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guru's;
Assignments**

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We are here to guide you through out the academic year.
That's why we have launched this scheme of assignments.

In this scheme we shall set two assignments

(topic –wise / whole syllabus) in a month.

Ist assignment will be available for free download for first fifteen days of the particular month & 2nd assignment will be available for free download for last fifteen days of that particular month. The same pattern will be followed throughout the year.

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Registered members shall e-mail their solved scanned pages
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Wishing you all the best

Meenakshi arora

SCIENCE (Theory)

(X ; CBSE)

Assignment 1

Time allowed : 2 & 1/2 hours

Max. marks: 60

General Instructions:

- (I) The question paper comprises of two Sections, A and B. You have to attempt both the sections.**
- (ii) You are advised to attempt all the questions of Section A and Section B separately.**
- (iii) All questions are compulsory.**
- (iv) There is no overall choice. However, internal choice has been provided in some questions. You are to attempt only one option in such questions.**
- (v) Marks allocated to every question are indicated against it.**
- (vi) Questions number 1-6 in Section A and 17-19 in Section B are very short answer questions. These are to be answered in one word or in one sentence.**
- (vii) Questions number 7-10 in Section A and 20-24 in Section B are short answer questions. These are to be answered in 30-40 words each.**
- (viii) Questions number 11-14 in Section A and 25-26 in Section B are also short answer questions. These are to be answered in 40 - 50 words each.**
- (ix) Questions number 15-16 in Section A and 27 in Section B are long answer questions. These are to be answered in 70 words each.**

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Assignments**

SECTION - A

- Q.1. What happens when hydrogen gas is passed over heated copper (II) oxide? [1]
- Q.2. What is the pH of salts of a strong acid and a strong base? [1]
- Q.3. Why is system of classification into triads was not found to be useful? [1]
- Q.4. What is the power of a convex lens of focal length 10 cm ? [1]
- Q.5. Define one ohm? [1]
- Q.6. Which mirror always produces an erect and a virtual image? [1]
- Q.7. When the ignition of a car is switched on, a current of 30A flows through the wires for a short time. If the battery has a voltage of 12 V find the resistance of the wire? [2]
- Q.8. Draw the shape of the magnetic field lines around a straight current carrying conductor.
State the rule used to find the direction of the magnetic field around this conductor. [2]
- Q.9. Write equations for the reactions of :
- (i) Iron with steam.
 - (ii) Calcium and potassium with water. [2]
- Q.10. What are amphoteric oxides? Give equations to show their behaviour. [2]
- Q.11. Explain the role of pH in our digestive system. How change in pH can be the cause of tooth decay? [3]
- Q.12; Differentiate between metals and non-metals on the basis of the following reactions:
- (i) Reaction with water.
 - (ii) Reaction with oxygen
 - (iii) Reaction with acids.

Q.13. A student sitting at the last bench of his class is unable to see the writing on the board distinctly. Name the defect from which he is suffering. With the help of diagrams show the defect and also explain how it is corrected. [3]

Q.14. An object is placed at a certain distance in front of a concave mirror which forms a real image at a distance of 20 cm from it. If the mirror has a focal length of 15 cm, find the object distance. Also find the magnification produced by the mirror. [3]

Q.15. State Ohm's law. Express it mathematically. Define the SI unit of resistance. Derive an expression for the equivalent resistance of three resistors R_1 , R_2 and R_3 connected in series.

Or

Explain the phenomenon of electromagnetic induction.

A coil of insulated copper wire is connected to a galvanometer. What would happen if a bar magnet is

- (i) pushed into the coil
- (ii) withdrawn from inside the coil.
- (iii) held stationary inside the coil.

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Assignments*

[5]

Q.16. (a) Give the structure of the following compounds. The molecular formula of these compounds is given below:

(i) C_6H_{14} (ii) C_6H_6 (iii) C_3H_8 o

(b) Identify the functional groups present in the following compounds whose molecular formula is given below: .

(i) C_3H_6O (ii) $C_3H_6O_2$

Or

What is meant by allotropy? What is the cause of allotropy? Give three allotropic forms of carbon? Give characteristic properties of any two of these allotropes.

[5]

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Assignments*

SECTION - B

Q.17. What are stomata? Where they are located? [1]

Q.18. What is the role of vas deferens? [1]

Q.19. What are gametes? What is their genetic constitution? [1]

Q.20. How does nutrition takes place in the amoeba? [2]

Q.21. What is the function of bile in the human digestive system? Name the organ which produces bile. [2]

Q.22. What is meant by menstruation? Why it takes place? [2]

Q.23. How does the creation of variations in a species promote survival? [2]

Q.24. A student constructed a box type solar cooker. He found that it is not working efficiently. What could this be due to? Give any two possible mistakes in the construction and operation of the solar cooker. [2]

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Assignments*

Q.25.

Differentiate between food chain and food web. Which of these is more beneficial for the survival of an organism. [3]

Q.26.

Why dams are required? What type of environmental problems may arise due to the building of large dams? [3]

Q.27. Draw a labelled diagram of brain. What is the role of brain in reflex action?

Or

Differentiate between sensory and motor neuron. Draw a labelled diagram showing the structure of a neuron. [5]

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