

CENTRAL PUBLIC SCHOOL

Subject – Science
Class - VII

TAJPUR ROAD, SAMASTIPUR
MID-TERM EXAM - 2018

Time- 3 Hrs.
F. M. - 80

PHYSICS 35 MARKS

1. Fill in the blanks: [5]
 - a. Gases _____ more than liquid and solid on being heated.
 - b. Heat causes _____ changes.
 - c. Most liquids are _____ conductor of heat.
 - d. 10 centuries = _____ millennium.
 - e. The standard unit of time is _____.
2. Multiple choice question: [2]
 - a. Which of these is not a standard unit?
 - i. Second ii. Metre iii. Hand span iv. Gram
 - b. Which of these is true?
 - i. Distance = speed/time ii. Distance = speed X time
 - iii. Distance = time/speed iv. None of these
 - c. Which of these is the best conductor of heat?
 - i. Iron ii. Water iii. Nitrogen iv. Alcohol
 - d. 0° is the same temperature as –
 - i. 0° F ii. 212° F iii. 32° F iv. 100° F
3. Answer any 3 in brief: [6]
 - a. Why does a clinical thermometer have a kink in its stem?
 - b. Why do woolen clothes keep us warmer in winter than cotton clothes?
 - c. Why are ventilators in house provided at the top of walls?
 - d. When is an object said to be in uniform motion?
 - e. What is the S.I system of units? Name two other systems of units.
4. Answer any 3 in detail. [9]
 - a. Distinguish between uniform and non-uniform motion.
 - b. Expansion on heating can be a nuisance. Explain giving two examples.
 - c. Convert 30°C to °F and 90° F to °C.
 - d. With an example of each, explain the uses of good and bad conductors of heat?
 - e. Describe the process of convection of heat?
5. Define any three out of five: [6]
 - a. Radiation b. Thermometer c. Heat d. Time Period e. Speed
6. Numericals. [4]
 - a. A car travels a distance of 270 km in 4½ hours. Find its speed.
 - b. A cheetah runs a distance of 200 m in 10 s, what is the speed of cheetah in
 - i. m/s ii. Km/h
7. Draw a labeled diagram of the following. (Any 1) [3]
 - a. Draw a typical distance-time graph for uniform motion?
 - b. Show that liquids expand when heated?

BIOLOGY 25 MARKS

8. Define any two out of four. [4]
a. Stomata b. Decomposers c. Parasites d. Ruminants

9. Multiple choice questions. [2]

- a. Which of these are autotrophs?
i. All plants ii. Green plants iii. all animals iv. Unicellular organism
- b. The teeth that are used for biting an apple are-
i. Incisors ii. Canines iii. Pre-molars iv. Molars
- c. Exchange of gases in plants take place through the-
i. Stomata ii. Roots iii. Buds iv. Entire leaf surface
- d. Plants do not depend on animal for-
i. Pollination ii. Food iii. Seed dispersal iv. nutrients

10. Answer any 3 in brief. [6]

- a. Why is it dark inside a forest?
b. Why does the breathing becomes faster while doing exercise?
c. How does the presence of acid in the stomach help?
d. What factors are essential for photosynthesis to take place?

11. Answer any 3 in detail. [9]

- a. How do plants get nitrogen to synthesize proteins?
b. Briefly explain the process of digestion in ruminants?
c. What is an aerobic respiration? Does it occur in the human body also?
d. What is a food chain? Explain with an example.

12. Draw the following and label. [4]

- a. Human respiratory system b. Human digestive system

CHEMISTRY 20 MARKS

13. Write the molecular formula of compound: [2]

- a. Calcium Carbonate b. Sodium Nitrate c. Nitric acid d. Sodium Carbonate

14. Complete the chemical equation: [2]

- a. $Zn + HCl \longrightarrow$ _____ + _____
b. $Na + H_2O \longrightarrow$ _____ + _____
c. $N_2 + H_2 \longrightarrow$ _____ + _____
d. $H_2 + O_2 \longrightarrow$ _____ + _____

15. Answer any 2 in brief. [4]

- a. Define valency in term of hydrogen.
b. What is an acid base indicator? Give one example.
c. What property of silk makes it so attractive?

16. Answer any 3 in detail. [9]

- a. Explain the differences between an element and a compound. Give examples.
b. Mention the step in silk production.
c. State two methods by which salts can be prepared. Give one example of each.
d. Some acids are dangerous, others are not. Explain giving examples.

17. Define any two out of three. [3]

- a. Neutralization b. Atomicity c. Sericulture