



ZONAL EDUCATION OFFICE - JAFFNA

2nd TERM EXAMINATION - 2017

SCIENCE



Index No :

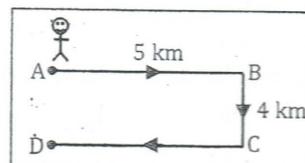
Grade : - 9

Time : 2.00 hours

PART - I

❖ Choose most appropriate answer.

- (01) Instrument that is used to observe celestial bodies
- (1) Light microscope (2) Compass
(3) Telescope (4) Electrone microscope
- (02) Method that is used to arrive correct conclusion by doing experiment about a problem
- (1) Logical method (2) Scientific method
(3) Experimental method (4) Research method
- (03) How can you call the constituents that are separated out during fractional distillation?
- (1) Hydro carbon (2) Primary energy
(3) Secondary energy (4) Primary energy source
- (04) When adding two chemical substances together, heat was felt. What is the change that took place there?
- (1) Physical change (2) Chemical change
(3) Physical and chemical change (4) Can't say anything
- (05) Given diagram shows that the motion of a person. Find out the total distance travelled by this person
- (1) 5 km (2) 0 km
(3) 14 km (4) 4 km
- (06) What is the displacement of above mentioned motion?
- (1) 14 km to the east (2) 5 km to the west
(3) 10 km to the south (4) 4 km to the south
- (07) Who put forwarded the law of conservation of mass at first?
- (1) Anthoine Lavoisier (2) John Dalton
(3) Aristorcus (4) Kepler
- (08) Chemical formula of potassium permanganate is $KMnO_4$ which element is not present here?
- (1) Potassium (2) Manganese (3) Oxygen (4) Magnesium
- (09) Which is used to make non stick pans for cooking purpose
- (1) Nylon (2) Perspex (3) Teflon (4) Poly ethelene



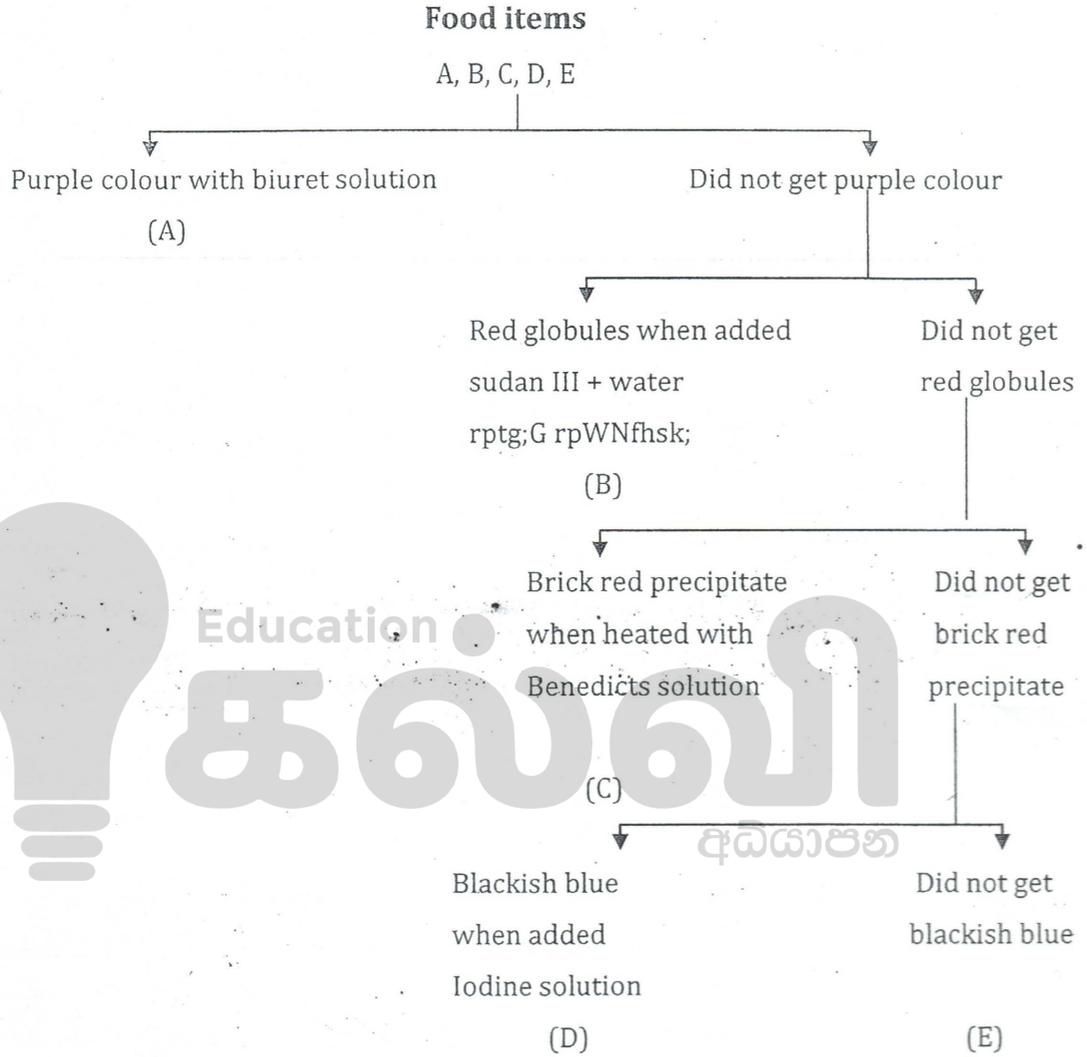
- (10) Parts of gynaecium that present in dicot flower
- (1) Stigma, Style, Ovary (2) Filament, Anther
(3) Style, Ovary, Filament (4) Style, Ovary, Anther
- (11) Which one is not a natural polymer?
- (1) Starch (2) Glycogen (3) Chitin (4) Nylon
- (12) Compositions that are used to make alloy 'pewter'
- (1) Zinc, Gold, Copper (2) Zinc, Copper, Antimony
(3) Copper, Tin, Lead (4) Nickel, Chromium, Copper
- (13) Nanometer is used in the field of Nanotechnology. How many meter is equal to one nanometer?
- (1) 10^{-6} m (2) 10^{-8} m (3) 10^{-10} m (4) 10^{-9} m
- (14) Which is the quality certification provided for maintaining high standards of production in the organization
- (1) SLS (2) ISO 9001 (3) ISO 22 000 (4) ISO 14001
- (15) Which is the element that will burn with blue flame
- (1) Magnesium (2) Carbon (3) Iron (4) Sulphur
- (16)  This symbol was used during the Alchemy era. This indicates
- (1) Antimony (2) Copper (3) Arsenic (4) Iron
- (17) What is the main component of biogas
- (1) Carbon dioxide (2) Methane (3) Water vapour (4) Hydrogen sulphide
- (18) Incorrect statement about burette
- (1) Scales have been marked from top to bottom
(2) Before measuring the volume of liquid, it should be washed out with distilled water.
(3) It has to be kept vertically when handling
(4) Always it measures the volume of adding liquid into burette
- (19) Which is the element denoted by the symbol 'Hg'
- (1) Mercury (2) Gold (3) Lead (4) Silver
- (20) 'Connecting people to nature' is the theme of environment day for this year. Which one will be expected through this theme?
- (1) People hate the nature Therefore should connect with nature
(2) People have connected together with nature
(3) People want to protect the nature
(4) People want to life together with nature without pollute the nature.

(20 x 2 = 40 Marks)

PART -- II

❖ Answer all questions.

(01) The food items are found in the test tube A, B, C, D and E. Above food items were identified by Grade 9 students through experiment. These food items are categorized by



If above food items were wheat flour, oil, egg, white and sugar.

(i) Identify A, B, C, D and E

A

B

C

D

E

(5 Marks)

(ii) Write 2 chemical substances that are needed to make biuret solution

.....
.....

(2 Marks)

- (iii) Give a chemical substance that is used to dissolve Iodine
 (1 Mark)
- (iv) When sudan III is not found in the laboratory, what can you do to identify the food items?
 (1 Mark)
- (v) Give 3 importances of food
 (3 Marks)
- (vi) Write 2 food items that are rich in protein
 (2 Marks)
- (vii) Doctors say that intake too much of carbohydrate is not good. What is the disease that associates with it?
 (2 Marks)

16

- (02) (A) Micro organisms are the causes for useful and harmful effects in our day to day life.
- (i) Name 2 micro organisms
 (1 Mark)
- (ii) Write 2 instruments that are used to observe the micro organism
 (1 Mark)
- (iii) Mention the types of micro organisms that are used to produce antibiotics
 (1 Mark)
- (iv) The word will become garbage heap when there is no micro organism. What is your idea about this statement? Mention 2 types of micro organisms that will help in this situation?
 (2 Marks)
- (v) Mention 2 harmful effects of micro organism
 (1 Mark)

(B) Energy sources existing in the world are getting depleted rapidly due to the increase in energy consumption and the increase in the use of fossil fuel. Therefore alternative ways are searched to overcome energy crisis.

(i) What is energy crisis?

.....
(1 Mark)

(ii) Mention 2 reasons for this

.....
.....
(1 Mark)

(iii) Give 2 examples for fossil fuels

.....
.....
(1 Mark)

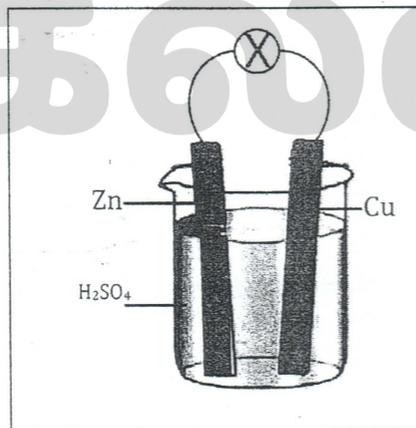
(iv) What is the main component of biogas?

.....
(1 Mark)

(v) Write 2 things that are used to make bio diesel?

.....
.....
(1 Mark)

(03) (A)



(i) Identify it.

.....
(1 Mark)

(ii) Which is the electrolyte used here?

.....
(1 Mark)

(iii) Identify the positive and negative terminal of this.

Positive terminal

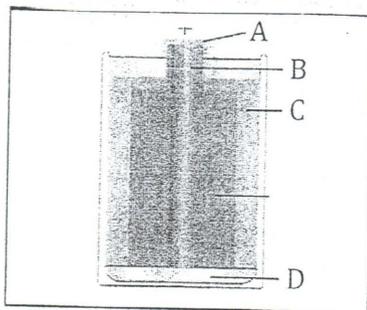
Negative terminal

(1 Mark)

(iv) Mention 2 demerits of this cell

.....
.....
(1 Mark)

(B) Mention the substances that are used as



(i) Electrolyte -

Negative terminal -

(1 Mark)

(ii) A particular dry cell is indicated by 'HEAVY DUTY' type which are the substances found here?

.....
(1 Mark)

(iii) What is the common problem that will arise by both cell mentioned in A and B

.....
(1 Mark)

(iv) What is the secondary cell that was made to overcome above mentioned problem?

.....
(1 Mark)

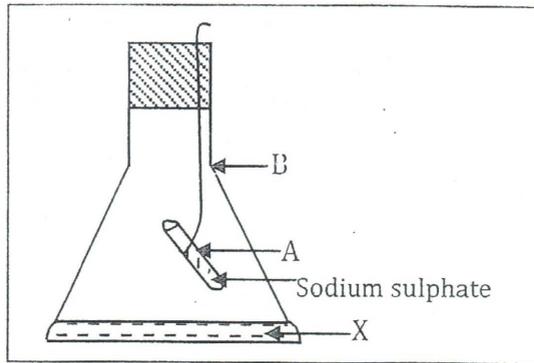
(v) Write the voltage of electric cell that was mentioned in question (iv)

.....
(1 Mark)

(vi) Give 2 eco friendly methods which are used for generating electricity?

.....
.....
(2 Marks)

(94) (A) This practical setup was arranged by Grade 9 students to confirm that the law of conservation of mass.



(i) Name the substance that is used to make A

.....

Mention the feature of stopper, for that it

.....

(2 Marks)

(ii) Write the chemical substance 'X' that was taken into B

.....

(1 Mark)

(iii) What is the reason for that applying grease at the stopper?

.....

(1 Mark)

(iv) Write your observation when tilting the setup for mixing two solution?

.....

(1 Mark)

(v) What is the reading that should be taken here initially and finally?

.....

(1 Mark)

(vi) What do you say about these 2 readings [Readings were taken before and after the reactions].

.....

(1 Mark)

(vii) Mention the law of conservation of mass from this activity?

.....

.....

(1 Mark)

(B) In schools, Awareness programme is carried out to restrict the usage of polythene

(i) Polythene is an artificial polymer.

Mention the monomer of it

.....

(1 Mark)

(ii) Give 3 special features of polythene?

.....
.....
.....

(1 Mark)

(iii) Mention 3 problems that are faced by polythene usage.

.....
.....
.....

(1 Mark)

11

(05) (A) Answer the following questions using given data.

- A - shiny surface and occur in the form of metal strip
- B - has allotrope and black coloured substance with high refractive index
- C - Yellow coloured solid

(i) Identify above elements

A -
B -
C -

(3 Marks)

(ii) A metal released a gas when added with diluted Hydro chloric acid. Name that metal

.....

(iii) Write the word equation for the reaction mentioned in questions (ii)

.....

(1 Mark)

(iv) When a substance burnt, a gas was released with choking smell. Name that gas

.....

(1 Mark)

(v) Write the harmful effect caused by that gas

.....

(1 Mark)

(B) Complete the following.

Alloy	Composition	Characteristics
i).....	Cu, Zn	golden colour Moderately rigid
Bronze	ii).....,,,	does not corrode does not wear off easily
iii).....	Ag, Cu	Stronger than silver and shinny
iv).....	Fe, Ni	Thermal expansion is very low

(4 Marks)

11