



Bidhan Chandra College

DEPARTMENT OF CHEMISTRY

Ref. No.

Date: 03-05-2024

Notice:

Subject: HOME ASSIGNMENT of 6th Semester B.Sc. (Hons) in Chemistry 2024

It is hereby informed to the students of 6th Semester B.Sc. (Hons) in Chemistry that they have to submit the home assignments. The questions of the home assignments will be available from the respective teacher of the department. The last date of submission of the assignment is 13th May, 2024. After the mentioned date and time no home assignments will be accepted. The students are advised to write all the necessary details at the cover page. It is also advised not to print or add unnecessary design on the cover page of home assignments. The Home assignments should be written neatly and clearly by giving margin on all sides of the page.

(Dr. Tapan Kumar Si)

Head, Department of Chemistry

Bidhan Chandra College

Home Assignment - 2024

6th Semester

Discipline: Chemistry (HONOURS)

Course Name: Inorganic Chemistry - V

Course Code: BSCHCEMC601

1. Differentiate between precision and accuracy. 2
2. What do you mean by systematic error and random error. 2
3. Calculate the standard deviation of the following: 107.861, 107.870, 107.881, 107.892. 2
4. What is significant figure? State the significant figure of 0.0035200. 2
5. Calculate the result of the following in proper significant figure: 2
 - (i) $(9.123 \times 8167) / (26.9501 \times 2.361) = ?$
 - (ii) $\log(3.124 \times 23) = ?$



- Name: Rohit Sharma
- Discipline: Chemistry (Honours)
- Course Name: Inorganic chemistry - IV
- Course code: BSCHCEMC601
- Semester: 6th semester

1. Differentiate between precision and accuracy?

Ans:

Precision	Accuracy
(i) The extent to which measured readings are close to the the real value, called precision.	(i) The extent to which readings are close to the real value, called Accuracy.
(ii) Precision is a measure of the reproducibility of the measurement.	(ii) Accuracy is closeness with the true value of the quantity being measured.
(iii) This measurement will be statistical variability.	(iii) This measurement will be statistical bias.

2. What do you mean by systematic error and random error?

Ans: Systematic error: when an observed or calculated value deviates from the true value in a consistent way, called systematic error.

Ex: Error in measurements of solar radiation because trees or buildings shade the radiometer.

Random error: Random error is a chance difference between the observed and true values of something.

Ex:- A researcher misreading a weighing scale records an incorrect measurement

2x

3. calculate the standard deviation of the following: 107.861, 107.870, 107.881, 107.892.

Ans:- Mean: $(107.861 + 107.870 + 107.881 + 107.892)$

4

$$= 107.876$$

$$S_d = \sqrt{S_a^2 + S_b^2 + S_c^2}$$

$$= \sqrt{(107.861 - 107.876)^2 + (107.870 - 107.876)^2 + (107.881 - 107.876)^2 + (107.892 - 107.876)^2}$$

$$= \sqrt{(0.000225 + 0.000036 + 0.000025 + 0.000256) / 4} \left[\begin{array}{l} \text{calculated} \\ \text{value} \\ \text{divided} \\ \text{by } 4 \end{array} \right]$$

$$= 0.01163$$

So, the standard deviation is approximately

0.01163 Ans

2x

4. what is significant figure? state the significant figure of 0.0035200.

Ans: Significant figure: Those significant or important digits, which convey the meaning according to its accuracy, called significant figure.

Ex: 6.658 has four significant digits.
These substantial figures provide precis to the numbers.

significant figure of 0.0035200 is, 5

2+

5. Calculate the result of the following in proper significant figure:

$$(i) \quad \frac{(9.123 \times 8167)}{(26.9501 \times 2.361)} = \frac{74,507.541}{63.6291861}$$

$$\therefore \text{Key No} = 2.361$$

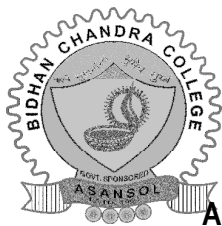
$$= 1170.9648601021$$

$$= 1170 \text{ Ans}$$

$$(ii) \quad \log(3.124 \times 23) = 1.8564388612$$

$$= 1.856 \text{ Ans}$$

2x



Bidhan Chandra College

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Asansol – 4, Dist – Burdwan , West Bengal , Ph : 0341-2283020 / 3058 , www.bccollegeasansol.org

Notice for Assignments

All concerned 6th semester Mathematics Honours students are hereby informed that an assignment based unit test will be held on and from 17/05/2024 as per the following routine. All students are hereby directed to attend the unit test as directed by the concern teachers. Syllabus of the assignments will be informed by the respective subject teacher.

Paper	Date	Time
Complex Analysis (CC-13)	17/05/2024	Within 2 days
Numerical Methods and Numerical Labs (CC-14)	17/05/2024	Within 2 days
Number Theory (DSE-3)	18/05/2024	Within 2 days
Discrete Mathematics (DSE-4)	18/05/2024	Within 2 days

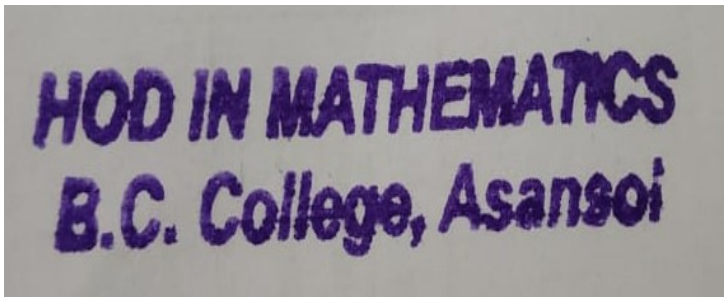
Dated: 14/05/2024

Indubaran Mandal

HOD

Department of Mathematics

Bidhan Chandra College, Asansol-4



Assignment
6th Semester (Hons.)
Paper Name: Number Theory , Paper Code: BSCHMTMDSE602
Bidhan Chandra College, Asansol-4

Answer all questions:

5 × 2

- (1) For $m > 0$ and $a, b, c, d \in \mathbf{Z}$ such that $a \equiv b \pmod{m}$ and $c \equiv d \pmod{m}$ then, $a + c \equiv b + d \pmod{m}$.
- (2) Prove that, $\mu(n)\mu(n+1)\mu(n+2)\mu(n+3) = 0$ for any positive integer n .
- (3) Given $2 = -3(18) + 2(28)$ find all the solution of the linear Diophantine equation $18x + 28y = 20$.
- (4) If $\gcd(a, 30) = 1$, show that 60 divides $a^4 + 59$.
- (5) For real numbers x and y , show that $[x] + [y] \leq [x + y] \leq [x] + [y] + 1$.
- (6) State Fundamental theorem of Arithmetic.
- (7) Show that $\phi(3n) = 3\phi(n)$ if and only if $3 \mid n$ for any integer n .
- (8) Find the values of $d(180)$ and $\sigma(180)$.
-



Main Answer Booklet Number: KNU22/

Course Code: BSCHMTMD8E602

Course Name: Number Theory (Assignment mark)

Name: Rahat Parveen

Registration No: 103211220102

Answer any five questions:-

6) Fundamental

Fundamental theorem of arithmetic states that every integer greater than 1 ($n > 1$) can be uniquely factorised into prime no.s except ~~the~~ order of the factors. This theorem is the cornerstone of number theory and have several important implications.

1) Solution:-Given, $a \equiv b \pmod{m}$ we have $(a - b) = km$ for some integer (k).

Similarly,

Given, $c \equiv d \pmod{m}$ we have $(c - d) = lm$ for some integer (l).

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Ref.No.

Date: 21/05/2024

NOTICE

INTERNAL THEORY AND PRACTICAL EXAMINATION-2024

B.SC 6th SEMESTER PROGRAM SUBJECT -BOTANY

All the students are hereby informed that their **6th semester Internal theory and practical examination** will be held on 25/05/2024

Time: 11:00a.m onwards

Dated: 21 May, 2024

Department of Botany



6th Semester Internal Theory Botany Program Exam

Paper Code-BSCPOTC601

Paper Name- Cytogenetics

F.M.- 10

Time-30mins

Date-25/05/2024

Answer any 5 question of the following:

- 1) What is G₀ phase? Give example of a cell remain in G₀ phase.
- 2) Name one semi-autonomous cell organelle and mention its function.
- 3) Define frame shift mutation.
- 4) Name one alkylating agent and one base analogue.
- 5) Chromosome number '2n-1' and '2n+1'. What does it signify.
- 6) State the "law of independent assortment" by Mendel.

Ans. 1 G₀ phase is a phase ~~in~~ where the cell does not divide and grows and enters a stage of dormancy or to perform some specialised function. (neuron)
x2 Nerve cell of brain and heart cells are examples of cells which remain in G₀ phase.

Ans. Chloroplast is an example of semi-autonomous cell organelle.

The functions of chloroplast are:-

- +1/2 1.) Photosynthesis - The primary function of chloroplast is photosynthesis by converting light energy into chemical energy and water stored in glucose.
 - 2.) Oxygen production - During photosynthesis, oxygen is released which helps in respiration of animals.
 - 3.) It is a type of genetic mutation caused by indels of a number of nucleotides in a DNA sequence that is not divisible by three. It is caused by deletion or insertion in a DNA sequence that shifts the way sequence is read.
- 42

2024

6TH SEM INTERNAL PRACTICAL EXAMINATION

SUBJECT-BOTANY

COURSE NAME- CYTOGENETICS

COURSE CODE- BSCPBTDS601

Full Marks: 30

Time:2 hours

Answer the following question:

- 1.From the given pedigree chart, study the pedigree analysis and find what the pattern of inheritance does this trait follow. (6)
- 2.Test your blood group with the blood grouping kit. (4)
- 3.Consider the supplied sample 'A' represent seeds of F₂ generation from the selfed F₁ plants. Apply Chi-Square test and comment on the mode of inheritance of the seed size and seed coat colour . (10)
- 4.Make a temporary squash preparation with aceto-orcien of the supplied root tip material 'B'. draw neatly any two characteristic divisional stages observed by you, label properly and comment on them. (5+5=10)


$$\frac{22}{30}$$

Kazi Nazrul University

Registration Number: 10321120004 of 20 21 - 20 22

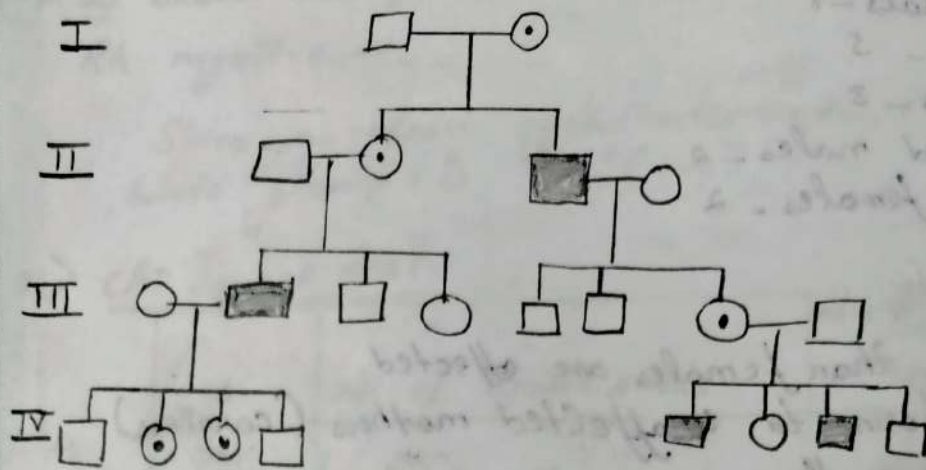
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INSTRUCTIONS TO CANDIDATES

1. The Candidate must not write his/her name or the name of his/her college anywhere in the answer script (except front page).
2. All answers must be written on both sides of the pages of the script and not on one side only.
3. Pencil/Red ink should not be used for answering questions. However, pencil may be used for sketching / drawing / labelling.
4. No loose paper will be provided for scribbling and no paper should be brought inside the Examination Hall.
5. Any candidate found with unauthorised documents in his/her possession will be expelled.
6. All rough works must be done in the script provided and no page of the script must be torn out.
7. The script provided must be submitted before leaving the Examination Hall. If any candidate leaves the hall without submitting the script, his/her entire examination will be treated as cancelled.
8. Candidates are forbidden to write answer or anything else on the question papers, the admit card etc.
9. No candidate will be allowed to leave the room in the first hour of the Examination.
10. No electronic devices like Cell Phone, Bluetooth etc. will be allowed inside the Examination Hall.

Signature of Invigilator after verification with Date

Pedigree Analysis



Description of the pedigree:

1. > Total no. of generations - 4
2. > Total no. of individuals - 22
3. > Total no. of males - 13
4. > Total no. of females - 9

1st generation:

Normal male, carrier female

Total no. of individuals - 2

Total no. of males - 1

Total no. of females - 1

Total no. of affected males - 0

Total no. of carrier females - 1

2nd generation:

Total no. of individuals - 4

Total no. of males - 2

Total no. of females - 2

Total no. of affected males - 1

Total no. of carrier females - 1

3rd generation:

Total no. of individuals - 8

Total no. of males - 5

Total no. of females - 3

Total no. of affected males - 1⁽¹⁾

Total no. of carrier females - 2

4th generation

Total no. of individuals - 8

Total no. of males - 5

Total no. of females - 3

Total no. of affected males - 2

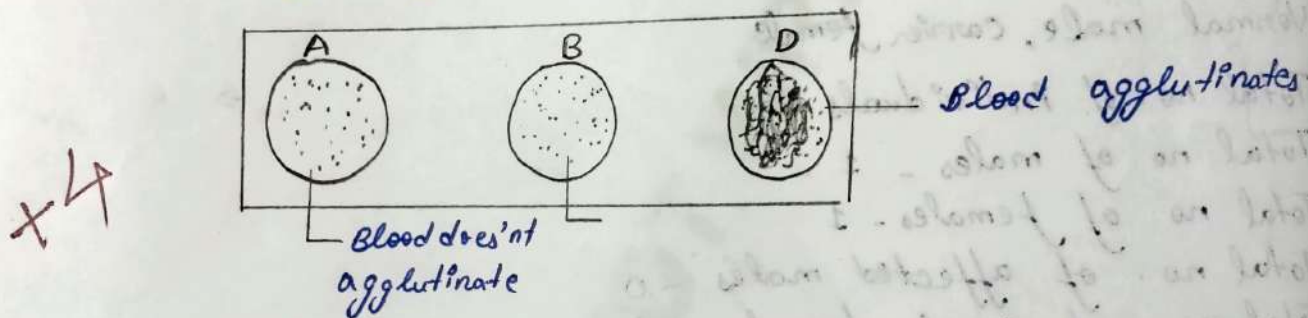
Total no. of carrier females - 2

Pedigree Analysis:

1. Usually more males than females are affected.
2. Affected sons are born to unaffected mothers (carriers)
i.e. they skip a generation.
3. Never passed from father to son.
4. All daughters of affected fathers are carriers (i.e. they can pass the allele to a daughter).

Hence, the trait is X-linked recessive.

2. ABO Blood grouping:



Observations:-

1. If Blood near point 'A' agglutinates, then the blood group is A.
2. If the blood near point 'B' agglutinates, then the blood group is 'B'.
3. If the blood near both points 'A' and 'B' agglutinates, then the blood group is 'AB'.
4. If the blood near both points 'A' and 'B' does not agglutinate, then the blood group is O.
5. If the blood near point 'D' agglutinates, then the blood group is Rh positive.

Department of English, Bidhan Chandra College, Asansol

NOTICE

Assignment Notice for 1st Semester B.A and B.Sc. MIL ENGLISH (AEC PAPER) Students:

Topic of Assignment: **VARIOUS MODES OF COMMUNICATION** (word limit 1000 words)

Students must be present at the Department of English on 19th January 2024 (between 11.30 am - 3 pm) and submit their assignments.

Mention the following detail at the top sheet of the assignment:

Name:

B.A/ B.Sc.:

Subject/Department:

College I.D Number (as mentioned on Students' ID card):

Mobile No.:


Coordinator in English 11.01.24

Department of English (PG & UG)

Bidhan Chandra College

KAZI NAZRUL UNIVERSITY



BIDHAN CHANDRA COLLEGE

NAME- BUSHRA RASHID

REG. NO. -103231220034

TOPIC - VARIOUS MODES OF COMMUNICATION

SESSION - 2023-2024

DEPARTMENT-ZOOLOGY (MAJOR)

Phone No-8372069914

Various Modes of Communication

Communication is the act of transferring or exchanging information from one person, group or place to another. The word communication is derived from the word "Commonis". Commonis is a latin word which means common. The common components in all kinds of interactions and communications is understanding. Communication play an important role in human life and society. Along with exchanging information and knowledge, it helps in building relationships with other people. Everything from education to the workplace and even human societies depends on communication to understand each other. Communication is old as our civilization itself. Communication plays an important role in sharing ideas, opinions, thoughts and clarifying doubts also.

The term "mode" generally relates to how something is done or experienced. In reference to communication a mode of communication is refers to the way by which a communication is expressed by the sender or the way a communication is processed by a receiver.

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1st Unit / Unit Test - 2024.
29.06.24

Bidhan Chandra

College, Asansol

UG - 4th Semester

Name : DIPALI GORAI

Discipline : PHILOSOPHY

Course Name : Western Logic - I

Course Code : BAHPHIC401

Reg. No : 103221210051

— प्रबन्ध —

Department of Philosophy
Bidhan Chandra College, Asansol

Notice for Assignment (1st Unit)
Test

BA Honours Students, 4th Semester
(batch 2022-23), are asked to
submit their Assignment (for 1st Unit
Test) within 21.06.24.

<u>Course Code</u>	<u>Topic</u>	<u>Teacher</u>
BAHPHIC 401	Hypothesis	SC
BAHPHIC 402	Theory of Learning	BD
BAHPHIC 403	Hinduism	BM.

Sc (HOD)
01.06.24.

Students are to submit 'Assignment' on any one question:-

1. Discuss the achievements of Sasanka as the ruler of Gauda.

সসঙ্ক রাজত্বের অর্জন ও গৌড় রাজ্যের
প্রসার।

OR

2. Write a short-note on the socio-economic condition of women in early medieval Bengal.

গৌড় প্রাচীন যুগের নারীর সামাজিক ও
অর্থনৈতিক অবস্থা।

Submission date :- 4th & 5th March 2024 from 11 am
to 3 pm.

BIDHAN CHANDRA COLLEGE

NAME : TAMANNA BANU

REGISTRATION NO: 10323110012

PAPER NAME: HISTORY (MD)

Roll NO: DAP-106/23

DATE :- 04/03/24

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