Syllabus
For M.Sc 10th Semester Courses in Botany
(June 2020 onwards)

- Contents:
- Theory Syllabus for Courses:
    - SBOT1001 – Instrumentation
    - SBOT1002 – Angiosperms- II (Characters & Ethnobotany)
    - SBOT1003 – Angiosperms- III (Taxonomic Aids)
    - SBOT1004 – Angiosperms- IV (Geography And IPR)

- Practical Course Syllabus for: SBOT1001PR, SBOT1002PR, SBOT1003PR, SBOT1004PR
- Evaluation and Assessment guidelines.

M.Sc.-II Botany **Course code: SBOT1001**
Course Title: INSTRUMENTATION

Learning Objectives:

1. To learn to use the techniques and understand the concepts of microscopy, aseptic techniques, centrifugation, spectroscopy, chromatography and tracer techniques.
2. To understand the applications of techniques mentioned above in biology.
3. To practice the method of scientific writing.

Number of lectures: 60

Unit 1 **(15 lectures)**

Microscopy and Aseptic techniques

Construction, working and applications of fluorescent and electron microscope; Using laminar air flow and autoclave; isolation, inoculation, transfer and maintenance of culture; pure culture and subculturing techniques.

Unit 2 **(15 lectures)**

Centrifugation and Spectroscopy

Working and applications of differential, rate-zonal, isopycnic, and density gradient centrifugation; principle, working and applications of UV-visible, IR, NMR, and atomic absorption spectroscopy.

Unit 3 **(15 lectures)**

Chromatography and Tracer techniques

HPLC and GC- principle, working and applications. Ion exchange, exclusion and affinity Chromatography- principle, practical procedure and applications. Tracer techniques: Principle, applications; radioisotopes and autoradiography. Geiger-muller counter, liquid scintillation counter.

Unit 4 **(15 lectures)**

Scientific writing

Scientific writing- literature survey, journals, topic selection, hypothesis; aims, objective/s, introduction, method, results and discussion; Citing of references- analyzing journal articles, major errors, citing and using sources. Executive summaries; formatting documents; revising your paper-typesetting punctuation, summarizing.

List of Recommended Reference Books

1. Ruzin, S.E., Plant Microtechnique and Microscopy, Oxford University Press, (New York) 1999.
2. Upadhyay, Upadhyay and Nath, Biophysical Chemistry: Principles and Techniques, 2014, Mumbai, Himalaya Publishing House
3. D.T Plummer, An Introduction to Practical Biochemistry,. 3 rd Ed. Tata McGraw-Hill Publishing Co. Ltd. (New Delhi). 1996

4. Freifelder, D. (1982) Physical Biochemistry 2nd edition, W.H. Freeman and Co., N.Y. USA.
5. Centrifugation : a practical approach, edited by D. Rickwood,1984, Oxford
6. John A.Adam ,Chromatographic Analysis of Pharmaceuticals 2nd ed ,Marcel Dekker Inc
7. Daniel G. Riordan, Steven E. Pauley, Biztantra: Technical Report Writing Today, 8th Edition (2004)
8. Frank, M., Writing as thinking: A guided process approach, Englewood Cliffs, Prentice Hall Reagents

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Practical: SBOTPR1001

I) **Practicals of MSBOTPR1001 are allotted as a project work**

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M.Sc.-II Botany **Course code: SBOT1002**
Course Title: ANGIOSPERMS-II (CHARACTERS & ETHNOBOTANY)

Learning Objectives:

1. To use methods of preparation of keys for plant identification
2. To recognize the concept of green belt planning.
3. To know the importance of different anatomical, embryological and palynological features.
4. To understand the methods in ethnobotanical research, and use and ways to protect our traditional knowledge.

Number of lectures: 60

Unit 1 **(15 lectures)**

Keys and Green belt planning

Types of keys- single access and multi access keys, preparation of keys for Taxon, keys based on exomorphic characters. Green-belt planning- concept and recommendations; utility of GBP; list of plants, ornamental, flowering, shady; importance of Green Belt in the current environmental conditions in India.

Unit 2 **(15 lectures)**

Anatomical characters

Leaf Anatomy, types and functions of trichomes and stomata; petiole and nodal anatomy; leaf architecture – principle and methodology. Floral and wood anatomy;

Unit 3 (**15 lectures)**

Embryological and palynological characters

Families with embryological features– Podostemaceae, Cyperaceae and Onagraceae. Interpreting taxonomic affinities – *Trapa*, *Paeonia*, *Exocarpos*, Loranthaceae. Pollen structure; pollen aperture types and their evolution. Pollinia in Orchidaceae and Asclepiadaceae. Eurypalynous and stenopalynous taxa.

Unit 4 (**15 lectures)**

Ethnobotany

Ethnobotany- Introduction, history, scope, interdisciplinary approaches. Ethnobotanical work by tribes of Maharashtra. Methods in ethnobotanical research, ethics and guidelines. Folk taxonomy of plants, bioprospecting, commercial use of traditional knowledge, equitable benefit sharing models.

List of Recommended Reference Books

1. Amati, Marco. Urban Green Belts in the Twenty-First Century (Urban Planning and Environment) Ashgate Publishing House. 2008.
2. Bhojwani, S.S. & Bhatnagar, S.P.: The embryology of angiosperms. (Rev. ed.) Delhi. Vikas Publishing House Pvt. Ltd., 1996.--(583.0433BHO)
3. Fahn, A.: Plant anatomy. (4th ed. Indian reprint) New Delhi. Aditya Books (P) Ltd., 1990(1997). 81-85353-41-7--(581.4FAH)
4. Johansen, Donald Alexander: Plant embryology : Embryogeny of the Spermatophyta. Waltham. Chronica Botanica Company, 1950.--(581.33JOH)
5. Alexiades, M., ed. 1996. Selected guidelines for ethnobotanical research: A field manual. New York: New York Botanical Garden.
6. Cotton, C. M. 1997. Ethnobotany – Principles and Applications. John Wiley and Sons Limited.
7. Cunningham, A.B. 2001. Applied Ethnobotany. Earthscan Publications Ltd.
8. Jain, S.K. & V. Mudgal. 1999. A Handbook of Ethnobotany. Bishen Singh Mahendra Pal Singh.

Practical: SBOTPR1002

I) Practicals MSBOTPR1002 are allotted as a project work

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M.Sc.-II Botany **Course code: SBOT1003**
Course Title: ANGIOSPERMS-III (TAXONOMIC AIDS)

Learning Objectives:

1. To understand the importance and application of numerical taxonomy,
2. To use of internet in handling various taxonomic databases for taxonomic studies.
3. To understand the use of libraries, literature, herbarium and botanical gardens.
4. To use the techniques of GIS and remote sensing, and understand the process of plant quarantine.

Number of lectures: 60

Unit 1 **(15 lectures)**

Numerical Taxonomy

Principles of numerical taxonomy, OTU, taxonomic characters, coding of characters, measuring resemblance, simple matching coefficient, taxonomic distance, cluster analysis.

Unit 2 **(15 lectures)**

Progressive taxonomy

Progressive taxonomy- Internet, taxonomic databases (Kew, IPNI, the plantlist, tropicos, efloraindia, etc). Present status and future scope of taxonomy in India-vegetation survey, floristics, revisionary and monographic studies, ethnobiological studies, job opportunities and role of taxonomists.

Unit 3 **(15 lectures)**

Tools in taxonomy

Library- Literature: definition, origin, history, evolution and classification of taxonomic literature. **Herbarium**- definition, utility, development and maintenance; herbaria in India, role of BSI in herbaria, private herbaria, KEW herbarium. **Garden-** Origin, history, types, role in taxonomic studies; development of gardens in India; KEW garden; Germplasm storage techniques and its importance.

Unit 4 **(15 lectures)**

Applied Taxonomy

GIS: Raster, vector, projection, corrections, geo-rectification; **Remote Sensing-** Principles, types, advantages and limitations, applications in vegetation classification and forest resource management; remote sensing of soil and water. **Plant quarantine-** Purpose, history, plant protection organizations; exclusive, regular and domestic quarantine; certification of plant materials.

List of Recommended Reference Books

1. Apte, T. 2006. Intellectual Property Rights, Biodiversity and Traditional Knowledge. Kalpavriksh, Grain & IIED, Pune / New Delhi.
2. Cunningham, A.B. 1993. Ethics, Ethnobiological Research, and Biodiversity. WWF.

International Publication. Switzerland.
3. Duthfield, G. 2004. Intellectual Property, Biogenetic Resources and Traditional Knowledge.
4. Laird, S.A. 2002. Biodiversity and Traditional knowledge Equitable partnerships in Practice. Earthscan Publications Ltd., London.
5. Singh Gurcharan, Plant Systematics – Theory and Practice 3rd edition 2010.
6. Bhattacharya B., Systematic Botany. 2nd Ed., Narosa Publishing House. 2009

Practical: SBOTPR1003

I) Preparation of Dichotomous Key of Five Families (min 5 genera / species from each family).

II) Study of (a) Calyx in Family Lamiaceae, androecium in Leguminosae, and pollinia in Asclepiadaceae and Orchidaceae. (b) Embryo mounting – Dicot , Monocot and Polyembryony. (c) Study of leaf epidermal characters – trichomes, stomata etc. (d) Study of leaf architecture, preparation of slides and documentation of the same.

III) Study of (a) published floras (International, National, regional and local), revision, monograph and check list. Nomenclature Exercises. (b) Review of Taxonomic databases- theplantlist.org, IPNI, TROPICOS, eFloraindia. (c) Interpretation of remote sensing images. (d) Review of research paper (from any taxonomy related scientific journal)

IV) Visit to plant quarantine Lab- report to be entered in journal. Preparation of diversity map for a given plant for a given area using Google earth or QGIS software.

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M.Sc.-II Botany **Course code: SBOT1004**
Course Title: ANGIOSPERMS- IV (GEOGRAPHY AND IPR)

Learning Objectives:
1. To learn the diversity, present status and interrelationships among different families apart from their characteristic features and economic importance.
2. To perceive the theories of plan distribution and understand the details of phytogeography.
3. To understand the use of cytological characters as evidence to solve taxonomic problems.
4. To know the basics of IPR and learn the process of patent filing.

Number of lectures: 60

Unit 1 **(15 lectures)**

Families

Study the following families: Oleaceae, Plumbaginaceae, Sapotaceae, Vitaceae, Nyctaginaceae, Bignoniaceae, Caryophyllaceae, Loranthaceae, and Orchidaceae. A detailed study of their present status, affinities, phylogeny and interrelationships.

Unit 2 **(15 lectures)**

Cytological evidence

Taxonomic evidences in relation with cytology**;** chromosome morphology, chromosome behavior, heterochromatin, use of cytological data at family, genus and species level.

Unit 3 **(15 lectures)**

Plant Geography

Historical development, physical geography of earth, theories of plant distribution, major biomes of the world; minor biomes; Phytogeographical regions of India; Endemism- role of Indian endemic flora in plant based discoveries. Descriptive and dynamic phytogeography.

Unit 4 **(15 lectures)**

Intellectual Property Rights

IPR- Definition, types, legislation, types of patent applications, patentable and non-patentable inventions , case study of patent filing, role of patent in small and medium enterprises. Trademarks, industrial designs, and geographical indications and their benefits.

List of Recommended Reference Books

1. Balee W. L. 2003. Footprints of the Forests. Bishen Singh, Mahendar Pal Singh, India.
2. Nordentam, B., El Gazaly, G. and kassas, M. 2000. Plant systematic for 21stcentury.Portland press. Ltd, London.
3. Takhtajan, A. L. 1997. Diversity and classification of Flowering Plants. New York.
4. Sharma Arun kumar and Archana Sharma. 1980. Chromosome Technique: Theory and Practices.
5. Khader Ali Feroz, The Law of Patents – With special Focus on Pharmaceuticals in India(Student Ed. 2009), ISBN 9788180381508
6. Narayan P., (2006) Patent Law. ISBN 8171771785 4th Ed.
7. Mandal F.B. and Nandi N.C., Biodiversity – Concept, Conservation and Biofuture. 2nd ed. Asian Books Pvt. Ltd., 2013.

Practical: SBOTPR1004

I) Study of Angiosperm families mentioned in course 1004 for theory.

II) Morphological description of the entire plant.

III) Preparation of synoptic keys to the families, genus and species.

IV) Study of Karyotypes of *Allium cepa* and *Aloe vera*.
V) Case study of patent filing.

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Evaluation and Assessment: SBOT1001, SBOT1002, SBOT1003 and SBOT1004 courses

Evaluation (Theory): Total marks per course - 100.

CIA- 40 marks
CIA 1: Written test -20 marks
CIA 2: Written Test / Assignment / Presentation / Field Trip & Report -20 marks
End Semester Examination – 60 marks
One question from each unit for 15 marks, with internal choice. Total marks per question with choice -28 to 30.

Evaluation of SBOTPR1001 and SBOTPR1002 in form of a PROJECT of Total marks 100

Evaluation of SBOTPR1003, SBOTPR1004 (Practical)
Total marks per Practical course - 50.
End Semester Practical Examination – (SBOTPR1003- 50 marks, SBOTPR1004- 50 marks)

Template for SBOT1001 Course End Semester Examination in Semester 10

UNITS	KNOWLEDGE	UNDERSTANDING	APPLICATION and ANALYSES	TOTAL MARKS- Per unit
1	6	6	3	15
2	6	6	3	15
3	6	6	3	15
4	6	6	3	15
-TOTAL - Per objective	24	24	12	**60**
% WEIGHTAGE	40	40	20	**100%**

Template for SBOT1002 Course End Semester Examination in Semester 10

UNITS	KNOWLEDGE	UNDERSTANDING	APPLICATION and ANALYSES	TOTAL MARKS- Per unit
1	5	5	5	15
2	8	7	0	15
3	7	8	0	15
4	8	7	0	15
-TOTAL - Per objective	28	27	5	**60**
% WEIGHTAGE	46.66	45	8.33	**100%**

Template for SBOT1003 Course End Semester Examination in Semester 10

UNITS	KNOWLEDGE	UNDERSTANDING	APPLICATION and ANALYSES	TOTAL MARKS- Per unit
1	5	5	5	15
2	5	5	5	15
3	8	7	0	15
4	6	6	3	15
-TOTAL - Per objective	24	23	13	**60**
% WEIGHTAGE	40	38.33	21.66	**100%**

Template for SBOT1004 Course End Semester Examination in Semester 10

UNITS	KNOWLEDGE	UNDERSTANDING	APPLICATION and ANALYSES	TOTAL MARKS- Per unit
1	5	5	5	15
2	8	7	0	15
3	8	7	0	15
4	6	6	3	15
-TOTAL - Per objective	27	25	8	**60**
% WEIGHTAGE	45	41.66	13.33	**100%**

St. Xavier's College, Mumbai.

ASSESSMENT OF WRITTEN ASSIGNMENT- TYPE - I

Dept. of Botany; Course Code _____ Date _____ Roll No _____

Name of student: _____ UIDNo _____ Marks _____/ 20

Title of Assignment: _____

Assessment Grid : Place one tick in each appropriate row. Overall mark should reflect the positions of ticks in the individual rows. In boxes that have more than one set of marks, cancel out the marks that are not applicable and circle the correct marks.

Assessment of Written Assignment: 20 Marks

100%	ASSIGNMENT	80-100% (17-20 Marks)	60-80% (13-16 Marks)	40- 60% (9-12 Marks)	20-40% (5-8 Marks)	0-20% (0-4 Marks)
60 %	**Content** Impression of wide reading (research), good knowledge and comprehensive understanding. Evidence of thoughtful input. Ability to critique,	Excellent	Good	Satisfactory	Poor	Very Poor
12	Bibliography mentioned **-------- Marks -------**	12 / 11 / 10	9 / 8	7 / 6	5 / 4	3 / 2 / 1
30 %	**Organization** Effective presentation, logical format, clear statement of ideas, relevant details, sequence of information and ideas could be easily followed, references / footnotes / endnotes	Effective organization	Few problems	Many problems	Inadequate presentation. Ineffective format, communication of ideas, lack of relevant details – but an attempt	No attempt to organize
06	**-------- Marks -------**	6	5	4	3	2
5%	**Vocabulary**	Richness of vocabulary	Very good range of vocabulary with some errors	Good range of vocabulary with some errors	Small range of vocabulary with errors	Little of no effort to demonstrate vocabulary knowledge
01	**-------- Marks -------**	1	1	0.5	0.5	0
5%	**Grammar, spellings, mechanics**	Grammar, spellings punctuations correct	Very few errors	Some errors	Many errors	No effort
01	**-------- Marks -------**	1	1	0.5	0.5	0

Comments:

Name and Signature of Faculty _____.

St. Xavier's College, Mumbai.

ASSESSMENT OF WRITTEN ASSIGNMENT- TYPE - II

Dept. of Botany; Course Code _____ Date _____ Roll No _____

Name of student: _____ UIDNo _____ Marks _____/ 20

Title of Assignment: _____

Assessment Grid : Place one tick in each appropriate row. Overall mark should reflect the positions of ticks in the individual rows. In boxes that have more than one set of marks, cancel out the marks that are not applicable and circle the correct marks.

Assessment of Written Assignment: 20 Marks

100%	ASSIGNMENT	80-100% (17-20 Marks)	60-80% (13-16 Marks)	40- 60% (9-12 Marks)	20-40% (5-8 Marks)	0-20% (0-4 Marks)
50 %	**Content** Impression of wide reading (research), good knowledge and comprehensive understanding. Evidence of thoughtful input. Ability to critique, Bibliography mentioned	Excellent	Good	Satisfactory	Poor	Very Poor
10	-------- **Marks** -------	10 / 9	8 / 7	6 / 5	4 / 3	2 / 1
30 %	**Organization** Effective presentation, logical format, clear statement of ideas, relevant details, sequence of information and ideas could be easily followed, references / footnotes / endnotes	Effective organization	Few problems	Many problems	Inadequate presentation. Ineffective format, communication of ideas, lack of relevant details – but an attempt 2	No attempt to organize
06	-------- **Marks** -------	6 / 5	4	3		1
10%	**Vocabulary**	Richness of vocabulary	Very good range of vocabulary with some errors	Good range of vocabulary with some errors	Small range of vocabulary with errors	Little of no effort to demonstrate vocabulary knowledge
02	-------- **Marks** -------	2	1.5	1	1	0.5
10%	**Grammar, spellings, mechanics**	Grammar, spellings punctuations correct	Very few errors	Some errors	Many errors	No effort
02	-------- **Marks** -------	2	1.5	1	1	0.5

Comments:

Name and Signature of Faculty _____.

St. Xavier's College, Mumbai.

ASSESSMENT OF BOTANY FIELD TRIP REPORT

Dept. of Botany; Course Code _____ Date _____ Roll No _____

Name of student: _____ UIDNo _____ Marks _____/ 20

Place of visit _____

Assessment Grid : Place one tick in each appropriate row. Overall mark should reflect the positions of ticks in the individual rows

(20)	**Field Trip and Report**	**80-100% 17-20 Marks**	**60-80% 13-16 Marks**	**40-60% 09-12 Marks**	**20-40% 05-08 Marks**	**0-20% 0-04 Marks**
30% (06)	**Organization of report** **----Marks----**	Introduction about the location, vegetation, Botanical Names, Family, Local name, Description using Botanical Term, reporting all the species seen, Handwritten or typed. 6	Few mistakes, few species missing from the report 5	Many mistakes 4	Inadequate presentation, ineffective format, lack or relevant detail, but an attempt 3	No attempt to organize 2
50% (10)	**Content** **----Marks----**	Excellent reporting of all the species observed in the field, ecological and morphological data, 10 / 9	Good reporting, species observed in the field but few of them missing in the list 8	Satisfactory, many species or relevant data missing from the report 6	Poor, inadequate and insufficient data or just a list of the species without any data. 5	Very poor, no data 4 / 3
10% (02)	**Conclusion** **----Marks----**	Excellent conclusion based on self observation. Type of forest and vegetation 2	Good conclusion, comments not independent 2 / 1	Satisfactory, but insufficient 1 / 0.5	Poor, irrelevant conclusion 0.5	Very poor, no conclusion 0.5
5% (01)	**References** **----Marks----**	Proper references, in required format 1	Proper references but no format 1	Few references 0.5	Irrelevant references 0	No references 0
5% (01)	**Attendance / participation** **----Marks----**	Attended and participated actively 1	Attended and participated 1	Infrequent Participation 0.5	No participation 0	Absent 0

Comments:

Name and Signature of Faculty _____.

St. Xavier's College, Mumbai.

ASSESSMENT OF INDIVIDUAL ORAL PRESENTATION -A

Dept. of Botany; Course Code _____ Date _____ Roll No _____

Name of student: _____ UIDNo _____ Marks _____/ 20

Title of oral presentation: _____

Assessment Grid : Place one tick in each appropriate row. Overall mark should reflect the positions of ticks in the individual rows

Presentation: 30 % (06 marks)

30%	PRESENTATION	80-100%	60-80%	40- 60%	20-40%	0-20%
10 %	**Presentation skills**	Varied rate of delivery, Changed pitch for emphasis, No distracting mannerisms ,good eye contact , Confident body language, Connected with audience	Good but a few weaknesses	Good but a few weaknesses with one pronounced weakness	Several Weaknesses	No speech variation, Distracting mannerisms, no eye contact, dull, and reading from notes/visual aids
2.0	-------- **Marks** -------	2.0	1.5	1.0	1.0	0.5
10 %	**Use of Visuals (Efforts to Aid Presentation)**	Very good, relevant visuals, good font size/ image size, Appropriate number of words and images per slide, good colour schemes	Good but a few weaknesses	Good but a few weaknesses with one pronounced weakness	Several Weaknesses	Very poor visuals, visuals did not contribute to the presentation
2.0	-------- **Marks** -------	2.0	1.5	1.0	1.0	0.5
5%	**Timing and Pace of Talk**	Right length and well paced	Right Length but too slow or too rushed	Long or short ***and*** too slow or too rushed	Too long ***or*** too short	Had to be stopped **or** less than 50% of the allocated time
01	-------- **Marks** -------	1.0	0.5	0.5	0	0
5%	**Audibility and Comprehensibility**	Very clear and very precise	Clear, quite precise	Almost inaudible ***and*** difficult to understand	Almost inaudible ***or*** very difficult to understand	Inaudible **or** completely incomprehensible
01	-------- **Marks** -------	1.0	1.0	0.5	0.5	0

Total marks for presentation: _____ out of 06 marks.

Content: 70% (14 Marks)

70%	CONTENT	80-100%	60-80%	40- 60%	20-40%	0-20%
35%	**Knowledge and Understanding Innovation** Impression of wide reading, good knowledge and complete understanding	Excellent	Good	Satisfactory	Poor	Very Poor
07	-------- **Marks** -------	7.0	6.0 / 5.0	4.0 / 3.0	2.0	1.0
10%	**Structure of Presentation** Logical Structure, Clear Introduction, Body and Relevant Conclusion, sequence of information and ideas could be easily followed , Citation of source material	Excellent	Good	Satisfactory	Poor	Very Poor
02	-------- **Marks** -------	2.0	2.0	1.0	0.5	0.5
5%	**Key Points/ Themes** Identified Key Points, Kept to the points throughout the presentation- did not wander	Excellent	Good	Satisfactory	Poor	Very Poor
01	-------- **Marks** -------	1.0	1.0	0.5	0.5	0
10%	**Ability to answer Questions** Answers accurate and full of confidence	Excellent	Good	Satisfactory	Poor	Very Poor
02	-------- **Marks** -------	2.0	1.5	1.0	0.5	0
10%	**Creation of Interest/ Audience Participation** Created interest in the topic	Excellent	Good	Satisfactory	Poor	Very Poor
02	-------- **Marks** -------	2.0	1.5	1.0	1.0	0.5

Total for content: _____ out of 14; Total marks for oral presentation: _____ out of **20**

Comments:

Name of the Faculty _____.

Signature of the Faculty _____

St. Xavier's College, Mumbai.

ASSESSMENT OF INDIVIDUAL ORAL PRESENTATION -B

Dept. of Botany; Course Code _____ Date _____ Roll No _____

Name of student: _____ UIDNo _____ Marks _____/ 20

Title of oral presentation: _____

Assessment Grid : Place one tick in each appropriate row. Overall mark should reflect the positions of ticks in the individual rows

Presentation: 40 % (8 marks)

40%	PRESENTATION	80-100%	60-80%	40- 60%	20-40%	0-20%
15 %	**Presentation skills**	Varied rate of delivery, Changed pitch for emphasis, No distracting mannerisms ,good eye contact , Confident body language, Connected with audience	Good but a few weaknesses	Good but a few weaknesses with one pronounced weakness	Several Weaknesses	No speech variation, Distracting mannerisms, no eye contact, dull, and reading from notes/visual aids
03	-------- **Marks** -------	3.0	2.5	2.0	1.5	1.0
15 %	**Use of Visuals (Efforts to Aid Presentation)**	Very good, relevant visuals, good font size/ image size, Appropriate number of words and images per slide, good colour schemes	Good but a few weaknesses	Good but a few weaknesses with one pronounced weakness	Several Weaknesses	Very poor visuals, visuals did not contribute to the presentation
03	-------- **Marks** -------	3.0	2.5	2.0	1.5	1.0
5%	**Timing and Pace of Talk**	Right length and well paced	Right Length but too slow or too rushed	Long or short ***and*** too slow or too rushed	Too long ***or*** too short	Had to be stopped **or** less than 50% of the allocated time
01	-------- **Marks** -------	1.0	1.0	0.5	0.5	0
5%	**Audibility and Comprehensibility**	Very clear and very precise	Clear, quite precise	Almost inaudible ***and*** difficult to understand	Almost inaudible ***or*** very difficult to understand	Inaudible **or** completely incomprehensible
01	-------- **Marks** -------	1.0	1.0	0.5	0.5	0

Total marks for presentation: _____ out of 08 marks.

Content: 60% (12 Marks)

60%	CONTENT	80-100%	60-80%	40- 60%	20-40%	0-20%
25%	**Knowledge and Understanding Innovation** Impression of wide reading, good knowledge and complete understanding	Excellent	Good	Satisfactory	Poor	Very Poor
05	-------- **Marks** -------	5.0	4.0	3.0	2.0	1.0
10%	**Structure of Presentation** Logical Structure, Clear Introduction, Body and Relevant Conclusion, sequence of information and ideas could be easily followed , Citation of source material	Excellent	Good	Satisfactory	Poor	Very Poor
02	-------- **Marks** -------	2.0	1.5	1.0	0.5	0.5
5%	**Key Points/ Themes** Identified Key Points, Kept to the points through out the presentation- did not wander.	Excellent	Good	Satisfactory	Poor	Very Poor
01	-------- **Marks** -------	1.0	1.0	0.5	0.5	0
10%	**Ability to answer Questions** Answers accurate and full of confidence	Excellent	Good	Satisfactory	Poor	Very Poor
02	-------- **Marks** -------	2.0	1.5	1.0	0.5	0
10%	**Creation of Interest/ Audience Participation** Created interest in the topic.	Excellent	Good	Satisfactory	Poor	Very Poor
02	-------- **Marks** -------	2.0	1.5	1.0	0.5	0

Total for content: _____ out of 12; Total marks for oral presentation: _____ out of **20**

Comments:

Name of the Faculty _____.

Signature of the Faculty _____