

ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ
(1961 ਦੇ ਪੰਜਾਬ ਐਕਟ ਨੰਬਰ 35 ਤਹਿਤ ਸਥਾਪਤ)
(ਕਾਲਜ ਸੈਕਸ਼ਨ)

ਨ. 1316-.../ਕਾਲਜ-3

ਮਿਤੀ 22/4/2009

ਪ੍ਰਿੰਸੀਪਲ,

ਪੰਜਾਬੀ ਯੂਨੀਵਰਸਿਟੀ

ਪਟਿਆਲਾ

ਵਿਸ਼ਾ: ਗੈਰ-ਆਰਥੋਗਨਲ ਫਰੇਮਵਰਕ ਵਿੱਚ ਕੋਰਸ ਦੀ ਸਹੂਲਤ

ਸ਼੍ਰੀਮਾਨ ਜੀ,

ਆਪ ਜੀ ਦੇ ਦਫਤਰ ਦੇ ਪੱਤਰ ਨੰ. 9822 ਮਿਤੀ 6-2-2009 ਦੇ ਹਵਾਲੇ ਵਿਚ ਸੂਚਿਤ
ਕੀਤਾ ਜਾਂਦਾ ਹੈ ਕਿ ਵਾਈਸ-ਚਾਂਸਲਰ ਸਾਹਿਬ ਨੇ ਆਪ ਜੀ ਦੇ ਕਾਲਜ ਵਿਖੇ ਸੈਸ਼ਨ 2009-10 ਤੋਂ ਕੋਰਸ ਅਰ
ਉਦੀਐਂਟਿਡ ਸਕੀਮ ਅਧੀਨ ਨਾਨ-ਓਰੀਐਂਟਲ ਕੋਰਸ ਦਾ ਵਿਸ਼ਾ
ਸ਼ੁਰੂ ਕਰਨ ਦੀ ਪ੍ਰਵਾਨਗੀ ਅਕਾਦਮਿਕ ਕੌਂਸਲ ਦੀ ਪ੍ਰਵਾਨਗੀ ਦੀ ਆਸ ਵਿਚ ਦਿੱਤੀ ਜਾਂਦੀ ਹੈ। ਇਥੇ ਇਹ
ਸਪੱਸ਼ਟ ਹੈ ਕਿ ਕਾਲਜ ਯੂ.ਜੀ.ਸੀ. ਅਤੇ ਯੂਨੀਵਰਸਿਟੀ ਦੀਆਂ ਸ਼ਰਤਾਂ ਦੀ ਪਾਲਣਾ ਕਰਨ ਦਾ ਪਾਬੰਦ ਹੋਵੇਗਾ।

ਵਿਸ਼ਵਾਸਯੋਗਤਾ,

ਸਹਾਇਕ ਰਜਿਸਟਰਾਰ, ਕਾਲਜ

Harjeet Gajal
Principal
Sanskrit Govt. College
Salibzada Ajit Singh Nagar

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 2020.

Thanking you

Yours sincerely

Harjeet Arora

Principal
SMHS Govt. College
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 2020-21. 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 2020. Classes will commence from 1st september 2020 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.

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

LESSON PLAN FOR DIPLOMA COURSE (B.Sc. 2nd Year)

MONTH	TOPICS COVERED
6 th sep-10 th sep	1.Photochemistry Introduction, consequences of light absorption.
12 th - 17 th sep	The Jablonski diagram, Lambert beer law.
19 th -24 th sep	Grothus draper law, Photochemical reactions
26 th -30 th sep	2.Biochemistry Transport processes across cell membrane.
1 st oct-8 th oct	enzymes: nomenclature, enzyme kinetics & mech. Of action.
10 th -15 th oct	Mech. Of inhibition, Isozymes, Co-enzymes
17 th -22 nd Oct	3.Name reactions Aldol condensation, Claisen Schmidt condensation.
24 th -31 st oct	Grignard reaction, wurtz reaction, wurtz-fittig reaction. Diazotization reaction, Cannizzaro's reaction
1 st nov- 5 th nov	4.Antiulcer drugs- Classification of drugs and structure of omeprazole, pantoprazole, cimetidine
7 th -12 th nov	5.NSAIDS- Classification of drugs and structure of Aspirin, Ibuprofen.
14 th -19 th nov	Paracetamol, Nimesulide, Indomethacin, Diclofenac.
21 st -26 th nov	6.Antihistamines- Classification of drugs and structure of Diphenhydramine, Chlorphenhydramine
28 th -30 th nov	7.General and local Anaesthetic- Classification of drugs and structure of thiopentone and propofol, benzocaine
1 st dec-3 rd dec	8.Antiseptics and disinfectants- Classification and structure of povidone-iodine, benzalkonium chloride
5 th -10 th dec	9.Antihypertensive- Classification of drugs and structure of Propranolol, verapamil
12 th -17 th dec	10.Chemotherapeutic agents- Classification of antibiotics and structure of tetracycline, amoxicillin
19 th -24 th dec	11.AntiTB- Classification of drugs and structure of nicotinamide, ethionamide, isoniazid
26 th -31 st dec	12.Chromatography Thin Layer Chromatography- Introduction, Principle and Application
2 nd jan-7 th jan	Thin Layer Chromatography- Introduction, Principle and Application
9 th -14 th jan	Column Chromatography- Introduction, Principle and Application
16 th -21 st jan	Column Chromatography- Introduction, Principle and Application
23 rd -31 st jan	13.Advanced analytical techniques 1H NMR- General introduction, chemical shift, factors affecting chemical shift
1 st feb-4 th feb	X-Ray Crystallography- Principle
6 th -11 th feb	Bragg's law and application
13 th -18 th feb	IR spectroscopy- Principle
20 th -28 th feb	Characteristic absorption bands of some organic functional groups Carbonyl, C-C double bond, C-C triple bond, Phenyl ring
1 st mar-4 th mar	1.To carry out synthesis of Chalcone from Acetophenone and Benzaldehyde 2.Monitoring of Chalcone formation from TLC
6 th -11 th mar	3.To carry out synthesis of formation of epoxide of Chalcone

Harjeet Goyal

Principal

SMHS Govt. College

Sahibzada Ajit Singh Nagar

	4. Monitoring of epoxychalcone formation from Chalcone by TLC
13 th -18 th mar	5. To carry out acid catalization of epoxychalcone and monitoring of reaction by TLC
20 th -25 th mar	6. To carry out base catalization of epoxychalcone and monitoring of reaction by TLC 7. To determine the calcium content by complexometric titration using EDTA
27 th -31 st mar	8. Synthesis of Schiff's bases from Amine and Benzaldehyde
1 st apr-8 th apr	9. Column chromatography of Dye and spinach
10 th -15 th apr	10. Introduction to soxhlet apparatus (Demonstation) 11. Introduction to Clevenger apparatus (Demonstation)
17 th -22 nd apr	12. Various stereochemical (E & Z, Cis & Trans, R & S, Boat and Chair conformations of Cyclohexane)
24 th -29 th apr	13. General NMR spectrum problems

**SYLLABUS OF
DIPLOMA COURSE IN PHARMACEUTICAL CHEMISTRY**

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

Continued for session- 2019-20, 2020-21, 2021-22, 2022-23

3hrs/Week

Max. Time: 3 hrs.

Max. Marks: 40

Internal Assessment: 20

Total Marks: 60

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. Photochemistry

Introduction, consequences of light absorption, The Jablonski diagram, Lambert beer law, Grothus draper law, Photochemical reactions

2. Biochemistry

Transport processes across cell membrane, enzymes: nomenclature, enzyme kinetics & mech. Of action, Mech. Of inhibition, Isozymes, Co-enzymes

3. Name reactions

Aldol condensation, Claisen Schmidt condensation, Grignard reaction, wurtz reaction, wurtz-fittig reaction, Diazotization reaction, Cannizzaro's reaction

4. Antiulcer drugs- Classification of drugs and structure of omeprazole, pantoprazole, cimetidine

5. NSAIDs- Classification of drugs and structure of Aspirin, Ibuprofen, Paracetamol. Nimesulide, Indomethacin, Diclofenac.

6. Antihistamines- Classification of drugs and structure of Diphenhydramine. Chlorphenhydramine

SECTION-B

7. General and local Anaesthetic- Classification of drugs and structure of thiopentone and propofol, benzocaine

8. **Antiseptics and disinfectants**- Classification and structure of povidone-iodine, benzalkonium chloride
9. **Antihypertensive**- Classification of drugs and structure of Propranolol, verapamil
10. **Chemotherapeutic agents**- Classification of antibiotics and structure of tetracycline, amoxicillin
11. **AntiTB**- Classification of drugs and structure of nicotinamide, ethionamide, isoniazid
12. **Chromatography**
 - a. **Thin Layer Chromatography**- Introduction, Principle and Application
 - b. **Column Chromatography**- Introduction, Principle and Application
13. **Advanced analytical techniques**
 - a. **¹H NMR**- General introduction, chemical shift, factors affecting chemical shift
 - b. **X-Ray Crystallography**- Principle, Bragg's law and application
 - c. **IR spectroscopy**- Principle, Characteristic absorption bands of some organic functional groups Carbonyl, C-C double bond, C-C triple bond, Phenyl ring

LABORATORY

Practical Carries 30 marks +Internal assessment-10

1. To carry out synthesis of Chalcone from Acetophenone and Benzaldehyde
2. Monitoring of Chalcone formation from TLC
3. To carry out synthesis of formation of epoxide of Chalcone
4. Monitoring of epoxychalcone formation from Chalcone by TLC
5. To carry out acid catalization of epoxychalcone and monitoring of reaction by TLC
6. To carry out base catalization of epoxychalcone and monitoring of reaction by TLC
7. To determine the calcium content by complexometric titration using EDTA
8. Synthesis of Schiff's bases from Amine and Benzaldehyde
9. Column chromatography of Dye and spinach
10. Introduction to soxhlet apparatus (Demonstration)
11. Introduction to Clevenger apparatus (Demonstration)
12. Various stereochemical (E & Z, Cis & Trans, R & S, Boat and Chair conformations of Cyclohexane)
13. General NMR spectrum problems

Books Recommended

1. I.L. Finer, Organic Chemistry, Vol. I & II, The English Language Book Society, London and Longman Group Limited, London (Latest edition).
2. R.T. Morrison and R.N. Royd, Organic Chemistry, 6th Edition, Prentice Hall of India. Private Limited, New Delhi (Latest edition).
3. R. N. Acheson, An Introduction to the chemistry of Heterocyclic Compounds, Inter-Sciences Publishers, New York (Latest edition).
4. A. W. Martin, J. Swarbrick and A. cammarata, Physical Pharmacy, 4th Edition, Lea and Febiger, Philadelphia, 1993.
5. Remington: The Science and Practical of Pharmacy, Mack Publishing Co., USA, 2005.

6. M.J. Pelczar, Reid and Chan Microbiology, 4th Edition, Tata Mc Graw Hill Publishing Co., New Delhi.
7. S. J. Carter, Cooper and Gunn's Dispensing for Pharmaceutical Students, Pitman Medical Publishing Co., 12th Edition, Chapters 20 to 28.
8. A. L. Gennaro, Remington: The Science and Practice of Pharmacy, Lippincott Williams and Wilkins, USA, 2000, 108.
9. S.J. Carter Cooper and Gunn, Tutorial Pharmacy, 6th Edition, Pitman Medical, 1972.
10. W.B. hugo and A.D. Russel Pharmaceutical Microbiology, Blackwell Scientific Publications, Oxford, 1987.
11. McCabe and Smith, Unit Operations for Chemical Engineering, 6th Edition McGraw Hill N.Y.
12. G. Gunn and S.J. Carter and Gunn's Tutorial Pharmacy, Pitman Medical Publishing Co., London, 1972.
13. L.A. Lachman, H.A. Liberman and J.L. Kanig. The Theory and Practice of Industrial Pharmacy, 3rd Edition Lea and Febigar, Philadelphia, USA.
14. Badger Introduction to Chemical Engineering McGraw Hill Co., Interracial Student Edition (Latest Edition).
15. E.A. Rowllins, Bentley's Text book of Pharmaceutics, Bailliere Tindall and Cox, London (Latest Edition).
16. K. Sambamurthy, Pharmaceutical Engineering New Age Int. Publishers, New Delhi, 2003.
17. T.E. Wallis, Textbook of Pharmacognosy, J & A Churchill Ltd. London, 1967.
18. W.C. Evans, Trease and Evans Pharmacognosy (15th Ed.), W.B. Saunders Limited, 2002.
19. V.E. Tyler, L.R. Brady & J.E. Robbers, Pharmacognosy (9th Edition) K.M. Varghese Company Bombay, India 1988.
20. C.R. Craig and R.E. Sttital Modern Pharmacology, Little Brown and Company, 6th Edition (2003).
21. Goodman & Gilman's "The Pharmacological basis of Therapeutics", 9th edition, Eds. A.G. Gilman, J.G. Hardman, L.E. Limbird, P.B. Molinoff, R.W. Ruddon, Macmillian publishing Co., Inc (2001).
22. B.G. Katzung, Basic and Clinical Pharmacology, Lange Medical Publications, 8th Ed. (2000).

Harjeet Gargal
Principal
Shri Govt. College
Sambzada Ajit Singh Nagar

GOVERNMENT COLLEGE , SAHIBZADA AJIT SINGH NAGAR. MOHALI										
LIST OF STUDENTS WHO PAID FEES FOR EXAMINATION OF ADD-ON DIPLOMA COURSE (2020-2021)										
S.No.	Reg. No.	Roll. No.	Name	Father's Name	Mother's Name	Category	Sex	Medium	Course	Fees
1	612-19-263	2761	Atul Gupta	Mukesh Kumar	Ranjna Devi	General	M	English	Diploma Course	600
2	612-19-233	2762	Chahat	Lekh Raj	Surjit Kaur	General	F	English	Diploma Course	600
3	612-19-1059	2783	Deepak	Shambhu Kushwaha	Shobha Devi		F	English	Diploma Course	600
4	612-19-	2763	Geetanjali	Badri Bhatt	Meena Bhatt	General	M	English	Diploma Course	600
5	612-19-226	2764	Gurpreet Singh	Ravinder Singh	Manjit Kaur	SC	M	English	Diploma Course	600
6	612-19-250	2765	Gurwinder Singh	Amarjeet Singh	Kuldeep Kaur	SC	M	English	Diploma Course	600
7	612-19-251	2766	Harjot Singh	Ranjit Singh	Tajinder kaur	BC	M	English	Diploma Course	600
8	612-19-245	2767	Jagjeet Singh	Bhupinder Singh	Surjeet Kaur	BC	M	English	Diploma Course	600
9	612-19-	2768	jagjit Singh	Balbair Singh	Charanjit kaur	BC	M	English	Diploma Course	600
10	612-19-227	2769	Jaspreet Kaur	Jagtar Singh	Harinder Kaur		F	English	Diploma Course	600
11	612-19-236	2770	Jaspreet Kaur	Balbair Singh	Charanjit kaur		F	English	Diploma Course	600
12	612-19-237	2771	Jaspreet Kaur	Jasvir Singh	Kulwinder Kaur	SC	F	English	Diploma Course	600
13	612-19-252	2772	Nirmal Kaur	Ajaib Singh	Gurmeet Kaur	SC	F	English	Diploma Course	600
14	612-19-239	2773	Paramjeet Kaur	Bhag Singh	kashmir Kaur	General	F	English	Diploma Course	600
15	612-19-229	2774	Preeti	Surinder Singh	Sarla Devi	SC	F	English	Diploma Course	600
16	612-19-230	2775	Pushpa Rani	Kuldip Singh	Anita Devi	SC	F	English	Diploma Course	600
17	612-19-1056	2776	Sanjana Kumari	Prem kumar	Raj Kumari	General	F	English	Diploma Course	600
18	612-19-260	2777	Shahina Parveen	Sultan Mohammad	Kaki Devi	BC	F	English	Diploma Course	600
19	612-19-241	2778	Simran Kumari	Chander dev	Indrawati Devi	BC	F	English	Diploma Course	600
20	612-19-248	2779	Simranjeet Singh	Gurmail Singh	Asha Rani	OBC	M	English	Diploma Course	600
21	612-19-231	2780	Sukhdeep Kaur	Bhinder Singh	Kuljeet Kaur	SC	F	English	Diploma Course	600
22	612-19-1061	2784	Vivek Singh	Lachhman Singh	jaswinder Kaur		M	English	Diploma Course	600
23	612-19-242	2781	Sunaina Rani	Mamraj	Sukhwinder Kaur	BC	F	English	Diploma Course	600
24	612-19-1060	2782	Shubham Kumar	Sanjay Bhardwaj	Kiran Devi		M	English	Diploma Course	600

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Principal,
SMHPSSCV, Govt. College,
Sahibzada Ajit Singh Nagar.

Atul
Chahat
Deepak
Geetanjali
Gurpreet
Gurwinder
Harjot
Jagjeet
jagjit
Jaspreet Kaur
Jaspreet Kaur
Jaspreet Kaur
Nirmal
Paramjeet Kaur
Preeti
Pushpa Rani
Sanjana Kumari
Shahina Parveen
Simran Kumari
Simranjeet Singh
Sukhdeep Kaur
Vivek
Sunaina
Shubham Kumar

ਸੈਟਰ ਨੰਬਰ.....
ਪਰੀਖਿਅਕ ਦੁਆਰਾ ਛੇ ਮਹੀਨਿਆਂ ਲਈ
ਰੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਰਚੀ.

ਪ੍ਰਤਿ-ਪਰਚੀ
ਪਰੀਖਿਆ BSc II, Sem II, 2021 (May)
ਵਿਸ਼ਾ Pharmaceutical Chemistry
ਪਰਚਾ Diploma Course II
(Theory)
ਅਧਿਕਤਮ ਅੰਕ 40
ਪਾਸ ਅੰਕ 14

- 1) Atul
- 2) Chakal
- 3) Gulerjali
- 4) Gupreet
- 5) Gursinder
- 6) Harjot
- 7) Jagjeet
- 8) Jagjit
- 9) Jaspreet (66)
- 10) Jaspreet (65)
- 11) Jaspreet (65)
- 12) Nirmal
- 13) Paranjit
- 14) Preet
- 15) Pushpa
- 16) Sanjaya
- 17) Shashina
- 18) Simran
- 19) Simranjeet
- 20) Sukhdip

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2773	24
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2775	30
2776	17
2777	28
2778	26
2779	23
2780	30
ਪਾਸ 20	ਫੋਲੋ -

Harjeet Singh
Principal
Sambhoda College
Sambhoda Ajit Singh Nagar

ਪਰੀਖਿਅਕ ਦੇ ਪੂਰੇ ਹਸਤਾਖਰ

ਪਰੀਖਿਅਕ ਦੁਆਰਾ ਛੇ ਮਹੀਨਿਆਂ ਲਈ
ਰੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਰਚੀ.

परीक्षा BSc II Sem IV 2021 (May)

पठन Diploma Course (Theory)

ਪਾਸ ਅੰਕ 14

ਪਾਸ 4 ਫੈਲੁ —

ਪਰਗਿਕਿਅਕ ਦੇ ਪੂਰੇ ਹਸਤਾਖਰ

- 21) Luncing
- 22) Shurtham.
- 23) Deepak
- 24) Vivek.

Harjeet Singh

Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

ਸੈਟਰ ਨੰਬਰ.....

ਪਰੀਖਿਅਕ ਦੁਆਰਾ ਛੇ ਮਹੀਨਿਆਂ ਲਈ
ਰੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਰਚੀ.

ਪ੍ਰਤਿ-ਪਰਚੀ

ਪਰੀਖਿਆ BSc II, Sem II, 2021 (ma)

ਵਿਸ਼ਾ Pharmaceutical Chemistry

ਪਰਚਾ Diploma Course (Internal Assessment)

ਅਧਿਕਤਮ ਅੰਕ 20

ਪਾਸ ਅੰਕ 07

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2771	17
2772	15
2773	15
2774	14
2775	18
2776	14
2777	17
2778	15
2779	15
2780	18
ਪਾਸ 20	ਫੇਲ੍ਹ —

Harjeet Arjial
Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

ਪਰੀਖਿਅਕ ਦੇ ਪੂਰੇ ਹਸਤਾਖਰ

ਪਰੀਖਿਅਕ ਦੁਆਰਾ ਛੇ ਮਹੀਨਿਆਂ ਲਈ
ਚੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਰਚੀ.

परीक्षा BSc II, Sem IV, 2021 (May)

विज्ञान Pharmaceutical Chemistry

ਪਰਾ Diploma Course (Intermediate)
Assessment

ਅਧਿਕਤਮ ਅੰਕ..... 20

ਪਾਸ ਅੰਕ 07

ਪਾਸ 9 ਫੇਲ -

Hareesh Agrawal
Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

ਪਰਿਵਿਅਕ ਦੇ ਪੂਰੇ ਹਸਤਾਖਰ

ਸੈਂਟਰ ਨੰਬਰ.....

ਪਰੀਖਿਅਕ ਦੁਆਰਾ ਛੇ ਮਹੀਨਿਆਂ ਲਈ
ਰੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਰਚੀ.

ਪ੍ਰਤਿ-ਪਰਚੀ

ਪਰੀਖਿਆ B.Sc II, Sem IV (May)

ਵਿਸ਼ਾ Pharmaceutical Chemistry

ਪਰਚਾ Diploma Course
(Practical Theory)

ਅਧਿਕਤਮ ਅੰਕ 30

ਪਾਸ ਅੰਕ 11

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2771	26
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2774	22
2775	29
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2778	27
2779	25
2780	29

ਪਾਸ 20 ਫੈਲੂ —

Harjeet Gajral
Principal
S.M.S Govt. College
Sahibzada Ajit Singh Nagar

ਪਰੀਖਿਅਕ ਦੇ ਪੂਰੇ ਹਸਤਾਖਰ

ਪ੍ਰਤਿ-ਪਰਚੀ

ਪਰੀਖਿਆ BSc II, Sem IV / 2021 (May)

ਵਿਸ਼ਾ Pharmaceutical Chemistry

ਪਰਚਾ Diploma Course (Practical)

ਅਧਿਕਤਮ ਅੰਕ 30

ਪਾਸ ਅੰਕ 11

Harjeet Arjial
 10/11/2020
 Sahibzada Ajit Singh Nagar

PLUP(O)-9095-25000-10-14

ਸੈਟਰ ਨੰਬਰ.....

ਪਰੀਖਿਅਕ ਦੁਆਰਾ ਛੇ ਮਹੀਨਿਆਂ ਲਈ
ਰੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਰਚੀ.

ਪ੍ਰਤਿ-ਪਰਚੀ

ਪਰੀਖਿਆ BSc II, Sem IV / 201 (May)

ਵਿਸ਼ਾ Pharmaceutical (chem.)

ਪਰਚਾ Diplomat course (Practical)
(Int. Ass. amount)

ਅਧਿਕਤਮ ਅੰਕ 10

ਪਾਸ ਅੰਕ 4

ਰੋਲ ਨੰਬਰ	ਅੰਕ
2761	6
2762	6
2763	7
2764	6
2765	7
2766	6
2767	7
2768	7
2769	8
2770	7
2771	6
2772	7
2773	8
2774	6
2775	8
2776	8
2777	7
2778	7
2779	8
2780	8

ਪਾਸ 20 ਫੋਲ

Harjeet Gajjar
Govt. College
Sambzada Ajit Singh Nagar

ਪਰੀਖਿਅਕ ਦੇ ਪੂਰੇ ਹਸਤਾਖਰ

ਸੈਂਟਰ ਨੰਬਰ.

ਪਰੀਖਿਅਕ ਦੁਆਰਾ ਦਿੱਤੇ ਮਹੀਨਿਆਂ ਲਈ
ਰੱਖਣ ਤੇ ਸੰਭਾਲਣ ਲਈ ਪ੍ਰਤਿ ਪਾਹੀ

ਪ੍ਰਤਿ-ਪਰਚੀ

ਪਰੀਖਿਆ BK II, Sem IV / 2021 (May)

विज्ञान Pharmacology (chemistry)

परचा Diploma Course (Practical
Int. Assessment).

ਅਧਿਕਤਮ ਅੰਕ..... 10

ਪਾਸ ਅੰਕ 4

[illegible]

Harjeet Arjial
Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

ਪਰਿਵਾਰਿਕ ਦੇ ਪੂਰੇ ਹਸਤਾਖਰ

GOVERNMENT COLLEGE, SAHIBZADA AJIT SINGH NAGAR, MOHALI									
LIST OF STUDENTS WHO PAID FEES FOR EXAMINATION OF ADD-ON DIPLOMA COURSE (2020-2021)									
S.No.	Reg. No.	Roll. No.	Name	Father's Name	Mother's Name	Category	Sex	Medium	Course
1	612-19-263	2761	Atul Gupta	Mukesh Kumar	Ranjana Devi	General	M	English	Diploma Course
2	612-19-233	2762	Chahat	Lekh Raj	Surjit Kaur	General	F	English	Diploma Course
3	612-19-1059	2783	Deepak	Shambhu Kushwaha	Shobha Devi	General	F	English	Diploma Course
4	612-19-	2763	Geetanjali	Badri Bhatt	Meena Bhatt	General	M	English	Diploma Course
5	612-19-226	2764	Gurpreet Singh	Ravinder Singh	Manjit Kaur	General	M	English	Diploma Course
6	612-19-250	2765	Gurwinder Singh	Amarjeet Singh	Kuldeep Kaur	SC	M	English	Diploma Course
7	612-19-251	2766	Harjot Singh	Ranjit Singh	Tajinder kaur	SC	M	English	Diploma Course
8	612-19-245	2767	Jagjeet Singh	Bhupinder Singh	Surjeet Kaur	BC	M	English	Diploma Course
9	612-19-	2768	Jagjit Singh	Balbir Singh	Charanjit kaur	BC	M	English	Diploma Course
10	612-19-227	2769	Jaspreet Kaur	Jagtar Singh	Harinder Kaur	BC	M	English	Diploma Course
11	612-19-236	2770	Jaspreet Kaur	Balbir Singh	Charanjit kaur	SC	F	English	Diploma Course
12	612-19-237	2771	Jaspreet Kaur	Jasvir Singh	Kulwinder Kaur	SC	F	English	Diploma Course
13	612-19-252	2772	Nirmal Kaur	Ajaib Singh	Gurmeet Kaur	SC	F	English	Diploma Course
14	612-19-239	2773	Paramjeet Kaur	Bhag Singh	kashmir Kaur	General	F	English	Diploma Course
15	612-19-229	2774	Preeti	Surinder Singh	Sarla Devi	SC	F	English	Diploma Course
16	612-19-230	2775	Pushpa Rani	Kuldip Singh	Anita Devi	SC	F	English	Diploma Course
17	612-19-1056	2776	Sanjana Kumari	Prem kumar	Raj Kumari	General	F	English	Diploma Course
18	612-19-260	2777	Shahina Parveen	Sultan Mohammad	Kaki Devi	BC	F	English	Diploma Course
19	612-19-241	2778	Simran Kumari	Chander dev	Indrawati Devi	BC	F	English	Diploma Course
20	612-19-248	2779	Simranjeet Singh	Gurmali Singh	Asha Rani	OBC	M	English	Diploma Course
21	612-19-231	2780	Sukhdeep Kaur	Bhinder Singh	Kuljeet Kaur	SC	F	English	Diploma Course
22	612-19-1061	2784	Vivek Singh	Lachman Singh	Jaswinder Kaur	BC	M	English	Diploma Course
23	612-19-242	2781	Sunaina Rani	Mamraj	Sukhwinder Kaur	BC	F	English	Diploma Course
24	612-19-1060	2782	Shubham Kumar	Sanjay Bhardwaj	Kiran Devi	BC	M	English	Diploma Course

Principal,
SMHPSSCV, Govt. College,
Sahibzada Ajit Singh Nagar.

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

Final Theory Examination

UGC Add on Course in Pharmaceutical Chemistry

Course: Diploma course in Pharmaceutical Chemistry

Subject: Pharmaceutical Chemistry

Session: 2020-2021

Max. Marks: 40

Max. Time: 2:00 hrs

SECTION A

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

Q. 1) Explain

a) Isozymes

b) Co-enzymes

Q. 2) What is chemical shift? What are the factors affecting chemical shift?

Q. 3) Explain (in detail) any two AntiTB drugs.

Q. 4) Explain the kinetics and mechanism of action of enzymes.

Q. 5) Explain

a) Jablonski diagram

b) Lambert Beer law

Section A, B, C, D and E carries 2 long answer type questions of 5 marks each. Attempt only one from each section.

SECTION B

Q. 6) What are NSAIDS drugs? Explain any two NSAIDS drugs in detail.

OR

Q. 7) What are Chemotherapeutic agents and give classification of antibiotic. Give structure of

a) Tetracycline

b) Amoxicillin

Harjeet Goyal

Principal

S.A.S. Govt. College
S.A.S. Nagar

SECTION C

Q. 8) Explain general and local anaesthetic drugs. Classify them by giving examples of each with structure.

OR

Q. 9) Explain the following named reactions:

- a) Aldol condensation
- b) Cannizzaro's reaction
- c) Diazotization reaction
- d) Claisen-Schmidt condensation

SECTION D

Q. 10) Explain IR spectroscopy in detail.

OR

Q. 11) Explain in detail:

- a) Thin layer chromatography
- b) Column chromatography

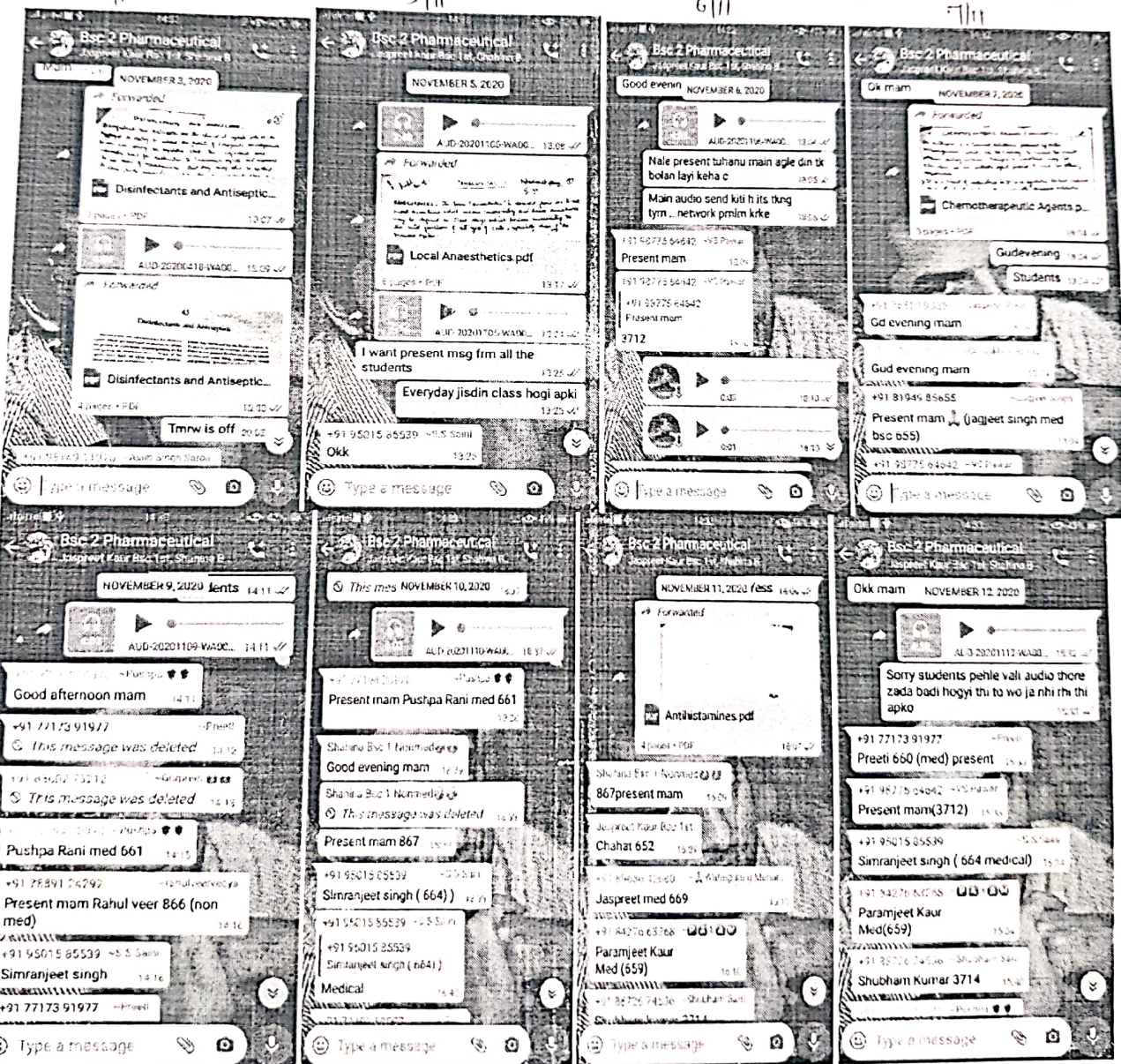
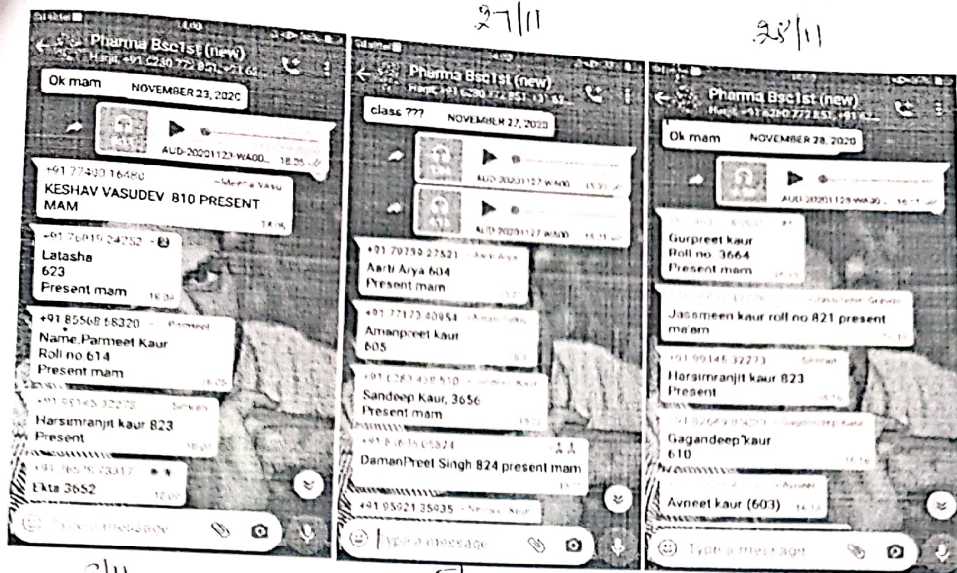
SECTION E

Q. 12) Explain in detail any two anti hypertensive agents and anti histamine agents with structures.

OR

Q. 13) Explain X-Ray chromatography with its principle and its applications. What is Bragg's law?

Harjeet Goyal
Principal
SANS Govt. College
Sambzada Ajit Singh Nagar



9/11

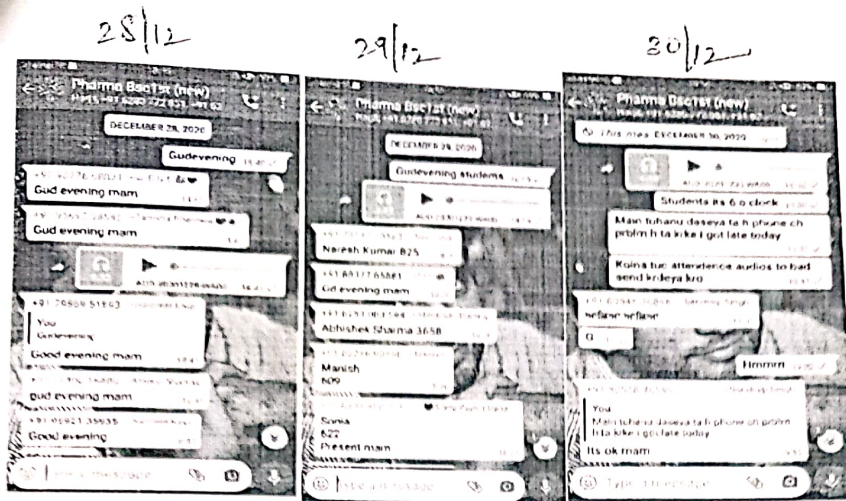
10/11

11/11

12/11

Hareet Arora
Principal
Saras Govt. College
Sahibzada Ajit Singh Nagar

Hareet Arora



BSc II



Dim - VP

Harjeet Arjyal

P. K. Singh

Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

Feb 2021

Diploma Course in
Pharmaceutical Chemistry.

BSc 2nd year

ਸਟਾਟਿਸਟਿਕਸ ਡਾ. ਸਿ. ਵਿ. ਨੰ: 52

February.

January 2021

ਗੁਜਰੀ ਰਜਿਸਟਰ

ਵਾਲਾ

ਸਟ	ਸਟ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
851	Atul	.	P	.	P	P	P	P	P	P	.	P	P	P	P	P	P	P
652	Ushat	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
653	Geetanjali	P	P	P	.	P	P	.	.	P	.	P	P	P	P	P	.	P
654	Jaspreet Singh	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
857	Gurwinder	P	P	.	P	P	P	P	.	P	.	P	P	.	.	P	P	P
858	Harjot	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
655	Jagjeet	P	P	P	P	P	P	P	.	P	P	.	P	P	P	P	P	P
869	Jagjit	.	.	.	.	.	.	.	.	.	.	.	.	.	.	P	.	P
669	Jaspreet Kaur	P	P	P	P	P	P	P	.	.	.	.	P	P	P	P	P	P
657	Jaspreet Kaur	P	P	P	P	P	P	P	.	P	P	P	P	P	P	P	P	P
656	Jaspreet Kaur	.	P	P	P	P	.	.	P	P	P	P	.	P	.	P	.	P
872	Kajal	P	P	P	P	P	P	P	P	.	.	.	.	.	.	.	.	.
870	Nikhmal	P	P	P	P	P	P	.	.	.	.	P	P	P	P	P	P	P
659	Paramjeet	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
660	Preeti	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
661	Pushpa	P	P	P	P	P	P	P	.	P	P	P	P	P	P	P	P	P
866	Rahulveer	P	P	P	P	P	P	P	P	P	.	P	.	P	.	.	P	P
3708	Sanjana	P	.	P	.	P	P	P	P	P	P	P	P	P	P	P	P	P
867	Shahina	.	P	P	P	P	P	P	.	P	P	P	P	P	.	P	P	P
663	Simran	P	P	P	P	P	P	.	P	P	P	P	P	P	P	P	P	P
664	Simranjeet	P	P	P	P	P	P	P	P	P	P	P	P	P	P	.	P	P
665	Sukhdeep	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
667	Simaina	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
	Sukhpreet	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Karanveer	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3714	Shubham	P	.	P	P	P	.	.	.	P	P	P	.	.	.	P	.	P
	Mannjeet	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Principal

College

ਸਟੀਮਰੀ ਡਾ. ਸਿ. ਵਿ. ਨੰ. 52

Bsc II Ind year (Pharmaceutical Chemistry)

ਮਾਸੀਕੀ ਰਜਿਸਟਰ - January 2024

ਦਾਖਲਾ

ਮਾਸੀਕੀ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Practical	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Deepak	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3712 Nirek	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Arvind	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Sachin	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
658 Kianu	P	P	P	•	P	P	P	•	P	P	•	•	•	P	P	•	•

Principal
SMHS Govt. College
Balmara, Jyoti Singh Nagar

Diploma course in Pharmaceutical
Chemistry -

BSc IInd year

March, 2021

	1/3/2021	2/3/2021	3/3/2021	4/3/2021	5/3/2021	6/3/2021	8/3/2021	9/3/2021	10/3/2021	12/3/2021	17/3/2021	19/3/2021	24/3/2021	30/3/2021
851 Atul	P	P	P	P	P	P	P	P	P	P	P	P	P	P
652 Chahat	.	.	P	P	P	P	P	P	.	.	.	P	P	P
653 Geetanjali	P	P	P	P	P	P	P	P	P	.	P	P	P	P
654 Gurpreet	P	P	P	P	P	P	P	P	P	.	P	P	P	P
857 Gurwinder	.	.	.	P	P	P	P	P	.	.	P	.	P	.
858 Harjot	P	P	P	P	P	P	P	P	P	P	.	P	P	P
655 Jagjeet	P	P	P	P	.	.	P	.	P	.	P	P	P	P
869 Jagjit	.	.	P	.	P	P	P	P	P	.	.	P	.	.
669 Jaspreet	.	.	P	P	P	P	P	.	P	P	P	P	P	P
657 Jaspreet	P	P	P	P	P	P	P	P	P	.	.	P	P	P
656 Jaspreet	P	.	P	P	P	P	P	P	P	.	.	P	P	P
872 Kajal	.	.	.	.	.	.	.	.	.	.	.	.	.	.
870 Nikhita	P	P	P	P	P	P	P	P	.	.	.	P	P	.
659 Parvaneet	P	P	P	P	P	P	P	P	.	.	P	.	P	P
660 Preeti	P	P	P	P	P	P	P	P	P	P	P	P	P	P
661 Pooja	P	.	P	P	P	P	P	P	P	.	P	P	P	P
866 Rahulvir	.	P	P	P	P	.	P	.	P	.	.	.	P	P
3708 Sanyana	.	P	P	P	P	P	P	P	.	.	.	.	P	.
867 Shakina	P	P	P	P	P	P	P	P	P	P	P	P	P	P
663 Simran	P	P	P	P	P	P	P	P	P	.	P	P	P	P
664 Simranjeet	P	.	P	P	P	P	P	P	P	P	.	P	P	P
665 Sukhdeep	.	.	P	P	P	P	P	P	P	.	P	P	P	P
667 Sunaina	.	.	P	.	P	P	P	P	P	.	P	P	P	P
3714 Shubham	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3712 Vivek	.	.	.	P	P	P	P	P	.	.	.	.	.	.
658 Kiran	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Harjot Singh
Principal
Guru Nanak College
Nagar

[Signature]

upcoming course.

BSc 1st year

April 2021

	1/4	2/4	3/4	4/4	5/4	6/4	7/4	8/4	9/4	10/4	11/4	12/4	13/4	14/4	15/4	16/4	17/4	18/4	19/4	20/4	21/4	22/4	23/4	24/4
652	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
653	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
654	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
655	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
656	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
657	P	P	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
658	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
659	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
660	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
661	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
663	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
664	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
665	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
667	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
669	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
851	P	P	P	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
857	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
858	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
866	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
869	.	.	.	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
870	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
872	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
867	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3708	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3712	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3714	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Has been signed
Principal
SriMS Govt. College
Sahibzada Ajit Singh Nagar

[Signature]

For Mid year

Diploma course in
Pharmaceutical Chemistry

2021 May

		6/3/2021	7/3/2021	11/3/2021
851	Ash Gupta	P	P	P
652	Chahal	P	P	P
853	Gaekwad	P	P	P
654	Gurpreet Singh	P	P	P
857	Gurwinder Singh	P	P	P
858	Harjeet Singh	P	P	P
655	Jaspreet Singh	P	P	P
861	Jaspreet Singh	P	P	P
664	Jaspreet Kaur	P	P	P
657	Jaspreet Kaur	P	P	P
658	Jaspreet Kaur	P	P	P
870	Neha Kaur	P	P	P
659	Parvinder Kaur	P	P	P
660	Preeti	P	P	P
661	Pooja	P	P	P
3708	Ranjana Kaur	P	P	P
867	Shubham Kaur	P	P	P
663	Simran Kaur	P	P	P
664	Simranjit Singh	P	P	P
665	Sukdeep Kaur	P	P	P
667	Sumaira Kaur	P	P	P
3714	Shubham Kumar	P	P	P
	Deepak	P	P	P
3712	Vinod Singh	P	P	P
658	Kiran	P	P	P
866	Rahulver	P	P	P

Harjeet Singh
Principal
SMHS Govt. College
Sahibzada Ajit Singh Nagar

For all