

16. Which of the following organisms is an amphibian?
   A Frog B Rat C Lizard D Tortoise E Chameleon.

17. Animals like crocodiles, hippopotamus and frogs live in what kind of habitat?
    A In the sky and on the land
    B On the land and in water
    C Any kind of environment provided there is food
    D On the land and in caves
    E In the forests.

18. During pollination, pollen grains move from
    A ovary to the ovules B stigma to the anthers C petal to the stigma
    D anthers to the stigma E sepals to the style.

19. There are two types of plant seeds known as
    A main cotyledon and minor cotyledon
    B monocotyledon and dicotyledon
    C dicotyledon and main stalk
    D seeds with roots and seeds without roots
    E natural seeds and wild seeds.

20. Thunderstorm light rays can be seen before hearing the sound of the thunderstorm because
    A light rays cannot be prevented by anything
    B sound is absorbed by the clouds
    C light rays travel faster than sound waves
    D sound waves travel faster than light rays
    E clouds which produce sound travel slowly.

21. When two pieces of cloth of the same material are washed, one black and the other white in colour, the black one will dry faster than the white one because it
    A absorbs heat fast B reflects light fast
    C absorbs moisture fast D can withstand blowing wind
    E has the ability to filter water.

22. Which of the following sets represents liquids?
    A Air, water and copper B Petrol, ice and nitrogen
    C Gold, hydrogen and mercury D Petrol, mercury and water
    E Water, petrol and air.

23. Observe Figure 1 below then answer the question that follows.



Figure 1

This symbol in electricity represents
A resistance B dry cell C voltmeter D switch E bulb.

24. An accumulator is a combination of cells connected together to produce direct current which is used in
    A bicycles, pressing iron and telephone
    B cars, tractors and telephones
    C refregirator, pressing iron and fan
    D bicycle, refregirator and electrical cooker
    E dry cell, charcoal cooker and pressing iron.

25. Study Figure 2 which shows two people, P and Q lifting loads of equal weight to the roof then answer the question that follows.

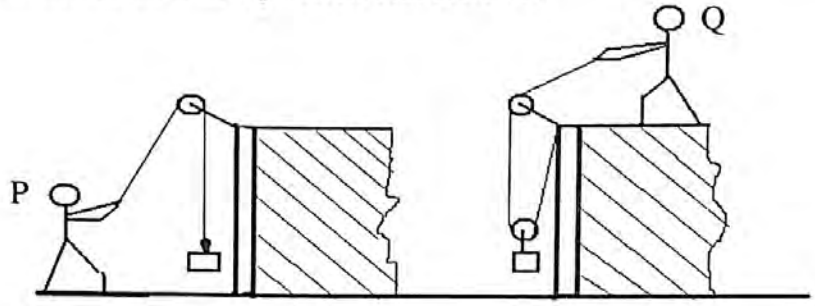


Figure 2

Who will lift the load more easily?
    A P because he is on the ground
    B Q because he will apply less force
    C Q because he is on the roof
    D P because there is one roller
    E Q because the gravitation pull is less.

26. The ability to move something from one point to another is known as
    A balance B force C friction D work E gram.

27. When a pencil is placed in a glass containing water, the pencil appears bent due to the
    A refraction of light
    B reflection of light
    C dispersion of light
    D ability of water to pass light
    E density of water.

28. Milk can be processed to make which of the following products?
    A Cheese and soap
    B Fruits and baking powder
    C Cheese and fruits
    D Cake and butter
    E Cheese and butter.

29. The natural sources of energy in the daily life are
    A fire wood, fire and water
    B electricity, magnet and natural gas
    C fire wood, sun and wind
    D fire, wind and magnet
    E electricity, wind and water.

30. Observe Figure 3 and select the correct answer about the experiment.

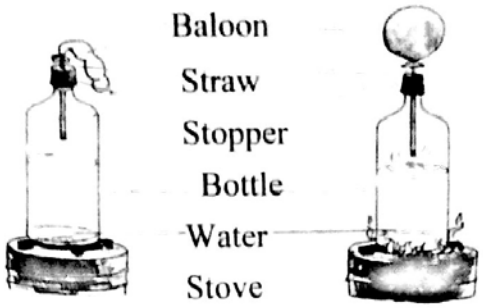


Figure 3

The purpose of the experiment shown in Figure 3 is to demonstrate:

A Boiling drinking water
B Cooling of water
C Expansion and contraction of gas
D Cooling of gas
E Producing oxygen gas.

31. Which of the following is a physical change?

A Fermentation of milk
B Burning of papers
C Water to steam
D Reaction between acid and base
E Decaying of plants.

32. Carefully observe Figure 4 and then answer the question that follows.

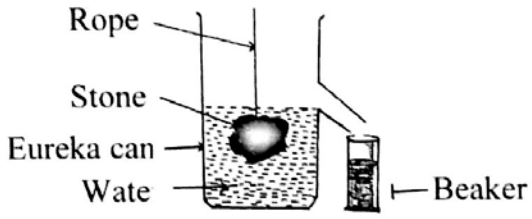


Figure 4

The purpose of the experiment in Figure 4 is to find the

A volume of a eureka can
B amount of air in the eureka can
C area of the stone
D circumference of the stone
E volume of the stone.

33. To prevent hazards caused by science and technological inventions, every nation should

A cooperate with scientists
B have a Ministry of Science and Technology
C do away with science and technological inventions
D acquire technological inventions from developed nations
E formulate policies that guide the use of science and technology.

34. Which of the following is used to predict the problem in scientific investigation?
A data collection B hypothesis C data analysis
D conclusion E recommendations.

35. People who go to the moon must
A carry firewood for cooking food
B carry oxygen gas and food
C be careful from dangerous animals
D carry enough carbon dioxide gas and food
E carry carbon dioxide gas and water.

36. The following measurements of heights for six plants were obtained in a research:12 cm, 16 cm, 6 cm, 20 cm, 14 cm and 10 cm. The average height was
A 12 cm B 14 cm C 11 cm D 13 cm E 17 cm

37. The main artery is divided into smaller vessels known as
A vena cava B bronchiole C valves D capilaries E veins.

38. Haemoglobin is a compound found in blood within
A white blood cells B red blood cells
C blood plasma D yellow bone marrow
E cells that cause blood clotting.

39. What will be produced when a male gamete X unites with a female gamete X?
A Non identical twins B A baby girl C Siamese twins
D A baby boy E Identical twins.

40. Which of the following animals' brain is most complex?
A Man B Horse C Hare D Chimpanzee E Monkey.

41. Rust is a result of the chemical reaction: IRON + **Y** + WATER. Letter **Y** stands for
A oxygen B nitrogen C moisture D carbon dioxide E acid.

42. Which of the following is made of very small particles?
A Gas B Liquids C Blood D Dry cell E Matter.

43. Which of the following causes anaemia in the human body?
A Lack of vitamin B B Lack of iron C Lack of calcium
D Lack of protein E Lack of phosphate.

44. When cooking green vegetables we are advised to
    A add some soda ash to ensure that it is well cooked
    B cook for a long time to reduce amount of water in it
    C cover and cook for a short time
    D dry before cooking
    E fry using excessive cooking oil.

45. Which of the following is caused by excessive carbohydrates in the body?
    A Obesity B Malnutrition C Kwashiorkor
    D Marasmus E Goitre.

46. In her experiment, Shida passed light ray through a plane mirror as shown in Figure 5.

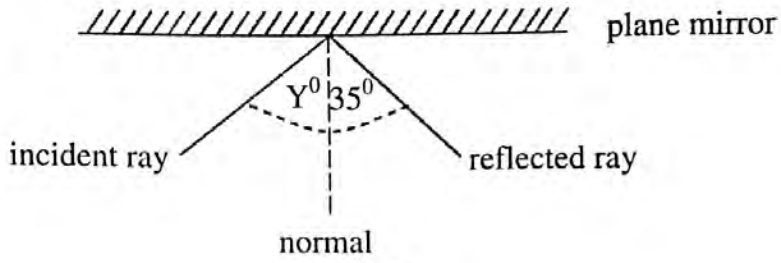


Figure 5

The size of angle Y is
A 180^0 B 35^0 C 70^0 D 90^0 E 105^0

47. Which of the following is caused by friction?
    A Heat B Things to fall C Things to slide D Velocity E Force.

48. The shape of the fish helps it to
    A breath B swim C hunt D reproduce E hide.

49. Which of the following organisms live in water?
    A Bacteria, virus and fungus
    B Sardine, octupus and bacteria
    C Bacteria, virus and octupus
    D Sardine, octupus and water lilies
    E Bacteria, virus and water lilies.

50. Culex is a type of mosquito which spread worms known as filaria that cause the following disease:
    A Tetanus B Elephantiasis C Measles D Hepatitis
    E Chickenpox.