



Office Phone No. 01259-275055

# GOVT. COLLEGE KOSLI, REWARI -123302

**DISTT. REWARI (HARYANA)**

Email Id: - [govt.collegekosli@gmail.com](mailto:govt.collegekosli@gmail.com)

WEBSITE: [gckosli.ac.in](http://gckosli.ac.in)

Ref No. GCK/24/NAAC/11/001

Dated: - 07-02-2024

Matrix No. 1.1.1: The Institution ensure effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment.

  
NAAC Coordinator

Documents:

1. Time table (2021-22 and 2022-23)
2. Academic calendar university (2021-22 and 2022-23)
3. Academic calendar college (2021-22 and 2022-23)
4. Lesson Plan (any two subject)
5. Three assignments of any subject
6. Two class test of any subject
7. Internal assessment uploaded on portal of university (any three subject)

  
Principal  
Govt. College Kosli  
Distt. Rewari

# Govt. College Kosli (Science) Time Table 2021-22 W.e.f. 16-10-2021

## SESSION: 2021-22 (ODD SEMESTER)

Sr No	Class	9:00 – 9:45	9:45 – 10:30	10:30-11:15	11:15-12:00	12:00 – 12:45	12:45- 1:30	1:30- 2:15	2:15 – 3:00	3:00- 3:45	
1.	B.Sc 1 <sup>st</sup> M	Period 1	Chem. R-14	Maths A	Zoology R-12	Period 4	Eng. R-12	Botany R-12	Period 7	Period 8	Period 9
2.	B.Sc 1 <sup>st</sup> N.M	Eng. A R-9 Eng. B R-10	Chem.A R-9 Chem.B R-10	Maths A R-9 Math B R-10	Maths A R-9 Math B R-10	Phy.A R-9 Phy.B R-10	Maths A R-9 Math B R-10	Practicals	Maths A R-11		
3.	B.Sc 2 <sup>nd</sup> N.M	Chem.A R-11	Maths A R-11	Phy.A R-11	Practicals	Maths A R-11(4-6) Hindi A R-11 (1-3)	Maths A R-11				
4.	B.Sc 2 <sup>nd</sup> M	Hindi R-12(4-6)	Botany R-13	Zoology R-13	Practicals	Chem. R-12					
5.	B.Sc 3 <sup>rd</sup> N.M	Practicals	Maths A R-13 Maths B R-14	Chem.A R-13 Chem.B R-14	Maths A R-13 Maths B R-14	Phy.A R-13 Phy.B R-14	Maths A R-13 Maths B R-14				
6.	B.Sc 3 <sup>rd</sup> M	Practicals	Botany R-11	Chem. R-11	Zoology R-Hall						

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Govt. College Kosli (Arts) Time Table 2021-22 W.e.f. 16-10-2021

SESSION: 2021-22 (ODD SEMESTER)

Sr. No.	CLASS	9:00 - 9:45	9:45 - 10:30	10:30 - 11:15	11:15 - 12:00	12:00 - 12:45	12:45 - 1:30	1:30 - 2:15	2:15 - 3:00	3:00 - 3:45
1.	B.A. 1 <sup>st</sup>	Period 1 Sec. A History R-4	Period 2 Sec. A Eng. R-4 Sec. B Hindi R-5 Sec. C Eng. R-6	Period 3 Economics R-4 Sec. B History R-5	Period 4 Sec. A Hindi R-6 Sec. B Eng. R-5 Eng. (comp) R-Hall Sec -C 4-6	Period 5 Pol. Sci. A R-Hall Pol. Sci. B R-Hall	Period 6 Eng. (comp) R-11, Group Sec-A 1-3 Sec-B 4-6 Sec. C Hindi R-Hall	Period 7 Geog. A R-7 Geog. B R-Halls History Map R-5	Period 8	Period 9
2.	B.A. 2 <sup>nd</sup>	Sec. B Eng. R-6 Sec. A Hindi R-7	Sec. A Eng. R-7 Sec. B Hindi R-Hall	History Sec. B R-7	History Map R-4	Geog. A R-7 Geog. B Hall	Economics R-4	Eng. (Comp) R-4	Eng. (Comp) R-5 Sec-A 1-3 Sec-B 4-6	Pol. Sci. A R-5 Pol. Sci. B R-6
3.	B.A. 3 <sup>rd</sup>	History Sec. A R-5	History Map R-12	Geog. A R-6 Geog. B R-Hall	Economics R-4 History Sec. B R-7	Sec. A Eng. R-5 Sec. B Hindi R-6	Sec. A Hindi R-5 Sec. B Eng. R-6	Eng. (Comp) R-6 Sec-A 1-3 Sec-B 4-6	Pol. Sci. A R-5 Pol. Sci. B R-4	

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**GOVT. COLLEGE KOSLI, B.Com. Time Table 2021-22, w.e.f. 16.10.2021**

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15	2.15-03.00
Class	I	II	III	IV	V	VI	VII	VIII
B.Com 1 <sup>st</sup> (1 <sup>st</sup> Sem.)	Business Management R.1 Ms. Renu Rani	Financial Accounting R.1 Ms. Neelam Yadav	Business Math R.1 Mr. Sandeep	Computer R.1 Mr. Om Parkash		Business Communication Skills R.1 Mr. Hakikat		Business Economics R.1 Mr. Vivek Kumar
B.Com 2 <sup>nd</sup> (3 <sup>rd</sup> Sem.)	Corporate Law R.2 Mr. Om Parkash	BRFW R.2 Mr. Hakikat	Business Statistics R.2 Ms. Renu Rani	Fundamen tal Insurance R.2 Ms. Renu Rani	Corporate Accounting R.2 Ms. Neelam Yadav		HRM R.2 Ms. Neelam Yadav	
B.Com 3 <sup>rd</sup> (5 <sup>th</sup> Sem.)		Cost Accounting R.3 Mr. Om Parkash	Internationa l Business Environment R.3 Mr. Hakikat	Accountin g for Management R.3 Ms. Neelam Yadav	Income Tax R.3 Mr. Hakikat	FMO R.3 Ms. Renu Rani	Entrepreneur ship & small Scale R.3 Mr. Om Parkash	

Incharge

Principal

PRINCIPAL

Govt. College Kosli  
Distt. Rewari

GOVT. COLLEGE KOSLI, (Science) Time Table 2021-22, w.e.f. 21.03.2022

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15	2.15-03.00	03.00-03.45
Class	I	II	III	IV	V	VI	VII	VIII	IX
B.Sc. 1 <sup>st</sup> M		Chem. R-14		Zoology R-12	Eng. R-12	Botany R-13	Practicals		EVS
B.Sc. 1 <sup>st</sup> N.M.	Eng. A R-9 Eng. B R-10	Chem. A R-9 Chem B R-10	Maths A R-9 Maths B R-10	Maths A R-9 Maths B R-10	Phy. A R-9 Phy. B R-10	Maths A R-9 Maths B R-10			
B.Sc. 2 <sup>nd</sup> N.M.	Chem. A - R-11	Maths A R-11	Phy. A R-11	Practicals			Maths A R-11 Hindi A R-II (1-3)	Maths A R-11	
B.Sc. 2 <sup>nd</sup> M	Hindi R-12 (4-6)	Botany R-13	Zoology R-13				Chem. R-12		
B.Sc. 3 <sup>rd</sup> N.M.	Practicals			Maths A R-13 Maths B R-14	Chem. A R-13 Chem B R-14	Maths A R-12 Maths B R-14	Phy. A R-13 Phy. B R-14	Maths A R-13 Maths B R-14	
B.Sc. 3 <sup>rd</sup> M				Botany R-11	Chem R-11		Zoology R-9		

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Incharge

*Principal*

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Govt College Kosli  
Distt. Rawari



GOVT. COLLEGE KOSLI, B.A. Time Table 2021-22, w.e.f. 21.03.2022 (Even Semester)

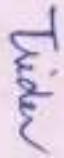
Time	09:00-09:45	09:45-10:30	10:30-11:15	11:15-12:00	12:00-12:45	12:45-01:30	01:30-02:15	2:15-03:00	03:00-03:45				
B.A. I	Sec. A History R-4	Sec. A Eng. R-4 Sec. B Hindi R-5 Sec. C Eng. R-6	Sec. A Economics R-4 Sec. B History R-5	Sec. A Hindi R-6 Sec. B English R-5 Sec. C Eng. (Comp) Hall	Sec. A Pol. Sci. R-Hall	Eng. (Comp) Sec A 1-3 Sec B 4-6 Sec C Hindi R-Hall	Geog. A R-7 Geog. B R-Hall History Sec. A R-4	Geog. A R-7 Geog. B Hall History Sec. A R-4	Economics R-4	Eng. (Comp) R-6 Sec A 1-3 Sec B 4-6	Pol. Sci. A R-6 Pol. Sci. B Sec B 4-6 R-4	Pol. Sci. Sec. A R-5 Sec. B R-6	Pol. Sci. A R-4, Sec. B R-7, Sec. C R-Hall
B.A. II	Sec. B English R-6 Sec. A Hindi R-7	Sec. A English R-7 Sec. B Hindi R-Hall	History sec-B R-7	History Map R-4	Geog. A R-7 Geog. B Hall History Sec. A R-4	Economics R-4	Eng. (Comp) R-5 Sec. A 1-3 Sec. B 4-6 R-6	Eng. (Comp) R-4	Eng. (Comp) R-5 Sec. A 1-3 Sec. B 4-6 R-6	Pol. Sci. Sec. A R-5 Sec. B R-6	Pol. Sci. Sec. A R-5 Sec. B R-6	Pol. Sci. Sec. A R-5 Sec. B R-6	
B.A. III	History Map Sec. A R-5	History A R-12	Geog. A R-6 Geog. B R-Hall	Economics R-4 History Sec -B R-7	English Sec. A R-5 Hindi Sec. B R-6	Hindi Sec. A R-5 English Sec. B R-6	Eng. (Comp) R-6 Sec A 1-3 Sec B 4-6	Pol. Sci. A R-6 Pol. Sci. B Sec B 4-6 R-4					

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GOVT. COLLEGE KOSLI, B.Com. Time Table 2021-2022, w.e.f. 21.03.2022

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15	2.15-03.00	03.00-03.45
Class	I	II	III	IV	V	VI	VII	VIII	IX
B.COM I	Business Management R.1 Ms. Renu Rani	Financial accounting R.1 Ms. Neelam Yadav	Business math R.1 Mr. Sandeep	Computer R.1 Mr. Om Parkash	Business Environment R.1 Mr. Hakikat		Business Economics R.1 Mr. Vivek Kumar		
B.COM II	Corporate Law R.2 Mr. Om Parkash	BRFW R.2 Mr. Hakikat	Business Statistics R.2 Ms. Renu Rani	Banking & Banking law R.2 Ms. Renu Rani	Corporate Accounting R.2 Ms. Neelam Yadav		Marketing Management R.2 Ms. Neelam Yadav		
B.COM III	Income Tax R.3 Mr. Hakikat	Cost Accounting R.3 Mr. Om Parkash	International Marketing R.3 Mr. Hakikat	Financial Management R.3 Ms. Neelam Yadav	GST R.3 Mr. Om Parkash	Auditing R.3 Ms. Renu Rani			

  
Incharge

  
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Principal  
Govt. College Kosli  
Distt. Rewari



GOVT. COLLEGE KOSLI, B.Sc. Time Table 2022-23, w.e.f. 22.08.2022

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15	2.15-03.00	03.00-03.45
Class	I	II	III	IV	V	VI	VII	VIII	IX
B.Sc. I Med.	Zoology R10	English (4-6) R9	Chem. R9	Chem. R11	Maths R11	Botany R13	PRACTICALS		
B.Sc. I N-Med	Maths R11	English (1-3) R11	Physics R11	Chem. R11	Maths R11	Maths R11	PRACTICALS		
B.Sc. II Med.		Botany R. 13	Zoology R. 10	PRACTICALS			Hindi (1-3) R. 10		
B.Sc. II N-Med.	Chem. R12 Chem. R13	Maths R12 Maths R10	Physics R12 Physics R13	PRACTICALS			Maths R12 Maths R13	Maths R12 Maths R13	Hindi (1-3) R12 Hindi (4-6) R12
B.Sc. III Med.	PRACTICALS			Botany R13	Zoology R10	Chem. R10			
B.Sc. III N-Med.	PRACTICALS			Maths R14	Chem. R14	Maths R14	Physics R14	Maths R14	

W.S.P

Incharge



GOVT. COLLEGE KOSLI, B.A. Time Table 2022-23, w.e.f. 22.08.2022

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15	2.15-03.00	03.00-03.45
Class	I	II	III	IV	V	VI	VII	VIII	IX
B.A. I	History Sec. A R. 4	English Sec. A R. 6	Economics R. 4	Hindi Sec. A R. 4	English Sec. C R. 8	Geography Sec. A R. 6	Geography Practical (VII to IX) History Map (VII to IX)	English Comp (1-2) R4 English Comp (3-4) R4 English Comp (5-6) R4	English Comp (1-2) R4 English Comp (3-4) R4 English Comp (5-6) R4
	Pol. Sci. Sec. B R. Hall	Hindi Sec. C Hall Geography Sec. B R. 5	History Sec. B R. 5	English Sec. B R. 5	Hindi Sec. B R. 4	Pol. Sci. Sec. A R. 8			
B.A. II	English Sec. A R. 6	Economics R. 4	English Sec. B R. 6	Geography History Map (IV to VI)	English Sec. B R. 4	English Composition (1-2) R. 4	History Sec. B R. 8	Geography Sec. A R. 8	Pol. Sci. Sec. B R. 5
	Hindi Sec. B R. 5	History Sec. A R. 8	Hindi Sec. A R. Hall		English Composition (3-4) R. 4	Pol. Sci. Sec. A R. 4	Geography Sec. B R. 5		
	English Sec. C R. 8		Hindi Sec. C R. 8		English Composition (5-6) R. 4				
B.A. III	Geography Practical History Map (I to III)		English Composition (1-3) R.14	Geography R. 6	English Sec. A R. 5	History R. 5	English Sec. B R. 5	Pol. Sci. R. 6	
			English Composition (4-6) R.14		Hindi Sec. B R. 6	History Hall	Hindi Sec. A R. 6	Economics R. 4	

Incharge

*M.S.P.*

**GOVT. COLLEGE KOSLI, B.Com. Time Table 2022-23, w.e.f. 022.08.2022**

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15
Class	I	II	III	IV	V	VI	VII
B.COM I	Business Management R.1	Financial accounting R.1	Business math R.1	Computer R.1		Business Communication Skills R.1	Business Economics R.1
B.COM II	Corporate Law R.2	BRFW R.2	Business Statistics R.2	HRM R.2	Corporate Accounting R.2		Fundamental of Insurance R.2
B.COM III	Accounting for Management R.3	Cost Accounting R.3	Income Tax R.3	International Business Environment R.3		FMO R.3	Entrepreneurs hip and Small Scale Industries R.3

*hsp*  
Incharge



**GOVT. COLLEGE KOSLI, B.Sc. Time Table 2022-23, w.e.f. 16.01.2023**

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15	2.15-03.00	03.00-03.45
Class	I	II	III	IV	V	VI	VII	VIII	IX
B.Sc. I Med.	Zoology Zoology Lab Maths R2	English (4-6) R1	Chem. R1			Botany Botany Lab	PRACTICALS		
B.Sc. I N-Med		English (1-3) R1	Physics R2	Chem. R2	Maths R2	Maths R2	PRACTICALS		
B.Sc. II Med.		Botany Botany Lab	Zoology Zoology Lab	PRACTICALS			Hindi (1-3) R. 8		
B.Sc. II N-Med.	Chem. R3 Chem. R1	Maths R3 Maths R2	Physics R3 Physics R8	PRACTICALS			Maths R1 Maths R2	Maths R1 Maths R2	Hindi (1-3) R1 Hindi (4-6) R1
B.Sc. III Med.	PRACTICALS			Botany Botany Lab	Zoology R1	Chem. R8			
B.Sc. III N-Med.	PRACTICALS			Maths R3	Chem. R3	Maths R3	Physics R3	Maths R3	

Incharge

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GOVT. COLLEGE KOSLI, B.A. Time Table 2022-23, w.e.f. 16.01.2023

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15	2.15-03.00	03.00-03.45
Class	I	II	III	IV	V	VI	VII	VIII	IX
B.A. I	History' Sec. A R. 9	English Sec. A R. 9	Economics R. 9	Hindi Sec. A R. 9	English Sec. C R. 9	Geography Sec. A R. 9	Geography Practical (VII to IX)	English Comp (1-2)L Lab	English Comp (1-2)L Lab
	Pol. Sci. Sec. B R. 10	Hindi Sec. C R. 13	History' Sec. B R. 10	English Sec. B R. 10	Hindi Sec B R. 10	Pol. Sci. Sec. A R. 10	History/Map (VII to IX)	English Comp. (3-4) L.Lab	English Comp (3-4)L.Lab
B.A. II	English Sec. A R. 11	Economics R. 11	English Sec. B R. 11	Geography Practical History Map (IV to VI)	English Sec. A R. 11	EnglishComp (1-2)L.Lab	History Sec. B R. 11.	Geography Sec. A R. 11	Pol. Sci. Sec. B R. 11
	Hindi Sec. B R. 12	History Sec. A R. 12	Hindi Sec. A R. 12		English Sec. A R. 11	EnglishComp (3-4)L.Lab	Pol. Sci. Sec. A R. 12	Geography Sec. B R. 12	Geography Sec. B R. 12
	English Sec. C R. 13		Hindi Sec. C R. 13		Hindi Sec. B R. 12	EnglishComp (5-6)L.Lab			
B.A.III	Geography Practical History Map (1 to III)		EnglishComp (1-3) L.Lab	Geography R. 11	English Sec. A R. 11	History R. 11	English Sec. B R. 9	Pol. Sci. R. 9	Pol. Sci. R. 9
			EnglishComp (4-6) L.Lab			History R.12	Hindi Sec. A R.10	Economics R. 10	

PRINCIPAL  
Govt. College Kosli  
Distt. P. Kosli  
Principial

Incharge

GOVT. COLLEGE KOSLI, B.Com. Time Table 2022-2023, w.e.f. 16.01.2023

Time	09.00-09.45	09.45-10.30	10.30-11.15	11.15-12.00	12.00-12.45	12.45-01.30	01.30-02.15
Class	I	II	III	IV	V	VI	VII
B.COM I	Business Management R.4 Ms. Renu Rani	Financial accounting R.4 Ms. Neelam Yadav	Business math R.4	Computer R.4 Mr. Om Parkash		Business Environment R.4 Mr. Hakikat	Business Economics R.4 Mr. Vivek Kumar
B.COM II	Corporate Law R.5 Mr. Om Parkash	BRFW R.5 Mr. Hakikat	Business Statistics R.5 Ms. Renu Rani	Corporate Accounting R.5 Ms. Neelam Yadav	Banking & Banking Law R.5 Ms. Renu Rani		Marketing Management R.5 Ms. Neelam Yadav
B.COM III	Income Tax R.4A Mr. Hakikat	Cost Accounting R.4A Mr. Om Parkash		International Marketing R.4A Mr. Hakikat	Accounting for Management R.4A Ms. Neelam Yadav	Auditing R.4A Ms. Renu Rani	GST R.4A Mr. Om Parkash

Incharge

*Principal*  
Principal

PRINCIPAL  
Govt. College Koshi  
Dhriti Rowan





**NOTIFICATION**

It is notified for information of all concerned that the following Academic Calendars approved by the Hon'ble Vice-Chancellor shall be observed in all the University Teaching Departments and affiliated Colleges/Institute (except Colleges of Education) of Indira Gandhi University, Meerpur, Rewari during the Academic Session 2021-22:

**FOR UG/PG COURSES BEING RUN IN UTDs**

**1<sup>st</sup> Year**

EVENT	DURATION
1 <sup>st</sup> Teaching Term (Odd semester)	04.10.2021 to 31.10.2021
Vacation-I (Diwali)	01.11.2021 to 07.11.2021
2 <sup>nd</sup> Teaching Term (Odd semester)	08.11.2021 to 13.02.2022
Examinations	14.02.2022 onwards
Holi Vacations	14.03.2022 to 20.03.2022
1 <sup>st</sup> Teaching Term (Even semester)	21.03.2022 to 10.07.2022
Examinations	11.07.2022 Onwards
Summer Vacations	18.07.2022 to 31.07.2022

**FOR UG COURSES BEING RUN IN AFFILIATED COLLEGES**

**1<sup>st</sup> Year**

EVENT	DURATION
1 <sup>st</sup> Teaching Term (Odd semester)	28.09.2021 to 31.10.2021
Vacation-I (Diwali)	01.11.2021 to 07.11.2021
2 <sup>nd</sup> Teaching Term (Odd semester)	08.11.2021 to 13.02.2022
Examinations	14.02.2022 onwards
Holi Vacations	14.03.2022 to 20.03.2022
1 <sup>st</sup> Teaching Term (Even semester)	21.03.2022 to 10.07.2022
Examinations	11.07.2022 Onwards
Summer Vacations	18.07.2022 to 31.07.2022

**FOR PG COURSES BEING RUN IN AFFILIATED COLLEGES**

**1<sup>st</sup> Year**

EVENT	DURATION
1 <sup>st</sup> Teaching Term (Odd semester)	12.11.2021 to 13.02.2022
Examinations	14.02.2022 onwards
Holi Vacations	14.03.2022 to 20.03.2022
1 <sup>st</sup> Teaching Term (Even semester)	21.03.2022 to 10.07.2022
Examinations	11.07.2022 Onwards
Summer Vacations	18.07.2022 to 31.07.2022



**Note:**

1. The classes will commence w.e.f. 04.10.2021 in UTDs and w.e.f. 28.09.2021 (UG Courses) & 12.11.2021 (PG Courses) in affiliated colleges.
2. The classes will be online and offline mode as per situation, subject to directions from the State Government, if any.
3. If the number of teaching days falls less than 180 days (90 days in each semester) in the academic session 2021-22 due to some unforeseen reasons, it would be the responsibility of the Chairperson/Chairperson-Incharge of each University Teaching Department and Principal of each College/Institute to make good the loss by arranging extra classes on Sundays, Holidays and Vacations.
4. The Chairperson/Chairperson-Incharge of each University Teaching Department and Principal/Director of each affiliated College/Institute shall also follow the directions of the State Government, if any, according to their local conditions, keeping in view the condition of minimum 180 days (90 days in each semester).
5. The next academic session 2022-23 will start from 01.08.2022.



**NOTIFICATION**

It is notified for information of all concerned that the following Academic Calendars approved by the Vice-Chancellor shall be observed in all the University Teaching Departments and affiliated Colleges/Institute (except Colleges of Education) of Indira Gandhi University, Meerpur, Rewari during the Academic Session 2022-23:

**FOR UG COURSES BEING RUN IN UTDs/AFFILIATED COLLEGES**

1<sup>st</sup> Year

EVENT	DURATION
1 <sup>st</sup> Teaching Term (Odd semester)	22.08.2022 to 21.10.2022
Vacation- 1 (Diwali)	22.10.2022 to 26.10.2022
2 <sup>nd</sup> Teaching Term (Odd semester)	27.10.2022 to 14.12.2022
Examinations	15.12.2022 onwards
Winter Vacations	25.12.2022 to 01.01.2023
1 <sup>st</sup> Teaching Term (Even semester)	02.01.2023 to 04.03.2023
Vacation-1 (Holi)	05.03.2023 to 12.03.2023
2 <sup>nd</sup> Teaching Term (Even semester)	13.03.2023 to 08.05.2023
Examinations	09.05.2023 Onwards
Summer Vacations	17.06.2023 to 16.07.2023

**FOR PG COURSES BEING RUN IN UTDs/ AFFILIATED COLLEGES**

1<sup>st</sup> Year

EVENT	DURATION
1 <sup>st</sup> Teaching Term (Odd semester)	12.09.2022 to 21.10.2022
Vacation- 1 (Diwali)	22.10.2022 to 26.10.2022
2 <sup>nd</sup> Teaching Term (Odd semester)	27.10.2022 to 24.12.2022
Winter Vacations	25.12.2022 to 01.01.2023
Examinations	12.01.2023 onwards
1 <sup>st</sup> Teaching Term (Even semester)	30.01.2023 to 04.03.2023
Vacation-1 (Holi)	05.03.2023 to 12.03.2023
2 <sup>nd</sup> Teaching Term (Even semester)	13.03.2023 to 31.05.2023
Examinations	01.06.2023 Onwards
Summer Vacations	17.06.2023 to 16.07.2023



**Note:**

1. The classes will commence w.e.f. 22.08.2022 for UG programmes and w.e.f. 12.09.2022 for PG programmes.
2. If the number of teaching days falls less than 180 days (90 days in each semester) in the academic session 2022-23 due to some unforeseen reasons, it would be the responsibility of the Chairpersons of UTDs and Principal of College/Institute to make good the loss by arranging extra classes on Sunday, Holiday and Vacations.
3. The Principals/Directors of the affiliated Colleges/Institute shall also follow the directions of the State Government, if any, according to their local conditions, keeping in view the condition of minimum 180 days (90 days in each semester).
4. The next academic session 2023-24 will be started w.e.f. 17.07.2023.

**FOR UG/PG COURSES BEING RUN IN UTDs/AFFILIATED COLLEGES  
2<sup>nd</sup> year onwards**

EVENT	DURATION
1 <sup>st</sup> Teaching Term (Odd semester)	17.08.2022 to 21.10.2022
Vacation-1 (Diwali)	22.10.2022 to 26.10.2022
2 <sup>nd</sup> Teaching Term (Odd semester)	27.10.2022 to 14.12.2022
Examinations	15.12.2022 onwards
Winter Vacations	25.12.2022 to 01.01.2023
1 <sup>st</sup> Teaching Term (Even semester)	02.01.2023 to 04.03.2023
Vacation-1 (Holi)	05.03.2023 to 12.03.2023
2 <sup>nd</sup> Teaching Term (Even semester)	13.03.2023 to 08.05.2023
Examinations	09.05.2023 Onwards
Summer Vacations	17.06.2023 to 16.07.2023

**Note:**

1. The classes will commence w.e.f. 17.08.2022 (for old students of UTDs & affiliated colleges of the university).
2. If the number of teaching days falls less than 180 days (90 days in each semester) in the academic session 2022-23 due to some unforeseen reasons, it would be the responsibility of the Chairpersons of UTDs and Principal of College/Institute to make good the loss by arranging extra classes on Sunday, Holiday and Vacations.
3. The Principals/Directors of the affiliated Colleges/Institute shall also follow the directions of the State Government, if any, according to their local conditions, keeping in view the condition of minimum 180 days (90 days in each semester).
4. The next academic session 2023-24 will be started w.e.f. 17.07.2023.

**REGISTRAR**



Endst. No. IGU/Acad./27/2022/.....

4287-4316

dated: 15/9/22

Copy of the above is forwarded to the following for information and necessary action:

1. The Secretary to Governor, Haryana, Haryana Raj Bhawan, Chandigarh (for kind information of the Hon'ble Governor-Chancellor).
2. Director General Higher Education, Shiksha Sadan, Sector - 5, Panchkula.
3. Assistant Registrar to Vice-Chancellor (for kind information of the Vice-Chancellor), I.G.U., Meerpur.
4. P.A. to Registrar (for kind information of Worthy Registrar), I.G.U., Meerpur.
5. Dean Academic Affairs, I.G.U., Meerpur.
6. Dean of Colleges, I.G.U., Meerpur with the request to circulate the above notification in all affiliated colleges of Rewari & Mahendragarh districts.
7. The Controller of Examinations, I.G.U., Meerpur.
8. All the Chairpersons, University Teaching Departments, I.G.U., Meerpur.
7. Public Relations Officer, I.G.U., Meerpur.
8. Deputy Registrar, Establishment Branch, I.G.U., Meerpur.
9. Assistant Registrar, R&S Branch, I.G.U., Meerpur.
10. Director, University Computer Centre, I.G.U., Meerpur with the request to upload the above notification on the University Website.

*Mohit Kumar*

Deputy Registrar (Acad.)  
for Registrar



Email ID :- [govtcollegekosli@gmail.com](mailto:govtcollegekosli@gmail.com)

Ph. No.01259-275055

**KOSLI (GOVT. COLLEGE REWARI) – 123302**  
**DIST. REWARI (HARYANA)**

**Academic Calendar of Govt. College Kosli**

**Session -2021-22**

<b>Event</b>	<b>Duration</b>
Admissions	In the Month of July
Celebration of Independence Day	In the Month of August
Raksha Bandhan Celebration (Rakhi Making Competition)	
Teej Celebration	
1 <sup>st</sup> Teaching Term (Odd Semester)	28.09.2021 to 31.10.2021
Teacher's Day Celebration	In the Month of September
Gandhi Jayanti Celebration	
Mehndi Competition on the occasion of Karva Chauth	In the Month of October
Run for Unity (Sardar Valab Bhai Patel Jayanti)	
Diwali Vacations	01.11.2021 to 07.11.2021
Constitution Day Celebration	26.11.2021
2 <sup>nd</sup> Teaching Term (Odd Semester)	08.11.2021 to 13.02.2022
Annual Athletic Meet	In the Month of December
National Voter's Day	25.01.2022
Celebration of Republic Day	26.01.2022
NSS Seven Day Special Camp	05.02.2022 To 11.02.2022
International Women's Day Celebration	08.03.2022
Examinations	14.02.2022 onwards
Holi Vacations	14.03.2022 to 20.03.2022
1 <sup>st</sup> Teaching Term (Even Semester)	21.03.2022 to 10.07.2022
International Yoga Day	21.06.2022
Examinations	11.07.2022 onwards
Summer Vacations	18.07.2022 to 31.07.2022

*kyha*  
Principal  
Govt. College Kosli  
Distt. Rewari





Email ID :- [govtcollegekosli@gmail.com](mailto:govtcollegekosli@gmail.com)

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**GOVT. COLLEGE KOSLI (REWARI) – 123302**  
**DIST. REWARI (HARYANA)**  
**Academic Calendar of Govt. College Kosli**  
**Session-2022-23**

Event	Duration
Admissions	In the Month of July
1 <sup>st</sup> Teaching Term (Odd Semester)	22.08.2022 to 21.10.2022
Celebration of Independence Day Raksha Bandhan Celebration (Rakhi Making Competition) Teej Celebration	In the Month August
Teacher's Day Celebration	In the Month of September
Gandhi Jayanti Celebration Mehndi Competition on the occasion of Karva Chauth Run for Unity (Sardar Valab Bhai Patel Jayanti)	In the Month of October
Diwali Vacations	22.10.2022 to 26.10.2022
2 <sup>nd</sup> Teaching Term (Odd Semester)	27.10.2022 to 14.12.2022
Youth Festival	In the Month of November
Examinations	15.12.2022 onwards
Winter Vacations	25.12.2022 to 01.01.2023
1 <sup>st</sup> Teaching Term (Even Semester)	02.01.2023 to 04.03.2023
Lecture on Environment Protection	In the Month of January
National Voter's Day	25.01.2022
Celebration of Republic Day	26.01.2022
Lecture on Women Empowerment	In the Month of February
Legal Literacy Cell Programmes	In the Month of February
National Seminar	In the Month of February
Annual Athletic Meet	In the Month of March
NSS Seven Day Special Camp	In the Month of March
International Women's Day Celebration	08.03.2022
Holi Vacations	05.03.2023 to 12.03.2023
Road Safety Awareness Programmes	In the Month of March
2 <sup>nd</sup> Teaching Term (Even Semester)	13.03.2023 to 08.05.2023
One Day NSS Camp	06.04.2023
Examinations	09.05.2023 onwards
International Yoga Day	21.06.2023
Summer Vacations	15.06.2023 to 20.07.2023

*Principal*  
Principal  
Govt. College Kosli  
Govt. College Kosli  
Distt Rewari



GOVT. COLLEGE KOSLI

Lesson Plan (English) by Nagesh Kumar, Assistant Professor

B.A 2<sup>nd</sup> Year (3<sup>rd</sup> Semester) Session 2021-2022

Date	Syllabus
August 1 <sup>st</sup> Week	Important Poetic Forms and Device: Sonnet, Lyric, Ode, Elegy, Dramatic Monologue, Free Verse, Poetic Devices: Rhythm and Rhyme, Alliteration, Simile, Metaphor, Personification, Hyperbole, Allusion, Irony and Imagery.
August 2 <sup>nd</sup> Week	Introduction of the Poet and the Poem - Sonnet XVIII by William Shakespeare: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Non-Finite Verbs: Infinitive
August 3 <sup>rd</sup> Week	Know Thyself by Alexander Pope: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Non-Finite Verbs
August 4 <sup>th</sup> Week	Elegy Written in a Country Churchyard by Thomas Gray: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Preposition
September 1 <sup>st</sup> Week	The World is Too Much with Us by William Shakespeare: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Preposition
September 2 <sup>nd</sup> Week	Ode on a Grecian Urn by John Keats: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Clauses, Unit Test 1
September 3 <sup>rd</sup> Week	My Last Duchess by Robert Browning: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Noun Clause
September 4 <sup>th</sup> Week	When You are Old by W.B. Yeats: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Adverbial Clause
October 1 <sup>st</sup> Week	Where the Mind is Without Fear by Rabindranath Tagore: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Adjective Clause
October 2 <sup>nd</sup> Week	The Bangle Sellers by Sarojini Naidu: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises, Verb Patterns
October 3 <sup>rd</sup> Week	Another Women by Imtiaz Dharker: explanation and interpretation of poem. Transcription, Vocabulary, Comprehension Exercises.
October 4 <sup>th</sup> Week	Verb Patterns, Unit Test 2
November 1 <sup>st</sup> Week	Improvement of Writing Skills
November 2 <sup>nd</sup> Week	Transcription and Assignment
November 3 <sup>rd</sup> Week	Prefixes and Suffixes Revision
November 4 <sup>th</sup> Week	Revision

*Nagesh Kumar*


## LESSON PLAN

Dr. Sandhaya Session 2022-23

B.Sc. Non-medical 6<sup>TH</sup> semester - Physics I (ATOMIC MOLECULAR AND LASER PHYSICS)

Week	Topic covered
<b>January</b>	
Week 3	Practical exams
Week 4	<b>Unit-1<sup>st</sup></b> Vector atom model, quantum numbers associated with vector atom model, penetrating and non-penetrating orbits (Qualitative description )
<b>February</b>	
Week 1	Spectral lines in different series of alkali spectra, spin orbit interaction and doublet term separation
Week 2	LS or Russel-Saunders Coupling jj coupling (expressions for interaction energies for LS and jj coupling required). <b>Problems Discussion and Assignment.</b>
Week 3	<b>Unit Test.</b> Unit-2 <sup>nd</sup> , Zeeman effect (normal and Anomalous) Zeeman pattern of D1 and D2 lines of Na-atom
Week 4	Paschen-Back effect of a single valence electron system. Weak field Stark effect of Hydrogen atom.
<b>March</b>	
Week 1	Discrete set of electronic energies of molecules. Quantisation of Vibrational and rotational energies
Week 2	<b>Holi Break</b>
Week 3	Electronic Spectra <b>Problems Discussion and Assignment.</b>
Week 4	Raman effect (Quantitative description) Stoke's and Anti Stoke's lines. <b>Unit test</b>
Week 5	<b>Unit-3<sup>rd</sup></b> Introduction of LASER, Difference between ordinary light and LASER light.
<b>April</b>	
Week 1	Main features of a laser : Directionality, high intensity, high degree of coherence, spatial and temporal coherence,
Week 2	Einstein's coefficients and possibility of amplification, momentum transfer, Life time of a level, kinetics of optical absorption. Threshold condition for laser emission, Laser pumping
Week 3	He-Ne laser and RUBY laser (Principle, Construction and Working). Applications of laser in the field of medicine and industry. <b>Unit Test</b>
Week 4	<b>Problems Discussion and Revision</b>

Signature





GOUT COLLEGE KOSLI

NAME ⇒ RITU

CLASS ⇒ BSC 2nd (MED) 4th SEM.

ROLLNO. ⇒ 12012303005

SUB. ⇒ ORGANIC CHEMISTRY

TOPIC ⇒ NITRO COMPOUNDS



## Nitro compounds

Organic compounds containing nitro as the functional group are called nitro compounds.

Nitroalkanes  $\Rightarrow$  Nitroalkanes are formed in excellent yields when 1° or 2° alkyl bromides or iodides are treated with alcoholic silver nitrite solution.

Nitrobenzene  $\Rightarrow$  Nitration of benzene with a mixture of conc.  $\text{HNO}_3$  + conc.  $\text{H}_2\text{SO}_4$  (nitrating mixture) at 333 K gives nitrobenzene.

This reaction is an example of an electrophilic substitution reaction in which nitronium ion is the effective electrophile.

Dipole moment  $\Rightarrow$  Nitroalkanes and nitroarenes have high dipole-dipole interactions ( $\mu = 3-4.5$ ) and hence have much higher boiling points than those of hydrocarbons of comparable molecular masses.

Reduction  $\Rightarrow$  The reduction of nitro compounds occurs through intermediate formation of nitroso compounds and substituted hydroxylamines. The final product however, depends upon the pH of the medium and nature of reducing agent.

a) Under acidic conditions  $\Rightarrow$  (i.e.,  $\text{Zn}/\text{HCl}$ ,  $\text{Fe}/\text{HCl}$ ,  $\text{Sn}/\text{HCl}$ ,  $\text{SnCl}_2/\text{HCl}$  etc.) the final product is 1° amines.



b) Under neutral conditions  $\Rightarrow$  (i.e., Zn dust /  $\text{H}^+\text{HCl}$ ), the reduction stops at the hydroxylamines stage. These hydroxylamines on warming reduce Tollens reagent to metallic silver. This reaction is used as a test for nitro compounds under the name Baker-Mulliken's test.

c) Under basic conditions  $\Rightarrow$  nitrobenzene gives bimolecular reduction products.

i) With  $\text{Na}_2\text{AsO}_3 / \text{NaOH}$  or Glucose /  $\text{NaOH} \Rightarrow$  azoxybenzene is obtained.

ii) With  $\text{Zn} / \text{CH}_3\text{OH} - \text{NaOH} \Rightarrow$  azobenzene is obtained.

iii) With  $\text{Zn} / \text{NaOH} \Rightarrow$  hydroxybenzene is obtained.

(d) Catalytic reduction  $\Rightarrow$  with  $\text{H}_2 / \text{Ni}$ ,  $\text{Pt}$  or  $\text{Pd}$  gives  $1^\circ$  amines.

(e) With  $\text{LiAlH}_4 \Rightarrow$  Aliphatic nitro compounds give  $1^\circ$  amines while aromatic nitro compounds give azo compounds.

(f) Electrolytic reduction  $\Rightarrow$  of nitrobenzene under weakly acidic conditions gives aniline while under strongly acidic conditions, p-aminophenol is obtained.

(g) Selective reduction  $\Rightarrow$  of m-nitrobenzene with sodium or ammonium sulphide gives m-nitroaniline.



Hydrolysis  $\Rightarrow$  with boiling  $\text{HCl}$  or  $85\% \text{H}_2\text{SO}_4$

- (i)  $1^\circ$  nitroalkanes give a carboxylic acid and the corresponding salt of hydroxylamine.
- (ii)  $2^\circ$  nitroalkanes  $\Rightarrow$  gives ketones and  $\text{N}_2\text{O}$
- (iii)  $3^\circ$  nitroalkanes do not undergo hydrolysis.

Reacting with  $\text{HNO}_2$   $\Rightarrow$  (i)  $1^\circ$  Nitroalkanes gives nitrolic acids which dissolve in  $\text{NaOH}$  to give blood-red colouration.

(ii)  $2^\circ$  nitroalkanes gives blue colouration of pseudonitrol which do not dissolve in alkali.

(iii)  $3^\circ$  nitroalkanes - do not undergo hydrolysis.

Tautomerism  $\Rightarrow$  Nitroalkanes containing  $\alpha$ -hydrogens (i.e.,  $1^\circ$  and  $2^\circ$  but not  $3^\circ$  nitroalkanes) show tautomerism.

Acidic character  $\Rightarrow$  The  $1^\circ$  and  $2^\circ$  nitroalkanes are weakly acidic and they dissolve in  $\text{NaOH}$  to form salt. They are twice as acidic as aldehydes and ketones but are still neutral to litmus.

Halogenation  $\Rightarrow$  Because of acidic nature,  $1^\circ$  and  $2^\circ$  nitroalkanes react with halogens in presence of alkali to form the corresponding halonitroalkanes.

Electrophilic substitution reactions  $\Rightarrow$  Nitro group is strongly deactivating and  $m$ -directing, As a result nitrobenzene undergoes bromination nitrolic.



And sulphonation to give m-substituted products. It however does not undergo Friedel-Crafts reactions.

Nucleophilic substitution reactions  $\Rightarrow$  Nitrobenzene also undergoes nucleophilic substitution reactions at o- and p- positions with strong nucleophiles under drastic conditions. For example, fusion of nitrobenzene with solid  $KOH$  gives a low yield of a mixture of o- and p- nitrophenols.

COURSE: ORGANIC CHEMISTRY

TOPIC: NITRO COMPOUNDS



Topic .....

Date .....

Govt. College Karli

Chemistry Assignment

Name - Rashmi

Rollno - 3075420031

Topic - Solution

Submitted to - Sandeep Sir

Class - B.Sc III<sup>rd</sup> year  
(Non-Medical)



Solution :- Solution is a homogeneous mixture of two or more non-reacting substances, the composition of which may vary within limits.

$$\text{Solution} = \text{solute} + \text{solvent}$$

The substance which is present in large amount is usually called the solvent while other being dissolved is called solute. If solute in the solution only two components solute and solvent are present it is called a binary solution. If it is composed of three or four substances it is called tertiary or quaternary solution.

Water as an Universal solvent :- Water behaves as an universal solvent because of its polarity and high value of dielectric constant. Water molecule tends to orient about any ion and to be loosely associated with it. In this state the ions are said to be hydrated or solvated. Since water molecules and ion are in constant motion, there is an average number of water molecules associated with given ion known as hydration number. Hydration is an exothermic process and the energy released is high with ions of high charge density. The energy released is being large enough to overcome the lattice energy. For the



For the solubility of solute in solvent, the hydration energy must be greater than lattice energy.

The heat of solution is the difference between lattice energy and hydration energy. If heat of solution is positive, the process of dissolution is endothermic and energy is required to dissolve the solute. But if heat of sol<sup>n</sup> is negative, the process of dissolution is exothermic, the solute dissolves easily in water. The greater the dielectric constant, more will be the solubility.

In general, when two liquids are completely soluble in each other in all proportions they are said to be miscible. Ethanol and water are miscible liquids, the solute-solvent interaction takes form of hydrogen bonding between ethanol and water.

Method of expressing the concentration of a solution :-

The various methods used to express the concentration of a solution are given below :-

i) Percentage by mass :- It is defined as the amount of the solute in grams present in 100 grams of the solution.

$$\% \text{ by mass} = \frac{\text{Mass of solute}}{\text{Mass of the solution}} \times 100$$



ii) Strength :- The strength of a solution is defined as the no. of grams of the solute dissolved per litre of solution.

$$\text{Strength of solution} = \frac{\text{weight of solute in grams}}{\text{Vol. of the sol}^n \text{ in litre}}$$

iii) Molarity :- It is defined as the no. of moles of the solute present per litre of solution.

$$\text{Molarity} = \frac{\text{No. of moles of the solute}}{\text{Vol. of the sol}^n \text{ in litre}}$$

$$= \frac{\text{weight of solute} \times 1000}{\text{Molar mass of solute} \times \text{Vol. of solution (ml)}}$$

It is denoted by 'M'

iv) Molality :- It is defined as the number of moles of the solute dissolved in 1000g of the solvent.

$$\text{Molality} = \frac{\text{Number of moles of the solute}}{\text{Weight of the solvent in kg}}$$

$$= \frac{\text{weight of solute} \times 1000}{\text{Molar mass of solute} \times \text{Weight of solvent in kg}}$$

It is denoted by 'm'.

v) Normality :- The normality of a solution is defined as the number of gram equivalents



of the solute dissolved per litre of solution

$$\text{Normality} = \frac{\text{No. of gram equivalent of solute}}{\text{Vol. of the solution in litre}}$$

$$= \frac{\text{Weight of solute}}{\text{eq. wt. of solute}} \times \frac{1000}{\text{Vol. of solution (ml)}}$$

$$\text{Normality} = \left( \frac{P}{\text{eq. wt.}} \times 1000 \right)$$

where  $p$  - density of solution.

It is denoted by 'N'.

vii) Mole fraction :- The mole fraction of a component in a solution is defined as the ratio of no. of moles of that component to the total number of moles of all the components present in the solution

$$\text{Mole fraction} = \frac{\text{Number of moles of solute}}{\text{No. of moles of solute} + \text{No. of moles of solvent}}$$

Raoult's law :- The vapour pressure of a pure solvent decreases when a non-volatile solute is dissolved in it. This is because the presence of non-volatile solute decreases the escaping tendency of the solvent into vapour phase and hence lowers the vapour



pressure of the solution. Raoult's gave the relationship plus the concentration of solute and the lowering in vapour pressure of the solution. According to the Raoult's law.

For a solution containing, non-volatile solute the upper pressure of a compound at a given temperature is equal to the molar fraction of that component in the solution multiplied by the vapour pressure of that component in the pure state.

In a solution containing, non-volatile solute there is no contribution of the solute to the total vapour pressure of the solution, thus the vapour pressure of the solution will be the vapour pressure of the solvent only.

$$P_s = \alpha_1 \times P^0 \quad \text{--- (i)}$$

Rearranging above eq<sup>n</sup>

$$\frac{P_s}{P^0} = \alpha_1 \quad \text{--- (ii)}$$

If the solution containing  $n_2$  moles of the solute dissolved in  $n_1$  moles

$$\alpha_1 = \frac{n_1}{n_1 + n_2} \quad \text{--- (iii)}$$

substituting value of  $\alpha_1$  in eq<sup>n</sup> (ii), we have

$$\frac{P_s}{P^0} = \frac{n_1}{n_1 + n_2} \quad \text{--- (iv)}$$



Subtracting both sides of above eq<sup>n</sup> from (1) we get

$$1 - \frac{p_s^f}{p^0} = \left( 1 - \frac{n_1}{n_1 + n_2} \right)$$

or,

$$\frac{p^0 - p_s^f}{p^0} = \frac{n_2}{n_1 + n_2}$$

Thus this expression  $p^0 - p_s^f$  gives the lowering of vapour pressure.



# GOVERNMENT COLLEGE KOSLI

AN ASSIGNMENT ON :-

NEIGHBOURHOOD OF A POINT

Submitted To

DEPT. OF MATHEMATICS  
MISS MONIA

Submitted by

NITU

CLASS - B.Sc 2nd year  
4th Semester

Roll No - 1211231015036

Section

# # NEIGHBOURHOOD OF A POINT

1.

A set  $S \subseteq \mathbb{R}$  is said to be a neighbour of a point  $p \in \mathbb{R}$ , if there exists an open interval  $(p-\epsilon, p+\epsilon)$  for some  $\epsilon > 0$ , such that  $p \in (p-\epsilon, p+\epsilon) \subseteq S$ .

This neighbourhood of point  $p$  is called a symmetrical neighbourhood of point  $p$  with radius  $\epsilon$ .

(OR)

A subset  $S$  of  $\mathbb{R}$  is a neighbourhood of a point  $p \in \mathbb{R}$ , if there exists an open interval  $(a, b)$  such that  $p \in (a, b) \subseteq S$ .

Examples :-

(1) The open interval  $(a, b)$  is a neighbourhood of all its points only.



Let  $x$  be any real number.

If  $x \in (a, b)$  then  $x \in (a, b) \subseteq (a, b)$

$\therefore (a, b)$  is a neighbourhood of all reals between  $a$  and  $b$ .

(2) The closed interval  $[a, b]$  is a neighbourhood of all its points excepts the points  $a$  and  $b$ .



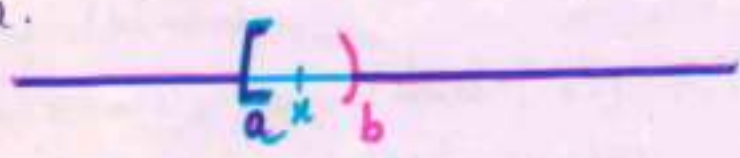
Let  $x$  be any number.

If  $x \in [a, b]$ , then  $x \in [a, b] \subseteq [a, b]$

$\therefore [a, b]$  is a neighbourhood of all reals between  $a$  and  $b$ .



3) The half open interval  $[a, b)$  is a neighbourhood of all its points except  $a$ .

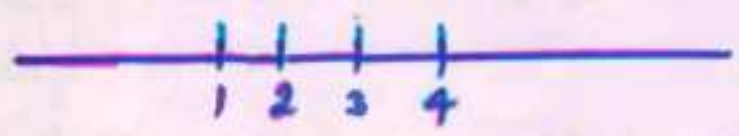


4) The half open interval  $(a, b]$  is a neighbourhood of all its points except  $b$ .



5) A non empty finite set is not a neighbourhood of any real number.

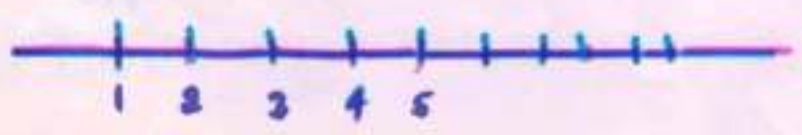
Let  $A = \{1, 2, 3, 4\}$  non empty finite set.



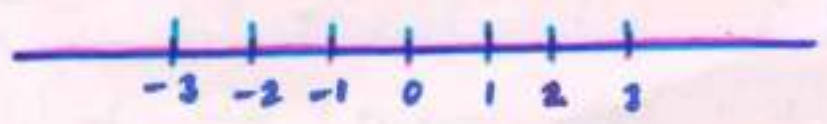
6) The finite set  $\{A, B, C, D\}$  is not a neighbourhood of any real number.



7) The set  $\mathbb{N}$  of natural numbers is not a neighbourhood of any real no.  $\mathbb{N} = \{1, 2, 3, 4, 5, \dots\}$



8) Set  $\mathbb{Z}$  of integers is not a neighbourhood of any real number  
we have  $\mathbb{Z} = \{\dots, -3, -2, -1, 0, 1, 2, 3, \dots\}$



Set  $Q$  of rationals is not a neighbourhood of any real number.

Let  $x$  be any real number.

For each  $\epsilon > 0$ , the open interval  $(x - \epsilon, x + \epsilon)$  contains infinity many rational & irrational numbers.



Set  $I$  of irrational numbers is not a neighbourhood of any real number.

Let  $x$  be any real number.

For each  $\epsilon > 0$ , the open interval  $(x - \epsilon, x + \epsilon)$  contains infinity many rational & irrational numbers, which do not belongs to  $I$ .

The set of reals is a neighbourhood of all its points.



Let  $x$  be any real number.

For each  $\epsilon > 0$ , the open interval  $(x - \epsilon, x + \epsilon)$  contains infinitely many real numbers.

As set  $R$  is the set of all real numbers, therefore

$$x \in (x - \epsilon, x + \epsilon) \subseteq R$$

The set  $R - N$  is a neighbourhood of all its points.

Let  $x$  be any element of  $R - N$ .



$\therefore x$  is non natural real number and lies in open interval  $n < x < n + 1$  where  $n$  is some natural number. The open interval  $(n, n + 1)$  contains infinitely many reals b/w  $n$  &  $n + 1$ .



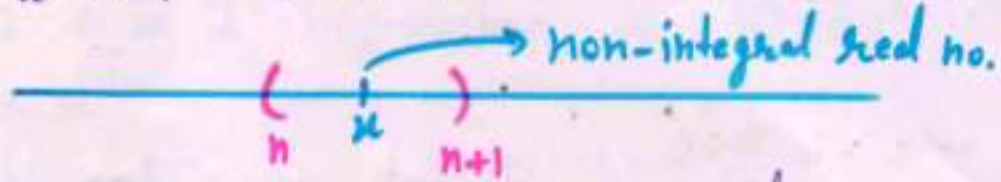
$\Rightarrow x \in (n, n+1) \subseteq \mathbb{R} - \mathbb{N}$

Hence, the set  $\mathbb{R} - \mathbb{N}$  is neighbourhood of all its points.

The set  $\mathbb{R} - \mathbb{Z}$  is a neighbourhood of all its points.

Let  $x$  be any element  $\mathbb{R} - \mathbb{Z}$

$\therefore x$  is non-integral real number and lies in open interval  $(n, n+1)$  where  $n$  is some integer.



The open interval  $(n, n+1)$  contains infinitely many reals between two consecutive integers  $n$  &  $n+1$ . The set  $\mathbb{R} - \mathbb{Z}$  is the set of all except integers.

$\therefore x \in (n, n+1) \subseteq \mathbb{R} - \mathbb{Z}$  and so  $\mathbb{R} - \mathbb{Z}$  is a neighbourhood of all its points.

The set  $(\mathbb{R} - \mathbb{Q})$  is not a neighbourhood of any of its points.



Let  $x$  be any element of  $\mathbb{R} - \mathbb{Q}$

$\therefore x$  is an irrational number. For each  $\epsilon > 0$ , however small, open interval  $(x - \epsilon, x + \epsilon)$  contains infinitely many rational and irrational numbers. The rational numbers lying in  $(x - \epsilon, x + \epsilon)$  do not belong to  $(\mathbb{R} - \mathbb{Q})$ .

Hence  $(\mathbb{R} - \mathbb{Q})$  set is not a neighbourhood of all its points.

5.  
Similarly the set  $\mathbb{R} - I$  is not a neighbourhood of all its points.

The set  $(3,4) \cup \{3,4,5\}$  is a neighbourhood of all reals lying between 3 and 4.

$$\text{Let } S = (3,4) \cup \{3,4,5\}$$

If  $x \in (3,4)$  then  $\text{thru } x \in (3,4) \subseteq S$

$\therefore$  set  $S$  is a neighbourhood of all reals between 3 and 4.

Now, for each  $\epsilon > 0$ , however small, the open interval  $(x-\epsilon, x+\epsilon)$  contains infinitely many reals which do not belong to set  $S$ .

Therefore  $(3-\epsilon, 3+\epsilon)$  is not contained in set  $S$  and so 3 is not a neighbourhood of point 3.

Similarly 5 is not a neighbourhood of 5.

Hence, set  $S$  is a neighbourhood of all reals between 3 & 4.

Empty set  $\phi$  is a neighbourhood of all its points as there is no point in  $\phi$  of which  $\phi$  is not a neighbourhood.



$$A = \{\phi\}$$



# OPEN SETS

A set  $S \subseteq \mathbb{R}$  is said to be open set if it is the neighbourhood of each of its points.

OR

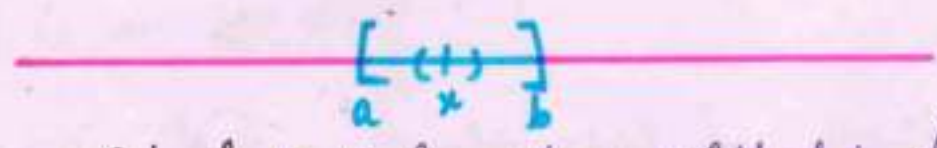
In other words, set  $S \subseteq \mathbb{R}$  is said to be an open set, if for each  $p \in S$ , there exists some  $\epsilon > 0$  such that  $p \in (p-\epsilon, p+\epsilon) \subseteq S$ .

Example:-

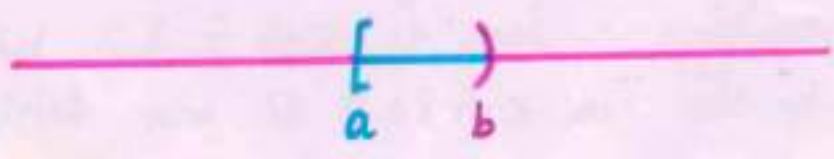
1) The open interval  $(a, b)$  is a neighbourhood of all its points and so open interval  $(a, b)$  is an open set.



2) The closed interval  $[a, b]$  is not a neighbourhood of point  $a$  &  $b$  and so closed interval  $[a, b]$  is not a neighbourhood of all its points.



3) The half open interval  $[a, b)$  is not a neighbourhood of point  $a \in [a, b]$  and so  $[a, b)$  is not a neighbourhood of all its points.



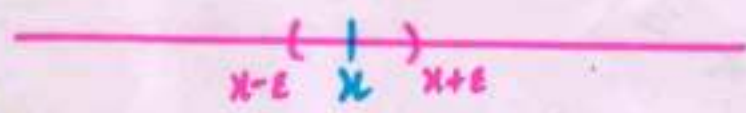
Half open interval  $[a, b)$  &  $(a, b]$  is not an open set.

4) Non-empty finite set is not a neighbourhood of any of its points and so non-empty finite set is not an

open set.



(5) Singleton set  $\{x\}$  is not a neighbourhood of point  $x$ .



(6) The set  $N$  of natural numbers is not a neighbourhood of all its points and so  $N$  is not an open set.

7) The set  $Z$  of integers is not a neighbourhood of all its points & so  $Z$  is not an open set.

8) The set  $Q$  &  $I$  are not a neighbour of all its points.



1) The set of reals is a neighbourhood of all its points and so set  $R$  is an open set.

2) Empty set  $\emptyset$  is a neighbourhood of all its points and so  $\emptyset$  is an open set.

(11) The set  $R-Z$ ,  $R-N$  are neighbourhood of all its points and so they are open set.

(12) The set  $R-Q$  &  $R-I$  is not a neighbourhood of all its points and so  $R-Q$  &  $R-I$  are not open set.

(13) The set  $A = \{1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \dots\}$  is not an open set.

(14) Union of two open interval is an open set.  
 $\Leftrightarrow (a, b) \cup (c, d)$ .



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Q-1 Most Probable and statistical fluctuations:

- Consider a system in which  $n$  particles are distributed in two boxes.

Let in first box,  $x$  number of goes and remaining  $n-x$  particles in second box.

Then,

$$\text{Probability of macrostate } (x, n-x) = \frac{1}{2^n} \cdot {}^n C_x$$

$$= \frac{1}{2^n} \cdot \frac{n!}{(n-x)! x!}$$

If the  $n_1$  particles in 1st box and  $n_2$

particles in 2nd box.

Then, this state is the most probable state and

Therefore,

Probability of most probable macrostate  $(\frac{n}{2}, \frac{n}{2})$  is

$$P(\frac{n}{2}, \frac{n}{2}) = P_{\text{maxi.}} = \frac{1}{2^n} \cdot \frac{n!}{\left[\frac{n!}{2^n}\right]^2}$$

- The variation from the most probable macrostate is known as statistical fluctuations.

Remarks .....

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For eg  $\rightarrow$  Consider  $n=10$ . Let  $x=4$ ,  $n-x=6$

$$P(4,6) = \frac{10!}{4!6!} \cdot \frac{1}{2^{10}} \quad \text{--- (I)}$$

and If  $x=5$ ,  $n-x=5$

$$P(5,5) = \frac{10!}{5!5!} \cdot \frac{1}{2^{10}} \quad \text{--- (II)}$$

Here,  $P(5,5)$  is most probable macrostate.

Dividing II by (I)

$$\frac{P(5,5)}{P(4,6)} = \frac{\frac{10!}{5!5!} \cdot \frac{1}{2^{10}}}{\frac{10!}{4!6!} \cdot \frac{1}{2^{10}}} = \frac{4!6!}{5!5!} = \frac{6}{5}$$

$$\Rightarrow \frac{P(4,6)}{P(5,5)} = \frac{5}{6} = 0.8$$

General case :-

Let  $n$  numbers of Particle is distributed in two boxes.

No. of microstate =  $2^n$

Number of macrostate =  $n+1$

Let  $\frac{n}{2}$  particles in first box, and  $\frac{n}{2}$  particles in second box.

Probability of most probable macrostate is  $P\left(\frac{n}{2}, \frac{n}{2}\right) = \frac{1}{2^n} \frac{n!}{\left[\frac{n}{2}!\right]^2}$

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$$\Rightarrow \log P_x = \log P_{\max} - \frac{2x^2}{n}$$

$$\log P_x - \log P_{\max} = -\frac{2x^2}{n}$$

$$\frac{\log P_x}{P_{\max}} = -\frac{2x^2}{n} \cdot \frac{n}{2}$$

$$\log \frac{P_x}{P_{\max}} = -\frac{4x^2}{n^2} \cdot \frac{n}{2} = -\left(\frac{2x}{n}\right)^2 \cdot \frac{n}{2}$$

Taking antilog both side.

$$\frac{P_x}{P_{\max}} = e^{-\left(\frac{2x}{n}\right)^2 \cdot \frac{n}{2}}$$

$$P_x = P_{\max} e^{-f^2 \cdot \frac{n}{2}}$$

Here,  $f = \frac{2x}{n} =$  fractional deviation.

Remarks .....

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Q.2 Stirling's Approximation:-

Stirling's Approximation gives idea when  $\ln n!$  is very large.

According to this Approximation -

$$\ln n! = n \ln n - n$$

As we know that,

$$n! = n(n-1)(n-2) \dots 3 \cdot 2 \cdot 1 \quad (i)$$

$$\Rightarrow \ln n! = \ln n \cdot \ln(n-1) \ln(n-2) \dots 3 \cdot 2 \cdot 1 \quad (ii)$$

Here consider, that  $n$  particles are distributed.

$$\ln n! = \sum_{i=1}^n \ln x_i \quad (iii)$$

Here, this equation represent eq<sup>n</sup> of straight line  $y = mx$

Now, in eq<sup>n</sup> (iii) the sum of particles is changed to integral

Therefore,  $n$

$$\ln n! = \int_1^n 1 \cdot \ln x \, dx$$

$$= [\ln x \cdot x]_1^n - \int_1^n \frac{1}{x} \cdot x \, dx$$

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$$\ln n! = [x \ln x]_1^n - \int_1^n 1 dx = [x \ln x]_1^n - [x]_1^n$$

$$= n \ln n - \ln 1 - [n - 1]$$

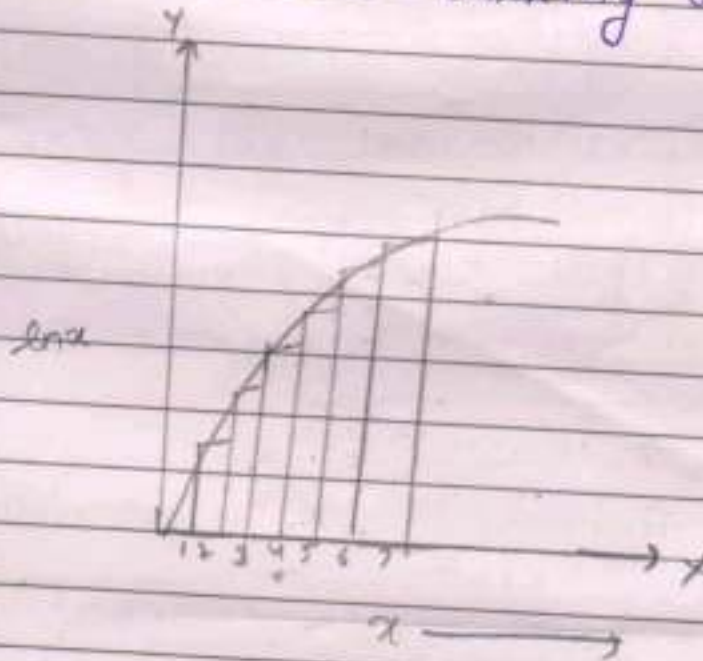
$$= n \ln n - \ln 1 - n + 1 \quad [\ln 1 = 0]$$

$$= n \ln n - n + 1$$

Here  $n$  is very large then  $1$ .  
 $\Rightarrow n+1$  is replaced with  $n$

$$\Rightarrow \boxed{\ln n! = n \ln n - n}$$

This is the Stirling approximation.



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Let  $\left(\frac{n+x}{2}, \frac{n-x}{2}\right)$  is the another macrostate.

$W_x$  is the thermodynamic probability.

Probability of  $\left(\frac{n+x}{2}, \frac{n-x}{2}\right)$  macrostate is

$$P_x = \frac{1}{2^n} \cdot \frac{n!}{\left(\frac{n+x}{2}\right)! \left(\frac{n-x}{2}\right)!}$$

$$P_x = \frac{1}{2^n} \cdot \frac{n!}{\left(\frac{n!}{2!}\right)^2} \cdot \left(\frac{n!}{2}\right)^2 \cdot \left(\frac{n+x}{2}\right)! \left(\frac{n-x}{2}\right)!^{-1}$$

$$P_x = P_{\max} \cdot \frac{\left(\frac{n!}{2}\right)^2}{\left(\frac{n+x}{2}\right)! \left(\frac{n-x}{2}\right)!} \quad \left[ \text{from eq. (1)} \right]$$

Taking log both sides.

$$\log P_x = \log P_{\max} + \log \left(\frac{n!}{2}\right)^2 - \log \left(\frac{n+x}{2}\right)! - \log \left(\frac{n-x}{2}\right)! \quad (1)$$

As, we know Stirling's approximation is -

$$\ln n! = n \ln n - n$$

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Applying Stirling approximation in  $e_1^n$  (iv)

$$\log P_x = \log P_{\max} + 2 \left[ \frac{n}{2} \log \frac{n}{2} - \frac{n}{2} \right] - \left[ \left( \frac{n+x}{2} \right) \log \frac{n+x}{2} - \left( \frac{n+x}{2} \right) \right] \\ - \left[ \left( \frac{n-x}{2} \right) \log \left( \frac{n-x}{2} \right) - \left( \frac{n-x}{2} \right) \right] \quad \text{--- (v)}$$

Now, if  $\log \left( \frac{n}{2} + x \right) = \log \left[ \frac{n}{2} \left( 1 + \frac{2x}{n} \right) \right]$

$$= \log \frac{n}{2} + \log \left( 1 + \frac{2x}{n} \right)$$

Applying Taylor's Theorem -

$$\log \left( 1 + \frac{2x}{n} \right) = \frac{2x}{n} - \frac{4x^2}{2n^2} + \dots$$

$$\text{Similarly } \log \left( 1 - \frac{2x}{n} \right) = \frac{2x}{n} + \frac{4x^2}{2n^2} + \dots$$

Higher terms are neglected because  $n \gg x$ .

$$\Rightarrow \log \left( \frac{n}{2} + x \right) = \log \frac{n}{2} + \frac{2x}{n} - \frac{2x^2}{n^2}$$

$$\log \left( \frac{n}{2} - x \right) = \log \frac{n}{2} - \frac{2x}{n} - \frac{2x^2}{n^2}$$

Putting these value in eq<sup>n</sup> (v)

$$\Rightarrow \log P_x = \log P_{\max} + n \log \frac{n}{2} - n - \left( \frac{n+x}{2} \right) \left[ \log \frac{n}{2} + \frac{2x}{n} - \frac{2x^2}{n^2} \right] \\ - \left( \frac{n+x}{2} \right) - \left( \frac{n-x}{2} \right) \left[ \log \frac{n}{2} - \frac{2x}{n} - \frac{2x^2}{n^2} \right] - \left( \frac{n-x}{2} \right)$$

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Class - BSc. II<sup>nd</sup> Year  
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① Stirling Approximation :-

$$\boxed{\ln n! = n \ln n - n}$$

where  $n$ ,  $n$  is very large.

This is an approx value given by Stirling, so its named as Stirling Approximation.

Proof :-

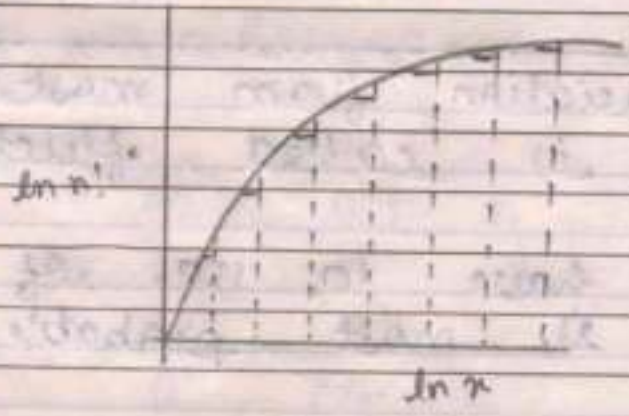
$$n! = n \times (n-1) \times (n-2) \times \dots \times 1$$

Apply natural logarithm,

$$\ln n! = \ln n + \ln (n-1) + \ln (n-2) + \dots + \ln 1$$

$$\ln n! = \sum_{x=1}^n \ln x$$

Graph :-



As value of  $x$  is very small, summation sign converts into integral.



$$\ln n! = \int_1^n \ln x \, dx$$

$$= \int_1^n 1 \cdot \ln x \cdot dx$$

$$= (x \ln x) \Big|_1^n - \int_1^n \frac{1}{x} dx$$

$$= n \ln n - \ln 1 - n + 1$$

$$\boxed{\ln n! = n \ln n - n}$$

$$\therefore -n + 1 = -$$

## (2) Fluctuation &

Let us have two boxes,  
no. of particles are  $s$  and  $n$

$$P(s, n-s) = \frac{1}{2^n} \frac{n!}{s!(n-s)!}$$

⇒ The deviation from most probable state is called fluctuation

If we have 10 no. of particles,  
(5,5) is most probable state

$$P(5,5) = \frac{1}{2^{10}} \frac{10!}{5!(5)!}$$



$$P(4,6) = \frac{1}{2^{10}} \frac{10!}{4! 6!}$$

Ratio of fluctuation & most probable state

$$\frac{P(4,6)}{P(5,5)} = \frac{\frac{1}{2^{10}} \frac{10!}{4! 6!}}{\frac{1}{2^{10}} \frac{10!}{5! 5!}}$$

$$= \frac{5! 5!}{4! \times 6!}$$

$$= \frac{5}{6} = 0.83$$

Now,

Let us assume ~~no~~ of particles in equal ~~no~~ of  $n$  no. of particles. i.e. maximum state is most probable state

$$P\left(\frac{n}{2}, \frac{n}{2}\right) = P_{\max}$$

$$P_{\max} = \frac{1}{g^n} \frac{n!}{\left(\frac{n}{2}\right)! \left(\frac{n}{2}\right)!}$$

$$= \frac{1}{2^n} \frac{n!}{\left(\frac{n!}{2!}\right)^2} \quad \text{--- (a)}$$



Now, there is some deviation then,

$$P\left(\frac{n}{2}+x, \frac{n}{2}-x\right) = \frac{1}{2^n} \frac{n!}{\left(\frac{n}{2}+x\right)! \left(\frac{n}{2}-x\right)!}$$

$$= \frac{1}{2^n} \frac{n!}{\left(\frac{n}{2}+x\right)! \left(\frac{n}{2}-x\right)!} \quad \text{--- (i)}$$

Multiply & divide by  $\left(\frac{n}{2}\right)!^2$  in (i)

$$= \frac{1}{2^n} \frac{n!}{\left(\frac{n}{2}\right)!^2} \frac{\left(\frac{n}{2}\right)!^2}{\left(\frac{n}{2}+x\right)! \left(\frac{n}{2}-x\right)!} \quad \text{--- (ii)}$$

from (a), put value in (ii)

$$P(x) = P_{\max} \frac{\left(\frac{n}{2}\right)!^2}{\left(\frac{n}{2}+x\right)! \left(\frac{n}{2}-x\right)!}$$

Now put logarithm both side

$$\log P_x = \log P_{\max} + 2 \log \frac{n}{2} - \log \left(\frac{n}{2}+x\right) - \log \left(\frac{n}{2}-x\right)$$

Now, use 'Stirling Approximation'  
 $\ln n! = n \ln n - n$



$$\begin{aligned} \log P_x &= \log P_{max} + 2 \frac{n}{2} \log \frac{n}{2} - \frac{n}{2} \cdot 2 \\ &= \left(\frac{n}{2} + x\right) \log\left(\frac{n}{2} + x\right) + \left(\frac{n}{2} - x\right) \\ &\quad - \left(\frac{n}{2} - x\right) \log\left(\frac{n}{2} - x\right) + \left(\frac{n}{2} - x\right) \end{aligned} \quad \text{--- (iii)}$$

Now, from Taylor's Theorem,

$$\log(1+x) = x - \frac{x^2}{2} + \frac{x^3}{3} - \dots$$

$$\begin{aligned} \log\left(\frac{n}{2} + x\right) &= \log\left(\frac{n}{2} \left(1 + \frac{2x}{n}\right)\right) \\ &= \log \frac{n}{2} + \log\left(1 + \frac{2x}{n}\right) \end{aligned}$$

Now,

$$\begin{aligned} \log\left(1 + \frac{2x}{n}\right) &= \frac{2x}{n} - \frac{(2x)^2}{2n^2} \\ &= \frac{2x}{n} - \frac{2x^2}{n^2} \end{aligned}$$

Similarly

$$\log\left(1 - \frac{2x}{n}\right) = \frac{2x}{n} - \frac{2x^2}{n^2}$$

Put all these value in (iii)



$$\log P_x = \log P_{max} + n \log \frac{n}{2} - n - \left(\frac{n}{2} + x\right) \left(-\log \frac{n}{2} + \frac{2x}{n} + \frac{2x^2}{n^2}\right) + \left(\frac{n}{2} - x\right) \left(\log \frac{n}{2} + \frac{2x}{n} - \frac{2x^2}{n^2}\right)$$

$$\frac{\log P_x}{\log P_{max}} = \frac{-2x^2}{n} \times \frac{n/2}{n/2}$$

$$\log \frac{P_x}{P_{max}} = \frac{-4x^2}{n^2} (n/2)$$

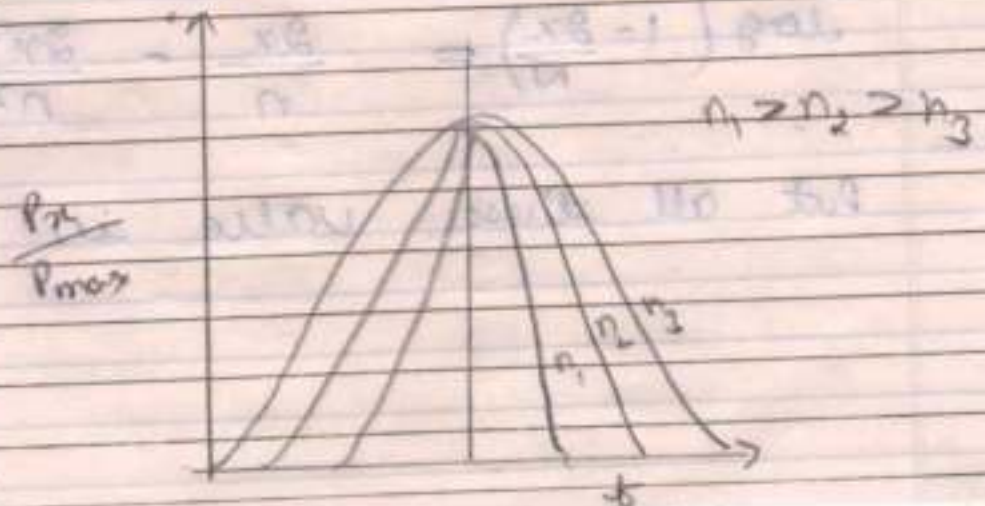
$$\frac{P_x}{P_{max}} = e^{-4x^2/n^2 (n/2)}$$

$$\frac{P_x}{P_{max}} = e^{-b^2/2 \cdot n}$$

where  $b = \frac{2x}{n}$

$b$  is fractional deviation

Graph







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**MEERPUR REWARI HARYANA**

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**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **HISTORY-S1**

Paper/Code : **61041**

Max Marks : **20**

Minimum Pass Marks : **03**

Semester : **Sixth Semester**

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
171051101016	1347410016	LOKESH	CF	
171051103072	1453410073	LALIT KUMAR	CF	
181051101040	2088410032	KHUSHWANT	CF	
181051101135	2088420074	MONIKA	CF	
191051101002	2969710003	MOHIT KUMAR	08	Eight
191051101016	2969710016	RITIK	CF	
191051101019	2969710019	MANJEET	CF	
191051101030	2969710030	TULSI RAM	CF	
191051101037	2969710037	JATIN YADAV	CF	
191051101064	2969710065	HARVINDER	CF	
191051101136	2969720066	VANDANA	CF	
191051101164	2969720094	KIRNESH	CF	
191051101166	2969720096	SONIA	CF	
201051101001	120123002086	PINKU	12	Twelve
201051101002	120123002099	SHILPA	13	Thirteen
201051101003	120123002095	SARIKA	16	Sixteen
201051101004	120123002057	SAPNA	18	Eighteen
201051101006	120123002115	VIKAS	12	Twelve
201051101007	120123002105	AMAN	12	Twelve
201051101009	120123002081	RAHUL	12	Twelve
201051101010	120123002121	OMBIR	15	Fifteen
201051101012	120123002039	ANJU KUMARI	19	Nineteen
201051101013	120123002030	POOJA	13	Thirteen

Signature of Class Teacher .....

Contact No : **9991626640**

Signature of College Principal /  
Director with College Seal

Govt. College Kosli  
Distt. Rewari





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Max Marks : **20**

Minimum Pass Marks : **08**

Semester : **Sixth Semester**

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
201051101016	120123002052	HIMANSHU LAMBA	19	Nineteen
201051101020	120123002042	TANNU SHARMA	14	Fourteen
201051101021	120123002050	JITENDER	17	Seventeen
201051101022	120123002117	SEEMA DEVI	15	Fifteen
201051101024	120123002059	TAMNNA	13	Thirteen
201051101025	120123002128	KHUSHBU	19	Nineteen
201051101026	120123002110	MAMAN	08	Eight
201051101027	120123002154	MAMTA	13	Thirteen
201051101029	120123002142	HEMANT KUMAR	14	Fourteen
201051101030	120123002153	SAHIL MEHRA	13	Thirteen
201051101033	120123002021	LALIT	13	Thirteen
201051101034	120123002087	NIKITA	19	Nineteen
201051101035	120123002048	SUMIT KUMAR	13	Thirteen
201051101036	120123002126	VAISHALI	19	Nineteen
201051101038	120123002120	SONU KUMARI	19	Nineteen
201051101039	120123002055	SEEMA	14	Fourteen
201051101040	120123002053	EKTA	14	Fourteen
201051101041	120123002069	SUSHMA	17	Seventeen
201051101042	120123002116	VARSHA	13	Thirteen
201051101044	120123002020	PAYAL	19	Nineteen
201051101045	120123002146	RITU	18	Eighteen
201051101046	120123002134	MAMTA	19	Nineteen
201051101047	120123002123	NISHA	19	Nineteen

Signature of Class Teacher .....

Contact No ..... 9991626640

Signature of College Principal /  
Director with College Seal

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Distt. Rewari





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Paper/Code : **61041**

Max Marks : **20**

Minimum Pass Marks : .....

Semester : **Sixth Semester**

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
201051101048	120123002036	PRITI	19	Nineteen
201051101049	120123002045	SUMAN	13	Thirteen
201051101053	120123002100	POONAM	12	Twelve
201051101054	120123002034	HEMANT KUMAR	12	Twelve
201051101055	120123002112	SIMRAN	19	Nineteen
201051101056	120123002103	NEHA YADAV	19	Nineteen
201051101057	120123002024	VARSHA	19	Nineteen
201051101059	120123002011	SANGEETA	13	Thirteen
201051101060	120123002060	DIVYA	19	Nineteen
201051101062	120123002150	BHATERI	17	Seventeen
201051101064	120123002106	CHIRAG	18	Eighteen
201051101065	120123002015	MONIKA	19	Nineteen
201051101068	120123002127	MANISHA DEVI	15	Fifteen
201051101070	120123002037	RAVINA	19	Nineteen
201051101071	120123002013	MANSHI	19	Nineteen
201051101073	120123002147	KAVITA	12	Twelve
201051101074	120123002140	BHATERI	15	Fifteen
201051101078	120123002149	VIREN	13	Thirteen
201051101079	120123002067	SUMAN	13	Thirteen
201051101080	120123002104	DUSHYANT KUMAR	08	Eight
201051101082	120123002031	MUSKAN	19	Nineteen
201051101083	120123002028	TAMANNA	13	Thirteen
201051101085	120123002010	KIRTI	12	Twelve

Signature of Class Teacher .....

Contact No .....

Signature of College Principal /  
Director with College Seal .....

Govt College Kosli  
Distt Rewari





**INDIRA GANDHI UNIVERSITY**  
**MEERPUR REWARI HARYANA**

To be treated as strictly Confidential

**B.A Internal Examination MAY-2023**

**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **HISTORY-S1**

Paper/Code : **61041**

Max Marks : **20**

Minimum Pass Marks : **03**

Semester : **Sixth Semester**

Roll No./ Reg No	College Rollno	Student Name	Marks in Figure	Marks in Word
201051101086	120123002114	NISHA KUMARI	19	Nineteen
201051101087	120123002158	AMIT	19	Nineteen
201051101088	120123002026	RAHUL	08	Eight
201051101089	120123002027	NISHANT	16	Sixteen
201051101090	120123002079	POONAM KUMARI	19	Nineteen
201051101092	120123002062	SOMWATI	13	Thirteen
201051101094	120123002137	ANJU	19	Nineteen
201051101095	120123002151	JYOTI	13	Thirteen
201051101096	120123002119	MONIKA	19	Nineteen
201051101097	120123002058	PREETI	18	Eighteen
201051101099	120123002047	MANISH KUMAR	12	Twelve
201051101100	120123002044	SANGEETA	19	Nineteen
201051101102	120123002097	RAHUL	12	Twelve
201051101104	120123002124	DEEPANSHU	08	Eight
201051101108	120123002107	PREETI	13	Thirteen
201051101109	120123002064	SAPNA	19	Nineteen
201051101110	120123002066	RITIKA	19	Nineteen
201051101111	120123002025	SONIA	19	Nineteen
201051101114	120123002096	ANSHU	12	Twelve
201051101115	120123002022	SONIYA	18	Eighteen
201051101117	120123002046	PRIYANKA	12	Twelve
201051101118	120123002073	CHANCHAL	19	Nineteen
201051101119	120123002072	SARITA	19	Nineteen

Signature of Class Teacher .....

Signature of College Principal /  
Director with College Seal .....

Contact No .....

9991626640

Govt College Kosli  
Distt. Rewari





**INDIRA GANDHI UNIVERSITY**  
**MEERPUR REWARI HARYANA**

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**B.A Internal Examination MAY-2023**

**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **HISTORY-S1**

Paper/Code : **61041**

Max Marks : **20**

Minimum Pass Marks : **03**

Semester : **Sixth Semester**

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
201051101120	120123002043	SUNIL KUMARI	12	Twelve
201051101121	120123002143	PRITI	19	Nineteen
201051101122	120123002051	SHEETAL	13	Thirteen
201051101123	120123002125	VIKAS	12	Twelve
201051101124	120123002056	SAHIL	12	Twelve
201051101125	120123002144	VANDANA	18	Eighteen
201051101126	120123002159	SARIKA	19	Nineteen
201051101127	120123002098	PRIYA	17	Seventeen
201051101128	120123002093	JATIN YADAV	13	Thirteen
201051101129	120123002118	PRIYA	19	Nineteen
201051101131	120123002007	ANKIT KUMAR	12	Twelve
201051101132	120123002122	SARITA	12	Twelve
201051101133	120123002141	RITU	08	Eight
201051101134	120123002138	NEETU	13	Thirteen
201051101135	120123002157	SONIKA	16	Sixteen
201051101137	120123002009	ROHIT	19	Nineteen
201051101138	120123002130	NEERAJ KUMAR	19	Nineteen
201051101140	120123002068	SUDESH	13	Thirteen
201051101142	120123002155	PREETI	19	Nineteen
201051101143	120123002035	SOMWATI	19	Nineteen
201051101146	120123002005	PRIYA	12	Twelve
201051101147	120123002160	VIKESH	19	Nineteen
201051101148	120123002014	GAUTAM	13	Thirteen

Signature of Class Teacher

Signature of College Principal

Director with College Seal

Contact No

Distt Rewari







**INDIRA GANDHI UNIVERSITY**  
**MEERPUR REWARI HARYANA**

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**B.A Internal Examination MAY-2023**

**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **GEOGRAPHY PAPER-II-TS1**

Paper/Code : **61062**

Max Marks : **15**

Minimum Pass Marks : **08**

Semester : **Sixth Semester**

Roll No / Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
201051101002	120123002099	SHILPA	10	Ten
201051101005	120123002012	JYOTI KUMARI	10	Ten
201051101006	120123002115	VIKAS	8	Eight
201051101007	120123002105	AMAN	8	Eight
201051101008	120123002080	PADAMBIR SINGH	8	Eight
201051101009	120123002081	RAHUL	8	Eight
201051101010	120123002121	OMBIR	8	Eight
201051101014	120123002054	PRASHANT SHARMA	14	Fourteen
201051101015	120123002089	MEGHA	14	Fourteen
201051101018	120123002084	AMAN KHAN	8	Eight
201051101022	120123002117	SEEMA DEVI	13	Thirteen
201051101023	120123002008	DIKSHA	13	Thirteen
201051101025	120123002128	KHUSHBU	12	Twelve
201051101026	120123002110	MAMAN	8	Eight
201051101028	120123002004	MANDEEP	8	Eight
201051101032	120123002065	JATIN SHARMA	8	Eight
201051101037	120123002003	ASHISH	8	Eight
201051101042	120123002116	VARSHA	13	Thirteen
201051101043	120123002002	GEETU	13	Thirteen
201051101046	120123002134	MAMTA	13	Thirteen
201051101047	120123002123	NISHA	13	Thirteen
201051101054	120123002034	HEMANT KUMAR	8	Eight
201051101062	120123002150	BHATERI	12	Twelve

Signature of Class Teacher

*[Signature]*

Contact No

9458494872

Signature of College Principal /  
Director with College Seal

*[Signature]*  
**PRINCIPAL**  
Govt. College Kosli  
Distt Rewari





**INDIRA GANDHI UNIVERSITY**  
**MEERPUR REWARI HARYANA**

To be treated as strictly Confidential

**B.A Internal Examination MAY-2023**

**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **GEOGRAPHY PAPER-II-TS1**

Paper/Code : **61062**

Max Marks : **15**

Minimum Pass Marks : ..... 08 .....

Semester : Sixth Semester

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
201051101067	120123002001	VIVEK	13	Thirteen
201051101071	120123002013	MANSHI	14	Fourteen
201051101075	120123002049	VIVEKA KUMARI	8	Eight
201051101076	120123002131	MANJEET	8	Eight
201051101077	120123002074	KALPANA	14	Fourteen
201051101078	120123002149	VIREN	8	Eight
201051101079	120123002067	SUMAN	8	Eight
201051101080	120123002104	DUSHYANT KUMAR	8	Eight
201051101081	120123002040	JITENDER	14	Fourteen
201051101086	120123002114	NISHA KUMARI	14	Fourteen
201051101088	120123002026	RAHUL	8	Eight
201051101089	120123002027	NISHANT	11	Eleven
201051101090	120123002079	POONAM KUMARI	13	Thirteen
201051101095	120123002151	JYOTI	9	Nine
201051101096	120123002119	MONIKA	13	Thirteen
201051101099	120123002047	MANISH KUMAR	8	Eight
201051101100	120123002044	SANGEETA	13	Thirteen
201051101104	120123002124	DEEPANSHU	8	Eight
201051101105	120123002076	KHUSHBU CHAUHAN	15	Fifteen
201051101107	120123002111	JYOTI	13	Thirteen
201051101110	120123002066	RITIKA	13	Thirteen
201051101116	120123002041	ANU	14	Fourteen
201051101118	120123002073	CHANCHAL	15	Fifteen

Signature of Class Teacher : *[Signature]*

Contact No : *9468494822*

Signature of College Principal /  
Director with College Seal : *[Signature]*

Govt College Kosli  
Distt Rewari





**INDIRA GANDHI UNIVERSITY**  
**MEERPUR REWARI HARYANA**

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**B.A Internal Examination MAY-2023**

**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **GEOGRAPHY PAPER-II-TS1**

Paper/Code : **61062**

Max Marks : **15**

Minimum Pass Marks : 08

Semester : Sixth Semester

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
201051101119	120123002072	SARITA	13	Thirteen
201051101121	120123002143	PRITI	13	Thirteen
201051101123	120123002125	VIKAS	8	Eight
201051101124	120123002056	SAHIL	8	Eight
201051101130	120123002061	PREETI	13	Thirteen
201051101134	120123002138	NEETU	13	Thirteen
201051101135	120123002157	SONIKA	11	Eleven
201051101136	120123002019	PRIYA	14	Fourteen
201051101143	120123002035	SOMWATI	13	Thirteen
201051101144	120123002033	POOJA	13	Thirteen
201051101148	120123002014	GAUTAM	8	Eight
201051101153	120123002088	ANJALI	14	Fourteen
201051101155	120123002101	SHEETAL	14	Fourteen
201051101156	120123002090	HEMANT	8	Eight
201051101157	120123002163	SAKSHI	13	Thirteen
201051101159	120123002165	UMA LAMBA	15	Fifteen
201051101160	120123002166	ANNU	13	Thirteen
TOTAL				

Total Present .....

Total Absent .....

Signature of Class Teacher [Signature]

Contact No 9463499872

Signature of College Principal /  
Director with College Seal [Signature]

Govt College Kosli  
Distt. Rewari





**INDIRA GANDHI UNIVERSITY**  
**MEERPUR REWARI HARYANA**

To be treated as strictly Confidential

**B.COM Internal Examination MAY-2023**

**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **Auditing-S1**

Paper/Code : **61344**

Max Marks : **20**

Minimum Pass Marks .....

Semester : **Sixth Semester**

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
191051102001	3044510001	KHUSHAL	CF	
191051102019	3044510020	SANDEEP KUMAR	CF	
191051102020	3044510021	DUSHYANT YADAV	CF	
191051102039	3044520012	SHEETAL	CF	
191051102040	3044520013	NEHA	CF	
191051102042	3044520015	MINAKSHI	CF	
191051102052	3044520024	PIRYA	CF	
201051102001	120123003001	TANNU	15	Fifteen
201051102002	120123003003	NISHA KUMARI	15	Fifteen
201051102003	120123003005	MANISH KUMAR GOYAL	08	Eight
201051102004	120123003006	KUMARI SAALU	15	Fifteen
201051102007	120123003009	MANISHA	08	Eight
201051102008	120123003010	PRIYANKA	08	Eight
201051102009	120123003011	TARUN	18	Eighteen
201051102010	120123003012	DIVYA	18	Eighteen
201051102011	120123003013	KOMAL	18	Eighteen
201051102012	120123003014	RITU YADAV	08	Eight
201051102013	120123003015	SUSHANT	08	Eight
201051102014	120123003016	SUJATA	08	Eight
201051102015	120123003017	RIYA	18	Eighteen
201051102016	120123003018	ANKUR	18	Eighteen
201051102017	120123003019	MOHIT	18	Eighteen

Signature of Class Teacher .....

Contact No 7206262989 .....

Signature of College Principal /  
Director with College Seal .....

Govt. College Kosli  
Distt Rewari





**INDIRA GANDHI UNIVERSITY**  
**MEERPUR REWARI HARYANA**

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**B.COM Internal Examination MAY-2023**

**COLLEGE : GCKS-105-GOVT. COLLEGE, KOSLI (REWARI)**

Subject : **Auditing-S1**

Paper/Code : **61344**

Max Marks : **20**

Minimum Pass Marks : **08**

Semester : **Sixth Semester**

Roll No./ Reg No	College Rollno	Student Name	Marks In Figure	Marks In Word
201051102018	120123003020	POOJA RANI	08	Eight
201051102019	120123003021	ARYAN	18	Eighteen
201051102020	120123003022	HAPPY	18	Eighteen
201051102021	120123003023	MANISHA	19	Nineteen
201051102023	120123003025	KAPIL KUMAR	08	Eight
201051102024	120123003026	NEERAJ	18	Eighteen
201051102025	120123003027	MANSHI BADGRIA	08	Eight
201051102026	120123003028	PRINCE	08	Eight
201051102027	120123003030	JYOTI	08	Eight
201051102028	120123003031	BHARTI	08	Eight
201051102029	120123003032	ANUJ KUMAR	08	Eight
201051102032	120123003035	YASH	08	Eight
201051102033	120123003036	AJAY SINGH	08	Eight
201051102034	120123003037	RAHUL	08	Eight
201051102035	120123003038	ANTIM	17	Seventeen
201051102037	120123003029	RAJAT KUMAR	18	Eighteen
<b>TOTAL</b>				

Total Present .....

Total Absent .....

Signature of Class Teacher *Re*

Contact No *726262989*

Signature of College Principal  
Director with College Seal

**Govt. College Kosli**  
**Distt. Rewari**