PROVINCIAL DEPARTMENT OF EDUCATION - NORTH WESTERN PROVINCE

First Term Test 2018

SCIENCE

Grade 07 **Time : 2 hours**

Name / Index No.

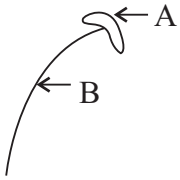
Part I

- **Underline the most suitable answer for the questions 11 to 15.**

01. Select the answer which contains a non flowering plant and a flowering plant respectively,
(1) Salvinia, Drynaria (2) Cyprus, Curry leaves
(3) Balsom, Coconut (4) Idda, Cycus

02. What is the plant leaf which store water ?
(1) Tamarind (2) Cashew (3) Teak (4) Akkapana

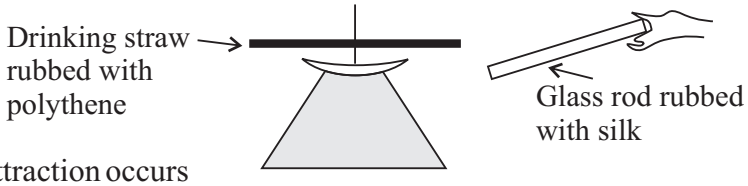
03. The figure shows a stamen of a flower. What is the answer which contains A and B respectively.
(1) Stigma, Filament (2) Anther, Filament
(3) Filament, Anther (4) Anther, Stigma



04. Select the incorrect relationship,
(1) Prop roots - Support the branches
(2) Climbing roots - Exchange of air with the atmosphere
(3) Aerial roots - Absorp water vapour from the atmosphere
(4) Stilt roots - Support the stem

05. Who was the first scientist who revealed that light things are attracted to rubbed objects?
(1) Bengamin Franklin (2) Alexander Volta
(3) William Gilbert (4) George Simon Ohm

06. What is the observation according to the below activity?
(1) Attract each other
(2) Repel each other
(3) No change occurs
(4) First repulsion occurs and then attraction occurs

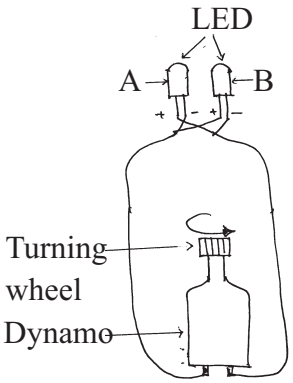


07. Kamal said that a material named "A" which was rubbed with hair and when it was brought close to light pieces of papers they are not attracted. The "A" may be,
(1) Drinking straw (2) Plastic pen tube (3) Comb (4) Iron nail

08. An instrument which is used electromagnetic induction,
(1) Dry cell (2) Solar panel (3) Bicycle dynamo (4) Simple cell

09. What is the colour of bins prescribed in categorizing of garbage to collect decaying substances ?

(1) Blue (2) Green (3) Red (4) Orange

10. 

What is the observation that can be seen in above A and B LED's when the turning wheel of the dynamo is rotated to one direction ?

(1) Only A illuminates
(2) Only B illuminates
(3) A and B illuminate alternately
(4) A and B are not illuminated

- **Match 'A' with 'B' from 11 to 15.**

	A	B
11.	Help to many animals to protect from predators	a Back bone
12.	A suitable substance that can be applied to relief the pain due to sting of a bee.	b Evaporation
13.	An essential material to create a simple cell	c Camouflage
14.	A criterion that can be used to categorize fish and crab	d Sulphuric acid
15.	The process that uses in extracting salt from sea water	e Baking soda

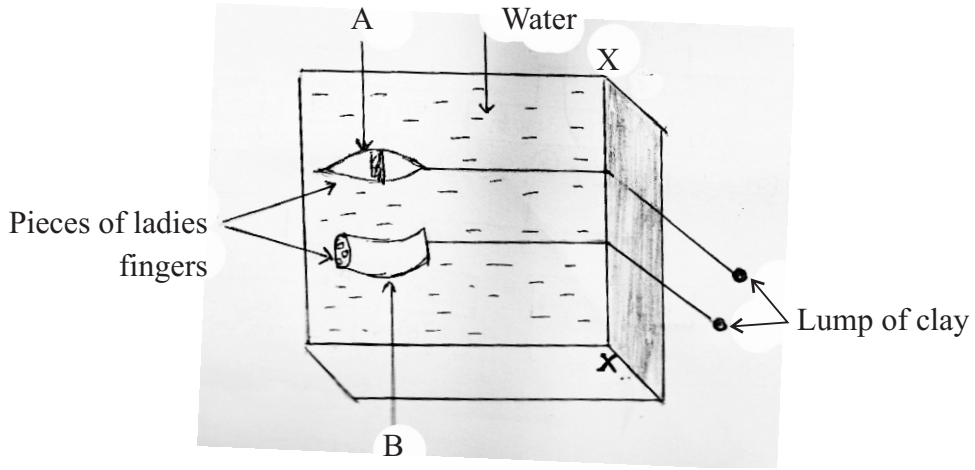
- **Fill in the blanks from 16 to 20 using suitable words in brackets.**

(Adaptations / Phenolphthaline / Dynamo / Water / Nitrogen)

16. Bacteria that live inside root nodules supply ..... required to the plant.
17. ..... is a Source of electricity that gives an alternative current.
18. When ..... indicator is added to a Sodium Hydroxide Solution, Colour turns to pink.
19. Modification of animals to their living environment is called .....
20. ..... acts as a medium for biological processes take place in human body.

- **Answer the first question and four other questions.**

01. Given below is a figure relevant to an activity done to findout the importance of the way of body shape helps to animals for their locomotion.



(1) From A and B, which one reached to X - X end easily? (01m.)

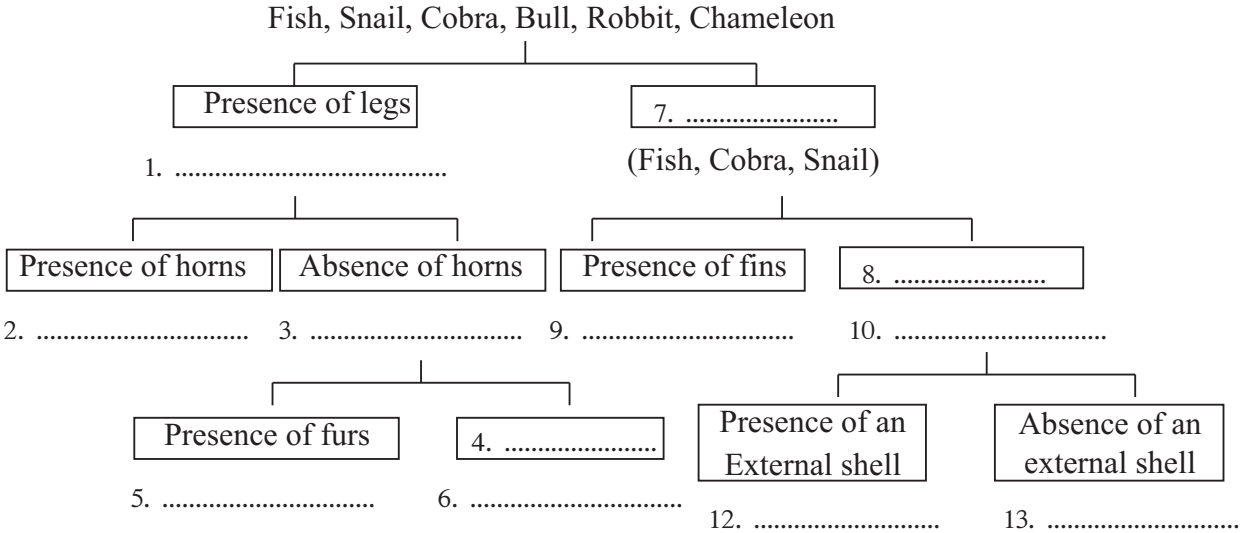
(2) How the shape of A is defined? (01m.)

(3) Name a group of animals that used this shape in their locomotion. (01m.)

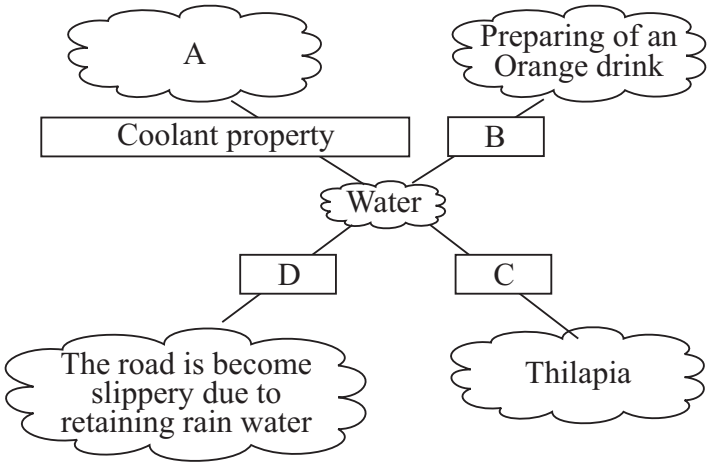
(4) What is the advantage of having this shape in their locomotion? (01m.)

(5) Name another two groups of animals belong to Vertebrates except the group that you have mentioned the above (3) (02m.)

(6) Complete the dichotomous key using given animals, by copying this in your answer sheet. (03m.)



02. The following is a chart made by a group of students in grade 7 for a game related with properties of water.



- ★ Entertainment
- ★ Solvent property
- ★ Lubricant property
- ★ Media for transports
- ★ Sanitation
- ★ Use as a living medium
- ★ Apply water to the radiator of vehicles

(1) Write suitable words for A, B, C, D places using the above statements. (04m.)

(2) Which property of water causes the salty taste of sea water. (01m.)

(3) Write another instance we use the above property of water at home. (01m.)

(4) Name the salt that dissolved most in the sea water? (01m.)

(5) Draw the diagram of an activity which is done for separating salt from a salt solution using the below things and name it.
(a lid of a tin, tripod, spirit lamp or bunsen burner, Salt solution, a box of matches) (02m.)

03.(A) There is a vast diversity among shoot systems as well as root systems of flowering plants in our environment.

(1) What are the two types of root systems you have observed? (01m.)

(2) Write two main functions of plant roots. (02m.)

(3) Write a function for each stem. (02m.)

★ Sugar cane ★ Navahandi

(4) Write an instance where plant leaves are used for decorative purposes. (01m.)

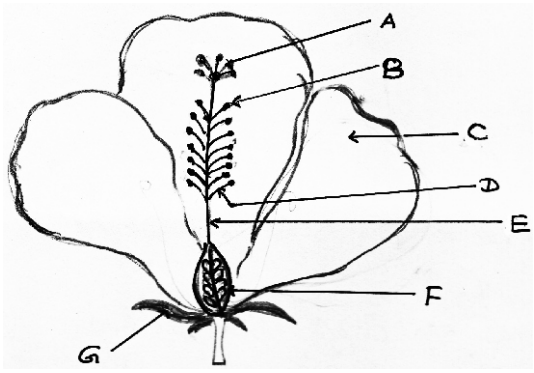
(B) Fruits have different tastes because they contain different chemical compound.

(1) Name two plants having fruits containing acids. (01m.)

(2) Write two indicators that can be used to identify acids and bases at home. (01m.)

(3) What is the colour change that can be observed when testing acidic substances using red and blue litmus.
Red litmus - Blue litmus - (01m.)

04. The following figure shows a longitudinal section of a shoe flower.



(1) Write the letters separately that belong to the parts of gynoecium and androecium.

Gynoecium - Androecium - (02m.)

(2) Write functions of the following parts of a flower. (04m.)

Part of the flower	function
Anther	.....
Sepals	.....
Petals	.....
Ovary	.....

(3) From the following seeds, select the seeds that seed leaves come out during the germination.

★ Coconut ★ Tamarind ★ Paddy ★ Cashew (01m.)

(4) Write two features that can be used to identify dicotyledonous plants like jack, Mango and Teak. (01m.)

(5) Draw a simple leaf and a compound leaf. Name the main parts of them. (01m.)

05. Given below are some steps followed by a group of students in grade 7 to demonstrate the function of the capacitor.

★ Two pieces of wires were connected to the terminals of the capacitor.

★ Other ends of wires were connected is the terminals of dry cells.

★ After few seconds dry cells were removed and the LED is connected.

(1) The charging capacity of the capacitor is mentioned as 1000. Write this value using the symbol with relevant measuring unit. (01m.)

(2) What s the function of the capacitor? (01m.)

(3) Students who did the above activity said that although the dry cells and LED are in good condition, any change can not be observed in the LED. Write a reason for that. (01m.)

(4) If the correct setup could be constructed by students according to the instructions of their teacher, what is the observation ? (02m.)

(5) The reason for the above observation is discharging of charges. What is known as discharging? (02m.)

(6) Draw the setup of appliances using their symbols in the occation of lighting of LED. (02m.)

06. You are supplied the things given below.

(Dilute sulphuric acid, Centre Zero galvanometer, a beaker, a Copper sheet, a Zinc Sheet, Connecting wires)

(1) Draw the figure of the simple cell you made using the above things in the school and name it. (03m.)

(2) Name two sheets respectively that used for + ve and - ve terminals of this cell. (02m.)

(3) Write an observation that you got here. (01m.)

(4) Name another appliance that can be used instead of centre zero galvanometer. (01m.)

(5) What are the sources of electricity used for the following instances.

a) Mobile phone

b) Head lamp of a bicycle (02m.)

Answer Sheet - Part I

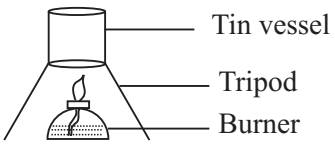
(01) 2 (02) 4 (03) 2 (04) 2 (05) 3 (06) 1 (07) 4 (08) 3 (09) 2 (10) 3

11. c - Camouflage 12. e - Baking Soda 13. d - Sulphuric acid 14. a - backbone
15. b - Eavporation 16. Nitrogen 17. Dynamo 18. Phynolphthalin 19. Adaptations 20. Water

Part II

01. (1) A (01m.) (2) Streamlined shape (01m.)
(3) Birds / Fish (01m.)
(4) To overcome the resistance come from water / air (01m.)
(5) Reptiles, Amphibians, Mammals (02m.)
(6) 1. Bull, rabbit, chameleon 2. Bull
3. Rabbit, Chameleon 4. Absence of furs
5. Rabbit 6. Chameleon
7. Absence of legs 8. Absence of fins
9. Fish 10. Cobra, Snail
11. Absence of an external shell 12. Snail
13. Cobra (If all answers are correct - 03 marks)

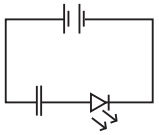
02. (1) A - Pour water to the radiator of the vehicle B - Solvent property
C - Use as a living medium D - Lubricant property (04m.)
(2) Solvent property (01m.)
(3) A suitable answer (01m.)
(4) Sodium Chloride (01m.)
(5)



03.A(1) Tap root system / Fibrous root system (01m.)
(2) To fix the plant to the soil / To absorb water and minerals dissolved in water (02m.)
(3) Sugar cane - Store food / Nawahandi - Carryout Photosynthesis (02m.)
(4) Pandols, wall decorations, traditional events, New year, Vesak greetings cards (01m.)
B (1) For Suitable plants (01m.)
(2) Shoe flower boiled water / Turmaric boiled water / Arecanut boiled water / Extraction of Nil Katarolu flowers (01m.)
(3) Red litmus - No colour change / Blue litmus - Change to red (01m.)

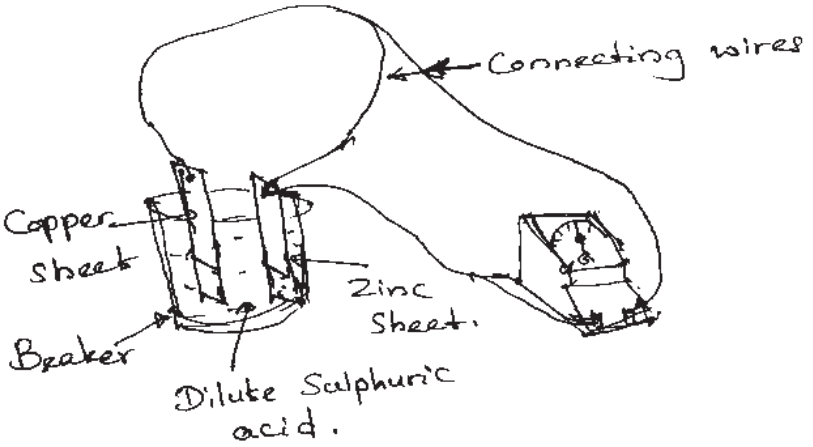
04. (1) Gynoecium : A, E, F Androecium : B, D (02m.)
(2) Anther - produce pollens
Sepals - protect the flower bud
Petals - Attract insects for pollination protect internal parts of the flower
Ovary - produce ovules (04m.)
(3) Tamarind, Cashew (01m.)
(4) have two seed lobes, have a tap root system, have a branched stem, have a reticulate venation (02 marks or any 02 answer)
(5) A correct diagram (01 m.)

05. (1) 1000 F (01m.) (2) Store charges (01m.)
(3) Not connecting the terminals of the capacitor and dry cells correctly.
Not charging the capacitor. (01m.)
(4) LED is illuminated and off suddenly. (02m.)
(5) Releasing of charges. (02m.)
(6) (02m.)



Answer Sheet - Part II

06. (1)



(03m.)

(2) +ve terminal - Copper sheet

-ve terminal - Zinc sheet (02m.)

(3) Moving of the indicator of the centre zero galvanometer. (01m.)

(4) Bulb / Motor (01m.)

(5) a - Chemical cells / Battery b - Bicycle dynamo (02m.)

I	paper	40 marks
II	paper	45 marks
II	paper	15 marks
		Total marks 100