



# PUNYASHLOK AHILYADEVI HOLKAR SOLAPUR UNIVERSITY, SOLAPUR

## EXAM OF 2022 SEMESTER PATTERN EXAMINATION

### FINAL PROGRAM OF M.SC.

- |                              |                          |                         |
|------------------------------|--------------------------|-------------------------|
| [1] ORGANIC CHEMISTRY        | [2] INDUSTRIAL CHEMISTRY | [3] POLYMER CHEMISTRY   |
| [4] PHYSICAL CHEMISTRY       | [5] ANALYTICAL CHEMISTRY | [6] INORGANIC CHEMISTRY |
| [7] PHARMACEUTICAL CHEMISTRY | [8] MEDICAL CHEMISTRY    |                         |

### SEM- I TO IV OCT/NOV-2022 EXAMINATION TO BE HELD IN FEB.-2023

1. Student should see their Seat No. and Name in the Name list and mistakes if any should be communicate to this office immediately. All candidates are requested to confirm their Examination Seat No. as well as place of examination on the Notice Board of the University/College mentioned below at least two days before the date of Examination. The candidate should write correct Seat No. on each answer book. If candidate writes wrong Seat No. on answer Book the performance of such subject will not be considered.
2. Candidate are requested to be present at their respective places of the Examination **FIFTEEN MINUTES** before the time starting of the first paper and **TEN MINUTES** before the time starting of each subsequent paper. Candidates are forbidden to take any book or paper into the Examination Hall.
3. **Important Note:** Code Numbers given in the Bracket are Computer Code of respective Subjects, Students should mention these Code Numbers on Answer Books with Name of the Subject. Also write these Code Numbers on JSR (Junior Supervisor Report) and related documents.
4. All the Candidates are asked to follow the timely instructions given by University in accordance with the examinations methodology.
5. As per the Rights of Person with Disabilities Act-2016 the persons with Disabilities are given 20 minutes extra for one per hour for the Online/Offline exam. (केंद्र शासनाच्या अपंग व्यक्ती अधिकार अधिनियम २०१६ मधील तरतूदीनुसार अपंग विद्यार्थ्यांना ऑनलाईन व ऑफलाईन परीक्षेमध्ये सर्वसाधारण विद्यार्थ्यांपेक्षा १ तासाला कमीत कमी २० मिनीट इतका वेळ वाढवून देण्यास सर्वानुमते मान्यता देण्यात आली.)

Sr. No.	Center	College Abbreviation	Place
1	Solapur	PAHSUS	University Campus
2		SAN	Sangmeshwar College
3	Pandharpur	KBP	KarmveerBhauraoPatilMahavidhyalaya
4	Barshi	SMB	Shri Shivaji Mahavidhyalaya
5	Sangola	SANG	Sangola College, Sangola

[1]Organic Chemistry	[2]Industrial Chemistry	[3]Polymer Chemistry	
[4]Physical Chemistry	[5]Analytical Chemistry	[6]Inorganic Chemistry	
[7]Pharmaceutical Chemistry [8] Medical Chemistry			
<b>Sem – I ( New w.e.f. June 2020)</b> (CBCSPattern-2020)			
<b>Day &amp;Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m.</b>
<b>Monday</b> <b>13/02/2023</b>	HCT-101	1	Inorganic Chemistry – I (MSC05101)
<b>Tuesday</b> <b>14/02/2023</b>	HCT-102	2	Organic Chemistry – I (MSC05102)
<b>Wednesday</b> <b>15/02/2023</b>	HCT-103	3	Physical Chemistry – I (MSC05103)
<b>Thursday</b> <b>16/02/2023</b>	SCT-104A	4	A) Analytical Chemistry – I (MSC05108)
	SCT-104B	5	OR B) Chemistry in Life Sciences (MSC05109)

[1]Organic Chemistry	[2]Industrial Chemistry	[3]Polymer Chemistry	
[4]Physical Chemistry	[5]Analytical Chemistry	[6]Inorganic Chemistry	
[7]Pharmaceutical Chemistry [8] Medical Chemistry			
<b>Sem – II (New w.e.f. Nov 2020)</b> (CBCS Pattern-2020)			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 11:00 p.m. to 2:00 p.m.</b>
<b>Monday</b> <b>20/02/2023</b>	HCT-201	6	Inorganic Chemistry – II (MSC05201)
<b>Tuesday</b> <b>21/02/2023</b>	HCT-202	7	Organic Chemistry – II (MSC05202)
<b>Wednesday</b> <b>22/02/2023</b>	SCT-203	8	A) Physical Chemistry – II (MSC05206)
	SCT-204	9	OR B) Green Chemistry (MSC05207)
<b>Saturday</b> <b>25/02/2023</b>	OET	---	[Choose from list]

<b>Organic Chemistry Sem– III (New w.e.f. June 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 11:00 p.m. to 2:00p.m
Monday 13/02/2023	HCT 301	10	Advanced Organic Chemistry – I (MSC07301)
Tuesday 14/02/2023	HCT302	11	Chemistry of Bioactive Heterocycles (MSC07302)
Wednesday 15/02/2023	SCT301	12	A) Photochemistry and Pericyclic Reactions (MSC07306)
	SCT302	13	OR B) Drug Development (MSC07307)
Friday 17/02/2023	OET	--	[Choose from list]

<b>Organic Chemistry Sem– IV (New w.e.f. Nov 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 3:00 p.m. to 6:00 p.m.
Monday 20/02/2023	HCT 401	14	Advanced Organic Chemistry –II (MSC07401)
Tuesday 21/02/2023	HCT 402	15	Modern Organic Chemistry (MSC07402)
Wednesday 22/02/2023	HCT 403	16	Chemistry of Natural Products (MSC07403)
Thursday 23/02/2023	SCT 404A	17	A) Medicinal Chemistry (MSC07408)
	SCT 404B	18	OR B) Pharmaceutical Technology (MSC07409)

<b>Organic Chemistry Sem– IV (w.e.f. Nov 2017)</b> (CBCS Pattern-2016) (Old up to OCT-2022)			
Day & Date	Paper No.	Sr. No.	Subject Time: 3:00 p.m. to 6:00 p.m
Monday 20/02/2023	HCT 401	19	Advanced Organic Chemistry-II (21714-01)
Tuesday 21/02/2023	HCT 402	20	Stereochemistry (21714-02)
Wednesday 22/02/2023	HCT 403	21	Chemistry of Natural Products (21714-03)
Thursday 23/02/2023	SCT 404A	22	A) Applied Organic Chemistry (21714-07)
	SCT 404B	23	OR B) Chemical Industries (21714-08)

<b>Industrial Chemistry Sem– III ( New w.e.f. June 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp;Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 11:00 p.m. to 2:00p.m</b>
<b>Monday</b> <b>13/02/2023</b>	HCT 301	24	Unit operations of chemical Engineering (MSC06301)
<b>Tuesday</b> <b>14/02/2023</b>	HCT302	25	Unit processes in Chemical technology (MSC06302)
<b>Wednesday</b> <b>15/02/2023</b>	SCT301	26 27	Instrumental Analysis-I (MSC06307) OR Instrumental Analysis –II (MSC06308)
<b>Friday</b> <b>17/02/2023</b>	OET	--	<b>[Choose from list]</b>

<b>Industrial Chemistry Sem– IV (New w.e.f. Nov 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday</b> <b>20/02/2023</b>	HCT 401	28	Chemical Industries (MSC06401)
<b>Tuesday</b> <b>21/02/2023</b>	HCT 402	29	Pollution Monitoring and Control (MSC06402)
<b>Wednesday</b> <b>22/02/2023</b>	HCT 403	30	Nanomaterial and its Characterization (MSC06403)
<b>Thursday</b> <b>23/02/2023</b>	SCT 404A	31	A) Industrial Management and Material Balance (MSC06408)
	SCT 404B	32	OR B) Advanced Topics in Industrial Chemistry-II (MSC06409)

<b>Industrial Chemistry Sem– IV (w.e.f. Nov 2017)</b> <b>(CBCS Pattern-2016) (Old up to OCT-2022)</b>			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday</b> <b>20/02/2023</b>	HCT 401	33	Chemical Industries (21734-01)
<b>Tuesday</b> <b>21/02/2023</b>	HCT 402	34	Pollution Monitoring and Control (21734-02)
<b>Wednesday</b> <b>22/02/2023</b>	HCT 403	35	Nanotechnology and Instrumental Analysis (21734-03)
<b>Thursday</b> <b>23/02/2023</b>	SCT 404A	36	<b>A)</b> Industrial Management and Material Balance (21734-08)
	SCT 404B	37	<b>OR</b> <b>B)</b> Chemical Industries-II (21734-09)

<b>Polymer Chemistry Sem – III (New w.e.f. June 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 11:00 p.m. to 2:00p.m
Monday 13/02/2023	HCT 301	38	Fundamentals of Feedstocks and Polymers (MSC05301)
Tuesday 14/02/2023	HCT302	39	Morphology and Physical Chemistry of Polymers (MSC05302)
Wednesday 15/02/2023	SCT301	40	A)Basic Concepts of Polymerization (MSC05306)
	SCT302	41	OR B)Natural and Synthetic Textile fibers and Resins (MSC05307)
Friday 17/02/2023	OET	--	[Choose from list]

<b>Polymer Chemistry Sem– IV (New w.e.f. Nov 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 3:00 p.m. to 6:00 p.m
Monday 20/02/2023	HCT 401	42	Step-growth Polymers (MSC05401)
Tuesday 21/02/2023	HCT 402	43	Stereoregular Polymers and Modern Polymerisation Methods (MSC05402)
Wednesday 22/02/2023	HCT 403	44	Selected Topics in Polymers (MSC05403)
Thursday 23/02/2023	SCT 401	45	A) Processing Technology and Polymer Properties (MSC09408)
	SCT 402	46	OR B) Inorganic and Biopolymers (MSC09409)

<b>Polymer Chemistry Sem– IV (w.e.f. Nov 2017)</b> (CBCS Pattern-2016) (Old up to OCT-2022)			
Day & Date	Paper No.	Sr. No.	Subject Time: 3:00 p.m. to 6:00 p.m
Monday 20/02/2023	HCT 401	47	Step-growth of Polymers (21724-01)
Tuesday 21/02/2023	HCT 402	48	Stereoregular Polymers and Modern Polymerisation Methods(21724-02)
Wednesday 22/02/2023	HCT 403	49	Selected Topics in Polymers (21724-03)
Thursday 23/02/2023	SCT 401	50	A) Processing Technology and Polymer Properties(21724-08)
	SCT 402	51	OR B) Inorganic and Biopolymers(21724-09)

<b>Physical Chemistry Sem – III (New w.e.f. June 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 11:00 p.m. to 2:00p.m
Monday 13/02/2023	HCT3.1	52	Quantum Chemistry (MSC11301)
Tuesday 14/02/2023	HCT3.2	53	Electrochemistry (MSC11302)
Wednesday 15/02/2023	SCT3.1	54	Molecular Structure-I (MSC11306)
	SCT 3.2	55	OR Biophysical Chemistry (MSC11307)
Friday 17/02/2023	OET	--	[Choose from list]

<b>Physical Chemistry Sem – IV (New w.e.f. Nov 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 3:00 p.m. to 6:00 p.m
Monday 20/02/2023	HCT 401	56	Statistical Mechanics and Irreversible Thermodynamics (MSC11401)
Tuesday 21/02/2023	HCT 402	57	Chemical Kinetics (MSC11402)
Wednesday 22/02/2023	HCT 403	58	Molecular Structure-II (MSC11403)
Thursday 23/02/2023	SCT 404A	59	A) Surface Chemistry (MSC11408)
	SCT 404B	60	OR B) Chemistry of Materials (MSC11409)

<b>Physical Chemistry Sem – IV (w.e.f. Nov 2017)</b> (CBCS Pattern-2016) (Old up to OCT-2022)			
Day & Date	Paper No.	Sr. No.	Subject Time: 3:00 p.m. to 6:00 p.m
Monday 20/02/2023	HCT 401	61	Statistical Mechanics and Irreversible Thermodynamics(21754-01)
Tuesday 21/02/2023	HCT 402	62	Chemical Kinetics(21754-02)
Wednesday 22/02/2023	HCT 403	63	Molecular Structure – II (21754-03)
Thursday 23/02/2023	SCT 404A	64	A) Surface Chemistry(21754-07)
	SCT 404B	65	OR B) Chemistry of Materials (21754-08)

<b>Analytical Chemistry Sem– III (New w.e.f. June 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp;Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 11:00 p.m. to 2:00p.m</b>
<b>Monday 13/02/2023</b>	HCT3.1	66	Advance Separation Techniques (MSC013301)
<b>Tuesday 14/02/2023</b>	HCT3.2	67	Instrumental Methods of Analysis- I (MSC013302)
<b>Wednesday 15/02/2023</b>	SCT3.1	68	Applied Analytical Chemistry (MSC013306) OR
	SCT3.2	69	Analysis of Commercial Materials (MSC013307)
<b>Friday 17/02/2023</b>	OET	--	<b>[Choose from list]</b>



<b>Analytical Chemistry Sem – IV (New w.e.f. Nov 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday 20/02/2023</b>	HCT 401	70	Advanced Analytical Techniques (MSC013401)
<b>Tuesday 21/02/2023</b>	HCT 402	71	Instrumental Methods of Analysis-II (MSC013402)
<b>Wednesday 22/02/2023</b>	HCT 403	72	Biochemical and Food Analysis (MSC013403)
<b>Thursday 23/02/2023</b>	SCT-A	73	A) Environmental Chemical Analysis (MSC013408)
	SCT-B	74	OR B) Pharmaceutical Analysis (MSC013409)

<b>Analytical Chemistry Sem – IV (w.e.f. Nov 2017)</b> <b>(CBCS Pattern-2016) (Old up to OCT-2022)</b>			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday 20/02/2023</b>	HCT 401	75	Advanced Analytical Techniques (21764-01)
<b>Tuesday 21/02/2023</b>	HCT 402	76	Instrumental Methods of Analysis- II(21764-02)
<b>Wednesday 22/02/2023</b>	HCT 403	77	Bio-chemical and food analysis (21764-03)
<b>Thursday 23/02/2023</b>	SCT-A	78	<b>A)</b> Environmental Chemical Analysis (21764-09)
	SCT-B	79	<b>OR</b> <b>B)</b> Pharmaceutical Analysis (21764-10)

<b>Inorganic Chemistry Sem – III (New w.e.f. June 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 11:00 p.m. to 2:00p.m
Monday 13/02/2023	HCT3.1	80	Inorganic Chemical Spectroscopy (MSC14301)
Tuesday 14/02/2023	HCT3.2	81	Co-ordination Chemistry – I (MSC14302)
Wednesday 15/02/2023	SCT3.1	82	Nuclear Chemistry (MSC14306)
	SCT 3.2	83	OR Separation Science (MSC14307)
Friday 17/02/2023	OET	-	[Choose from list]

<b>Inorganic Chemistry Sem – IV (New w.e.f. Nov 2021)</b> (CBCS Pattern-2020)			
Day & Date	Paper No.	Sr. No.	Subject Time: 3:00 p.m. to 6:00 p.m
Monday 20/02/2023	HCT 401	84	Instrumental Techniques (MSC14401)
Tuesday 21/02/2023	HCT 402	85	Co-ordination Chemistry-II (MSC14402)
Wednesday 22/02/2023	HCT 403	86	Chemistry of Inorganic Materials (MSC14403)
Thursday 23/02/2023	SCT 404A	87	A) Applied Inorganic Chemistry (MSC14408)
	SCT 404B	88	OR B) Bioinorganic Chemistry (MSC14409)

<b>Inorganic Chemistry Sem – IV (w.e.f. Nov 2017)</b> <b>(CBCS Pattern-2016) (Old up to OCT-2022)</b>			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday</b> <b>20/02/2023</b>	HCT 401	89	Instrumental Techniques (21744-01)
<b>Tuesday</b> <b>21/02/2023</b>	HCT 402	90	Co-ordination Chemistry-II(21744-02)
<b>Wednesday</b> <b>22/02/2023</b>	HCT 403	91	Chemistry of Inorganic Materials (21744-03)
<b>Thursday</b> <b>23/02/2023</b>	SCT 404A	92	<b>A)</b> Applied Inorganic Chemistry (21744-07)
	SCT 404B	93	<b>B)</b> Bioinorganic Chemistry (21744-08)

<b>Pharmaceutical Chemistry Sem – IV(w.e.f. June 2019)</b> <b>(CBCS Pattern-2016) (Old up to OCT-2022)</b>			
<b>Day &amp;Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday</b> <b>20/02/2023</b>	HCT-401	94	Stereochemistry, Photochemistry and Pericyclic reactions (21728401)
<b>Tuesday</b> <b>21/02/2023</b>	HCT-402	95	Drug Discovery and Dosage Forms (21728402)
<b>Wednesday</b> <b>22/02/2023</b>	HCT-403	96	Medicinal Chemistry (21728403)
<b>Thursday</b> <b>23/02/2023</b>	SCT4.1	97	A) Advanced Organic Synthesis (21728407)
	SCT4.2	98	B) Modern Organic Chemistry (21728408)

<b>Pharmaceutical Chemistry Sem – III (New w.e.f. June 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 11:00 p.m. to 2:00p.m</b>
<b>Monday 13/02/2023</b>	HCT3.1	99	Advanced Organic Chemistry-I (MSC012301)
<b>Tuesday 14/02/2023</b>	HCT3.2	100	Chemistry of Bioactive Heterocycles (MSC012302)
<b>Wednesday 15/02/2023</b>	SCT3.1	101	A) Drug Development (MSC012306)
	SCT3.2	102	OR B) Biochemistry (MSC012307)
<b>Friday 17/02/2023</b>	OET	-	[Choose from list]

<b>Pharmaceutical Chemistry Sem – IV (New w.e.f. June 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp; Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday 20/02/2023</b>	HCT-401	103	Photochemistry and Pericyclic Reactions (MSC012401)
<b>Tuesday 21/02/2023</b>	HCT-402	104	Advanced Organic Chemistry-II (MSC012402)
<b>Wednesday 22/02/2023</b>	HCT-403	105	Pharmaceutical Dosage Forms (MSC012403)
<b>Thursday 23/02/2023</b>	SCT4.1	106	A) Pharmaceutical Technology (MSC012408)
	SCT4.2	107	OR B) Industrial Pollution and Control (MSC012409)

<b>MEDICINL CHEMISTRY Sem – III (New w.e.f. June 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp;Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 11:00 p.m. to 2:00p.m</b>
<b>Monday 13/02/2023</b>	HCT-3.1	108	Advanced Organic Chemistry – I (MSC08301)
<b>Tuesday 14/02/2023</b>	HCT-3.2	109	Chemistry of Bioactive Heterocycles (MSC08302)
<b>Wednesday 15/02/2023</b>	SCT3.1	110	A) Photochemistry and Pericyclic Reactions (MSC08306)
	SCT3.2	111	OR B) Drug Development (MSC08307)
<b>Friday 17/02/2023</b>	OET	-	[Choose from list]

<b>MEDICINL CHEMISTRY Sem – IV (New w.e.f. June 2021)</b> <b>(CBCS Pattern-2020)</b>			
<b>Day &amp;Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday</b> <b>20/02/2023</b>	HCT-4.1	112	Pharmaceutical Dosage Forms (MSC08401)
<b>Tuesday</b> <b>21/02/2023</b>	HCT-4.2	113	Modern Organic Chemistry (MSC08402)
<b>Wednesday</b> <b>22/02/2023</b>	HCT-4.3	114	Drug Regulatory Affairs (MSC08403)
<b>Thursday</b> <b>23/02/2023</b>	SCT4.1	115	A) Medicinal Chemistry (MSC08408)
	SCT4.2	116	OR B) Pharmaceutical Technology (MSC08409)

<b>MEDICINL CHEMISTRY Sem – IV (w.e.f. June 2020)</b> <b>(CBCS Pattern-2019) (Old up to OCT-2022)</b>			
<b>Day &amp;Date</b>	<b>Paper No.</b>	<b>Sr. No.</b>	<b>Subject</b> <b>Time: 3:00 p.m. to 6:00 p.m</b>
<b>Monday</b> <b>20/02/2023</b>	HCT-4.1	117	Medicinal Chemistry (217294-01)
<b>Tuesday</b> <b>21/02/2023</b>	HCT-4.2	118	Stereo Chemistry (217294-02)
<b>Wednesday</b> <b>22/02/2023</b>	HCT-4.3	119	Chemistry of Natural Products (217294-03)
<b>Thursday</b> <b>23/02/2023</b>	SCT4.1	120	A) Drug Discovery (217294-07)
	SCT4.2	121	OR B) Chemical Industries (217294-08)

Please visit -<http://su.digitaluniversity.ac>

Ref No.: PAHSUS/EXAM/TIME-TABLE/2023/240

Date:30/01/2023

Sd/-

**Director**

Board of Examinations and Evaluation