

# Science

Grade 09

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Time: 02 Hours

Name/ Index No.

## PART - I

- Answer all the questions.

01 A disease causing fungi is,

(1) Tuberculosis (2) Measles (3) Syphilis (4) Aluham

02 Consider the statements given below.

A Milk which bottled after sterilisation is known as Kalkiri.

B When Producing Kalkiri it is heated at 134 °C degrees.

C Pasteurized milk to be stored in a refrigerator.

D Kalkiri is rich with nutritional value than pasteurised milk.

Correct statement/s from the above is / are,

(1) A (2) A, B (3) A, B, C (4) A, B, C, D

03 Equipment used to measure electric current is,

(1) Volt meter (2) Ohm meter (3) Ammeter (4) Mili volt meter

04 Person who presented geo - centric model related to the motion of planets and sun is,

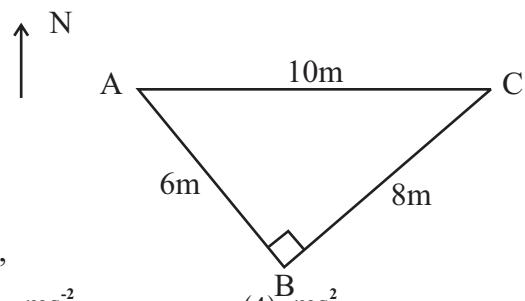
(1) Aristorol (2) Pythagorous  
(3) Nicolaus Copernicus (4) Thales

05 Star pattern with the brightest star can be seen in night sky is,

(1) Pleiades (2) Canis major (3) Ursa minor (4) Southern Cross

06 The figure shows motion of a motor car starts from city A and travels to city C across city B. Answer with the displacement and the distance from A to C is,

(1) 14m, 10m towards East.  
(2) 10m towards East, 14m  
(3) 14m towards East, 10m  
(4) 8m towards East, 16m



07 Standard symbol of measuring displacement is,

(1)  $\text{ms}^{-1}$  (2)  $\text{Kmh}^{-1}$  (3)  $\text{ms}^{-2}$  (4)  $\text{ms}^2$

08 Type of simple machine which common plier; nose plier and lever for removing tyres are belong to is,

(1) inclined plane (2) wheel and axle (3) pulley (4) lever

09 Not a primary source of energy is,

(1) wind (2) bio mass (3) geo thermal (4) crude oil

## PART - II

- **Answer 05 questions only.**

01 All the Matters on earth formed by elements. Compounds are formed by combining elements chemically. Following are several elements and compounds.

H <sub>2</sub> O	Zn	CO(NH <sub>2</sub> ) <sub>2</sub> (Urea)
K	Carbon	Iron
HCl	Gold	NaCl

Answer the following questions using the above table.

- (1) How many elements are in the table given by symbols or name? (01m.)
- (2) How many compounds are there? (01m.)
- (3) Write the standard symbol of iron. (01m.)
- (4) Write down the chemical name of NaCl. (01m.)
- (5) What are the elements of Urea? (02m.)
- (6) Write down that by reacting which substances of the above table following observations can be received.
  - (a) Heating
  - (b) Cooling
 (02m.)
- (7) Mention a metallic element and a non-metallic element from the elements given in the table. (02m.)
- (8) What is the gas formed when reacts Magnesium with dilute hydrochloric acid? (01m.)
- (9) Who is the scientist who presented law of conservation of mass? (01m.)

02 A Name the instrument used for following tests doing in laboratory.

- (1) Preparing a solution with a certain concentration.
- (2) Measuring a small volume of liquid more accurately.
- (3) Measuring all 3 quantities current, potential difference and resistance.
- (4) Collecting a liquid to a definite place by small amounts. ( $\frac{1}{2} \times 4 = 02$ )

B Following is a procedure takes place in a chemical industry uses micro - organisms.



- (1) Fill in the blanks (a) and (b) in the above process. (02m.)
- (2) What is known as sweet toddy? (01m.)
- (3) What is the industry shown by this process? (01m.)
- (4) What is the acid produced by Lacto bacillus when coagulating milk? (01m.)
- (5) Mention an antibiotic used to cure diseases infected by bacteria. (01m.)
- (6) Name the pathogens caused for following diseases.
  - (a) Malaria
  - (b) Amoebic dysentery
 (01m.)
- (7) Name two microscopes uses for observing micro - organisms. (01m.)
- (8) What is the maximum magnification of a light micro scope? (01m.)
- (9) Write down basic steps for of scientific method. (01m.)

03 Following table shows the variation of velocity of an object starts from stationary state with time.

Time (s)	0	1	2	3	4
Velocity ( $\text{ms}^{-1}$ )	0	3	6	9	12

- (1) Calculate the acceleration of object. (02m.)

(2) Express  $36\text{kmh}^{-1}$  in meters per seconds ( $\text{ms}^{-1}$ ). (01m.)

(3) What is displacement? (01m.)

(4) Name two main forms of energy resources. (02m.)

(5) What is the form of energy resources of bio - mass? (01m.)

(6) Name the energy resource used for each of following task.

(a) Producing salt in a saltern. (03m.)

(b) burning bricks.

(c) lighting an electric bulb.

(7) Name 4 alternative energy resource can be used as a solution to the energy crisis. (02m.)

04 Next era of man who is doing the development of technology is Nano era.

(1) Who is considered as the father of nano technology? (01m.)

(2) Mention a natural nano system. (01m.)

(3) Write down a special feature can be seen in products mentioned below produced by using nano technology.

(a) Nano paints (b) Nano electric conductors (03m.)

(c) Nano clothes.

(4) Write 2 adverse effects of nano technology for human beings. (02m.)

(5) What is an alloy? (01m.)

(6) Name the constituent elements contain in following alloys.

(a) Brass (b) Bronze (c) Steel (d) Nichrome (04m.)

05 Electricity has become an essential thing in human life.

(1) Mention main 3 ways of generating electricity. (03m.)

(2) Draw a diagram of a dry cell and name the parts. (03m.)

(3) What are secondary cells? (01m.)

(4) Homogenous mixtures are known as solutions. Write the constituents of following solutions.

(a) Soda (b) Alcohol Solution (c) Brass (03m.)

(5) (a) What is the solvent and (b) What is the solute of a sugar solution? (01m.) (01m.)

06 Observing stars in night sky is a hobby of people with curiosity.

(1) Name the astronomer who presented helio - centric model strongly. (01m.)

(2) Mention the facts that revealed by the astronomers mentioned below.

(a) Pythagorous (b) Aristotal (c) Aristacus (03m.)

(3) Draw the star pattern included with main seven stars of Orion constellation. (02m.)

(4) In the above Orion constellation you drawn name two giant stars Betelgeuse and Rigel. (02m.)