Rai University
EVOLVING THINKING MINDS
A LEADING RESEARCH DRIVEN UNIVERSITY

School of Arts, Science and Commerce

Department of Science

B.Sc Chemistry

Semester II

Major Assignment

Important Instructions to Student:

1. Last date for Assignment Submission – **30-May-2020**
2. This assignment carries major **weightage of 50 Marks**. Kindly prepare it very carefully and in a very detailed manner. For any help in this regard, kindly contact your faculties.
3. Front Page of Assignment should clearly include details like:
   - **a.** Your Name
   - **b.** UID Number
   - **c.** Subject
   - **d.** Class
   - **e.** Semester

   In the event of no such information, we may not be able to assign marks for your assignment, for which responsibility lies with students.
4. You can write and submit assignment through any of the following options:
   a. Handwritten Assignment – Prepare softcopy of your assignment through suitable apps and send the assignment as one PDF to your respective faculty as mentioned above.
   b. Typed Assignment – Prepare Assignment with following font setting and submit the assignment to your respective faculty as mentioned above.
      i. Font Type – Times New Roman or Arial
      ii. Headings – Font Size 14
      iii. Text (Except Heading) – 12
      iv. Normal Margin and Line Spacing maximum 1.15
5. After this lockdown ends, you all have to submit the physical assignment copies to your respective Faculties. So, keep the assignment carefully for submission.
6. While submitting assignment through email, kindly use subject line as Name of the Programe_Name of Course/Branch_Semester_Name o the the Subject. For Example B.Tech._Mechanical_IV_Theory of Machines

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General chemistry **Prof. Nareshvari Chovatiya**	**Mode of Submission: email** **Email –nareshvari.chovatiya@raiuniversity.edu** **Subject Line: B.Sc sem-II ALL (General chemistry)**
1.	Describe Heisenberg Uncertainty principle.
2.	What is Hybridization? Explain in detail types of Hybridization.
3	Give the chemical and physical property of Noble gases.
4	Give the detail about VSEPR.
5.	Define the term: electronegativity, ionization energy, Periodic trends.
General Physics **Prof. Gayatri Sharma**	**Mode of Submission: Email** **Email** –gayatri.sharma@raiuniversity.edu **Subject Line:** B.Sc. General Physics
1.	State and prove Gauss theorem in electrostatics.
2.	Explain working principle of full wave rectifier with advantages and disadvantages.
3	State and explain joule Thomson effect with diagram.
4	Distinguish between an alternating current and direct current.
5.	Derive the expression for interplanar spacing with diagram.
English Communication & Life Skills **Prof. Prof. Rakhi Pande**	**Mode of Submission: email** **Email –rbs.raiuniversity@gmail.com** **Subject Line: B.Sc sem-II PCM**
1.	Describe SQ3R study method in detail.
2.	Mention all the helping verbs
3	Explain reading techniques in detail
4	Mention 10 habits that need to be developed
5.	Explain the use of punctuation while using infinitive
Subject: Number theory **Faculty name:** **Vardan Parmar**	**Mode of Submission: Upload to link** **https://forms.gle/ic5rqR4HgSDj3UFV8** **Subject Line: B.Sc sem-II PCM**
1.	Prove that If $2^k - 1$ is prime ($k > 1$), then $n = 2^{k-1}(2^k - 1)$ is perfect number.
2.	Stat the Chinese Reminder Theorem and solve following system of linear congruence $x \equiv 2(mod\ 3)$ $x \equiv 3\ (mod\ 5)$ $x \equiv 2\ (mod\ 7)$
3	Calculate 20! mod 23 using Wilson's Theorem.
4	Find the last two digits of 3^{256} mod100
5.	Explain with example hill cipher.

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EA **Prof.** Dr. Sailesh Iyer		**Mode of Submission: email** **Email –** sailesh.iyer@raiuniversity.edu **Subject Line: B.Sc sem-II PCM**
1.	Explain types of e-Commerce.	
2.	Explain MIS with appropriate examples.	
3	Explain Audio, Video and Animation in Multimedia with examples.	
4	Explain types of Operators in C.	
5.	What is Traditional Business? Explain challenges in Traditional Business with examples.	

NOTE: After completing your assignments, contact your respective faculty member and submit the assignment for assessment.