

ਪੰਜਾਬੀ ਪ੍ਰਤੀਵਰਸ਼ਿਟੀ, ਪਟਿਆਲਾ
(1961 ਦੇ ਪੰਜਾਬ ਐਕਟ ਸੰਬੰਧ 35 ਤਹਿਤ ਸਥਾਪਤ)
(ਕਾਲਜ ਸੈਕਾਸ਼ਨ)

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673-221352-2001

ਪਿੰਡੀਪਲ.

卷之二

- 3 -

हिमा:- गोपनीय अमर कृष्ण द्वारा लिखी गई एक शिरकत।

ਸ੍ਰੀਮਾਨ ਜੀ।

ਆਪ ਜੀ ਦੇ ਦਫਤਰ ਦੇ ਪੱਤਰ ਨੰ 9822 ਮਿਤੀ 6-3-2006 ਵੇ ਹਵਾਲੇ ਵਿਚ ਪ੍ਰਕਟਿ
ਕੀਤਾ ਜਾਂਦਾ ਹੈ ਕਿ ਵਾਈਸ-ਚਾਂਸਲਰ ਸਾਹਿਬ ਨੇ ਆਪ ਜੀ ਦੇ ਕਾਲਜ ਵਿਖੇ ਸੈਸ਼ਨ 2005-06 ਤੋਂ ਕੋਰੀਅਰ
ਉਠੀਐਂਟਿਡ ਸਕੀਮ ਅਧੀਨ 2024 ਤੋਂ ਕੋਈ ਨਿਯਮ ਦਾ ਵਿਸ਼
ਸੁਰੂ ਕਰਨ ਦੀ ਪ੍ਰਵਾਨਗੀ ਅਕਾਦਮਿਕ ਕੌਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਦੀ ਆਸ ਵਿਚ ਇੱਤੇ ਮਦਦੀ ਹੈ। ਇਥੇ ਵਿਚ
ਜਾਪਾਨ ਹੈ ਕਿ ਕਾਲਜ ਜੂ. ਨੀ. ਸੀ. ਅਤੇ ਯੂਨੀਵਰਸਿਟੀ ਦੀਆਂ ਸਰਤਾਂ ਦੀ ਪਾਲਣਾ ਕਰਨ ਦਾ ਪਾਬੰਦ ਹੋਵੇ।

दिसवासपात्र.

ਸਹਾਇਕ ਰਸ਼ਿਸਟਰਾਂ ਕਲਾ

Harijet Singh

Principal
Sahibzada Ajit Singh Nagar
SMAHS Govt. College

TRANSLATED VERSION

PUNJABI UNIVERSITY, PATIALA

(Established under Punjab Act No. 35 of 1961)

(College Section)

No. 1316/college/s-3

Date: 22/4/09

Principal

Government College

Mohali

Subject: Permission to start Add –on course in Pharmaceutical Chemistry

Respected Sir,

In response of this letter no. 9822, date: 6/3/09, it is said that the Vice- Chancellor has given the permission to start "Add-on course in Pharmaceutical Chemistry" under the career oriented scheme in our college from session 2009-10. The permission is given under the anticipatory approval of the Academic Council. Further, it is important to mention that college is bound to abide by the conditions and norms of university and UGC.

Yours faithfully,

Assistant Registrar

(colleges)

To,

The Principal
S.M.H.S. Government College
S.A.S. Nagar Mohali

Respected Ma'am,

We plan to start Add-on Course in Pharmaceutical Chemistry, UGC Sponsored course for B.Sc. (medical) and B.Sc. (non-medical) students. The duration of the course is one year which includes theory and practical classes. Kindly grant us permission to start this course from 1st September 2022.

Thanking you

Yours sincerely

Harmeet Singh
Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar
Sahibzada Ajit Singh Nagar

SMHS Govt. College Mohali

Chemistry Department

NOTICE FOR STUDENTS

This is for the information of the students that the college is going to start Add-on course in Pharmaceutical Chemistry , UGC sponsored course for session 2022-23. B.Sc. (medical) and B.Sc. (non-medical) students are eligible. The course will be of one year. Students can apply from 15th August to 31st August 2022. Classes will commence from 1st september 2022 in Chemistry Lab.

COURSE OFFERED

- 1) Certificate course for B.Sc. 1st year
- 2) Diploma course for B.Sc. 2nd year
- 3) Advanced Diploma for B.Sc. 3rd year

ASSESSMENT CRITERIA

Maximum Marks- 100

Theory paper- 40

Theory Internal Assessment- 20

Practical Paper – 30

Practical Internal Assessment- 10

Certificates for this course will be awarded by Punjabi University, Patiala.

Rajesh Arjyal

Principal

S.M.H.S Government College, Mohali
Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

Lesson plan for B.Sc. 3rd year (Medical and Non-medical) (sem 5 and 6)

MONTH	TOPICS COVERED
6 TH sep-10 th sep	1. Dosage forms – Introduction, Capsules, Tablets, Syrups, Suspension, Emulsion
12 th - 17 th sep	2. Parts of prescription – Superscript, subscript
19 th -24 th sep	3. Hospital pharmacy – Sterilization, disinfection.
26 th -30 th sep	4. Antibodies & Antigens – Types of antibodies, Reaction of Ag-Ab,
1 st oct-8 th oct	Anti-sera introduction, Vaccination like cholera.
10 th -15 th oct	5. Anti epileptic agents – Introduction, classification & structures of Phenobarbitone, Phenytoin,
17 th -22 nd Oct	Clonazepam, Lamotrigine
24 th -31 st oct	6. Antidepressants – Introduction, classification & structures of Amitriptyline, Citalopram.
1 st nov- 5 th nov	7. Anti Cancer agents – Introduction, classification & structures of Chlorambucil,
7 th -12 th nov	Cyclophosphamide, Melphalan.
14 th -19 th nov	8. Hypoglycemic agents – Introduction to diabetics, types of diabetes, introduction to Insulin and its types
21 st -26 th nov	

Harjeet Gujral

Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

28 th -30 th nov	structure of Gilipizide, Gilclazide, Phenformin,
1 st dec-3 rd dec	Structure of Pioglitazone., Metronidazole.
5 th -10 th dec	9. Anti amoebic agents – Introduction, classification & structures of Emetine, Metronidazole.
12 th -17 th dec	10. Anti fungal agents – Introduction, classification & structures of Griseofulvin, Fluconazole.
19 th -24 th dec	11. UV Spectroscopy – Introduction, Chromophore, Auxochrome
26 th -31 st dec	Red shift, Blue shift
2 nd jan-7 th jan	Hypo and hyper Chromic shifts, factors affecting shifts.
9 th -14 th jan	Practicals -1. Extraction of volatile oil from Fennel using Clevenger apparatus.
16 th -21 st jan	2. To carry out the synthesis of drug Paracetamol.
23 rd -31 st jan	3. To carry out preparation of Methyl red/Methyl orange.
1 st feb-4 th feb	4. To carry out the extraction of Tea by using Soxhlet apparatus
6 th -11 th feb	5. To perform various pharmacognostic test by drug Catechu
13 th -18 th feb	6. To perform the various tests to identify Alkaloids
20 th -28 th feb	7. To perform the various tests to identify Glycosides.
1 st mar-4 th mar	8. Description of Column chromatography: a. To separate pigments from spinach b. To separate mixture of Fluorescene and Methylene Blue.
6 th -11 th mar	9. To carry out preparation of Emulsion.
13 th -18 th mar	10. To prepare various stereochemical models (Syn and anti. E&Z)
20 th -25 th mar	11. To solve general mass spectrometric problems and their graphs.
1 st apr-8 th apr	12. Mass spectroscopy – Introduction, instrumentation
10 th -15 th apr	Base peaks, Molecular ion peak,
17 th -22 nd apr	Nitrogen rule, Fragmentation
24 th -29 th apr	and rules of fragmentation including Mc. Lefferty and retrodiel.

Harjeet Singh
 Principal
 SMHS Govt. College
 Sahibzada Ajit Singh N

Add On - Advanced Diploma Course in Pharmaceutical Chemistry

For 2016-17, 2017-18 and 2018-19 Session

Continued For Sessions 2019-20, 2020-21, 2021-22, 2022-23

JEC

3hrs/Week

Max. Time: 3 hrs.

Max. Marks: 40

Internal Assessment: 20

Total Marks: 60

VI

4

4

4

4

4

1

INSTRUCTIONS FOR THE PAPER SETTERS

The question paper will consist of three sections A, B and C. Section A and B each will have four questions from the respective sections of the syllabus. Each question shall carry 4 marks. Section C will consist of 8 short answer type questions which will cover the entire syllabus uniformly and will carry 16 marks in all.

INSTRUCTIONS FOR THE CANDIDATES

Candidates are required to attempt three questions each from section A and B. Section C is compulsory.

Section – A

1. **Dosage forms** – Introduction, Capsules, Tablets, Syrups, Suspension, Emulsion
2. **Parts of prescription** – Superscript, subscript
3. **Hospital pharmacy** – Sterilization, disinfection.
4. **Antibodies & Antigens** – Types of antibodies, Reaction of Ag-Ab, Anti-sera introduction, Vaccination like cholera.
5. **Anti epileptic agents** – Introduction, classification & structures of Phenobarbitone, Phenytoin, Clonazepam, Lamotrigine
6. **Antidepressants** – Introduction, classification & structures of Amitriptyline, Citalopram.

Section – B

7. **Anti Cancer agents** – Introduction, classification & structures of Chlorambucil, Cyclophosphamide, Melphalan.
8. **Hypoglycemic agents** – Introduction to diabetics, types of diabetes, introduction to Insulin and its types & structure of Gilipizide, Gilelazide, Phenformin, Pioglitazone.
9. **Anti amoebic agents** – Introduction, classification & structures of Emetine, Metronidazole.
10. **Anti fungal agents** – Introduction, classification & structures of Griseofulvin, Fluconazole.
11. **UV Spectroscopy** – Introduction, Chromophore, Auxochrome, Red shift, Blue shift. Hypo and hyper Chromic shifts, factors affecting shifts.
12. **Mass spectroscopy** – Introduction, instrumentation, Base peaks, Molecular ion peak. Nitrogen rule, Fragmentation and rules of fragmentation including Mc. Lefferty and retrodiel.

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Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

LABORATORY

Practical carriers 30 marks + Internal assessment of 10 marks = Total 40 marks
TOTAL MARKS 40

1. Extraction of volatile oil from Fennel using Clevenger apparatus.
2. To carry out the synthesis of drug Paracetamol.
3. To carry out preparation of Methyl red/Methyl orange.
4. To carry out the extraction of Tea by using Soxhlet apparatus.
5. To perform various pharmacognostic test by drug Catechu.
6. To perform the various tests to identify Alkaloids
7. To perform the various tests to identify Glycosides.
8. Description of Column chromatography
 - a. To separate pigments from spinach.
 - b. To separate mixture of Fluorescene and Methylene Blue.
9. To carry out preparation of Emulsion.
10. To prepare various stereochemical models (Syn and anti, E&Z)
11. To solve general mass spectrometric problems and their graphs.

Books recommended

1. Text book of Medicinal Chemistry by Panday, Vol – I by S.G. Publisher
2. Medicinal and Pharmaceutical Chemistry by Harikrishan Singh and V.K. Kapoor published by VallabParkashan.
3. Essentials of medicinal Pharmacology by K.D Tripathi 5th edition by Jaypee brothers.
4. Instrumental methods of Chemical analysis by Gurdeep R. Chatwal and Shyam K. Anand published by Himalaya publishing house.
5. Pharmaceutics – I by R.M Mehta
6. Indian Pharmacopoeia Govt. of India, Ministry of Health & Family Welfare, Delhi Latest edition.
7. F.G. Mann and B.C. Saunders, "Practical Organic Chemistry," The English Language Book Society and Longmann Group Limits, London (Latest Edition).
8. A.I. Vogel, "A text book of Practical Organic Chemistry," The English Language Book Society and Longman Group Limits, London (Latest Edition).
9. Remington, The Science and Practice of Pharmacy, Mack Publishing co., U.S.A (Latest edition).

Harjeet Singh
Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR, MOHALI
 LIST OF STUDENTS WHO PAID FEES FOR ADD ON ADVANCED DIPLOMA COURSE IN PHARMACEUTICAL CHEMISTRY (SESSION 2022-2023)

S. NO.	REG. NO.	NAME	FATHER'S NAME	MOTHER'S NAME	CATEGORY	SEX	MEDIUM	COURSE	FEES
271	1 612 20-350	Aarti Arya	Harish Ram	Kiran	General	F	English	Advanced Diploma course	600 Aarti Arya
272	2 612 20-890	Ankita Kumari	Amol Kumar Verma	Chhavi Verma	General	F	English	Advanced Diploma course	600 Ankita Kumari
273	3 612 20-384	Gaganpreet Kaur	Randhir Singh	Baljeet Kaur	BC	F	English	Advanced Diploma course	600 Gaganpreet Kaur
274	4 612 20-388	Harpreet Kaur	Jasvir Singh	Gagandeep Kaur	SC	F	English	Advanced Diploma course	600 Harpreet Kaur
275	5 612 20-361	Juhi Kumari	Manoj Kumar	Indu Devi	General	F	English	Advanced Diploma course	600 Juhi
276	6 612 20-364	Manisha	Dalwinder Singh	Dharmjeet Kaur	OBC	F	English	Advanced Diploma course	600 Manisha
277	7 612 20-365	Manisha Sharma	Sanjeev Kumar	Anju Sharma	General	F	English	Advanced Diploma course	600 Manisha Sharma
278	8 612 20-400	Naina Sharma	Sanjeev Kumar	Kavita Rani	(EWS)General	F	English	Advanced Diploma course	600 Naina Sharma
279	9 612 19-277	Rahulveer	Tarlok Chand	Lata Kumari	SC	M	English	Advanced Diploma course	600 Rahulveer
280	10 612 20-374	Shobha	Vijay Kumar	Seema Rani	General	F	English	Advanced Diploma course	600 Shobha
281	11 612 20-351	Amandeep Kaur	Nirmal Singh	Gurmeet Kaur	SC	F	English	Advanced Diploma course	600 Amandeep Kaur

Harjeet Arjpal

Principal
2145 Govt. College
Sahibzada Ajit Singh Nagar

Government College, S. A. S. Nagar, Mohali

Final Theory Examination

UGC Add on course in Pharmaceutical Chemistry

Course: Advanced Diploma Course in Pharmaceutical Chemistry

Subject: Pharmaceutical Chemistry

Session: 2022-2023

Max. Marks: 40

Max. Hours: 2:00 hrs

SECTION A

This section carries 5 short answer type questions of 4 marks each and all are compulsory.

Q. 1) Explain the antigen-antibody reaction.

Q. 2) Write short note on a) Sterilization b) Disinfectants

Q. 3) What do you mean by Vaccination? Explain it by giving some examples .

Q. 4) Give chemical structure and uses of Gilipizide?

Q 5) Explain Mac Lefferty Rearrangement in mass spectroscopy with an example?

SECTION B

This section carries 2 long answer type questions of 5 marks each. Attempt any one of them.

Q.6) Explain UV spectroscopy and give its principle. What are the factors affecting absorption in UV spectroscopy?

OR

Q.7) What are Hypoglycemic agents? Give different types of diabetes and different types of insulin.
Explain the followings in detail: a) Phenformin

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Principal
SMHS Govt. College
Sohibzada Ajit Singh Nagar

SECTION C

This section carries 2 long answer type questions of 5 marks each. Attempt any one of them.

Q.8) Define anti-neoplastic agents. Classify them. How do they act? Explain the following anti-neoplastic agents in detail

a) Melphalen

b) Chlorambucil

OR

Q. 9) Explain in detail:

a) Suspension

b) Emulsion

c) Capsules

d) Syrups

SECTION D

This section carries 2 long answer type questions of 5 marks each. Attempt any one of them.

Q.10) Explain mass spectroscopy by giving the details of types of ions produced in a mass spectrometer.

OR

Q. 11) Define anti fungal agents. Explain in detail the following anti fungal agents

a) Griseofulvin

b) Fluconazole

SECTION E

This section carries 2 long answer type questions of 5 marks each. Attempt any one of them.

Q12) What are anti amoebic agents? Explain any two anti amoebic agents in detail.

OR

Q. 13) What are anti depressants? Give brief classification of anti depressants. Explain the following

a) Amitriptyline

b) Citalopram

Harjeet Singh

Principal

SMHS Govt. College

Sahibzada Ajit Singh

ਸੈਟਰ ਨੰਬਰ.....

ਪਹੀਂ ਪਿਆਰ ਸਾਰਾ ਛੇ ਮਹੀਨਿਆ ਲਈ
ਹੁੰਦਾ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪੁਤਿ ਪਦਚੀ।

ਪੁਟਿ-ਪਰਚੀ

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from Phamra Chens...

Advanced Diplomacy (Theory and Practice)

अधिकारम् अविद्या 20

पास नंबर ०७

ਰੋਲ ਨੰਬਰ	ਅੱਕ
271	16
272	17
273	12
274	12
275	17
276	18
277	18
278	17
279	16
280	18
281	18

पास ।) डेल —

Om Prakash

ਸੈਟਰ ਨੰਬਰ

ਪਰੀਖਿਆਕ ਦੂਆਦਾ ਹੋ ਸ਼ਰੀਨਿਆ ਲਈ
ਚੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪੁਤਿ ਪਰਚੀ.

ਪੁਤਿ-ਪਰਚੀ

ਪਰੀਖਿਆ PEC VI dep 2023.....

Advanced
Practical
Chemical

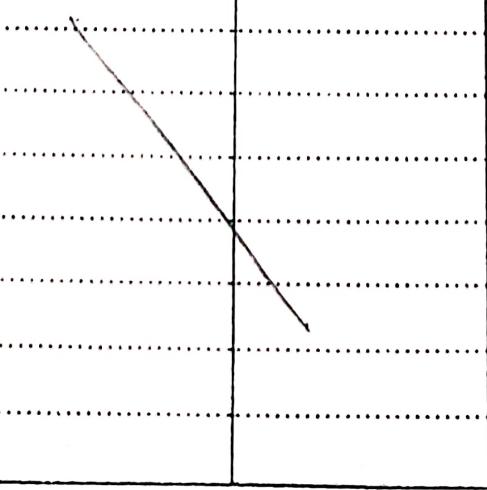
ਵਿਸ਼ ... Chemical Chem.

ਪਰਚਾ Ad Dep / Practical

ਅਧਿਕਤਮ ਅੰਕ 30

ਪਾਸ ਅੰਕ 10

ਰੋਲ ਨੰਬਰ	ਅੰਕ
271	26
272	21
273	29
274	24
275	21
276	29
277	29
278	28
279	21
280	29
281	29



ਪਾਸ 11 ਫੇਲ —

Harijeet Gu
inal

ਪਹੀਫਿਅਭ ਦੁਆਰਾ ਛੇ ਮਹੀਨਿਆ ਲਈ
ਦੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਰਚੀ.

ਪ੍ਰਤਿ-ਪਰਚੀ

return B&W Jan 2013

Ferris Pharma Chem

www.Adj.dip (Practical)

अधिकारी 10

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ਚੇਲ ਨੰਬਰ	ਅੰਕ
271	7
272	8
273	5
274	5
275	6
276	7
277	7
278	7
279	6
280	9
281	9

ਪਾਸ ।। ਫੇਲ੍ਹ —

Sonakshi

BSc-JT year (Certificate course in Pharmacy
Chemistry)

Advanced Diploma (Theory)

S.No.	Roll. No.	Name	Signature
1	271	Aarli Arya	Aarli Arya
2.	272	Ankita kumarw	Ankitakumar
3 .	273	Gaganpreet kaur	Gaganpreet kaur
4.	274	Harpreet kaur	Harpreet kaur
5.	275	Jubi Kumar	Jubi Kumar
6.	276	Mansha	Mansha
7.	277	Manisha Sharma	Manisha Sh
8.	278	Naina Sharma	Naina Sharma
9.	279	Rahulveer	Rahulveer
10.	280	Shobha	Shobha
11.	281	Amandeep kaur	Amandeep kaur

B.Sc - IIIrd year . (Advanced Diploma
in Pharmaceutical Chemistry)

ਸਟੋਰਿਊ ਤਾ. ਸਿ. ਫਿ. ਨੰ. 52

ਹਾਜ਼ਰੀ ਰਜਿਸਟਰ - September 2022

• ਕਾਲਜ •

BSc - IIIrd year

ਸਟੀਰਿਊ ਡਾ. ਸਿ. ਵਿ. ਨੇ: 52

ਹਾਜ਼ਰੀ ਰਜਿਸਟਰ - October 2022 - ਕਾਲਜ

ਹਾਜ਼ਰੀ ਰਜਿਸਟਰ

November 2022

-कालज-

ਹਜ਼ਗੀ ਰਜਿਸਟਰ - February 2023 - ਗਲਜ਼

ਨਾਮ	ਦਿਨ														ਪੁਸ਼ਟੀ
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Antika	.	.	.	.	.	.	.	.	.	.	.	.	.	.	P
Juhu	.	P	P	.	.	.	.	.	.	.	.	.	.	.	P
Shobha	P	P	P	.	P	P	P	P	P	P	P	P	P	P	P
Manisha Sharma	P	P	P	.	P	P	P	P	P	P	P	P	P	P	P
Harpreet	.	.	.	.	.	.	P	P	.	.	.	.	.	.	P
Manisha	P	P	P	.	P	P	.	P	P	.	.	.	.	.	P
Amandeep	P	P	.	.	P	P	P	.	.	.	.	.	.	.	P
Darshi	P	P	P	P	P	P	P	P	.	.	.	.	.	.	P
Tarpal	.	.	.	.	.	.	.	P	.	.	.	.	.	.	P
Gaganpreet	.	.	.	.	.	.	P	.	P	.	P	P	P	P	P
Naina	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Chowdhary</i>															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

BSC- 3rd year (Advanced Diploma course)

ਸਟਾਂਡਿੰਗ ਛਾ. ਮਿ. ਵਿ. ਨੰ 52

March 2023

हाजरी रजिस्टर

BSc - Third year (Advanced Diploma)

April 2023. ਕਾਲਜ ਗਾਜ਼ਗੀ ਰਜਿਸਟਰ

ਨਾਮ	5/4/2023	6/4/2023	10/4/2023	11/4/2023	12/4/2023	13/4/2023	18/4/2023	19/4/2023	20/4/2023	21/4/2023	25/4/2023	28/4/2023
Ankita	.	.	.	.	.	.	.	.	.	.	.	.
Shobha	P	P	P	P	P	P	P	P	P	P	P	P
Toshi	P	.	.	.	P	.	.	.	.	.	.	.
Manisha	P	P	P	P	P	P	P	P	P	P	P	P
Manisha Sharma	P	P	P	P	P	P	P	P	P	P	P	P
Harpreet	P	.	P	P	P	P	.	.	.	.	.	.
Ramandeep	P	P	P	P	P	P	P	P	P	P	P	P
Aarti	P	P	P	P	P	P	P	P	P	P	P	P
Jaspal	.	.	.	.	.	.	.	.	.	.	.	P
Gaganpreet	P	.	P	P	P	P	.	.	.	.	.	.
Naina	.	.	.	.	.	.	.	.	.	.	.	.

Somelover