

**KENDRIYA VIDYALAYA RRL JORHAT**  
**AUTUMN BREAK HOME WORK 2022-23**  
**CLASS-XI**                      **SUBJECT- COMPUTER SCI.**

**From Book : Computer science with Python by Sumita Arora**

Q. 1 to 11 Page . 18 to 20

Q.1 to 14 Page 43 to 45

Q.1 to 23 Page 81 to 86

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**CLASS-XI**                      **SUBJECT- BIOLOGY**

1. Diatoms are also called as 'pearls of ocean', why? What is diatomaceous earth?
  2. There is a myth that immediately after heavy rains in forest, mushrooms appear in large number and make a very large ring or circle, which may be several metres in diameter. These are called as 'Fairy rings'. Can you explain this myth of fairy rings in biological terms?
  3. *Neurospora* - an ascomycetes fungus has been used as a biological tool to understand the mechanism of plant genetics much in the same way as *Drosophila* has been used to study animal genetics. What makes *Neurospora* so important as a genetic tool?
  4. Cyanobacteria and heterotrophic bacteria have been clubbed together in Eubacteria of kingdom Monera as per the "Five Kingdom Classification" even though the two are vastly different from each other. Is this grouping of the two types of taxa in the same kingdom justified? If so, why?
  5. At a stage of their cycle, ascomycetes fungi produce the fruiting bodies like apothecium, perithecium or cleistothecium. How are these three types of fruiting bodies different from each other?
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CLASS-XI SUBJECT- CHEMISTRY

1. How many total electrons are present in 1.4 g of nitrogen gas?
  2. Two containers of equal capacity A1 and A2 contain 10 g of oxygen (O<sub>2</sub>) and ozone (O<sub>3</sub>) respectively. Which of the two will have greater no. of O-atoms and which will give greater no. of molecules?
  3. Define empirical formula and molecular formula. How will you establish a relationship between the two? Give examples.
  4. What are the main features of Rutherford's model of an atom?
  5. Calculate the wave number of radiations having a frequency of  $4 \times 10^{14}$  Hz.
  6. Electromagnetic radiation of wavelength 242 nm is just sufficient to ionize the sodium atom. Calculate the Ionisation energy of solution in kJ mol<sup>-1</sup>
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CLASS-XI SUBJECT- PHYSICS

**PRACTICE work:**

1. 3-Equations of Uniform Motion graphical method.
2. 3-Equations of Uniform Motion calculus method.
3. Triangle and parallelogram law graphical treatment.
4. Resolution of vector in a plane- rectangular components and magnitude of vector.
5. Resultant of vectors-analytical.

**PROJECT WORK:**

Perform a Study and paper-work on any one of the topics:

-Projectile Motion. /To study the variation in range of a projectile with angle of projection.

OR

-Friction, types of friction Or To measure the force of limiting friction for rolling of a roller on a horizontal plane.

The evaluation of the project/activity will be based on the following Rubrics:

S. No.	Item	Marks
1	Quality & Lay out of the project.	10
2	Visual Presentation of the facts like Description/Content/ Picture/Map/Graph/Diagram/ Derivation etc.	20
3	Overall Presentation (Neatness, Handwriting and word limit etc.)	10

4	Assessment of the Project through Questionnaire (Google Form-10 MCQ or telephonic viva/ any other suitable methodology)	10
	Total	50

### COMMON LAY OUT OF PHYSICS– PROJECTS

1. Cover Page
2. Certificate
3. Table of contents – Page Title
4. Title /topic of the Project
5. Objective of the Project.
6. Brief description of the project.
7. Pre-requisite Knowledge.
8. Material / Resources required.
9. Planning /Procedures followed.
10. Scientific Concept(s) Used.
11. Results (Analysis /Interpretation etc.)
12. Conclusions.
13. Acknowledgement.
14. List of references.

Note: You may add any other relevant points as per your project allotment.

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**CLASS-XI**                      **SUBJECT- ENGLISH**

**Literature:**

**Q1. Read the lesson ‘Ranga’s Marriage’ (Snapshot) and write your views on ‘Child Marriage prevailing in Indian Society’ giving instances from the chapter within 150 – 200 words.      6**

**Grammar:**

**Q2. Read the passage below and decide whether *a, an, the, or no articles* needed to fill each gap correctly:**

a) Spanish is one of (i) ----- most widely spoken languages in (ii) ----- world. It is spoken all over (iii) ----- South America except for (iv) ----- Brazil. Like Italian and Portuguese, (v) --- Spanish language is related to Latin. (vi) ----- recent report stated that (vii) ----- number of Spanish speakers in (viii) ----- United State of America will be higher than (ix) ----- number of English speakers by (x) ----- year 2090. As (xi) ----- result of this, nearly all North American schools teach Spanish. (xii) ----- language with (xiii) ----- most speakers in (xiv) ----- world is Mandarin Chinese.  $\frac{1}{2} \times 14 = 7$

b) He was wearing (i) ---- hat. I have just bought (ii) ----- new computer. What (iii) ---- interesting life you’ve had! Do you have to wear (iv) ---- uniform? The book was given to me by (v) ----- uncle. This should only take half (vi) ----- hour. (vii) ----- plane flew overhead. He took me to (viii) ----- expensive restaurant. This is (ix) ----- one-way street. She wanted to be (x) ---- MP.  $\frac{1}{2} \times 10 = 5$

Q3. Complete this narration using suitable determiners:

A (i) ----- months back, (ii) ----- big fire broke out in our locality. It had caused a (iii) ---- --- damage, but fortunately (iv) ----- was hurt. It was a calm night and I was reading in the hall. I smelt (v) ----- burning and heart (vi) ----- shouting down the road. I saw a house on fire with (vii) ----- flames leaping from one roof to another. I immediately phoned the police and fire department, and (viii) ----- of us rushed out.  $\frac{1}{2} \times 8 = 4$

Q4. Fill in the blanks with the correct forms of the verbs given in the brackets:

- i) I.....in Model Town and my friend Shyam also.....there. (live)  $1 \times 8 = 8$   
ii) I.....a book on mathematics. (write)  
iii) ..... she not yet.....her homework? (finish)  
iv) How many sums.....you .....? (solve)  
v) It..... for two hours. (rain)  
vi) She..... in Delhi since 1998. (live)  
vii) She..... for her mother till it got dark. (wait)  
viii) My mother..... food when I reached home. (cook)

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CLASS-XI SUBJECT- HINDI

- प्रश्न-1 मासिक वेतन को पूर्णमासी का चाँद क्यों कहा जाता है।  
प्रश्न-2 नमक का दारोगा कहानी के कोई दो शीर्षक बताते हुए उसके आधार को स्पष्ट कीजिए  
प्रश्न-3 कबीर ने ऐसा क्यों कहा है कि संसार बौरा गया है  
प्रश्न-4 मानव शरीर का निर्माण किन किन पांच तत्वों से हुआ है  
प्रश्न-5 लेखिका मियां नसीरुद्दीन के पास क्यों गई थी

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CLASS-XI SUBJECT- MATHS

- Find the domain and range of the function  $f(x) = \sqrt{16 - x^2}$
- Let  $A = \{9, 10, 11, 12, 13\}$  and let  $f: A \rightarrow N$  be defined by  $f(n)$  = the highest prime factor of  $n$ . Find the range of  $f$ .
- Let  $f = \{(-1, -8), (1, -2), (2, 1), \dots\}$  be a function from  $Z$  to  $Z$  defined by  $f(x) = px + q$ , for some integers  $p$  and  $q$ . Determine  $p$  and  $q$ .
- Let  $f: R \rightarrow R$  be given by  $f(x) = x^2 + 3$  Find (i)  $\{x : f(x) = 28\}$  (ii) The pre-images of 39 and 2 under ' $f$ '.
- Determine the domain and the range of the relation  $R$ , where  $R = \{(x, x^3) : x \text{ is a prime number less than } 10\}$ .

6. Find the domain and range of  $f(x) = \frac{(x-2)}{(x-1)}$ .
  7. Find the domain and the range of the real function  $f$  defined by  $f(x) = \sqrt[3]{(2x-1)}$ .
  8. Find the domain of the functions a)  $f(x) = x^2+2x+1$  b)  $f(x) = x^2-8x+12$
  9. Draw the graph of  $f(x) = |x-2|$ ,  $x \in \mathbb{R}$ . What are the domain and range of  $f(x) = |x-2|$  ?
  10. Solve Exercise 9.1.
  11. Write any two activities from math lab manual in practical notebook.
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