

B.Sc Final Year Online Viva (2019-20)

Timestamp	Email Address	Score	Name of Student	Class	University Roll Numb	College Roll Number
9-4-2020 11:11:54	Poonamdevi030496@gmail.com	36 / 40	Uma devi	B.sc final	170042937	1639420004
9-4-2020 11:16:11	jaatnitrikal@gmail.com	34 / 40	Trinkal	Bsc 3rd	170042907	1546120002
9-4-2020 11:18:09	priyankaigladwa@gmail.com	38 / 40	Priyanka	B.SC final	170042901	1546120004
9-4-2020 11:19:12	anchalchauhan591@gmail.com	34 / 40	Anchal Devi	Bsc(3rd year)	170042904	1546120015
9-4-2020 11:20:41	swatirandhanbapdi@gmail.com	28 / 40	Swati devi	Bsc final year	170042918	1546120019
9-4-2020 11:24:03	parasmandhan01@gmail.com	40 / 40	Paras Mandhan	bsc final (non medical)	170042916	1546110010
9-4-2020 11:24:27	anushamehra019@gmail.com	34 / 40	Anusha	Bsc 3rd year	170042903	1546120003
9-4-2020 11:25:03	sharmashiwani241@gmail.com	40 / 40	Soni devi	Bsc final year	170042913	1546120001
9-4-2020 11:28:07	samarpreetkaur03@gmail.com	24 / 40	Samarpreet kaur	Bsc final year	170042911	1639420002
9-4-2020 11:28:30	sachinkuhara07@gmail.com	38 / 40	Sachin saini	B.sc 6th semester	170042915	1546110014
9-4-2020 11:28:47	anuradhajattain@gmail.com	30 / 40	anuradha	B.sc. Final	170042905	1546120010
9-4-2020 11:29:04	deepikarokne7@gmail.com	38 / 40	Deepika	Bsc final year	170042910	1546120014
9-4-2020 11:29:08	komalpaul334@gmail.com	24 / 40	Komal	B. Sc final year	170042932	1546120006
9-4-2020 11:29:48	robainbangarhjaat@gmail.com	38 / 40	Robin	Bsc final year	170042924	1546110004
9-4-2020 11:29:57	gargs5166@gmail.com	38 / 40	Sahil	Bsc 6th sem	170042922	1546110008
9-4-2020 11:29:58	udayravinder2008@gmail.com	36 / 40	smriti devi	b.sc 3rd	170042935	1546120013
9-4-2020 11:30:32	aashnasaini99@gmail.com	24 / 40	Aashna devi	B.sc final	170042927	1546120005
9-4-2020 11:30:41	sapnachk2106@gmail.com	40 / 40	Jyoti Rani	B.sc final year	170042914	1639420006
9-4-2020 11:30:55	deepakrokne@gmail.com	38 / 40	Deepak kumar	Bsc final	170042906	1546110005
9-4-2020 11:34:50	shubhampunia1199@gmail.com	40 / 40	Shubham punia	B.sc 6th sem.	170042923	1546110009
9-4-2020 11:41:44	rahulgopal881300@gmail.com	38 / 40	Kanchan	B.sc 3rd year medical	170042926	1546220002
9-4-2020 11:42:26	komalkheri15@gmail.com	36 / 40	Komal Rani	Bsc final	170042928	1546120011
9-4-2020 11:42:47	princearya42023@gmail.com	40 / 40	Prince	BSc 3rd yrs	170042902	1546210002
9-4-2020 11:52:06	pritamsinghbhola597@gmail.com	38 / 40	Jasmeet kaur	B.sc.3 year medical	170042909	1546220001

Kurukshetra University Kurukshetra
Scheme and Syllabi
for B.Sc. Part-I, Part-II and Part-III (Chemistry) w.e.f. 2014-2015, 2015-2016
and 2016-2017

B.Sc. Part-I (Ist Semester)

Paper No.	Code No.	Nomenclature	Max. Marks Written + I.A.#.	Time
I	CH-101	Inorganic Chemistry (Th)*	32 + 8	3 hrs.
II	CH-102	Inorganic Chemistry (Th)	32 + 8	3 hrs.
III	CH-103	Organic Chemistry (Th)	32 + 8	3 hrs.

*Th means Theory, # I.A. means Internal Assessment.

B.Sc. Part-I (IInd Semester)

Paper No.	Code No.	Nomenclature	Max. Marks Written + I.A.	Time
IV	CH-104	Inorganic Chemistry (Th)	32 + 8	3 hrs.
V	CH-105	Physical Chemistry (Th)	32 + 8	3 hrs.
VI	CH-106	Organic Chemistry (Th)	32 + 8	3 hrs.
VII	CH-107	Practicals	60 (No Internal Assessment in Practical Exam)	7 hrs.

Note: Practical Exam will be held at the end of 2nd Semester

Total Marks of I & II Semesters = 120 + 120 + 60 = 300

B.Sc. Part-II (IIIrd Semester)

Paper No.	Code No.	Nomenclature	Max. Marks Written + I.A.	Time
VIII	CH-201	Inorganic Chemistry (Th)	32 + 8	3 hrs.
IX	CH-202	Physical Chemistry (Th)	32 + 8	3 hrs.
X	CH-203	Organic Chemistry (Th)	32 + 8	3 hrs.

B.Sc. Part-II (IVth Semester)

Paper No.	Code No.	Nomenclature	Max. Marks Written + I.A.	Time
XI	CH-204	Inorganic Chemistry (Th)	32 + 8	3 hrs.
XII	CH-205	Physical Chemistry (Th)	32 + 8	3 hrs.
XIII	CH-206	Organic Chemistry (Th)	32 + 8	3 hrs.
XIV	CH-207	Practicals	60 (No Internal Assessment in Practical Exam)	7 hrs.

Note: Practical Exam will be held at the end of 4th Semester

Total Marks of III & IV Semesters = 120 + 120 + 60 = 300

B.Sc. Part-III (Vth) Semester

Paper No.	Code No.	Nomenclature	Max. Marks Written + I.A.	Time
XV	CH-301	Inorganic Chemistry (Th)	32 + 8	3 hrs.
XVI	CH-302	Physical Chemistry (Th)	32 + 8	3 hrs.
XVII	CH-303	Organic Chemistry (Th)	32 + 8	3 hrs.

B.Sc. Part-III (VIth Semester)

Paper No.	Code No.	Nomenclature	Max. Marks Written + I.A.	Time
XVIII	CH-304	Inorganic Chemistry (Th)	32 + 8	3 hrs.
XIX	CH-305	Physical Chemistry (Th)	32 + 8	3 hrs.
XX	CH-306	Organic Chemistry (Th)	32 + 8	3 hrs.
XXI	CH-307	Practicals	60 (No Internal Assessment in Practical Exam)	7 hrs.

Note: Practical Exam will be held at the end of 6th Semester

Total Marks of V & VI Semesters = 120 + 120 + 60 = 300

TOTAL MARKS OF CHEMISTRY in B.Sc. degree = 300 × 3 = 900

B.Sc. I Year
Paper-VII (CH-107) Practicals

M.Marks:60

Time: 7 Hrs.

(One day in two sessions i.e. 9:00AM-12:30PM and 1:30PM-5:00PM)

Section-A (Inorganic)

Volumetric Analysis

1. Preparation of reference solutions.
2. **Redox titrations:** Determination of Fe^{2+} , $\text{C}_2\text{O}_4^{2-}$ (using KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$)
3. **Iodometric titrations:** Determination of Cu^{2+} (using standard hypo solution).
4. **Complexometric titrations:** Determination of Mg^{2+} , Zn^{2+} by EDTA.

Paper Chromatography

Qualitative Analysis of any one of the following Inorganic cations and anions by paper chromatography (Pb^{2+} , Cu^{2+} , Ca^{2+} , Ni^{2+} , Cl^- , Br^- , I^- and PO_4^{3-} and NO_3^-).

Section-B (Physical)

1. To determine the surface tension of at least two liquids using stalagmometer by drop no. and drop weight methods (Use of organic solvents excluded).
2. To study the effect of surfactant on surface tension of water.
3. To determine the viscosity of at least two liquids by using Ostwald's viscometer (Use of organic solvents excluded).
4. To determine the specific refractivity of at least two liquids.

Section-C (Organic)

1. Preparation and purification through crystallization or distillation and ascertaining their purity through melting point or boiling point
 - (i) Iodoform from ethanol (or acetone)
 - (ii) *m*-Dinitrobenzene from nitrobenzene (use 1:2 conc. HNO_3 - H_2SO_4 mixture if fuming HNO_3 is not available)
 - iii) *p*-Bromoacetanilide from acetanilide
 - iv) Dibenzalacetone from acetone and benzaldehyde
 - v) 2,4-DNP derivative of Benzophenone/Acetophenone.
2. To study the process of (i) sublimation (ii) Crystallization of camphor and phthalic acid

Distribution of marks

- | | | |
|----|------------|----------|
| 1. | Section-A | 15 marks |
| 2. | Section-B | 15 marks |
| 3. | Section-C | 15 marks |
| 4. | Viva-voce | 05 marks |
| 5. | Lab Record | 10 marks |

B.Sc. II Year
Paper XIV (CH-207) Practicals

M.Marks:60

Time: 7 Hrs.

(One day in two sessions i.e. 9:00AM-12:30PM and 1:30PM-5:00PM)

Section-A (Inorganic)

1.Gravimetric Analysis:

Quantitative estimations of, Cu^{2+} as copper thiocyanate, Ni^{2+} as Ni – dimethylglyoxime and Al^{3+} as oxinate.

2. Colorimetry:

To verify Beer - Lambert law for $\text{KMnO}_4/\text{K}_2\text{Cr}_2\text{O}_7$ and determine the concentration of the given $\text{KMnO}_4/\text{K}_2\text{Cr}_2\text{O}_7$ solution.

3.Preparations: Preparation of Cuprous chloride, tetra ammine cupric sulphate, chrome alum, potassium trioxalatochromate(III) and Nickel Hexammine chloride.

Section-B (Physical)

1. To determine the CST of phenol – water system.
2. To determine the solubility of benzoic acid at various temperatures and to determine the ΔH of the dissolution process.
3. To determine the enthalpy of neutralisation of a weak acid/weak base vs. strong base/strong acid and determine the enthalpy of ionisation of the weak acid/weak base.
4. To determine the enthalpy of solution of solid calcium chloride.
5. To study the distribution of iodine between CCl_4 and water.
6. Determine rate constant of hydrolysis of $\text{CH}_3\text{COOC}_2\text{H}_5$.

Section-C (Organic)

Systematic identification (detection of extra elements, functional groups, determination of melting point or boiling point and preparation of at least one pure solid derivative) of the following simple mono and bifunctional organic compounds: Naphthalene, anthracene, acenaphthene, benzyl chloride, *p*-dichlorobenzene, *m*-dinitrobenzene, *p*-nitrotoluene, resorcinol, hydroquinone, α -naphthol, β -naphthol, benzophenone, ethyl methyl ketone, benzaldehyde, vanillin, oxalic acid, succinic acid, benzoic acid, salicylic acid, aspirin, phthalic acid, cinnamic acid, benzamide, urea, acetanilide, benzanilide, aniline hydrochloride, *p*-toluidine, phenyl salicylate (salol), glucose, fructose, sucrose, *o*-, *m*-, *p*-nitroanilines, thiourea.

Distribution of marks

1.	Section A	15 marks
2.	Section B	15 marks
3.	Section C	15 marks
4.	Viva-voce	05marks
5.	Lab Record	10 marks

B.Sc. III Year
Paper-XXI (CH-307) Practicals

Max.Marks:60

Time: 7 Hrs.

(One day in two sessions i.e. 9:00AM-12:30PM and 1:30PM-5:00PM)

Section-A (Inorganic)

Semimicro qualitative analysis of mixture containing not more than four radicals (excluding interfering, Combinations and insolubles):

Pb^{2+} , Hg^{2+} , Hg_2^{2+} , Ag^+ , Bi^{3+} , Cu^{2+} , Cd^{2+} , As^{3+} , Sb^{3+} , Sn^{2+} , Fe^{3+} , Cr^{3+} , Al^{3+} , Co^{2+} , Ni^{2+} , Mn^{2+} , Zn^{2+} , Ba^{2+} , Sr^{2+} , Ca^{2+} , Mg^{2+} , NH_4^+ , CO_3^{2-} , S^{2-} , SO_3^{2-} , $S_2O_3^{2-}$, NO_2^- , CH_3COO^- , Cl^- , Br^- , I^- , NO_3^- , SO_4^{2-} , $C_2O_4^{2-}$, PO_4^{3-} , BO_3^{3-}

Section-B (Physical)

1. To determine the strength of the given acid solution (mono acid only) conductometrically.
2. To determine the solubility and solubility product of a sparingly soluble electrolyte conductometrically.
3. To determine the strength of given Ferrous ammonium sulphate solution potentiometrically.
4. To determine the molecular weight of a non-volatile solute by Rast method.
5. Preparation of acidic and basic buffers and comparison of their pH with theoretical values.
6. To determine the specific rotation of optically active substance (any two).

Section-C (Organic)

1. Thin Layer Chromatography

(Determination of R_f values and identification of organic Compounds)

Separation of a mixture of coloured organic compounds using common organic solvents.

2. To separate the binary liquid mixtures using distillation.

3. Synthesis of the following organic compounds:

- (a) To prepare salicylic acid from Aspirin.
- (b) To prepare p-bromoaniline from p-bromoacetanilide.
- (c) To prepare m-nitroaniline from m-dinitrobenzene.
- (d) To prepare S-Benzyl-iso-thiouonium chloride from Thiourea.

Distribution of marks

1.	Section- A	15 marks
2.	Section-B	15 marks
3.	Section-C	15 marks
4.	Viva-voce	05 marks
5.	Lab Record	10 marks

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