GRD WORLD SCHOOL

BHAUWALA, DEHRADUN
HOLIDAY HOMEWORK
(WINTER BREAK)2023-24
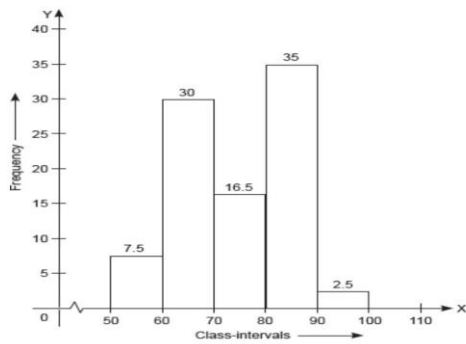## CLASS – IX

SUBJECT–ENGLISH

Sentences are given in the direct speech. Change them into the indirect / reported speech.

1. 'Can I have the phone number of a plumber?' Susie said to her neighbour.

2. 'Do you have a sewing kit?' she said to me.

3. 'Could you show me how the shower works?' the girl said to her mother.

4. 'Where can I buy a new battery?' the boy said to the man.

5. 'Is there anyone who mends bikes here?' the motorist asked the passerby.

6. 'Is it possible to see a different doctor?' the patient said to the nurse.

7. 'Can you give me something for my earache?' the woman asked the chemist.

8. 'Is it possible to meet the surgeon before my operation?' the patient asked.

9. 'Can I have an appointment for tomorrow?' James asked.

10. 'What time do I need to be at the hospital?' the patient asked.

SUBJECT–MATHEMATICS

1. Three cubes are joined end to end forming a cuboid. If side of a cube is 2 cm. find the dimensions of cuboid thus obtained. **(1)**

2. Find the number of cubes of side 2 cm that can be cut from a cuboid of dimensions 5 cm × 4 cm × 2 cm. **(1)**

3. The mean of x_1 and x_2 is 6 and mean of x_1, x_2, x_3 is 7. Find the value of x_3. **(1)**

4. The marks obtained by 30 students in a section of Class IX in a class test of 100 marks are as follows:
   75, 35, 41, 41, 16, 28, 75, 45, 55, 25, 41, 45, 37, 28, 75, 82, 55, 61, 75, 19, 75, 61, 19, 28, 19, 61, **(1)**
   28, 25, 16, 16
   (i) Name the data present in the above form.
   (ii) Arrange the above data in arrayed form.

5. If the mode of the data 15, 18, 14, 15, 15, 18, 14, 17, 18 and k is 15, then find the value of k. **(1)**

6. The curved surface area of a right circular cylinder of height 14 cm is 88 cm2. Find the volume of cylinder. **(2)**

7. The volume of a cylindrical rod is 628 cm3. If its height is 20 cm, find the radius of its cross section. (Use = 3.14) **(2)**

8. The radii of two cylinders are in the ratio 2 : 3 and their heights are in the ratio 5 : 3. Find the ratio of their total surface areas. **(2)**

9. Curved surface area of a cone is 308 cm2 and its slant height is 14 cm. Find its total surface area. **(2)**

10. A metallic sphere of diameter 12.6 cm is melted to make a right circular cone of height 25.2 cm. Calculate the radius of cone. **(2)**

11. A corn cob (see figure), shaped somewhat like a cone, has the radius of its broadest end as 2.1 cm and length (height) as 20 cm. If each 1 cm2 of the surface of the cob carries an average of four grains, find how many grains you would find on the entire cob.

12. A solid metallic sphere of diameter 21 cm is melted and recasted into a number of smaller cones, each of diameter 3.5 cm and height 3 cm. Find the number of cones so formed. **(3)**

13. The marks obtained by 40 students of class IX in a mathematics test are given below:
    18, 55, 68, 79, 85, 43, 29, 68, 54, 73, 47, 35, 72, 64, 95, 44, 50, 77, 64, 35, 79, 52, 45, 54, 70, 83, 62, 64,
    72, 92, 84, 76, 63, 43, 54, 38, 73, 68, 52, 54.
    Prepare a frequency distribution table with class size of 10 marks. **(3)**

14. Using the given histogram, prepare a grouped frequency distribution table.   **(3)**

15. The marks of 15 students in an examination out of 10 marks is as follows: 3, 9, 7, 5, 6, 3, 7, 6, 7, 4,   7, 7, 4, 8, 2.
 Find the mean, mode and median.   **(3)**

16. Draw a histogram for the following marks obtained (out of 100 marks) by class of 80 students. **(3)**

Marks	Number of students
10 – 20	18
20 – 30	10
30 – 50	15
50 – 60	7
60 – 80	4

SUBJECT– SOCIAL SCIENCE

PROJECT WORK-

TOPIC: Nature vegetation and wildlife .

BIOLOGY

Note: Solve the assignment in your classwork notebook.
   Solve the questions:
1. Draw a well labelled diagram of following:
   (a) Plant cell
   (b) Animal cell
   (c) Neuron
   (d) Mitochondria
2. Write difference between the following:
   (a) RER and SER
   (b) Cell wall and plasma membrane
   (c) Diffusion and osmosis
   (d) Blood and lymph
   (e) Xylem and phloem
   (f) Layers and boilers
3. Make a chart on any one of the following topics:
   (a) water cycle
   (b) animal cell
   (c) nitrogen cycle

   (USE A WHITE CHART PAPER TO DRAW THE ABOVE DIAGRAM)

CHEMISTRY

1. Nitrogen is:
    - **(a)** Diatomic
    - **(b)** Monatomic
    - **(c)** Triatomic
    - **(d)** Tetratomic

2. Na+ has 12 neutrons and 10 electrons. Which of the following statement is correct?
    - **(a)** Na+ has atomic number equal to 10 and mass number 23
    - **(b)** Na+ has atomic number equal to 11 and mass number 23
    - **(c)** Na+ has atomic number equal to 11 and mass number 22
    - **(d)** Na+ has atomic number equal to 10 and mass number 22

3. Which of the following statements is/are correct about particles:
    - **(a)** They are electrons.
    - **(b)** They are deflected towards positive electrode.
    - **(c)** They travel at the speed of sound.
    - **(d)** They are deflected towards negative electrode.

    - **(a)** All of these
    - **(b)** (a) and (b) are correct
    - **(c)** (b) and (c) are correct
    - **(d)** (a), (b) and (c) are correct

4. What is the e/m value of an electron?
    - **(a)** 1.8×10^{12} C/Kg.
    - **(b)** None of these
    - **(c)** 1.76×10^{11} C/Kg.
    - **(d)** 1.6×10^{11} C/Kg. suus

5. Atomic number of an element is equal to:
    - **(a)** Number of Protons
    - **(b)** Number of neutrons
    - **(c)** Both a) and b)
    - **(d)** Number of electrons

6. On the basis of Rutherford's model of an atom, which sub-atomic particle is present in the nucleus of an atom?
7. Are mass number and atomic mass of an element equal in all respects?
8. What are ions? What are its two types?
9. The element aluminum is written by the symbol 27 13*Al*. Write the number of protons, electrons and neutrons present in it.
10. Out of C-12 and C-14 isotopes of carbon, which is of radioactive nature?
11. Which of the two will be chemically more reactive; element X with atomic number 16 or element Y with atomic number 17?
12. How do you know that nucleus is very small as compared to the size of atom?
13. The average atomic mass of a sample of an element X is 16.2 u. What are the percentages of isotopes 16 8 *X* and 18 8 *X* ?
14. Explain the variation of atomic radius along a period and down a group.
15. Describe valiancy by taking the examples of silicon and oxygen.
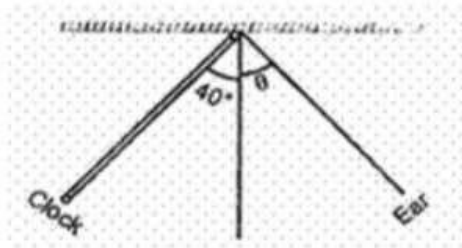
CBSE Test Paper 01

Chapter 12 Sound

1. The frequency of a visible light of wavelength 600 nm is (speed of light = 3×10^8 m/s), ($1nm = 10^{-9}$ m) **(1)**
   a. 50 Hz
   b. 5×1014 Hz
   c. 0.5×1016 Hz
   d. 500 Hz

2. A pulse **(1)**
   a. is a short duration disturbance
   b. does not repeat
   c. all of these
   d. can travel

3. In which of the following medium, speed of sound is maximum? **(1)**
   a. Aluminium
   b. Water
   c. Air
   d. Helium

4. Infrasonic sound is produced by:- **(1)**
   a. Rhinoceros
   b. Dogs
   c. Rats
   d. Bats

5. Which wave property determines loudness? **(1)**
   a. amplitude
   b. pitch
   c. frequency
   d. All of these

6. Sometimes sound produced by bats, dolphins are **(1)**
   a. all of these
   b. ultrasonic

c. ultraviolet

d. infrasonic

7. The audible range of frequencies for a normal human being is _____ to _____ Hertz. **(1)**

   a. 30 to 30,000
   b. 20 to 20,000
   c. 40 to 40,000
   d. 10 to 10,000

8. What is the audible range of the average human ear? **(1)**

9. What is one complete oscillation? **(1)**

10. In the experiment on studying the laws of reflection of sound, the tube facing the clock is placed as shown. The position of the second tube, at which the ear will get the best reflected sound, is obtained when θequals: **(1)**

11. Calculate the wavelength of a sound wave whose frequency is 220 Hz and speed is 440 m/s in a given medium. **(3)**

12. How do bats use ultrasound to catch a prey? **(3)**

13. What is reverberation? What is done to reduce it? **(3)**

14. A sound wave of wavelength 0.332 m has a time period of 10^{-3}s. If the time period is decreased to 10^{-4}s, calculate the wavelength and frequency of new wave. **(3)**

15. a. What is meant by reflection of sound?
    b. Describe an activity to study the reflection of sound.
    c. State the laws of reflection of sound. **(5)**

HINDI

CBSE Test Paper 02
व्याकरण अनुस्वार और अनुनासिक

1. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

   i. लिखून्गा
   ii. रान्झना
   iii. हसमुख
   iv. सवारना

2. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

   i. परन्तु
   ii. कधे
   iii. मुह
   iv. फूकना

3. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

   i. कन्चन
   ii. सगममर
   iii. मन्हगाई
   iv. जाऊगा

4. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

   i. सम्बन्ध
   ii. श्रृगार
   iii. भांति
   iv. काच

5. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

   i. शन्कू
   ii. सन्घर्ष
   iii. छाव
   iv. खुशिया

6. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

    i. अलकार

    ii. चचल

    iii. बान्ध

    iv. साप

7. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

    i. कम्पन

    ii. हलन्त

    iii. ढूढ़ने

    iv. अन्गूठा

8. निम्नलिखित शब्दों में उचित स्थान पर अनुस्वार या अनुनासिक का प्रयोग कीजिए-

    i. आनन्द

    ii. रन्गीन

    iii. बासुरी

    iv. आकड़े

1. I. निम्नलिखित शब्दों में संधि-विच्छेद कीजिए-
    i. सूर्योदय
    ii. सज्जन
   II. निम्नलिखित शब्दों में सन्धि कीजिए-
    i. वयः + वृद्ध
    ii. वधू + ऊर्मि
2. I. निम्नलिखित शब्दों में संधि कीजिए-
    i. स्व + इच्छा
    ii. पूर्व + उक्त
   II. निम्नलिखित शब्दों का संधि-विच्छेद कीजिए-
    i. तथैव
    ii. सम्भाषण

3. निम्नलिखित शब्दों में सन्धि-विच्छेद कीजिए-

    i. संचय
    ii. विषम
    iii. परिच्छेद
    iv. पावक
4. I. निम्नलिखित शब्दों में सन्धि कीजिए-
    i. ब्रह्म् + ऋषि
    ii. एक + एक
   II. निम्नलिखित शब्दों में सन्धि कीजिए-
    i. वाङ्मय
    ii. दिग्गज
5. I. निम्नलिखित शब्दों में सन्धि कीजिए-
    i. अधि + आदेश
    ii. शुभ + उदय
   II. निम्नलिखित शब्दों में सन्धि विच्छेद कीजिए-
    i. चिकित्सालय
    ii. गर्वोन्नत

6. I. निम्नलिखित शब्दों में सन्धि कीजिए-

      i. शिक्षा + अर्थी

      ii. भानु + उदय

  II. निम्नलिखित शब्दों का सन्धि-विच्छेद कीजिए-

      i. सचिवालय

      ii. महाशय

7. I. निम्नलिखित शब्दों में सन्धि कीजिए-

      i. विस्मय + आदि

      ii. देवी + ऐश्वर्य

  II. निम्नलिखित शब्दों में संधि-विच्छेद कीजिए-

      i. महौदार्य

      ii. लंकेश