PROPOSED COURSE STRUCTURE BBA 3 Years (Annual System)

(For Regular Students)

Group	Paper Number and Name	Theory Marks	Internal Assessment Marks	Total Marks
BBA First Year				
Group I	Paper I Principles of Management Paper II Communication Skills	40 40	20	100
Group II	Paper III Micro Economics Paper IV Business Statistics	40 40	20	100
Group III	Paper V Financial Accounting Paper VI Business Mathematics	40 40	20	100
BBA Second Year				
Group IV	Paper VII Marketing Management Paper VIII Marketing Research	40 40	20	100
Group V	Paper IX Financial Management Paper X Project Management	40 40	20	100
Group VI	Paper XI Human Research Management Paper XII Organizational Behaviour	40 40	20	100
BBA Third Year				
Group VII	Paper XIII Entrepreneurial Development Paper XIV Management Information System	40 40	20	100
Group VIII	Paper XV Business Environment Paper XVI Business Law	40 40	20	100
Group IX	Electives Elective A : Marketing Paper XVII Consumer Behaviour Paper XVIII Advertising Management & Sales Promotion Or Elective B : Finance Paper XVII Working Capital Management Paper XVIII Corporate Taxation Or Elective C : HRM Paper XVII Human Resources Development Paper XVIII Wages and Salary Administration (The Student is required to select any one elective from elective A, B and C.)	40 40	20	100

03/06/19

03-6-2019

SYLLABUS SCHEME
B.Com Ist Year

(w.e.f. 2019-20)

विषय /(Subjects)	प्रश्न–पत्र (Papers)
1. लेखा समूह (Accounting Group) अनिवार्य विषय (Compulsory Subject)	1. वित्तीय लेखांकन Financial Accounting 2. व्यवसायिक गणित Bussiness maths
2. प्रबंध समूह (Management Group) अनिवार्य विषय (Compulsory Subject)	1. व्यवसायिक सन्नियम Business Law 2. व्यवसायिक संगठन एवं सम्प्रेषण Bussiness Organisation and Communication.
3. व्यवहारिक अर्थशास्त्र समूह (Applied Economics Group)/वैकल्पिक विषय/व्यवसायिक पाठ्यकम समूह (Optional Subject Group)	1. व्यष्टि अर्थशास्त्र Micro Economics 2. समष्टि अर्थशास्त्र Macro Economics

नोट– व्यवसायिक पाठ्यकम के दोनों प्रश्न–पत्रों को वैकल्पिक समूह, व्यवहारिक अर्थशास्त्र (Applied Economics) के स्थान पर लिया जा सकता है।

SYLLABUS SCHEME
B.Com 2nd Year
(w.e.f. 2020-21)

विषय /(Subjects)	प्रश्न–पत्र (Papers)
1. लेखा समूह (Accounts group) अनिवार्य विषय (Compulsary Subject)	1. निगमीय लेखांकन (Corporate Accounting) 2. परिव्यय लेखांकन (Cost Accounting)
2. प्रबंध समूह (Management Group) अनिवार्य विषय (Compulsory Subject)	1. सांख्यिकी के सिद्धांत (Principles of Statistics) 2. प्रबंध के सिद्धांत (Principles of Management)
3. व्यवहारिक अर्थशास्त्र समूह (Applied Economics Group) वैकल्पिक विषय (Optional subject Group)	1. भारतीय कम्पनी अधिनियम (Indian Company Act) 2. बैंकिग एवं बीमा (Banking & Insurance)

नोट– व्यवसायिक पाठ्यकम के दोनों प्रश्न–पत्रों को वैकल्पिक समूह, व्यवहारिक अर्थशास्त्र (Applied Economics) के स्थान पर लिया जा सकता है।

SYLLABUS SCHEME
B.Com 3rd Year
(w.e.f. 2019-20)

विषय /(Subjects)	प्रश्न–पत्र (Papers)
1. लेखा समूह (Accounts group) अनिवार्य विषय (Compulsary Subject)	1. आयकर विधि एवं व्यवहार (Income Tax Law & Practice) 2. वस्तु एवं सेवा कर तथा सीमा शुल्क (Goods & services Tax & Custom Duty)
2. प्रबंध समूह (Management Group) अनिवार्य विषय (Compulsory Subject)	1. अंकेक्षण (Auditing) 2. प्रबंधकीय लेखांकन (Management Accounting)
3. व्यवहारिक अर्थशास्त्र समूह (Applied Economics Group) वैकल्पिक विषय (Optional Subject	समूह अ (Group A) 1. लोक–वित्त (Public Finance) 2. वित्तीय प्रबंध (Financial Management)

Group)	समूह ब (Group B) 1. विपणन के सिद्धांत (Principles of Marketing) 2. अंतराष्ट्रीय विपणन (International marketing)
	समूह स (Group C) 1. ई–वाणिज्य एवं विपणन (E-Commerce & Marketing) 2. वित्तीय बाजार और विनियोग प्रबंध (Financial Market & Investment Management)
	समूह ग (Group D) 1. मानव संसाधन प्रबंध एवं औद्योगिक संबंध (Human resource Management & Industrial Relation) 2. संगठनात्मक सिद्धांत एवं व्यवहार (Organisational Theory & Behaviour)

नोट– 1. व्यवसायिक पाठ्यकम के दोनों प्रश्न–पत्रों को वैकल्पिक समूह, व्यवहारिक अर्थशास्त्र (Applied Economics) के स्थान पर लिया जा सकता है।

3. वैकल्पिक समूह अ,ब,स एवं ग (A,B,C,D) में से कोई भी एक समूह के दोनों प्रश्न पत्रों को लिया जायेगा।

उच्चशिक्षा विभाग, म.प्र. शासन

एम.कॉम. कक्षाओं के लिये सेमेस्टर अनुसार पाठ्यक्रम
केन्द्रीय अध्ययन मण्डल द्वारा अनुशंसित तथा म.प्र. के राज्यपाल द्वारा अनुमोदित

Department of Higher Education Govt. of M.P.

M.Com. semester wise Syllabus

As recommended by Central Board of Studies and approved by the Governor of M.P.

Syllabus of M.Com. Classes : At a Glance
एम.कॉम. कक्षाओं का पाठयक्रम : एक दृष्टि में

सेमेस्टर (Semester)	अनिवार्य (Compulsory) या / Or वैकल्पिक (Optional)	विशिष्टकरण विषय समूह (Specialisation Subject Group)	प्रश्न पत्र क्रमांक Question Paper No.	प्रश्न पत्र का शीर्षक (Title of the Question Paper)	Marks Alloted for Two CCE दो सतत समग्र मूल्यांकन के अंको का आबंटन	Marks Alloted for Semester Ending Main Exam सेमेस्टर अंत मुख्य परीक्षा के अंको का आबंटन	Total Marks Alloted for Paper प्रश्न पत्र के लिए कुल अंकों का आबंटन
IV चतुर्थ	वैकल्पिक (Optional) Financial Analysis & Control वित्तीय विश्लेषण एवं नियंत्रण	E-501	I	Security Analysis And Portfolio Management प्रतिभुति विश्लेषण एवं पोर्टफोलियो प्रबंध	15	35	50
		E-502	II	Strategic Financial Management व्यूहरचना वित्तीय प्रबंध	15	35	50
		E-503	III	Project Planning and Management परियोजना नियोजन तथा प्रबंध	15	35	50
		E-504	IV	Indian Financial System भारतीय वित्तीय प्रणाली	15	35	50
		E-505	V	Employment Oriented Project Work रोजगार मूलक परियोजना कार्य			50
Total Marks / कुल अंक							250

उच्चशिक्षा विभाग, म.प्र. शासन

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सेमेस्टर (Semester)	अनिवार्य (Compulsory) या / Or वैकल्पिक (Optional)	विशिष्टकरण विषय समूह (Specialisation Subject Group)	प्रश्न पत्र क्रमांक Question Paper No.	प्रश्न पत्र का शीर्षक (Title of the Question Paper)	Marks Alloted for Two CCE दो सतत समग्र मूल्यांकन के अंको का आबंटन	Marks Alloted for Semester Ending Main Exam सेमेस्टर अंत मुख्य परीक्षा के अंको का आबंटन	Total Marks Alloted for Paper प्रश्न पत्र के लिए कुल अंकों का आबंटन
IV चतुर्थ	वैकल्पिक (Optional) Accounting लेखांकन	F-601	I	Corporate Accounting निगमीय लेखांकन	15	35	50
		F-602	II	Cost Administration and Control लागत प्रशासन एवं नियंत्रण	15	35	50
		F-603	III	Accounting Theory लेखांकन सिद्धांत	15	35	50
		F-604	IV	Institutional Accounting संस्थागत लेखांकन	15	35	50
		F-605	V	Employment Oriented Project Work रोजगार मूलक परियोजना कार्य			50
Total Marks / कुल अंक							250

उच्चशिक्षा विभाग, म.प्र. शासन

एम.कॉम. कक्षाओं के लिये सेमेस्टर अनुसार पाठ्यक्रम
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सेमेस्टर (Semester)	अनिवार्य (Compulsory) या / Or वैकल्पिक (Optional)	विशिष्टकरण विषय समूह (Specialisation Subject Group)	प्रश्न पत्र क्रमांक Question Paper No.	प्रश्न पत्र का शीर्षक (Title of the Question Paper)	Marks Alloted for Two CCE दो सतत समग्र मूल्यांकन के अंको का आबंटन	Marks Alloted for Semester Ending Main Exam सेमेस्टर अंत मुख्य परीक्षा के अंको का आबंटन	Total Marks Alloted for Paper प्रश्न पत्र के लिए कुल अंकों का आबंटन
IV चतुर्थ	वैकल्पिक (Optional) Accounting लेखांकन	F-601	I	Corporate Accounting निगमीय लेखांकन	15	35	50
		F-602	II	Cost Administration and Control लागत प्रशासन एवं नियंत्रण	15	35	50
		F-603	III	Accounting Theory लेखांकन सिद्धांत	15	35	50
		F-604	IV	Institutional Accounting संस्थागत लेखांकन	15	35	50
		F-605	V	Employment Oriented Project Work रोजगार मूलक परियोजना कार्य			50
Total Marks / कुल अंक							250

उच्चशिक्षा विभाग, मं.प्रं. शासन

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M.Com. semester wise Syllabus

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एम.कॉम. कक्षाओं का पाठयक्रम : एक दृष्टि में

सेमेस्टर (Semester)	अनिवार्य (Compulsory) या / Or वैकल्पिक (Optional)	विशिष्टकरण विषय समूह (Specialisation Subject Group)	प्रश्न पत्र क्रमांक Question Paper No.	प्रश्न पत्र का शीर्षक (Title of the Question Paper)	Marks Alloted for Two CCE दो सतत समग्र मूल्यांकन के अंको का आबंटन	Marks Alloted for Semester Ending Main Exam सेमेस्टर अंत मुख्य परीक्षा के अंको का आबंटन	Total Marks Alloted for Paper प्रश्न पत्र के लिए कुल अंकों का आबंटन
IV चतुर्थ	वैकल्पिक (Optional) Taxation कराधान	G-701	I	Direct Tax In India भारत में प्रत्यक्ष कर	15	35	50
		G-702	II	Business Taxation व्यवसायिक कराधान	15	35	50
		G-703	III	Indirect Taxation अप्रत्यक्ष कर	15	35	50
		G-704	IV	Sales and Service Tax विक्रय एवं सेवाकर	15	35	50
		G-705	V	Employment Oriented Project Work रोजगार मूलक परियोजना कार्य			50
Total Marks / कुल अंक							250

BARKATULLAH UNIVERSITY, BHOPAL

FOURTH SEMESTER (EXAMINATION SCHEME)

SESSION : 2016-17

M.SC. (BOTANY)

1. Course Code :
2. Course Name : **M.Sc Botany**
3. Total Paper : **4**
4. Compulsory Paper : **2**
5. Optional Paper : **2**
6. Maximum marks : **700**
7. Minimum Passing percentage : **36**
8. Practical : Y
9. Practical Passing Marks : **36 each**

Course Code	Paper Code	Paper Name	Theory							Practical		Total	
			Paper			CCE		Total Marks					
			1	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
		Compulsory Paper											
	401	Biotechnology and Tissue Culture	85	85	31	15	05	100	36	0	0	100	36
	402	Applied Botany & Instrumentation	85	85	31	15	05	100	36	0	0	100	36
	403	**Elective paper**											
		The student may opt. any of the one following Elective paper.											
		Limnology	85	85	31	15	05	100	36	0	0	100	36
		Industrial Microbiology	85	85	31	15	05	100	36	0	0	100	36
		Taxonomy of Angiosperms	85	85	31	15	05	100	36	0	0	100	36
		Applied Mycology	85	85	31	15	05	100	36	0	0	100	36
		Forest Biology, Forest Vegetation of India and Management of Forest Resources	85	85	31	15	05	100	36	0	0	100	36
		Plant and Society	85	85	31	15	05	100	36	0	0	100	36
		Environmental Science	85	85	31	15	05	100	36	0	0	100	36
	404	**Elective paper**											
		The student may opt. any of the one following Elective paper.											
		Plant Protection	85	85	31	15	05	100	36	0	0	100	36
		Bioinformatics and Computer Application and Biostatistics	85	85	31	15	05	100	36	0	0	100	36
		Molecular Biology and Biotechnology	85	85	31	15	05	100	36	0	0	100	36
		Pollution Ecology	85	85	31	15	05	100	36	0	0	100	36
		Ethnobotany	85	85	31	15	05	100	36	0	0	100	36
		Practical-I **(401)** Biotechnology and Tissue Culture **(402)** Applied Botany & Instrumentation	0	0	0	0	0	0	0	0	0	100	36
		Practical-II **(403) Elective Paper** **(404) Elective Paper**	0	0	0	0	0	0	0	0	0	100	36
		Internship/ Project	0	0	0	0	0	0	0	0	0	100	36

BARKATULLAH UNIVERSITY, BHOPAL

Effective on Session : 2016-17

FOURTH SEMESTER

1.	Course Code	:	7.	Maximum marks	: 600
2.	Course Name	: M.Sc. (Zoology)	8.	Minimum percentage	: 36%
3.	Total Paper	: 04	9.	Internship/Project Marks	: 100
4.	Compulsory Paper	: 02	10.	Internship/ Project work	: 36%
5.	Optional Paper	: 02	11.	Practical Passing mark	: 18 Each
6.	Practical	: 02			

Subject Name	Theory							Practical		Total	
	Paper			CCE		Total Marks					
	1st	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Compulsory paper Theory											
Animal Behavior and Neurophysiology	85	85	31	15	05	100	36	0	0	100	36
Gamete Biology, Development and Differentiation	85	85	31	15	05	100	36	0	0	100	36
Optional (special paper) **Group-1** (a) Fish (Ichyology) structure and Function Or (b) Cell Biology Or (c) Entomology Or (d) Wild life conservation Or (e) Biology of vertebrates Immune System Or (f) Limnology or (g) Acquaculture } Included in III Sem. as a compulsory paper	85	85	31	15	05	100	36	0	0	100	36
Optional (special paper) **Group-2** (a.) Pisci culture and economic importance of fishes (Ichyology)	85	85	31	15	05	100	36	0	0	100	36
or (b) Cellular organization and molecular organization	85	85	31	15	05	100	36	0	0	100	36
or (c.) Applied entomology	85	85	31	15	05	100	36	0	0	100	36
or (d.) Environment & Biodiversity conservation	85	85	31	15	05	100	36	0	0	100	36
or (e) Molecular endocrinology and reproductive technology	85	85	31	15	05	100	36	0	0	100	36
or (f) Limnology and fish productivity	85	85	31	15	05	100	36	0	0	100	36
Or (g) Applied aquaculture	85	85	31	15	05	100	36	0	0	100	36

	Or											
(h)	Protein Nucleic acids and metabolic regulation	85	85	31	15	05	100	36	0	0	100	36
	or											
(i)	Sericulture	85	85	31	15	05	100	36	0	0	100	36
	or											
(j)	Neurotoxicology	85	85	31	15	05	100	36	0	0	100	36
	or											
(k)	Microbial ecology and biology of parasitism	85	85	31	15	05	100	36	0	0	100	36
	Practical – I Based on paper Ist and IInd theory paper	0	0	0	0	0	0	0	50	18	50	18
	Practical – II Based on optional paper from group -1 and Group-2 50 or (25+25)	0	0	0	0	0	0	0	50	18	50	18
	Project/Internship	0	0	0	0	0	0	0	0	0	100	36

* Student has choice to opt one paper each (special paper) from group 1 and group-2 In Barkatullah University five optional paper–Group-I (a,b,c,d,e) and Group-II (a,b,c,d,e)

** Those optional papers which are not included in the syllabus, can be made at university level.

FOURTH SEMESTER

1. Course Code :
2. Course Name : **M.Sc. (Computer Science)**
3. Total Paper : **4**
4. Compulsory Paper : **3**
5. Optional Paper : **1**
6. Project : **Y**
7. Maximum marks : **300**
8. Minimum Passing percentage : **36**
9. Project work : **50**
10. Project passing marks : **18**
11. Practical : **2**
12. Practical Passing Marks : **18 marks each**

Sub. code	Subject Name	Theory									Practical		Total	
		Paper					CCE		Total Marks					
		1st	2nd	3rd	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Compulsory paper														
	UNIX INTERNALS, SHELL PROGRAMMING & LINUX	35	0	0	35	13	15	5	50	18	0	0	50	18
	COMPILER DESIGN	35	0	0	35	13	15	5	50	18	0	0	50	18
	ASP.NET AND C#	35	0	0	35	13	15	5	50	18	0	0	50	18
Elective paper (any one)														
	(i) Artificial Intelligence and Expert Systems	35	0	0	35	13	15	5	50	18	0	0	50	18
	(ii) Data Warehousing and Mining	35	0	0	35	13	15	5	50	18	0	0	50	18
	(iii) Bioinformatics	35	0	0	35	13	15	5	50	18	0	0	50	18
	(iv) Visual Basic & SQL	35	0	0	35	13	15	5	50	18	0	0	50	18
	Practical-I ASP.Net	0	0	0	0	0	0	0	0	0	50	18	50	18
	Practical-II Shell Programming (Linux/Unix)	0	0	0	0	0	0	0	0	0	50	18	50	18
	Project	0	0	0	0	0	0	0	50	18	0	0	50	18

विशेष टीपः- विद्वत परिषद की स्थाई समिति की बैठक दिनांक 26/12/08 के पद कमांक 8/13/43 के लिये गये निर्णय अनुसार स्नातकोत्तर में प्रोजेक्ट कार्य में 36 प्रतिशत उत्तीर्णांक अंक प्राप्त करना अनिवार्य होगा। तदानुसार प्रोजेक्ट के अंकों को श्रेणी प्रदाय हेतु गणना में नही लिया जावेगा।

OPTIONAL PAPERS

Out of the following select any two papers each of marks 50:

OPT-1 MCH-504 Organotransition Metal Chemistry

OPT-2 MCH-505 Polymers

OPT-3 MCH-506 Heterocyclic Chemistry

OPT-4 MCH-507 Physical Organic Chemistry

OPT-5 MCH-508 Chemistry of Materials

Department of Higher Education, Govt. of M.P.
Post Graduate Semester wise Syllabus
as recommended by Central Board of Studies and approved by the Governor of M.P.
उच्च शिक्षा विभाग, म.प्र. शासन
स्नातकोत्तर कक्षाओं के लिये सेमेस्टर अनुसार पाठ्यक्रम
केंद्रीय अध्ययन मण्डल द्वारा अनुशंसित तथा म. प्र. के राज्यपाल द्वारा अनुमोदित
Session (सत्र) 2010–2011

12. Enzyme Structure and Mechanism, A Fersht, W.H. Freeman
13. Biochemistry : The Chemical Reactions of Living Cells, D.E. Metzler, Academic Press.

Class / कक्षा	: M.Sc.
Semester / सेमेस्टर	: IV
Subject / विषय	: Chemistry
Title of Subject Group	: **Organic Synthesis**
विषय समूह का शीर्षक	:
Paper No. / प्रश्नपत्र कमांक	: **OPT-1 (Code- MCH-514)**
Compulsory / अनिवार्य या Optional / वैकल्पिक अनिवार्य	: Optional
Max. Marks अधिकतम अंक	: **50**

OPTIONAL PAPERS

Out of the following select any two papers each of marks 50:

OPT-1 MCH-504 Organotransition Metal Chemistry

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OPT-3 MCH-506 Heterocyclic Chemistry

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केंद्रीय अध्ययन मण्डल द्वारा अनुशंसित तथा म. प्र. के राज्यपाल द्वारा अनुमोदित
Session (सत्र) 2010–2011

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Class / कक्षा	: M.Sc.
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विषय समूह का शीर्षक	:
Paper No. / प्रश्नपत्र कमांक	: **OPT-1 (Code- MCH-514)**
Compulsory / अनिवार्य या Optional / वैकल्पिक अनिवार्य	: Optional
Max. Marks अधिकतम अंक	: **50**

Department of Higher Education, Govt. of M.P.

B.Sc./B.A. Annual Examination System wise syllabus

Recommended by Central Board of studies

सत्र / Session : 2019-20

Max. Marks/अधिकतम अंक	:	42.5
Class/कक्षा	:	B.Sc./B.A.
Year/वर्ष	:	Third/तृतीय
Subject/विषय	:	Mathematics/गणित
Paper / प्रश्नपत्र	:	Third Optional-D / तृतीय एच्छिक–डी
Title/शीर्षक	:	Mathematical Modelling/ गणितीय मॉडलिंग

Unit-1	Mathematical modelling through ordinary differential equations of first order: Linear Growth and Decay models, Non-linear Growth and Decay Models, Dynamic problems, Geometrical problems.
ईकाई–1	प्रथम कोटि के साधारण अवकल समीकरणों द्वारा गणितीय मॉडलिंग: रेखीय वृद्धि एवं ह्रास मॉडल्स, अरेखीय वृद्धि एवं ह्रास मॉडल्स, गतिकी समस्याए ज्यामितीय समस्याऐं।
Unit-2	Mathematical modelling through system of ordinary differential equations of first order: Population Dynamics, Epidemics, Compartment models, Economic medicine, Arms Race, Battles and International Trade, Dynamics models .
ईकाई–2	प्रथम कोटि के साधारण अवकल समीकरणों के निकायो द्वारा गणितीय मॉडलिंग: जनसख्या गतिकी, महामारी, उपखण्डीय, अर्थशास्त्रीय, चिकित्सकीय, आर्म रेस, बैटल्स, अन्तर्राष्ट्रीय व्यापार एवं गतिकी मॉडल्स।
Unit-3	Mathematical modelling through ordinary differential equations of second order: Planetary Motions, Circular Motions and Motion of Satellites, Mathematical modelling through Linear differential equations of second order and miscellaneous mathematical models.
ईकाई–3	द्वितीय कोटि के साधारण अवकल समीकरणों द्वारा गणितीय मॉडलिंग: ग्रहीय गति, वृत्तीय गति एवं उपग्रहीय गति। द्वितीय कोटि के रैखिक अवकल समीकरणों द्वारा गणितीय मॉडलिंग एवं विविध गणितीय मॉडल्स।
Unit-4	Mathematical modelling through difference equations: Simples Models, Basic theory of linear difference equations with constants coefficients, economic and finance-population dynamics and genetics, probability theory.
ईकाई–4	अन्तर समीकरण द्वारा गणितीय मॉडलिंग: सरल मॉडल्स, अचर गुणांको वाले रैखिक अन्तर समीकरणों के सिद्धांत एव उनके द्वारा अर्थशास्त्रीय एवं वित्तीय, जनसंख्या गतिकी एवं जनांकिकी एवं प्रायिकता सिद्धांत में गणितीय मॉडलिंग।
Unit-5	Mathematical modelling through Graphs: Solutions that can be modelled through graph, mathematical modelling in terms of directed graphs, signed graphs, weighted digraphs and un-oriented graphs.

Chau 28.4.17 28.4.17 Wyas 28.4.17 M. Dube

Year/वर्ष	:	Third/ तृतीय
Subject/विषय	:	Mathematics/गणित
Paper / प्रश्नपत्र	:	Third Optional-A / तृतीय एच्छिक–ए
Title/शीर्षक	:	Statistical methods/सांख्यिकीय विधियां

Note;- Simple Calculator will be allowed in the examination of this paper.

नोटः– इस प्रश्न पत्र की परीक्षा में साधारण केलक्यूलेटर के उपयोग की अनुमति है।

Unit-1	Frequency distribution- Measures of central tendency, Mean, Median, Mode, G.M, H.M, Partition values. Measures of dispersion- Range, Interquartile range, Mean deviation, Standard deviation, Moments, Skewness and kurtosis.
ईकाई–1	आवृत्ति बंटन–केन्द्रीय प्रवृत्ति की माप, माध्य, माध्यिका, बहुलक, गुणोत्तर माध्य, हरात्मक माध्य। विभाजनकारी मान, विक्षेपण की माप–परास, अन्तर्चतुर्थक परास, माध्य विचलन, मानक विचलन, आघूर्ण, वैषम्य और कुकुदता।
Unit-2	Probablity- Event, Sample space, Probablity of an event, Addition and multiplication theorems, Baye's theorem, Continuous probablity- probablity density function and its applications for finding the mean, mode, median and standard deviation of various continuous probablity distributions. Mathematical expectation, Expectation of sum and product of random variables, Moment generating function.
ईकाई–2	प्रायिकता– घटना, प्रतिदर्श समष्टि किसी घटना की प्रायिकता, प्रायिकता की योग एवं गुणन प्रमेय, बेज का प्रमेय, सतत प्रायिकता, प्रायिकता घनत्व फलन एवं विभिन्न सतत प्रायिकता बंटनों के लिये माध्य, बहुलक, माध्यिका ज्ञात करने में इसके अनुप्रयोग, गणितीय प्रत्याशा, यादृच्छिक चरो के योग एवं गुणन की गणितीय प्रत्याशा, आघूर्ण जनित फलन।
Unit-3	Theoretical distribution- Binomial, Poisson, rectangulars and exponential distributions, their properties and uses.

Department of Higher Education, Govt. of M.P.

B.Sc./B.A. Annual Examination System wise syllabus

Recommended by Central Board of studies

सत्र / Session : 2019-20

Max. Marks/अधिकतम अंक	:	42.5
Class/कक्षा	:	B.Sc./B.A.
Year/वर्ष	:	Third/तृतीय
Subject/विषय	:	Mathematics/गणित
Paper / प्रश्नपत्र	:	Third Optional-B / तृतीय एच्छिक–बी
Title/शीर्षक	:	Discrete Mathematics/ विविक्त गणित

Unit-1	Boolean functions-disjunctive & cunjunctive normal forms (canonical & dual canonical), Bool's expansion theorem, Relations- Binary relation, Inverse relation, Composite relation, Equivalence relation, Equivalence classes & its properties Partition of a set.
ईकाई–1	बूलीय फलन – वियोजनीय एवं संयोजनीय प्रसामान्य रूप (केनोनिकल एवं डूअल केनानिकल), बूल का विस्तार प्रमेय। संबंध– द्विचर संबंध, प्रतिलोम संबंध, संयोजित संबंध, तुल्यता संबंध, तुल्यता वर्ग एवं उसके गुण धर्म, समुच्चय का विभाजन।
Unit-2	Partial order relation, Partially ordered sets, totally ordered sets, Hasse diagram, maximal and minimal element, first and last element Lattice- definition and examples, dual lattice, bounded lattice, distributive lattice, complemented lattice.
ईकाई–2	अशत: क्रम संबंध, अंशत: क्रमित समुच्चय, पूर्णत: क्रमित समुच्चय, हैसूह आरेख, उच्चिष्ठ एवं निमनिष्ठ अवयव, प्रथम एवं अन्तिम अवयव, जालक –परिभाषा एवं उदाहरण, द्वैत जालक, परिबद्ध जालक, वितरणीय जालक, पूरक जालक।
Unit-3	Graph- Definition, types of graphs, Subgraphs, walk, path , circuit, connected and disconnected graphs, Euler graph, Hamiltonian path and circuit, shortest path in weighted graph, Dijkstra's Algorithm for shortest paths.
ईकाई–3	आलेख– परिभाषा एवं प्रकार उप आलेख, गमन, पथ एवं परिपथ, संबद्ध एवं असंबद्ध ग्राफ, ऑयलर ग्राफ, हेमिल्टोनियन पथ और परिपथ, भारित आलेख में लघुत्तम पथ हेतु

Department of Higher Education, Govt. of M.P.

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सत्र / Session : 2019-20

Max. Marks/अधिकतम अंक	:	42.5
Class/कक्षा	:	B.Sc./B.A.
Year/वर्ष	:	Third/तृतीय
Subject/विषय	:	Mathematics/गणित
Paper / प्रश्नपत्र	:	Third Optional-C / तृतीय एच्छिक–सी
Title/शीर्षक	:	Mechanics / यांत्रिकी

Unit-1	Analytical conditions of Equilibrium of Coplanar forces. Virtual work. Catenary.
ईकाई–1	समतलीय बलों की साम्यावस्था के वैश्लेषिक प्रतिबंध, कल्पित कार्य, रज्जुका।
Unit-2	Forces in three dimensions, Poinsot's central axis, Null lines and Planes. Stable and unstable Equilibrium.
ईकाई–2	त्रिविमीय बल, प्वासो का केन्द्रीय अक्ष, शून्य रेखाएँ एवं समतल, स्थिर एवं अस्थिर साम्यावस्था।
Unit-3	Velocites and accelerations along radial and transverse directions and along tangential and normal directions. Simple Harmonic motion. Elastic Strings. Projectile.
ईकाई–3	त्रिज्यीय एवं अनुप्रस्थ दिशा में वेग एवं त्वरण, स्पर्श रेखीय एवं अभिलंब दिशाओं में वेग एवं त्वरण। सरल आवर्त गति प्रत्यास्थ डोरियाँ, प्रक्षेप्य।
Unit-4	Motion on smooth and rough plane curves . Motion in a resisting medium. Motion of particles of varying mass. Central orbits. Kepler's Law of motion.
ईकाई–4	चिकने एवं रूक्ष समतल वक्र पर गति प्रतिरोधी माध्यम में गति, परिवर्तनीय द्रव्यमान वाले कणों की गति, सकेन्द्र कक्ष, केप्लर के गति के नियम।
Unit-5	Motion of a particle in three dimensions. Moments and Product of inertia
ईकाई–5	त्रिविमीय तल में किसी कण की गति, जड़त्व एवं गुणन आघूर्ण

Department of Higher Education, Govt. of M.P.

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Year/वर्ष	:	Third/तृतीय
Subject/विषय	:	Mathematics/गणित
Paper / प्रश्नपत्र	:	Third Optional-D / तृतीय एच्छिक–डी
Title/शीर्षक	:	Mathematical Modelling/ गणितीय मॉडलिंग

Unit-1	Mathematical modelling through ordinary differential equations of first order: Linear Growth and Decay models, Non-linear Growth and Decay Models, Dynamic problems, Geometrical problems.
ईकाई–1	प्रथम कोटि के साधारण अवकल समीकरणों द्वारा गणितीय मॉडलिंग: रेखीय वृद्धि एवं ह्रास मॉडल्स, अरेखीय वृद्धि एवं ह्रास मॉडल्स, गतिकी समस्याए ज्यामितीय समस्याऐं।
Unit-2	Mathematical modelling through system of ordinary differential equations of first order: Population Dynamics, Epidemics, Compartment models, Economic medicine, Arms Race, Battles and International Trade, Dynamics models .
ईकाई–2	प्रथम कोटि के साधारण अवकल समीकरणों के निकायो द्वारा गणितीय मॉडलिंग: जनसख्या गतिकी, महामारी, उपखण्डीय, अर्थशास्त्रीय, चिकित्सकीय, आर्म रेस, बैटल्स, अन्तर्राष्ट्रीय व्यापार एवं गतिकी मॉडल्स।
Unit-3	Mathematical modelling through ordinary differential equations of second order: Planetary Motions, Circular Motions and Motion of Satellites, Mathematical modelling through Linear differential equations of second order and miscellaneous mathematical models.
ईकाई–3	द्वितीय कोटि के साधारण अवकल समीकरणों द्वारा गणितीय मॉडलिंग: ग्रहीय गति, वृत्तीय गति एवं उपग्रहीय गति। द्वितीय कोटि के रैखिक अवकल समीकरणों द्वारा गणितीय मॉडलिंग एवं विविध गणितीय मॉडल्स।
Unit-4	Mathematical modelling through difference equations: Simples Models, Basic theory of linear difference equations with constants coefficients, economic and finance-population dynamics and genetics, probability theory.
ईकाई–4	अन्तर समीकरण द्वारा गणितीय मॉडलिंग: सरल मॉडल्स, अचर गुणांको वाले रैखिक अन्तर समीकरणों के सिद्धांत एव उनके द्वारा अर्थशास्त्रीय एवं वित्तीय, जनसंख्या गतिकी एवं जनांकिकी एवं प्रायिकता सिद्धांत में गणितीय मॉडलिंग।
Unit-5	Mathematical modelling through Graphs: Solutions that can be modelled through graph, mathematical modelling in terms of directed graphs, signed graphs, weighted digraphs and un-oriented graphs.

Chau 28.4.17 28.4.17 Wyas 28.4.17 M. Dube

Department of Higher Education, Govt. of M.P.

B.Sc./B.A. Annual Examination System wise syllabus

Recommended by Central Board of studies

सत्र / Session : 2019-20

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Year/वर्ष	:	Third/तृतीय
Subject/विषय	:	Mathematics/गणित
Paper / प्रश्नपत्र		Third Optional-E / तृतीय एच्छिक–ई
Title/शीर्षक	:	Financial Mathematics/ वित्तीय गणित

Unit-1	Financial Management- Nature and Scope of Financial Management, Goals of Financial Management and main decisions of financial management. Difference between Risk, Speculation and Gambling.
ईकाई–1	वित्तीय प्रबंधन– वित्तीय प्रबंधन की प्रकृति एवं क्षेत्र, वित्तीय प्रबंधन के लक्ष्य एवं प्रमुख निर्णय, जोखिम, सट्टे एवं जुए में अन्तर।
Unit-2	Time value of Money-Interest rate and Discount Rate. Present value and Future value, discrete case as well as continuous compounding case. Annuities and its kinds.
ईकाई–2	मुद्रा का समयमान–ब्याज दर एवं बट्टा दर, वर्तमान मूल्य एवं भावी मूल्य, विविक्त और सतत् चक्रवर्ती वृद्धियाँ, वार्षिकी एवं उसके प्रकार।
Unit-3	Meaning of return, Return as Internal Rate of Return (IRR). Numerical methods like Newton Raphson Method to calculate IRR. Measurement of returns under uncertainty situations.
ईकाई–3	वापसी का अर्थ, वापसी की आन्तरिक दर, संख्यात्मक विधियां जैसे वापसी की आन्तरिक दर की गणना की न्यूटन रॉफसन विधि, अनिश्चय की अवस्था में वापसी की गणना।
Unit-4	Meaning of Risk, Difference between risk and uncertainty, Types of Risks, Measurements of Risk, Calculation of security and portfolio risk and Return-Markowitz Model, Sharpe's Single Index Model- Systematic Risk and Unsystematic Risk.
ईकाई–4	जोखिम का अर्थ, जोखिम एवं अनिश्चय में अन्तर, जोखिम के प्रकार, जोखिम को मापना, प्रतिभूति एवं विनियोजन जोखिम एवं वापसी की गणना, मारकोविज मॉडल, शॉर्प का एकल सूचकांक मॉडल नियमित एवं अनियमित जोखिम।
Unit-5	Taylor series and Bond Valuation, Calculation of Duration and Convexity of Bonds, Financial Derivatives- Futures, Forward, Swaps and options, Call and Put Option, Call and Put Parity theorem.

BARKATULLAH UNIVERSITY, BHOPAL

FOURTH SEMESTER (EXAMINATION SCHEME)

SESSION : 2016-17

M.SC. (BOTANY)

1. Course Code :
2. Course Name : **M.Sc Botany**
3. Total Paper : **4**
4. Compulsory Paper : **2**
5. Optional Paper : **2**
6. Maximum marks : **700**
7. Minimum Passing percentage : **36**
8. Practical : Y
9. Practical Passing Marks : **36 each**

Course Code	Paper Code	Paper Name	Theory							Practical		Total	
			Paper			CCE		Total Marks					
			1	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
		Compulsory Paper											
	401	Biotechnology and Tissue Culture	85	85	31	15	05	100	36	0	0	100	36
	402	Applied Botany & Instrumentation	85	85	31	15	05	100	36	0	0	100	36
	403	**Elective paper** The student may opt. any of the one following Elective paper.											
		Limnology	85	85	31	15	05	100	36	0	0	100	36
		Industrial Microbiology	85	85	31	15	05	100	36	0	0	100	36
		Taxonomy of Angiosperms	85	85	31	15	05	100	36	0	0	100	36
		Applied Mycology	85	85	31	15	05	100	36	0	0	100	36
		Forest Biology, Forest Vegetation of India and Management of Forest Resources	85	85	31	15	05	100	36	0	0	100	36
		Plant and Society	85	85	31	15	05	100	36	0	0	100	36
		Environmental Science	85	85	31	15	05	100	36	0	0	100	36
	404	**Elective paper** The student may opt. any of the one following Elective paper.											
		Plant Protection	85	85	31	15	05	100	36	0	0	100	36
		Bioinformatics and Computer Application and Biostatistics	85	85	31	15	05	100	36	0	0	100	36
		Molecular Biology and Biotechnology	85	85	31	15	05	100	36	0	0	100	36
		Pollution Ecology	85	85	31	15	05	100	36	0	0	100	36
		Ethnobotany	85	85	31	15	05	100	36	0	0	100	36
		Practical-I (401) Biotechnology and Tissue Culture (402) Applied Botany & Instrumentation	0	0	0	0	0	0	0	0	0	100	36
		Practical-II (403) Elective Paper (404) Elective Paper	0	0	0	0	0	0	0	0	0	100	36
		Internship/ Project	0	0	0	0	0	0	0	0	0	100	36

बरकतउल्ला विश्वविद्यालय,भोपाल

Barkatullah University, Bhopal

As per model syllabus of U.G.C. New Delhi, drafted by Central Board of Studies and Approved by Higher Education and the Governor of M.P.

जीव विज्ञान संकाय

Faculty of Life Science

पाठ्यक्रम एवं निर्धारित पुस्तकें

Syllabus & Prescribed Books

एम.एस.सी. (वनस्पतिशास्त्र)

चतुर्थ सेमेस्टर

(संशोधित पाठ्यक्रम) परीक्षा 2016-17

M.Sc. (Botany)

Fourth Semester

(Revised Syllabus) Examination 2016-17

प्रकाशक

कुलसचिव

बरकतउल्ला विश्वविद्यालय,भोपाल

2016-17

Part A Introduction

Program: Certificate	Class: B.Sc. 1st year	Year : 2021	Session: 2021-22

Subject: Botany

1	Course Code	S1-BOTA1T
2	Course Title	Applied Botany (Paper 1)
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Core Course
4	Pre-requisite (if any)	To study this course, a student must have had the subject Biology/ Life Sciences/ Agriculture in class/12th
5	Course Learning outcomes (CLO)	By the end of this course the student should have: • Understood the significance and role of botany. • Learnt the basic aspects of applied botany. • Gained knowledge about employment opportunities in field of botany • Gained knowledge about start-up opportunities in the field of botany • Learnt about opportunities of social services • Gain knowledge about best health practices
6	Credit Value	04 Credits
7	Total Marks	Max. Marks: 25+75 / Min. Passing Marks:33

Part B- Content of the Course

Total No. of Lectures- 60 Hours Tutorials- 00 Practical -00 (04 hours per week):
L-T-P:

Unit	Topics	No. of Lectures
I	1.1Introduction, objectives and importance of Applied botany 1.2 History and evolution of botany 1.3 Relation of plants to man and relation with other services 1.4 Various disciplines of botany and theirapplications to human welfare	12
II	1.1 Definition and types of pollution and pollutants **1.2 Phytoremediation:** Air, water, soil, noise and thermal pollutants (Any 5 plants with botanical name, family) and their role in pollution control 1.3Bioremediation: definition and types	12
III	1.1Ancient agricultural practices. **1.2Modern agriculture practices**: Polyhouse, Drip irrigation, hydroponics, computer-based agriculture.	12

29/5/21
(Dr. K. N. SHAH)

Minor

Part A Introduction				
Program: Certificate		Class: BSc-I	Year:2021	Session:2021-22
Subject: Botany				
1	Course Code	S1-BOTA2T		
2	Course Title	Basic Botany (paper 2)		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/....)	Core Course		
4	Pre-requisite (if any)	To study this course, a student must have had the subject botany in class/12th/ certificate/diploma.		
5	Course Learning outcomes (CLO)	• This course will help the student to understand the diversity of plants and evolutionary process in plant kingdoms. • It gives an accounts of plant adaptations from aquatic condition to colonize terrestrial habitat. • The changes in morphological, anatomical and reproductive structures that propel plant evolution can be investigated. • The economic importance and significance of plants in nature will be understood. • They will be acquainted with locally prevalent microbial diseases of plants and humans.		
6	Credit Value	4 Credits		
7	Total Marks	Max. Marks: 75+75		Min. Passing Marks:33

Part B- Content of the Course

Total No. of Lectures- 60Tutorials- 0 Practical -0 (theory 4 hours per week):
L-T-P:

Unit	Topics	No. of Lectures
I	1.1 History of Botany and Indian Contributions. 1.2Morphological Characteristics of lower and higher plants(Angiosperms). 1.3 Types of leaves, Inflorescence, Flowers and Fruits. 1.4 Structure of Plant cell and cell organelles, Prokaryotic and Eukaryotic Cells, types of Cell division. 1.5 Microscope structure and function of light microscope (magnification and resolving power). 1.6 Various types of Microscopes: Bright field, Phase Contrast, SEM and TEM.	12
II	1. Algae 1.1General characteristics 1.2Range of thallus organization, reproduction. 1.3Types of life-cycles in algae 1.4 Role of algae in nature and its economic importance.	12

25/5/21
(Dr. K. W. SHAH)

Part A Introduction

Program: Certificate	Class: 1st year.	Year: 2021	Session: 2021-22

Subject : Botany Practical

1	Course Code	S1-BOTA2P	
2	Course Title	Basic Botany Practical (Paper 2)	
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Core Course	
4	Pre-requisite (if any)	To study this course, a student must have had the subject of Biology/ Life science/Agriculture in class 12th.	
5	Course Learning outcomes (CLO)	• Students will learn to carry out practical work in the laboratory. • Interpreting plant morphology and anatomy of various groups of lower and higher plants. • Students will be able to identify the major groups of microorganisms.	
6	Credit Value	2 Credits	
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33

Part B- Content of the Course

Total No. of Practical- 30 Hours Tutorials- 00 -Practical (2 hours per week):
L-T-P:

Unit	Topics	No. of Practical
I to V	1. Study of various types of leaves , inflorescence, Flowers and fruits. 2. Understanding various parts of Microscope(simple and compound microscope) 3. Study of plant cells (e.g. Onion etc.) 4. Study of permanent slides of Mitosis and meiosis 5. Study of Electron Micrographs of Cell and organelles from Internet, You -Tube. 6. Identification of various algae from specimens, slides and temporary mounts of water from nearby areas like, *Nostoc, Oscillatoria, Volvox,Spirogyra, Oedogonium, Chara,* and specimens and pictographs of marine algae like *Ectocarpus, Sargassum, Polysiphonia.* 7. Study and identification of some Bryophytes like *Riccia, Marchantia, Anthoceros, Funaria and* Field visit. 8. Study of some fossils (specimens and slides) 9. Study of some Pteridophytes like *Lycopodium, Selaginella, Equisetum, Marsilea* andstudy of any one fern	30

Dr. K. W. SHAH
29/5/21

Format for Syllabus of Theory Paper

Part A Introduction 1st Year Generic Elective course in Botany				
Program: Certificate		Class: Ist year	Year:2021	Session:2021-22
Subject:Botany				
1	Course Code	SI-BOTA1G		
2	Course Title	Nursery Management (paper)		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective		
4	Pre-requisite (if any)	This course can be opted as an elective by the students of any subjects/ Open for all		
5	Course Learning outcomes (CLO)	• It is directly related with entrepreneurship development at small and large scale. • It gives an opportunity to understand the methods of propagation, techniques of implementation, advance knowledge of micro propagation including commercial management practices. • High-tech nursery establishment as a venture is possible after completing this course. • It also provides skills of practical application for nursery establishment and related businesses such as marketing of coco peat, compost, green manure, soil media and perlite etc.		
6	Credit Value	4 Credits Theory		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B- Content of the Course

Total No. of Lectures- 60 Hours Tutorials- 00 Practical-00 (2 hours per week)
L-T-P: -

Unit	Topics	No. of Lectures
I	Introduction to nursery 1.1 Introduction, Nursery tools & Containers, Types of nursery. 1.2 Nursery techniques. 1.3 Factors affecting plant growth, Plant growth regulators. 1.4 Introduction to landscaping & Lawn making. 1.5 Special practices in nursery management- Micro-propagation (in vitro culture), soilless culture.	15
II	Vegetative propagation-	15

Dr. K. W. SHAH
29/5/21

B.Sc. I Year Chemistry Syllabus

CBCS Annual Pattern
From Academic Year 2021-2022

Paper II

Part A Introduction

Program- CERTIFICATE	Class- B.Sc.	Year- First	Session: 2021-2022

(Subject - Chemistry

Course Code	S1-CHEM21
Course Title	Analytical Chemistry (Paper II)
Course Type	Core Course
Pre-requisite (if any)	To study this course students must have had the subject Chemistry in class +2 or equivalent.
Course Learning Outcomes (CLO)	By the end of this course students will learn the following aspects of Chemistry: 1. Basic concepts of Mathematics for Chemists. 2. Fundamentals of analytical chemistry and steps involved in analysis. 3. Basic knowledge of Computer for chemists. 4. Basic Concepts of Chemical equilibrium. 5. Principles of Chromatography and chromatographic techniques. 6. Various techniques of Spectroscopic Analysis.
Credit Value	4
Total Marks	Maximum Marks: CCE-25, University Exam (UE)- 75 Minimum Passing Marks: 33

B.Sc. I Year Chemistry Syllabus

CBCS Annual Pattern
From Academic Year 2021-2022

Paper II

Part A Introduction

Program- CERTIFICATE	Class- B.Sc.	Year- First	Session: 2021-2022

(Subject - Chemistry

Course Code	S1-CHEM21
Course Title	**Analytical Chemistry (Paper II)**
Course Type	Core Course
Pre-requisite (if any)	To study this course students must have had the subject Chemistry in class +2 or equivalent.
Course Learning Outcomes (CLO)	By the end of this course students will learn the following aspects of Chemistry: 1. Basic concepts of Mathematics for Chemists. 2. Fundamentals of analytical chemistry and steps involved in analysis. 3. Basic knowledge of Computer for chemists. 4. Basic Concepts of Chemical equilibrium. 5. Principles of Chromatography and chromatographic techniques. 6. Various techniques of Spectroscopic Analysis.
Credit Value	4
Total Marks	Maximum Marks: CCE-25, University Exam (UE)- 75 Minimum Passing Marks: 33

Format for Syllabus of Theory Paper

Part A Introduction			
Program: Certificate	Class': BBA I Year	Year:2021	Session:2021-2022
Subject: BUSINESS MANAGEMENT			
1	Course Code	MI-BBAAIT (Group-I)	
2	Course Title	BBA	
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)	
4	Pre-requisite (if any)	Not Required (Open for All)	
5	Course Learning outcomes (CLO)	1. Student will be able to assess the global context for planning, coordinating, and monitoring managerial behaviour. 2-Through various planning and decision-making techniques, students can learn about how businesses ensure to remain in a competitive market. 3. Students will understand various forms of organizational structures and their importance. 4. Students can learn about various strategies used by businesses to maintain and improve employee efficiency. 5. Students will be able to understand how organizations use different leadership styles to stay competitive.	
6	Credit Value	(Credit) 6	
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours L-T-P: 90		
Unit	Topics	No. of Lectures
1	Management in Indian Culture and Tradition, Definition and Meaning of Management, Functions and Responsibilities of Management, Role of manager, Principles of Management. School & Thoughts of Management.	18
2	Planning: Process, Types and Significance, Planning vs. Forecasting Objective, Strategies and Policies, MBO. Decision Making: Process & Significance, Planning for Start-ups'.	18
3	Organization: Nature and Purpose of organization. Importance and process of Organization. Departmentalization, Organizational structures: types and relevance, Line and Staff relationship.	18
4	Authority- Delegation, Decentralization – Difference between Authority and power- Responsibility, Recruitment- Sources, Selection, Training, Direction –Nature and Purpose.	18
5	Leadership: Meaning, Importance, Types of Leadership, Leadership Styles, Motivation: Types & significance, Maslow's Need Hierarchy, Theory X &Y of Motivation. An overview of Strategic Management, SWOT Analysis, Strategic Analysis, Alternative-Choice & Evaluation. Future Management- Challenges and Skills	18
Keywords/Tags:		

28.5.2021

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Chairman, Central Board of Studies
Professional Management BBA Course

Format for Syllabus of Theory Paper

Part A Introduction				
Program: Certificate		Class': BBA I Year	Year:2021	Session:2021-2022
Subject: COMMUNICATION SKILLS				
1	Course Code	M1-BBAA2T (Group-I)		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	1. Imagination, Ethical Theory and Skills to Interact, Students can learn how to do this ethically and effectively. 2. Students can learn and practice group communication skills. They will learn how to respond in discussions, interviews, conferences. 3. Students can learn nonverbal communication, listening and organizational culture. 4. Students can be equipped with knowledge of professional communication through the basic principles of writing professional papers and other documents.		
6	Credit Value	(Credit) 6		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours L-T-P: 90		
Unit	Topics	No. of Lectures
1	Historical background of Communication, Definition and Process of Communication, Essentials of Effective Communication, Barriers to Communication, Role of Communication in Organizational Effectiveness.	18
2	Public Speech - Composition Principles, Speech Delivering Skills, Group Discussion: Do's and Don'ts of Group Discussion, Communication in Committees, Seminars and Conference.	18
3	Non-Verbal Communication: Meaning, types and Importance, Listening, Difference between Listening and Hearing.	18
4	Business Correspondence, Essentials of Effective Business Correspondence, Structure of Business Letter, Types of Business Letter: Enquiry, Reply, Orders, Complaints and Circular Letter.	18
5	Drafting of Notices, Agendas, Minutes, Job Application Letters, Preparation of Curriculum Vitae.	18
Keywords/Tags:		

Part C-Learning Resources
Text Books, Reference Books, Other resources
Suggested Readings: • Ace of Soft Skills Attitude Communication and Etiquette for Success by Gopalaswamy Ramesh, Pearson India • Rao N.and Das R. P., Communication Skills, Himalaya Publishing House, Mumbai. • Mehta D. & Mehta N. K., A Handbook of Communication Skills Practices, Radha Pub.,

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Professional Mgt. BBA Course.

Format for Syllabus of Theory Paper

Part A Introduction				
Program: Certificate		Class': BBA I Year	Year:2021	Session:2021-2022
Subject: MICRO ECONOMICS				
1	Course Code	MI-BBAB1T (Group-II)		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	1. Students will understand the importance of basic principles of micro economics. 2. Students will be able to understand the basics of demand-supply rules and elasticity. They will also learn how to implement it. 3. Utility, apathy analysis and market surplus, students will be able to understand. 4. Students will be able to understand production principles, classify costs and incomes. 5. Students will be able to understand the comparison of different market systems. 6. Students will be able to understand how national income is calculated.		
6	Credit Value	(Credit) 6		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours L-T-P: 90		
Unit	Topics	No. of Lectures
1	Introduction to economics, Definitions of economics, Nature and Scope of Economics, Significance and Evolution of Micro Economics, Functions of Managerial Economics.	10
2	Concept of Law of Demand, Law of Supply, Concept of Market Equilibrium, Elasticity of Demand, Demand Determinants.	15
3	Utility Analysis, Marginal Concept of Utility, Indifference Curve Analysis: Assumptions, Properties of Indifference curve, Theory of Consumer Surplus.	20
4	Elements of Cost, Factors of Production, Theory of Rent, Theory of Interest, Theories of Profit.	20
5	National Income: Estimates and Analysis (GNP, NNP, GDP, HDI), Methods of Measurement of National Income, Types of Market Structure, Perfect v/s Imperfect Market, Trade Cycles.	25
Keywords/Tags:		

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

- Maddala& Miller, Microeconomics Theory and Applications, 13th Reprint 2017
- Sinha V. C., Principles of Economics, Sahitya Bhawan Publication, Agra

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Format for Syllabus of Theory Paper

Part A Introduction				
Program: Certificate		Class': BBA I Year	Year:2021	Session:2021-2022
Subject: FINANCIAL ACCOUNTING				
1	Course Code	M1-BBAC1T (Group-III)		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	1. Students will be able to understand the basics of bookkeeping and accounting. 2. Students will be able to know about accounting software. 3. Students will be able to do the accounting work of the business unit. 4. They will be in a position to understand and technically use bank reconciliation, branch accounts and departmental accounts. 5. Students will understand the concept of Royalty accounting and Hire-purchase accounting and learn what accounting remedies relate to them and where it can be used.		
6	Credit Value	(Credit) 6		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours L-T-P: 90		
Unit	Topics	No. of Lectures
1	Accounting and its place in business and relationship with other financial areas, Double Entry System, Book Keeping- Meaning, Advantages, Concepts and Conventions, Difference between Financial Accounting, Cost Accounting and Management Accounting.	10
2	Type of books of accounts and their preparation, Journal, Ledger, Trial balance and Depreciation, Computerized Accounting software (Cloud books, Wave and Tally).	20
3	Preparation of Final Account: Trading Account, Profit & Loss Account, Balance Sheet. Preparation of EMI Chart.	20
4	Bank Reconciliation Statement, Branch Accounts and Department Accounts.	20
5	Royalty Accounts, Hire Purchase Accounts- Accounting record in the book of purchaser and vendor.	20
Keywords/Tags:		

Part C-Learning Resources
Text Books, Reference Books, Other resources
Suggested Readings: • Mukherjee Hanif, Financial Accounting, Tata McGraw Hills, New Delhi • Shukla & Grewal, Financial Accounting, S Chand Publishing, 2019, New Delhi

28-5-2021

Prof. Dr. S. K. Khatik.
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Professional Mgt, BBA Course

Format for Syllabus of Theory Paper

Part A Introduction				
Program: Certificate		Class`: BBA I Year	Year:2021	Session:2021-2022
Subject: BUSINESS MATHEMATICS				
1	Course Code	M1-BBAC2T (Group-III)		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	Students will learn to prepare and calculate Invoice, Ratio, Simultaneous equation in two or three variables, Matrices, Logarithm, formulate word problems in order to solve the problems using various methods, Commission, Discount, and Brokerage, Profit and Loss, and then interpret and clearly convey the results in real-world scenarios.		
6	Credit Value	(Credit) 6		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours
L-T-P: 90

Unit	Topics	No. of Lectures
1	Ratio — Gaining and Sacrificing Ratio, Proportion, Percentage, Averages — Simple and Weighted Averages.	15
2	Simultaneous Equations — Meaning, Characteristics, Types and Calculations, Preparation of Invoice.	18
3	Determinants and Matrices, Matrix- Definition. Types, Basic Operations on Matrices, Transpose of Matrix. Determinants- Minors and Co factor. Adjoint and Inverse of Matrix.	20
4	Practical approach and application of Vedic Maths. Logarithms and Antilogarithms — Principles and Calculations. Simple and Compound Interest.	20
5	Commission, Discount, Brokerage and Profit and Loss	17

Keywords/Tags:

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

- Spooner H.A. and D.A.L Wilson, The essence of Mathematics for Business, Prentice Hall of India Private Limited, New Delhi latest edition
- S.M. Shukla: Business Mathematics, Sahitya Bhawan, Agra latest edition (Hindi and English Medium)
- V. Sundaresan and S.B. Jeysoelan: An Introduction to Business Mathematics, S.Chand&Co.Pvt. Ltd,New Delhi Latest edition
- M. Raghavanchari: Mathematics for Management, An Introduction Tata McGraw Hill Publishing company Ltd. New Delhi latest edition
- Dr. J P Mishra, Business Mathematics, Sahitya Bhawan, Agra (Hindi Medium).

28.5.2021

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Part A : Introduction				
Program :- Certificate/Diploma/Degree Course		Class: I Year	Year : 2021	Session : 2021-2022
Subject : National Service Scheme (NSS)				
1	Course Code	NSS : 101		
2	Course TItle	Concept of National Service Scheme		
3	Course Type	Elective		
4	Pre-requisite (If any)	To study this course, a student must have passed 12th class with any subject . The course can be opted as an elective and it is open for all.		
5	Course Learning outcomes (CLO)	Course Objective :- 1. Main Objective of syllabus is developing the personality and character of the students youth through voluntary community service. It will also help them understand the rich cultural diversity of India and have pride through a better knowledge of the Country. 2. Understand the community in which they work and their relation. 3. Identify the needs and problems of the community and involve them in problem-solving. 4. Develop capacity to meet emergencies and natural disasters. 5. Practice national integration and social harmony and. 6. Utilize their knowledge in finding practical solutions to individual and community problems. Learning Outcome :- To impart hands - on skills in preparation. The end of the paper, a student should be able to : 1. Understand the importance of having community problems and their solution. It might help in job opportunity in some Government approved NGOs, and Ministry of Youth affairs and Sports. 2. The students can carry out basic information about Community, which in turn and be of great help in disaster management fields. 3. Students can also go for Social Community Courses, opening opportunities in different social activity related department		
6	Credit Value	Theory – 04		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks : 33	

Part A Introduction		
Program: Certificate	**Year: First Year**	**Session: 2021-22**

Course Code	**V1-OFM-OPPT**
Course Title	**Office Procedure and Practices**
Course Type	**Vocational**
Pre-requisite (if any)	**Open for All**
Course Learning outcomes (CLO)	**After studying this Course the Student will be able to** Understand Office record keeping, Record management and Filing. Understand about Office Forms, Register and the Mail management. Understand the Budget and Audit system in the Office. Understand the procedure and Record keeping of various deductions like Professional tax, Goods and Service tax, Income tax, Provident Fund and Insurance.
Expected Job Role / career opportunities	**Office Assistant in Modern Offices**
Credit Value	**4**

Part B- Content of the Course

Total No. of Lectures + Practical (in hours per week): **L-1 Hr / P-1 Lab Hr**

Total No. of Lectures/ Practical: **L-30hrs/P-30hrs**

Module	Topics	No. of Hours
I	**Office Record Management and Filing** Meaning of Records and Types of Records, Principles and Objectives of Records management and records keeping, essentials of record management system, centralization and decentralization of record keeping, record management process, Components of record management. Meaning and importance of filing, characteristics of a good filing and indexing, methods of filing, classification of files. Advantages and disadvantages of filing system, concept of paperless office, digitalization and retrieval of records, retention, weeding and destruction of old records. **Keywords/Tags:** Record Management, Record keeping, Centralization, Decentralization, Filing, Indexing, Digitalization.	10

Part A Introduction		
Program: Certificate/Diploma/Degree	**Year: First Year**	**Session:2021-22**

Course Code	**V1-PSY-DEVT**
Course Title	**PERSONALITY DEVELOPMENT**
Course Type	**Vocational**
Pre-requisite (if any)	**Open for all**
Course Learning outcomes (CLO)	**After studying this course the Student will be able to** • To cultivate skills for successful life and learn to handle failures • To learn the process of goal setting and SWOT analysis • To understand the importance of time and stress management • To develop core skills for employability • To develop effective communication skills • To realize the role of technology in personality development
Expected Job Role / career opportunities	• Growth and value addition in the respective job profiles
Credit Value	4

Gr Dup-A major-I (HRM)

Format for Syllabus of Theory Paper

Part A Introduction				
Program: Diploma		Class: BBA	Year: II	Session:2022-2023
Subject: HUMAN RESOURCE MANAGEMENT				
1	Course Code	M2-BBAA1T		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Group -1 Paper I - Major		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	• Demonstrate proficiency in fundamental human resources theories and concepts and how they apply to real world situations. • Formulate human resources policies and practices that help promote the organization's strategic goals. • Students will understand how organizations link training programs to organisational needs. • Students will learn how organizations evaluate jobs and design salary structure based on that. • Develop an understanding of the challenges of human resources management and successfully manage and resolve conflicts.		
6	Credit Value	6 CREDITS		
7	Total Marks	Max. Marks: 38+76	Min. Passing Marks: 33	

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week): 3Hours

L-T-P: 90

Unit	Topics	No. of Lectures
1	Concept and functions of Human Resource Management, Structure & Role of Personnel Management in an Organization, implementation of Personnel policy, The Future Challenges of HRM, International HRM.	18
2	Strategic Management of Human resource, Staffing Policy, and process; Management Planning, Job Analysis, Job description, Job Specification, recruitment, Selection, Induction, Placement, promotion, and transfer.	18
3	Manpower Training & Development. Employment training and Development, Employee training, performance appraisal and Potential appraisal. Employee morale and productivity.	18

15/2/2022

Prof. Dr. S. K. Khatik,
Chairman, Central Board of Studies
Professional Managemnent, BBA Course

Syllabus of Theory Paper

Part A Introduction				
Program: Certificate/ Diploma/Degree/		Class: I Year	Year: 2021	Session: 2021-22
Subject : NCC				
1	Course Code			
2	Course Title	NCC Awareness		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective		
4	Pre-requisite (if any)	To study this course, a student must have passed 12th with any subject and must be medically fit. This course can be opted as an elective and it is open for all.		
5	Course Learning outcomes (CLO)	The students will develop a sense of responsibility and thereby display sense of patriotism, secular values, discipline, improve bearing and develop the quality of immediate and implicit obedience of good things. This paper will enable the students to build and develop leadership through communication. The significant relationship between personality traits and leadership will be achieved and executed.		
6	Credit Value	04		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B - Content of the Course

Total numbers of Lectures (in hours per week) : 2 hours per week
Total Lectures : 60 hours L-T-P (02-00-00)

Unit	Topics	No. of Lectures
I	**History of National Cadet Corps:** • National Cadet Corps of Independent India. • The National Cadet Corps Act,1948 • Motto of National Cadet Corps. • Aims and Objectives. • Emblem, NCC Flag. NCC song. • Organization of NCC-Army.Navy and Air Wing. • Training Centres of NCC	15
II	**Introduction to Defence Services:** • Army, Navy and Air Force. • Organizational Structure in Charts. • Regimental Structure: command and control. • Badges and Ranks: Army, Navy, Air Force. • Honors and Awards.	15
III	**Personality development:** • Introduction to personality development. • Factors influencing and shaping the personality. • Team work and team building, social skills, Etiquettes and manners, Decision making and problem solving, Change your mind set	15
IV	**Leadership:** • Introduction and types of Leadership. • Leadership traits. • How to develop leadership. • Leadership case study (Field Marshal General Sam H.F.J. Manekshaw and General K.M. Cariappa) **First Aid :** • Scope and objectives • First aid in common medical emergencies, Dressing of wounds.	15

Syllabus of Theory Paper

Part A Introduction				
Program: Certificate/ Diploma/Degree/		Class: I Year	Year: 2021	Session: 2021-22
Subject : NCC				
1	Course Code			
2	Course Title	NCC Awareness		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective		
4	Pre-requisite (if any)	To study this course, a student must have passed 12th with any subject and must be medically fit. This course can be opted as an elective and it is open for all.		
5	Course Learning outcomes (CLO)	The students will develop a sense of responsibility and thereby display sense of patriotism, secular values, discipline, improve bearing and develop the quality of immediate and implicit obedience of good things. This paper will enable the students to build and develop leadership through communication. The significant relationship between personality traits and leadership will be achieved and executed.		
6	Credit Value	04		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B - Content of the Course

Total numbers of Lectures (in hours per week) : 2 hours per week
Total Lectures : 60 hours L-T-P (02-00-00)

Unit	Topics	No. of Lectures
I	**History of National Cadet Corps:** • National Cadet Corps of Independent India. • The National Cadet Corps Act,1948 • Motto of National Cadet Corps. • Aims and Objectives. • Emblem, NCC Flag. NCC song. • Organization of NCC-Army.Navy and Air Wing. • Training Centres of NCC	15
II	**Introduction to Defence Services:** • Army, Navy and Air Force. • Organizational Structure in Charts. • Regimental Structure: command and control. • Badges and Ranks: Army, Navy, Air Force. • Honors and Awards.	15
III	**Personality development:** • Introduction to personality development. • Factors influencing and shaping the personality. • Team work and team building, social skills, Etiquettes and manners, Decision making and problem solving, Change your mind set	15
IV	**Leadership:** • Introduction and types of Leadership. • Leadership traits. • How to develop leadership. • Leadership case study (Field Marshal General Sam H.F.J. Manekshaw and General K.M. Cariappa) **First Aid :** • Scope and objectives • First aid in common medical emergencies, Dressing of wounds.	15

Group-A major-II (OB)

Format for Syllabus of Theory Paper

Part A-Introduction				
Program: Diploma		Class: BBA	Year: III	Session: 2022-2023
Subject: ORGANISATIONAL BEHAVIOUR				
1	Course Code	M2-BBAA2T		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Group I Paper II - Major		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	• Students will be able to know the organizational behavior, its important and comparison of various theories of organizational behavior. This outcome of organizational behavior will introduce to several theories on management framework, role of managers, skills of managers, and manager's jobs. • Examine the components and theories behind leadership, power, and politics. They can analyze real situations where leadership, power, and politics are illustrated positively and negatively • Analyze various Stress management and coping strategies. • Compare different organizational cultures, examine characteristics of cultures, explore global implications, and examine creating and sustaining a positive culture, and assessing the impact of culture on organizational behavior.		
6	Credit Value	6 CREDITS		
7	Total Marks	Max. Marks: 30+70	Min. Passing Marks: 33	

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week): 3 Hours L-T-P: 90		
Unit	Topics	No. of Lectures
1	Concept of Organizational Behavior, Contributing disciplines to organizational Behavior; Background/historical perspective and framework of OB.	18
2	Individual Behaviour, Personality perception- Perceptual selectivity, Perceptual organization, social perception and Impression	18

15/2/2022

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Chairman, Central Board of Studies
Professional Management, BBA Course

Group - B major (I) mkt mgmt

Format for Syllabus of Theory Paper

Part A Introduction			
Program: Diploma	Class: BBA	Year: II	Session:2022-2023
Subject: MARKETING MANAGEMENT			

1	Course Code	M2-BBAB1T
2	Course Title	BBA
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Group II Paper I - Major
4	Pre-requisite (if any)	Not Required (Open for All)
5	Course Learning outcomes (CLO)	• Student will be able to identify the marketing process and its applicability in business operations. They will be able to communicate marketing information persuasively and accurately in oral, written and graphic formats. • Differentiate between categories of consumer criteria for determining value. • Recognize how to identify target markets and environments by analyzing demographics and consumer behaviour. • List best practices for responsible marketing and how to manage marketing efforts Synthesize ideas into a business plan for entrepreneurial start-up venture. • The student will be able to Emphasis on various aspects of service marketing which make it different from goods marketing.
6	Credit Value	6 CREDITS
7	Total Marks	Max. Marks: 20+70 / Min. Passing Marks: 33

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week): 3 Hours

L-T-P: 90

Unit	Topics	No. of Lectures
1	Nature and scope of marketing, Selling Vs Marketing, basic concepts and approaches, Marketing management philosophies, Concept of Holistic Marketing. Market segmentation, Marketing Mix, Marketing Environment, Marketing System	18
2	Product Strategy. Product Classification & Product mix, branding and packaging decision, Integrated Marketing Communication. Promotion mix: Advertising, publicity, Selling, Sales Promotion and	18

15/2/2022

Prof. Dr. S. K. Khatik,
Chairman, Central Board of Studies
Professional Management, BBA Course

Group - B major (I) mkt mgmt

Format for Syllabus of Theory Paper

Part A Introduction			
Program: Diploma	Class: BBA	Year: II	Session:2022-2023
Subject: MARKETING MANAGEMENT			

1	Course Code	M2-BBAB1T
2	Course Title	BBA
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Group II Paper I - Major
4	Pre-requisite (if any)	Not Required (Open for All)
5	Course Learning outcomes (CLO)	• Student will be able to identify the marketing process and its applicability in business operations. They will be able to communicate marketing information persuasively and accurately in oral, written and graphic formats. • Differentiate between categories of consumer criteria for determining value. • Recognize how to identify target markets and environments by analyzing demographics and consumer behaviour. • List best practices for responsible marketing and how to manage marketing efforts Synthesize ideas into a business plan for entrepreneurial start-up venture. • The student will be able to Emphasis on various aspects of service marketing which make it different from goods marketing.
6	Credit Value	6 CREDITS
7	Total Marks	Max. Marks: 20+70 / Min. Passing Marks: 33

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week): 3 Hours

L-T-P: 90

Unit	Topics	No. of Lectures
1	Nature and scope of marketing, Selling Vs Marketing, basic concepts and approaches, Marketing management philosophies, Concept of Holistic Marketing. Market segmentation, Marketing Mix, Marketing Environment, Marketing System	18
2	Product Strategy. Product Classification & Product mix, branding and packaging decision, Integrated Marketing Communication. Promotion mix: Advertising, publicity, Selling, Sales Promotion and	18

15/2/2022

Prof. Dr. S. K. Khatik,
Chairman, Central Board of Studies
Professional Management, BBA Course

Group-B Major-II Mkt Research

Format for Syllabus of Theory Paper

Part A Introduction				
Program: Diploma		Class: BBA II	Year: II	Session:2022-2023
Subject: MARKETING RESEARCH				
1	Course Code	M2-BBAB2T		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Group II Paper II - Major		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	• Discuss the scope and managerial importance of market research and its role in the development of marketing strategy. • Provide a detailed overview of the stages in the market research process. • Develop research questions and objectives that can be addressed in a research design. • Develop an appropriate market research design for the clients. • Manage the data collection process Use contemporary statistical packages to calculate and report descriptive statistics from quantitative data Interpret data analysis in the context of the identified business problem • Communicate research results in written report and oral presentation formats		
6	Credit Value	6 CREDITS		
7	Total Marks	Max. Marks: 30+70	Min. Passing Marks: 33	

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week): 3 Hours
L-T-P: 90

Unit	Topics	No. of Lectures
1	Definition, Concept and Objectives of Marketing research. Advantages and limitations of Marketing Research. Problems and precautions in Marketing research. Analyzing Competition and Consumer Markets, Market Research Methodology.	18

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Professional Management, BBA Course

Group-C (Major I)- financial mgmt

Format for Syllabus of Theory Paper

Part A: Introduction				
Program: Diploma		Class: BBA II	Year: III	Session:2022-2023
Subject: FINANCIAL MANAGEMENT				
1	Course Code	M2-BBAC1T		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Group III Paper I - Major		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	• Students will have the awareness about the various types of support rendered by the institutions to the entrepreneurs. • The students will be able to do the financial analysis and interpretation of any business concern independently. • The students will be able to evaluate comparative working capital management policies and their impact on the firm's profitability, liquidity, risk and operating flexibility. They will be also able to design the combination of debt and equity used to finance a firm. • The students will learn to make decisions regarding the purchase of long-term assets or the start of a business project. • The students will be able to differentiate between the different models of dividend payout policy and their calculations.		
6	Credit Value	6 CREDITS		
7	Total Marks	Max. Marks: 30+70	Min. Passing Marks: 33	

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week): 3Hours L-T-P: 90		
Unit	Topics	No. of Lectures
1	Finance function and its objectives, tools for financial analysis, capitalization, over capitalization analysis, under capitalization. Concept of Risk and return.	18
2	Ratio analysis: Meaning, Interpretations of ratios, classification of ratio, funds flow and cash flow analysis.	18
3	Working capital management: Classification of working capital.	18

15/2/2022

Prof. Dr. S. K. Khatik,
Chairman, Central Board of Studies
Professional Management, BBA Course

Group-C major-II
Fin markets & Fin. services

Format for Syllabus of Theory Paper

Part A Introduction			
Program: Diploma	Class: BBA	Year: II	Session:2022-2023
Subject: FINANCIAL MARKETS AND FINANCIAL SERVICES			

1	Course Code	M2-BBAC2T
2	Course Title	BBA
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Group III Paper II - Major
4	Pre-requisite (if any)	Not Required (Open for All)
5	Course Learning outcomes (CLO)	• To provide the student a basic knowledge of financial markets and institutions and to familiarise them with major financial services in India. • They will be able to know various money market and capital market instruments. • The will be able to understand the functions and organisation of capital market and money market in India. • They will be able to know about various financial services provided in the financial market. • They will understand various financial institutions and their role in financing of the business.
6	Credit Value	6 CREDITS
7	Total Marks	Max. Marks: 30+70 Min. Passing Marks: 33

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week): 3Hours

L-T-P: 90

Unit	Topics	No. of Lectures
1	Financial System and its Components: financial markets and institutions; Financial intermediation; Flow of funds matrix; Financial system and economic development; An overview of Indian financial system.	18
2	Financial Markets: Money market: functions, organisation, and instruments. Role of central bank in money market; Indian money market – An overview Capital Markets – functions, organisation, and instruments. Indian debt market; Indian equity market – primary and secondary markets; Role of stock exchanges in India.	20
3	Financial Institutions: Commercial banking – introduction, its role in project finance and working capital finance; Development Financial institutions (DFIs) – An overview and role in Indian economy; Life and	20

15/2/2022.

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Chairman, Central Board of Studies
Professional Management, BBA Course

Part A Introduction

Programme : Certificate Class:B.COM.1st Year		Session 2021-22
Subject: Commerce		
	CourseCode	C1-COMA1T
2	Course Title	Financial Accounting
3	Course Type	Core
4	Pre-requisite	Not requiredopen for all
5	Course Learning Outcomes	**Successful completion of this course, the student will be able to:** • Acquire conceptual knowledge of basics of accounting • Identify events that need to be recorded in the accounting records • Developtheskillofrecordingfinancialtransactionsandpreparationofreports in accordance with GAAP • Describe the role of accounting information and itslimitations • Equip with the knowledge of accounting process and preparation off in a accounts of sole trader • Identify and analyze the reasons for the difference between cash book and pass book balances • Recognize circumstances providing for increased exposure to errors and frauds
6	Credit Value	6
7	Total Marks	Max marks : 25+75 Minimum Passing Marks 33

Part B: content of the course

Total No. of Lectures (in hours per week)- 3, Total lectures: 90		
unit	topic	No. of lectures
1.	Accounts :- Indian History . Definition , Objectives ,Basic Concept and Principals of Double Entry System Journal Entry ,Ledger, Subsidiary books ,Trial Balance Introduction of Indian Accounting Standard Final Accounts	15
2.	Accounting for Depreciation (According to Accounting Standard -6) Branch Accounts	15
3.	Royalty Accounts , Departmental Accounts	15
4.	Accounting of Non Profit Organisation , , Investment Account Consignment Accounts	15
5.	Partnership Accounts :- Dissolution of Partnership (with Insolvency), Amalgamation of Partnership Firms,Conversion of Partnership firm in to joint stock Company	15
6.	Computerized Accounts by using any popular accounting software.creating a company, configure and features setting, creating accounting ledgers and groups, creating stock items and groups , vouchers entry(with maintenance of vouchers) , generating report - cash book, ledger accounts, trial balance , profit and loss account and balance sheet	15
Keywords/Tags:financial A/c, Depreciation, Accounting Standard,branch a/c, royalty A/c ,partnership a/c,Computerized Accounts.		

(PROF. PAVAN MISHRA)

Part A Introduction

Programme : Certificate Class:B.COM.1st Year		Session 2021-22
Subject: Commerce		
	CourseCode	C1-COMA1T
2	Course Title	Financial Accounting
3	Course Type	Core
4	Pre-requisite	Not requiredopen for all
5	Course Learning Outcomes	**Successful completion of this course, the student will be able to:** • Acquire conceptual knowledge of basics of accounting • Identify events that need to be recorded in the accounting records • Developtheskillofrecordingfinancialtransactionsandpreparationofreports in accordance with GAAP • Describe the role of accounting information and itslimitations • Equip with the knowledge of accounting process and preparation off in a accounts of sole trader • Identify and analyze the reasons for the difference between cash book and pass book balances • Recognize circumstances providing for increased exposure to errors and frauds
6	Credit Value	6
7	Total Marks	Max marks : 25+75 Minimum Passing Marks 33

Part B: content of the course

Total No. of Lectures (in hours per week)- 3, Total lectures: 90		
unit	topic	No. of lectures
1.	Accounts :- Indian History . Definition , Objectives ,Basic Concept and Principals of Double Entry System Journal Entry ,Ledger, Subsidiary books ,Trial Balance Introduction of Indian Accounting Standard Final Accounts	15
2.	Accounting for Depreciation (According to Accounting Standard -6) Branch Accounts	15
3.	Royalty Accounts , Departmental Accounts	15
4.	Accounting of Non Profit Organisation , , Investment Account Consignment Accounts	15
5.	Partnership Accounts :- Dissolution of Partnership (with Insolvency), Amalgamation of Partnership Firms,Conversion of Partnership firm in to joint stock Company	15
6.	Computerized Accounts by using any popular accounting software.creating a company, configure and features setting, creating accounting ledgers and groups, creating stock items and groups , vouchers entry(with maintenance of vouchers) , generating report - cash book, ledger accounts, trial balance , profit and loss account and balance sheet	15
Keywords/Tags:financial A/c, Depreciation, Accounting Standard,branch a/c, royalty A/c ,partnership a/c,Computerized Accounts.		

(PROF. PAVAN MISHRA)

Part A Introduction

Programme : Certificate Class:B.COM.1st Year session 2021-22		
Subject: COMMERCE (Business regulatory Framework)		
1	CourseCode	C1 COMA 2T
2	Course Title	Business regulatory Framework (PAPER 2)
3	Course Type	Core
4	Pre-requisite	Not required (open for all)
5	Course Learning Outcomes	The outcome of this course is to provide the students with practical legal knowledge of general business law issues. To Understand the Essentials of A Valid Contract, The Laws Of The Act, Consideration And The Various Modes Of Discharge Of A Contract To Explain the Various Laws with Regard to The Sale of Goods and Performance of a Sale Contract and Remedial Measures,to Familiarize the Students with The Various Law with Regard to Consumer Protection in India And the Functions of Various Consumer Forumsand,to Understand the Meaning and The Various Legislations with Regard to The Cyber Laws
6	Credit Value	6
7	Total Marks	Max marks : 25+75 Minimum Passing Marks 33

Part B: content of the course

Total No. of Lectures (in hours per week)- 3, Total lectures: 90		
unit	topic	No. of lectures
1	Historical background of Business laws in India, Indian Contract Act 1872 -GENERAL LAWAS	
2	Contact relating to Indemnity and Guarantee	
3	Negotiable instrument Act 1881 -General introduction Negotiable instrument(amendment) Act 2002	
4	General introduction of Consumer Protection Act 1986 and 2018, FEMA	
5	Indian Partnership Act 1932-General introduction Limited Liability Partnership Act 2008	
Keywords/Tags:The name of all act is the key word.		

Part A Introduction

Programme : Certificate Class:B.COM. 1st Year session 2021-22		
Subject:	Commerce	
1	CourseCode	C1-COMC1T
2	Course Title	Business Economics
3	Course Type	General Elective
4	Pre-requisite	Not requiredopen for all
5	Course Learning Outcomes	Upon successful completion of the course a student will be able to 1. Understand how households (demand) and businesses (supply) interact in various market structures to determine price and quantity of a goodproduced. 2. Understand the links between household behavior and the economic models ofdemand. 3. Represent demand, in graphical form, including the downward slope of the demand curve and what shifts the demandcurve. 4. Understand the links between production costs and the economic models ofsupply. 5. Understand the concept of Pricing 6. Analyze operations of markets under varying competitiveconditions
6	Credit Value	6
7	Total Marks	Max marks : 25+75 Minimum Passing Marks 33

Part B: content of the course

Total No. of Lectures (in hours per week)- 3, Total lectures: 90		
unit	topic	No. of lectures
1	Historical background of economics in India with special reference to Kautilya, Definition of Economics, Concept of Micro and Macro Economics, Method of Economic study, Economics Law and their nature, Significance of Economics, Basic problems of Economies'	15
2	Elasticity of Demand, Concept and measurement of Elasticity of Demand, Price, Income and cross elasticity, Average Revenue, Marginal Revenue and Elasticity of Demand, Determination of Elasticity of Demand, Importance of Elasticity of Demand,	15
3	Factors of Production- Land, Labour, Division of labour, Effieiency of Labour, Capital, Organisation and Esterprises, The scale of production, Theories of Population.	15
4	Production function and Law of returns, Return of scale, Equal product curve analysis, Market and their classification, Theory of cost and concept of revenue.	15
5	Price determination under perfect competition and Equilibrium of the firm, Monopoly-price and output determination and monopoly control, Price determination under monopoly, Imperfect and monopolistic competition-price determination.	15
6	Rent- concept, Recordian and modern theories of Rent, Quasi Rent, Wages-concept, nominal andreal wages, theories of wage determination; Profit-Nature, concept and Theories of profit.	15
Keywords/Tags:micro economics, macro economics,Production, perfect competition, Rent		

(PROF. PAVAN MISHRA)

Part A: Introduction

Programme: Certificate/Diploma/Degree	Class : B.COM. I Year	Session 2021-22
Subject :	Commerce	
Course Code	C1-COMC2T	
Course Title :	Banking and Insurance	
Course Type:	Elective	
Pre-requisite:	Not required (open for all)	
Course Learning Outcomes	The successful completion of this course shall enable the student: • To understand Banking and insurance services for the economic growth of a country and importance for the entire business procedure. • To understand the banking system, banking procedure, practical banking, etc. • To understand the Insurance system, insurance procedure, regulation of banking and insurance. • They also shall be capable to earn employment in the field of banking and insurance.	
Credit Value	6	
Total Marks	Max. Marks – 25+75	Min. Passing Marks 33

Part B: Content of the course

Total No. of Lectures (in hours per week)- 3		
Unit	Topic	No. of lectures
Unit–I	**Introduction to Banking:** Historical background of banking. Definition, principles and importance of bank. Classification of bank. Functions of commercial bank. Structure of commercial banking in India. Features of Indian banking system. credit creation. **Central banking:** RBI and its functions. Credit control. **Nationalization and Merger of banks:** General introduction to Nationalization of Banks, Objective and introduction to Private Banks Functioning and Usefulness or importance, effects. Evaluation of nationalization and merger of Indian banks.	18
Unit–2	**Bank Deposits:** Meaning and types. Features of back accounts. Procedure to open and close bank accounts (Including online procedure). **Loans and Advances:** Principles to sanction loans and advances. Classification of loans and advances. Procedure to apply for house loan, personal loan, education loan and commercial loan.	18
Unit–3	**Insurance:** Historical background of Insurance. Meaning, elements, basic principles and importance of insurance. Kinds of insurance. Regulation of insurance in India. **IRDA:**Functions and role to regulate insurance in India.	18
Unit- 4	**Life Insurance:** Historical background, meaning, objectives, importance, essential elements. Life insurance policy and its types.'Insurance proposal to policy'-Procedure.Conditions of Life insurance policies.Claim filing procedure and settlement of claims. **Life Insurance Corporation of India:** Functions, progress and Evaluation.	18
Unit- 5	**General Insurance:** Meaning, objectives & importance. Kinds of general insurance and its features. Basic principles of general insurance. Procedure to apply general insurance policies. Claim filing procedure and settlement of claims. **General Insurance Corporation of India:** Functions, progress and structure. Performance of private sector companies in general insurance sector.	18
Key Word :- **Banking,Insurance, Nationalization,Loans and Advances Progress, Regulation,**		

(DR. PAVAN MISHRA)

Syllabus of Theory Paper

Part A Introduction				
Program: Certificate/ Diploma/Degree/		Class: I Year	Year: 2021	Session: 2021-22
Subject : NCC				
1	Course Code			
2	Course Title	NCC Awareness		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective		
4	Pre-requisite (if any)	To study this course, a student must have passed 12th with any subject and must be medically fit. This course can be opted as an elective and it is open for all.		
5	Course Learning outcomes (CLO)	The students will develop a sense of responsibility and thereby display sense of patriotism, secular values, discipline, improve bearing and develop the quality of immediate and implicit obedience of good things. This paper will enable the students to build and develop leadership through communication. The significant relationship between personality traits and leadership will be achieved and executed.		
6	Credit Value	04		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B - Content of the Course

Total numbers of Lectures (in hours per week) : 2 hours per week
Total Lectures : 60 hours L-T-P (02-00-00)

Unit	Topics	No. of Lectures
I	**History of National Cadet Corps:** • National Cadet Corps of Independent India. • The National Cadet Corps Act,1948 • Motto of National Cadet Corps. • Aims and Objectives. • Emblem, NCC Flag. NCC song. • Organization of NCC-Army.Navy and Air Wing. • Training Centres of NCC	15
II	**Introduction to Defence Services:** • Army, Navy and Air Force. • Organizational Structure in Charts. • Regimental Structure: command and control. • Badges and Ranks: Army, Navy, Air Force. • Honors and Awards.	15
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IV	**Leadership:** • Introduction and types of Leadership. • Leadership traits. • How to develop leadership. • Leadership case study (Field Marshal General Sam H.F.J. Manekshaw and General K.M. Cariappa) **First Aid :** • Scope and objectives • First aid in common medical emergencies, Dressing of wounds.	15

Syllabus of Theory Paper

Part A Introduction				
Program: Certificate/ Diploma/Degree/		Class: I Year	Year: 2021	Session: 2021-22
Subject : NCC				
1	Course Code			
2	Course Title	NCC Awareness		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective		
4	Pre-requisite (if any)	To study this course, a student must have passed 12th with any subject and must be medically fit. This course can be opted as an elective and it is open for all.		
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6	Credit Value	04		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B - Content of the Course

Total numbers of Lectures (in hours per week) : 2 hours per week
Total Lectures : 60 hours L-T-P (02-00-00)

Unit	Topics	No. of Lectures
I	**History of National Cadet Corps:** • National Cadet Corps of Independent India. • The National Cadet Corps Act,1948 • Motto of National Cadet Corps. • Aims and Objectives. • Emblem, NCC Flag. NCC song. • Organization of NCC-Army.Navy and Air Wing. • Training Centres of NCC	15
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III	**Personality development:** • Introduction to personality development. • Factors influencing and shaping the personality. • Team work and team building, social skills, Etiquettes and manners, Decision making and problem solving, Change your mind set	15
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PART A INTRODUCTION

Program Diploma		Class : B.Com Second year	Session 2022-23
Subject:		Commerce	
1	Course Code	C2-COMA1T	
2	Course Title	CORPORATE ACCOUNTING	
3	Course Type	Major	
4	Pre-requisite	Not required	
5	Course Learning Outcomes	After completion of the course, learners will be able to: 1. An understanding of the regulatory environment in which the companies are formed and operate 2. A solid foundation in accounting and reporting requirements of the Corporations Act and Accounting Standards 3. Describe the rationale, merits, and demerits of issuing bonus shares for a company. 4. Prepare financial statements (Profit & Loss Account, Balance Sheet, etc.) using online software. 5. Prepare balance sheet after Internal Reconstruction of company; 6. Analyse the case study of major amalgamations of companies in India. 7. Describe the process of e-filing of annual reports of companies.	
6	Credit Value	6	
7	Total Marks	Max marks: 30+70 Minimum Passing Marks : 33	

PART B: CONTENT OF THE COURSE

Total No. of Lectures 90

UNIT	TOPIC	NO. OF LECTURES
1	**Share:** meaning, types, Issue, Forfeiture, Re-issue of shares , Redemption of Preference shares, Corporate Social Responsibility.	15
2	**Debenture :** meaning, types, Issue and Redemption of Debentures, Profit Loss Account and Balance Sheet of the Company (in brief),	15
3	Calculations of Profit and loss prior and post incorporation, Liquidation of company, Accounting for liquidation of companies.	15
4	Goodwill : Concept, types, characteristics/Nature, Valuation of Goodwill, Valuation of shares.	15
5	Meaning of Holding and Subsidiary Company, preparation of Consolidated Balance sheet of a holding company with one subsidiary company.	15
6	Accounting for Merger as per AS 14, Internal Reconstruction of a company as per Indian accounting Standard 14	15

PART A - INTRODUCTION

Program: Certificate / Diploma / Degree	Class : B.Com Second year	Session 2022-23

Subject		Commerce	
1	Course code	C2-COMA2T	
2	Course Title	Cost Accounting	
3	Course Type:	Major	
4	Prerequisite	No	
5	Course Learning Outcomes (CLO)	This subject of cost accounting is very important to make the student of commerce subject self-reliant, students from its study :- 1. know the principles, concepts, benefits, utility of cost accounting 2. In the event of setting up your own industry, being self-sufficient in cost accounting, you will be able to acquire knowledge of the methods of material issue, control and labor payment. 3. Will be expert in finding out unit cost, finding tender price, finding contract cost and finding profit 4. Develop decision making ability through marginal cost analysis, standard cost analysis 5. Will be able to get employment as a cost analyst in small, big business houses.	
6	Credit value	06	
7	Total marks	Maximum Marks : 30 + 70	Minimum Passing Marks :

Total Number of Lectures- 90

PART-B : COURSE CONTENTS

UNIT	TOPIC	NUMBER OF LECTURES
1	**Cost :** Meaning , Concept and Classification, Element of Cost, Nature and Importance , **Material Costing :**Methods of valuation of material issued, Concept ,and material control and its Techniques . Labour Costing ,Methods of Wages Payment	18
2	**Unit Costing :** Preparation of Cost Sheet and Statement of Cost (Including calculation of Tender Price) , **Overhead Costing** :Overhead costing (including Calculation of machine hour rate)	18
3	**Contract and Job Costing** **Operating Costing** (Transport Costing)	18
4	**Process Costing** (Including Inter Process Profit and Reserve) Reconciliation of Cost and Financial Accounts.	18
5	**Marginal Costing**-Profit-Volume Ratio, Break-even Point, Margin of Safety, Application of Break-even Analysis. Standard costing and Variance Analysis(Material and Labour only)	18

Keyword / Tags:	Cost, Material Costing, Unit Costing, Contract and Job Costing, Process Costing, Marginal Costing.

PART A -INTRODUCTION

Program Diploma		Class: B. COM. IInd Year	Session: 2022-23
Subject		Commerce	
1	Course Code	C2-COMB2T	
2	Course Title	BUSINESS STATISTICS	
3	Course Type	Minor	
4	Pre-requisite	Not required	
5	Course Learning Outcomes	**At the end of the course, students should be able to:** 1. Apply a basic knowledge of statistics to business disciplines; 2. Develop the ability to analyze and interpret data to provide meaningful information to assist in management decision making activities; 3. Apply appropriate graphical and numerical descriptive statistics for different types of data; 4. Apply probability rules and concepts relating to discrete and continuous random variables to answer questions within a business context; 5. Explain and interpret a variety of hypothesis tests to aid decision making in a business context; 6. Use simple/multiple regression models to analyze the underlying relationships between the variables.	
6	Credit Value	06	
7	Total Marks	Max marks : 30+70	Minimum Passing Marks 33

PART B: CONTENT OF THE COURSE

UNIT	TOPIC	NO. OF LECTURES
1.	**Statistics**: Meaning, Definition ,Significance ,Scope and Limitations of Statistical investigation ,Process of data collection ,primary and secondary Data ,Methods of sampling, preparation of Questionnaire ,Classification and Tabulation of data, preparation of of statistical Series and its types,	18
2.	**Measurementof Central Tendency**- Mean, Mode, Median,Partition Value, Geometric Mean and Harmonic Mean.	18
3.	**Dispersion and Skewness-** Range,Lorenz Curve, Quartile Deviation, Mean Deviation, Standard Deviation . Coefficient of Variation, Variance. **Correlation-** Meaning, Definition, Types and Degree of Correlation, Coefficient of Correlation Methods.	18
4.	**Regression Analysis**–Meaning, Uses, Difference between Correlation and Regression, Rregression Equations, calculation of Coefficient of Regression **Analysis of Time Series-** Meaning, Importance ,Components, Measurement of long term trends. Measurement of of cyclical and Irregular fluctuations.	18
5.	**Index Number-** Meaning, Characteristics, Importance and uses, construction of Index number, Cos of living Index ,Fisher's ideal Index number, Diagrammatic and Graphical presentation of data. **Association of Attribute** (only two variable),Meaning, Types, Characteristics, Methods of determining Association of Attribute	18

PART A - INTRODUCTION

Program: Diploma	Class: B.COM.2nd Year	Session :2022-2023
Subject:	Commerce	
1	Course Code	C2COMD2T
2	Course Title	Principle of Management
3	Course Type	Elective for Commerce faculty
4	Pre-requisite	Not required
5	Course Learning Outcomes	On having completed this course student should be able to: 1. Demonstrate understanding of the role of managers in an organization 2. Summarize the elementary concepts, principles and theories of management 3. Examine the managerial functions having an impact on the organizational effectiveness 4. Identify the contemporary issues and challenges in management 5. Develop ethical workplace practices 6. Appraise the sources of influence to inspire the actions of other organizational members and evaluate the best control methods.
6	Credit Value	6
7	Total Marks	Maximum Marks : 30 + 70 Minimum Passing Marks : 33

PART B: CONTENT OF THE COURSE

Unit	Topic	No. of lectures
1.	**Management :** Concept/meaning, Definition, Nature Functions, Process, Scope and Importance of Management. **Role of Vedic values and ethics in Management.** Difference between Management and Administration, Evolution of Management though Early contributions: Taylor and Scientific Management, Fayol's Administrative Management, Bureaucracy, Human Relations, and Modern Approach, Managerial Ethics.	15
2.	**Planning** - Meaning, Nature, Scope, Objective, Functions and Significance of Planning, Elements and Steps of Planning, Strategies and Policies, **Origination** - Meaning, Definition, Types, Scope, Principles, Line and Staff Relationship, Authority, Delegation and Decentralization. Effective Organizing, Organizational Structures, Staffing **Decision** - Meaning, Definition, Types, Scope, Principles, decision making,	15
3.	**Direction and Coordination -** Meaning and definition of direction, importance and principles of direction, techniques of direction, meaning of supervision, meaning of coordination, elements and features of coordination, importance of coordination , cooperation and coordination. steps for effective coordination, management of conflicts.	15
4.	**Motivation and Leadership -** Motivation: Concept, Forms of employee motivation, Need for motivation. Theories of motivation.Meaning and Functions of a Leader, Characteristics of effective Leadership, types and theories of leadership and Leadership Styles.	15
5.	**Controlling -** Definition, meaning, elements, Importance, controlling procedure, Types of control, control techniques, requirements of good control system. responsibility accounting PERT and CPM, use of Computers and IT in Management control.	15

OPEN ELECTIVE
NSS

Part - A Introduction				
Diploma Courses		Class II year		Session: 2022-2023
Subject: National Service Scheme				
1.	Subject Code,	NSS 02 – NSSA18		
2.	Subject Title	Concept of National Service Scheme		
3.	Subject Type	General Electives		
4.	Pre-expectation (If Someone)	To study this course, a student must have passed Certificate Course and This Course can be opted as an elective and it is open for all.		
5.	Curriculum Learning Outcomes (CLO)	Objective of the course:- • The objective of the course is to develop the personality and character of the youth through voluntary social service, This development will help the student to understand the rich cultural diversity of India and make himself proud through better knowledge of the country. • Understanding of the society and establishing a reciprocal relationship with the society. • Recognizing the needs and problems of the society and taking appropriate problem-solving measures. • To develop the ability of the student to deal with emergencies and natural calamities. • To develop national integration and social harmony. • To take appropriate measures to find practical solutions to individual and community problems. **learning outcome:-** The study of the curriculum will not only develop the skills of the student but will also lead to all round development of the student. • Through the course, students will understand the importance of community problems and their solutions, then they will be helpful for employment in government approved NGOs and other youth and social activities undertakings. • By going through the course, the student will get basic knowledge about the community which will be very helpful in disaster management areas. Students can get involved in social community courses and get opportunities in various departments related to social organizations.		
6.	Credit Value	Theoretical -4		
7.	Total Marks	Maximum Marks 30 +70		Minimum Marks : 33

OPEN Elective – NCC

Syllabus of Theory Paper

Part A Introduction			
Program: Diploma/	Class: II Year Diploma Program		Session: 2022-23
Subject : NCC			
1	Course Code	D2 NCCAIG	
2	Course Title	NCC Part II	
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	Elective	
4	Pre-requisite (if any)	To study this course, a student must have passed Certificate Course and must be medically fit. This course can be opted as an elective and it is open for all.	
5	Course Learning outcomes (CLO)	The students will understand the role of NCC in different walks of life. They will come to know the importance of time management, national integration, social services and community development. Give awareness to the youth about environment and importance of tree plantation in developing a clean and pollution free environment. Learn the road safety rules	
6	Credit Value	04	
7	Total Marks	Max. Marks: 30+70	Min. Passing Marks: 33

Part B - Content of the Course

Total numbers of Lectures (in hours per week) : 2 hours per week
Total Lectures : 60 hours L-T-P (02-00-00)

Unit	Topics	No. of Lectures
I	**NCC GENERAL** • Incentives of NCC. • Duties of NCC Cadet. • NCC Camps: Types & Conduct. • Importance of time management in daily life. • Various entry in defense services through NCC. • Role of NCC cadets in various natural calamities and war.	15
II	**National Integration & Awareness** • National Integration: Importance & Necessity. • Factors Affecting National Integration. • Unity in Diversity. • Role of NCC in Nation Building. • Threats to National Security. • Case study of Sardar Vallabh Bhai Patel in National integration and nation building.	15
III	**Social Service and Community Development.** • Basics of social service and its need. • Types of social service activities, blood donation, organ donation pledges, adult education, services in old age homes etc, Cancer and AIDS : its prevention and cure. • Objectives of rural development programs and its importance. • Role of NCC and its contribution in social welfare activities. • Traffic awareness.	15

R7

Vocational paper
E-Accounting Taxation with GST

PART-A:INTRODUCTION			
Program: ~~Certificate~~/Diploma/~~Degree~~		Class: . . .-II yr	Session: wef 2022-23
Subject: COMMERCE			
1.	Course Code	V2-COM-GSTT	
2.	Course Title	E-Filing of Tax Returns	
3.	Course Type	Vocational	
4.	Pre-Requisite(if any)	NO	
5.	Course Learning Outcomes(CLO)	After completing the course, the student shall be able to: 1: Know the difference between e-filing and regular filing of Income tax returns and understand the circumstances when e-filling is mandatory. 2: Understand the basic process of computing taxable income and tax liability, and know about various types of income tax return forms. 3: Understand the concept of advance payment of tax and tax deduction at source and develop the ability of e-filing of TDS returns. 4: Become aware of the basic framework and structure of GST, including the meaning of input tax credit and the process of its utilization. 5: Know about various types of GST returns and their filing.	
6.	Expected Job Role/Career Opportunities	Tax Consultant, Register as GST suvidha provider, Tax Advisor, Accountant at CA and CS office.	
7.	Credit Value	4 (L / P/T)	

PART-B:CONTENT OF THE COURSE		
Total No. of Lectures + Practical (in hours per week): **L-2Hrs / P-2Hrs**		
Total No. of Lectures/ Practical: **L-30hrs/P-/T 30hrs**		
Module	**Topics**	**No. of L/P**
I	**Introduction of E-Filing:** 1) Meaning of e filing 2) Difference between e filing and manual filing of returns 3) Benefits and limitations of e filing 4) Types of e-filing	8
II	**Introduction to Income Tax:** 1) Basic terminology 2) Types of assesses 3) Income taxable under different heads 4) Basics of computation of total income and tax liability 5) Deductions available from gross total income 6) Application for PAN card 7) Due date of filing of income tax return	7
III	**TDS and E Filing of TDS Return:** 1) introduction to TDS 2) provisions relating to advance payment of tax 3) schedule for deposit of TDS 4) schedule for submission of TDS returns	8

Vocational paper

Retail Management

Part A Introduction		
Program: Under Graduate Course	Class II Yr	Session: 2022-23

Course Code	V2- COM-REMT
Course Title	Supply Chain and Retail Management
Course Type	Vocational
Pre-requisite (if any)	Certificate Course
Course Learning outcomes (CLO)	After completion of course, students will be able to • Understand the fundamental concept of Supply Chain Management • Understand the importance of Supply Chain Management • Understand the fundamental concept of Logistics System • Understand the fundamental concept of Warehousing • Understand the working procedure of Warehousing & Logistics System • Discover the aspects of Retail Market Strategy
Expected Job Role / Career Opportunities	Purchase Manager: A Purchase Manager is also known as the purchasing director or supply manager, Strategic Planner, Materials Analyst, Supply Chain Manager, Warehousing Manager etc.
Credit Value	2 (Theory) + 2 (Practical) = 04

Part B- Content of the Course

Total No. of Lectures + Practical (in hours per week): **L-1 Hr / P-1 Lab Hr (=2 Hrs)**

Total No. of Lectures/ Practical: **L-30 /P-30 (60 Hrs)**

Module	Topics	No. of lectures (Total 30)
I	**Supply Chain Management (SCM)** Introduction to Supply Chain Management; Concepts, Definition, nature and scope of SCM; Components of SCM. The distribution across centers. Collaboration between retailers and vendors in SCM.	10
II	**Logistics System, Warehousing, Transportation Systems** Conceptual framework of Logistics System, Logistics system analysis and design, Warehousing and distribution centers, their location; Modes and Characteristics of Transportation Systems, facilities and services, Key issues and practices involved in SCM.	10
III	**Retail Market Strategy** Retail Market Strategy: Concept, Sustainable Competitive Advantage Building through Customer Loyalty, Location, Human Resource Management, Distribution and Information System, Vendor Relations. Study of Growth Strategies like	10

Vocational paper
personality Development

Part A Introduction	
Program: Under Graduate Course IInd yr.	Session: 2022-23
Course Code	V2- PSY- DEVT
Course Title	Personality Development
Course Type	Vocational
Pre-requisite (if any)	Certificate course
Course Learning outcomes (CLO)	After completion of course, students will be able to 1. Students will gain knowledge about the basics of Personality Dynamics 2- Students will learn to implement techniques of Personality Development 3. Students will develop Skills of self resilience and assertiveness in their personality. 4. Students will learn Interview skills. 5. Students will be able to understand about the importance of life skills needed for personality development.
Expected Job Role / career opportunities	
Credit Value	2 (Theory) + 2 (Practical) = 04

Part B- Content of the Course

Total No. of Lectures + Practical (in hours per week): L-1 Hr / P-1 Lab Hr (=2 Hrs)

Total No. of Lectures/ Practical: L-30 /P-30 (60 Hrs)

Module	Topics	No. of lectures (Total 30)
I	**Dynamics of Personality:-** Nature and Determinants Classification of Personality – Jung, Sheldon, Kretschmer and five factor theory	10
II	**Techniques of Personality Development :-** Self control, self resilience, self esteem, factors affecting assertiveness, pro – social behavior, interpersonal relationships issues. Interview skills	10
III	**Emerging Areas of Personality Development:-** Life skills – Social Intelligence and Personality Development (SQ) Emotional Intelligence and Personality Development (EQ) Spiritual Intelligence and Personality Development (SPQ)	10

Vocational paper
Office procedure & Prac.

Part A Introduction		
Program: Under Graduate Course Diploma	IInd year	Session: 2022-23

Course Code	V2- OFM-OPPT
Course Title	OFFICEPROCEDURES&PRACTICES
Pre-requisite (if any)	Beginner (Level– I) Course
Course Learning outcomes (CLO)	At the end of the Course, the students will be able to: • Understand the concept of Office, role of Office Manager • Differentiate between Organizational Charts and Manuals • Manage secretarial activities independently like filling online and offline office forms, mail • Handling, filing and indexing, managing stationery etc. Communicate effectively and handle communication services independently – oral and • Written communication, barriers, observe telephone etiquettes. Handle and operate different types of Office Machines • Draft different types of Business and Govt. letters • . Understand different terms related to meetings and conduct meetings • .Prepare Itinerary and make travel arrangements. • Identify various services provided by the Banks
Expected Job Role / career opportunities	
Credit Value	2 (Theory) + 2 (Practical) = 04

Part B- Content of the Course

Total No. of Lectures + Practical (in hours per week): **L-1 Hr / P-1 Lab Hr (=2 Hrs)**

Total No. of Lectures/ Practical: **L-30 /P-30 (60 Hrs)**

Module	Topics	No. of lectures (Total 30)
I	**INTRODUCTIONTO SECRETARIAL PRACTICE** Meaning, Importance, Types and Duties, Changing Profile of a Secretary, Qualifications and Personal Qualities of a Secretary, Time Management – Meaning and Importance	6
II	**OFFICE FORMS AND STATIONERY:-** Office Forms, Meaning, importance and advantages of Office forms, Computerization of office forms, Principles of Form Designing, Office Stationery, Methods of purchasing stationery, Purchase Procedure, Storing Stationery, Control on consumption of stationery, Maintenance of Stock Register, Physical verification of Stock	6
III	**COMMUNICATION:-** Meaning, Importance and Types of communication, Elements of communication	

Format for Syllabus of Theory Paper

Part A Introduction			
Program: Degree	Class: B.COM	Year: I Year	Session:2021-2022
Subject:Commerce			

1	Course Code	C1- COMA 2T
2	Course Title	BUSINESS ORGANIZATION AND COMMUNICATION
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	- Minor
4	Pre-requisite (if any)	Not required) open for all
5	Course Learning outcomes (CLO)	After completion of this course it is expected that the student shall understand the basics of the business and will able to imbibe how any business can be organized successfully. The chapters related communication shall be able to elucidate how communication plays an important role in modern business scenario.
6	Credit Value	6
7	Total Marks	Max. Marks: 25+75 Min. Passing Marks:33

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week):
L-T-P:

Unit	Topics	No. of Lectures
1	INTRODUCTION: Indian traditional businesses and their organizational structures. Concepts of Business, Trade, Industry and Commerce - Classification - Relationship between Trade. Industry and Commerce - Business Organization- Concept, Characteristics, Importance and Objectives . Functions of Business and Social Responsibility of a business - Steps to Start an Enterprise.	15
2	FORMS OF BUSINESS ORGANIZATION: Business Organization - Classification - Factors Influencing the Choice of Suitable Form of Organization - Sole Proprietorship and Partnership – Meaning, Definition - Characteristics - Advantages. Co-Operative Organization– Meaning,Functions and Limitations of Co-operatives Societies.	15
3	ORGANIZATION OF COMPANIES: Concepts, Meaning, Formation, Characteristics and Significance of Private Company and Public Company. Multinational Companies (MNC'S) and the Challenges of their organization in India.	15
4	COMMUNICATION: Definition, Nature, Importance, Objectives of Communication. Communication theories and process- Information theory, Interaction theory, Transaction theory, Elements of communication process. Barriers to Communication: Linguistic Barriers, Psychological Barriers, Interpersonal Barriers, Cultural Barriers, Physical Barriers, Organizational Barriers.	15
5	Written Communication: Writing techniques and Guidelines. Letter writing - Basic Principles, Purpose, Types of business letters, Report writing, types of reports, Drafting of report. Oral Communication: Speeches for different occasions, Guidelines for effective listening, Job Interviews, Type of information.	15
6	Modern forms of communication E-mail, Video Conferencing, International Communication for Global Business. Information Technology: Form of technology, uses in modern communication system. Role of Social Media in modern business.	15

Keywords/Tags:

(DR. PAVAN MISHRA)

Format for Syllabus of Theory Paper

Part A Introduction				
Program: Certificate		Class': BBA I Year	Year:2021	Session:2021-2022
Subject: MICRO ECONOMICS				
1	Course Code	M1-BBAB1T (Group-II)		
2	Course Title	BBA		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)		
4	Pre-requisite (if any)	Not Required (Open for All)		
5	Course Learning outcomes (CLO)	1. Students will understand the importance of basic principles of micro economics. 2. Students will be able to understand the basics of demand-supply rules and elasticity. They will also learn how to implement it. 3. Utility, apathy analysis and market surplus, students will be able to understand. 4. Students will be able to understand production principles, classify costs and incomes. 5. Students will be able to understand the comparison of different market systems. 6. Students will be able to understand how national income is calculated.		
6	Credit Value	(Credit) 6		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks:33	

Part B- Content of the Course		
Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours L-T-P: 90		
Unit	Topics	No. of Lectures
1	Introduction to economics, Definitions of economics, Nature and Scope of Economics, Significance and Evolution of Micro Economics, Functions of Managerial Economics.	10
2	Concept of Law of Demand, Law of Supply, Concept of Market Equilibrium, Elasticity of Demand, Demand Determinants.	15
3	Utility Analysis, Marginal Concept of Utility, Indifference Curve Analysis: Assumptions, Properties of Indifference curve, Theory of Consumer Surplus.	20
4	Elements of Cost, Factors of Production, Theory of Rent, Theory of Interest, Theories of Profit.	20
5	National Income: Estimates and Analysis (GNP, NNP, GDP, HDI), Methods of Measurement of National Income, Types of Market Structure, Perfect v/s Imperfect Market, Trade Cycles.	25
Keywords/Tags:		

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

- Maddala& Miller, Microeconomics Theory and Applications, 13th Reprint 2017
- Sinha V. C., Principles of Economics, Sahitya Bhawan Publication, Agra

28.5.2021

Prof. Dr. S.K. Khatik
Chairman, Central Board of Studies,
Professional Mgt. BBA Course

Format for Syllabus of Theory Paper

Part A Introduction

Program: Certificate	Class`: BBA I Year	Year:2021	Session:2021-2022
Subject: BUSINESS MANAGEMENT			

1	Course Code	M1-BBAA1T (Group-I)
2	Course Title	BBA
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)
4	Pre-requisite (if any)	Not Required (Open for All)
5	Course Learning outcomes (CLO)	1. Student will be able to assess the global context for planning, coordinating, and monitoring managerial behaviour. 2-Through various planning and decision-making techniques, students can learn about how businesses ensure to remain in a competitive market. 3. Students will understand various forms of organizational structures and their importance. 4. Students can learn about various strategies used by businesses to maintain and improve employee efficiency. 5. Students will be able to understand how organizations use different leadership styles to stay competitive.
6	Credit Value	(Credit) 6
7	Total Marks	Max. Marks: 25+75 | Min. Passing Marks:33

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours
L-T-P: 90

Unit	Topics	No. of Lectures
1	Management in Indian Culture and Tradition, Definition and Meaning of Management, Functions and Responsibilities of Management, Role of manager, Principles of Management. School & Thoughts of Management.	18
2	Planning: Process, Types and Significance, Planning vs. Forecasting Objective, Strategies and Policies, MBO. Decision Making: Process & Significance, Planning for Start-ups'.	18
3	Organization: Nature and Purpose of organization. Importance and process of Organization. Departmentalization, Organizational structures: types and relevance, Line and Staff relationship.	18
4	Authority- Delegation, Decentralization – Difference between Authority and power- Responsibility, Recruitment- Sources, Selection, Training, Direction –Nature and Purpose.	18
5	Leadership: Meaning, Importance, Types of Leadership, Leadership Styles, Motivation: Types & significance, Maslow's Need Hierarchy, Theory X &Y of Motivation. An overview of Strategic Management, SWOT Analysis, Strategic Analysis, Alternative-Choice & Evaluation. Future Management- Challenges and Skills	18

Keywords/Tags:

28.5.2021

Prof. Dr. S.K. Khatik.
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Professional Management BBA Course

Format for Syllabus of Theory Paper

Part A Introduction

Program: Certificate	Class`: BBA I Year	Year:2021	Session:2021-2022
Subject: BUSINESS MANAGEMENT			

1	Course Code	M1-BBAA1T (Group-I)
2	Course Title	BBA
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.....)	(Core Course)
4	Pre-requisite (if any)	Not Required (Open for All)
5	Course Learning outcomes (CLO)	1. Student will be able to assess the global context for planning, coordinating, and monitoring managerial behaviour. 2-Through various planning and decision-making techniques, students can learn about how businesses ensure to remain in a competitive market. 3. Students will understand various forms of organizational structures and their importance. 4. Students can learn about various strategies used by businesses to maintain and improve employee efficiency. 5. Students will be able to understand how organizations use different leadership styles to stay competitive.
6	Credit Value	(Credit) 6
7	Total Marks	Max. Marks: 25+75 | Min. Passing Marks:33

Part B- Content of the Course

Total No. of Lectures-Tutorials-Practical (in hours per week):3 Hours
L-T-P: 90

Unit	Topics	No. of Lectures
1	Management in Indian Culture and Tradition, Definition and Meaning of Management, Functions and Responsibilities of Management, Role of manager, Principles of Management. School & Thoughts of Management.	18
2	Planning: Process, Types and Significance, Planning vs. Forecasting Objective, Strategies and Policies, MBO. Decision Making: Process & Significance, Planning for Start-ups'.	18
3	Organization: Nature and Purpose of organization. Importance and process of Organization. Departmentalization, Organizational structures: types and relevance, Line and Staff relationship.	18
4	Authority- Delegation, Decentralization – Difference between Authority and power- Responsibility, Recruitment- Sources, Selection, Training, Direction –Nature and Purpose.	18
5	Leadership: Meaning, Importance, Types of Leadership, Leadership Styles, Motivation: Types & significance, Maslow's Need Hierarchy, Theory X &Y of Motivation. An overview of Strategic Management, SWOT Analysis, Strategic Analysis, Alternative-Choice & Evaluation. Future Management- Challenges and Skills	18

Keywords/Tags:

28.5.2021

Prof. Dr. S.K. Khatik.
Chairman, Central Board of Studies
Professional Management BBA Course

B.Sc 2nd year

Part A – Introduction

Programme:Diploma	Class: B.Sc.	Year: Second Year	Session:2022-23

Subject: Microbiology

1	Course Code-	S2-MBIO2T
2	Course Title	Microbial Diversity and Growth
3	Course Type	Core Course (Major I/ Minor/ Elective)
4	Pre-requisite (if any)	To study this course, a student must have had the subject Microbiology in certificate course.
5	Course Learning outcomes (CLO)	On completion of this course, learners will be able to - • Classify bacteria into groups and their salient characteristics. • Describe the nutritional requirements of bacteria for growth. • Understand viruses and viral diseases. • Know about diversities in Fungi and Algae • Develop a basic idea about Protozoa .
6	Credit Value	4
7	Total Marks	Max. Marks-30+70 — Min Passing Marks-33

Session - 2021-22

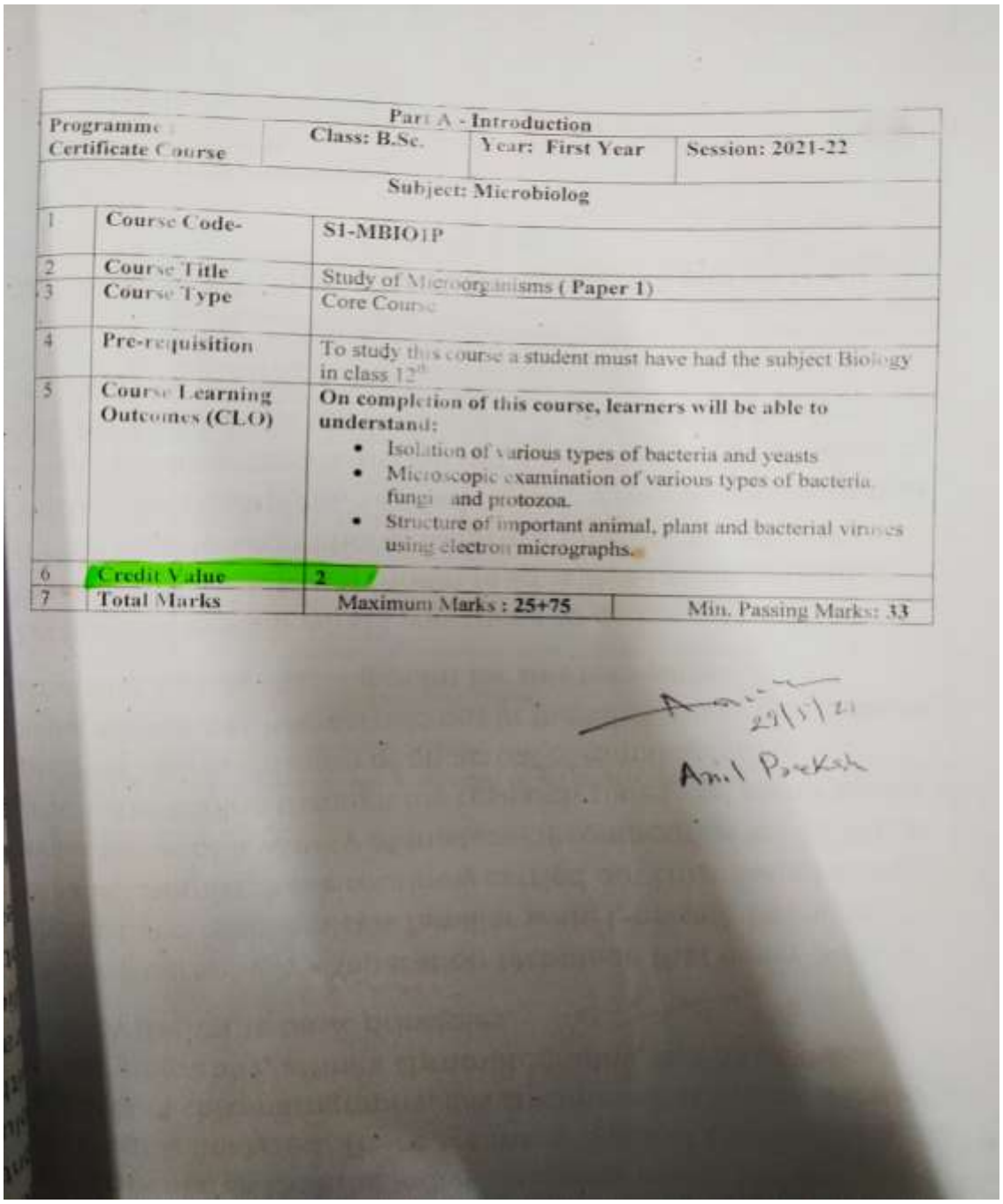
Microbio - Core - Paper-I & Practical

Part A - Introduction			
Programme: Certificate	Class: B.Sc.	First Year	Session: 2021-22
Subject: Microbiology			

1	Course Code-	S1-MBIOTT	
2	Course Title	General Microbiology and Cell Structure (Paper I)	
3	Course Type	Core Course	
4	Pre-requisition	To study this course a student must have had the subject Biology in class 12th	
5	Course Learning Outcomes (CLO)	After completing this course in Microbiology, a student shall have understanding of - • Indian traditional knowledge and historical background of Microbiology. • Structure and transmission of Viruses. • Cell structures and cell organization of bacteria. • Different kinds of unicellular prokaryotic and eukaryotic microorganisms based on specific characteristics. • General characteristics of important Eubacteria.	
6	Credit Value	4	
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks: 33

29/1/21

(Amit Pathak)



Part A - Introduction			
Programme : Certificate Course	Class: B.Sc.	Year: First Year	Session: 2021-22
Subject: Microbiolog			

1	Course Code-	S1-MBIO1P	
2	Course Title	Study of Microorganisms (Paper 1)	
3	Course Type	Core Course	
4	Pre-requisition	To study this course a student must have had the subject Biology in class 12th	
5	Course Learning Outcomes (CLO)	**On completion of this course, learners will be able to understand:** • Isolation of various types of bacteria and yeasts • Microscopic examination of various types of bacteria, fungi and protozoa. • Structure of important animal, plant and bacterial viruses using electron micrographs.	
6	Credit Value	2	
7	Total Marks	Maximum Marks : 25+75	Min. Passing Marks: 33

29/5/21

Anil Pareek

Session- 2021-22

Microbio - Core
Paper II & Practical

Part V - Introduction			
Programme: Certificate Course	Class: B.Sc.	First Year	Session: 2021-22
Subject : Microbiology			

1	Course Code-	S1-MBIO2T	
2	Course Title	Microbial Techniques (Paper II)	
3	Course Type	Core Course	
4	Pre-requisition	To study this course a student must have had the subject Biology in class 12th	
5	Course Learning Outcomes (CLO)	After completing this course in Microbiology, a student shall have understanding of – • Recall the basic lab glassware to be used in the laboratory. • Summarize different methods of sterilization and isolation of pure cultures. • Understand the working of different kinds of instruments and microscopes. • Apply serial dilution technique to isolate the bacteria. • Practice different methods to culture bacteria in the laboratory • Illustrate a method to differentiate between Gram positive and Gram negative bacteria.	
6	Credit Value	4	
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks: 33

23/5/21
Anil Prakash

PART A: Introduction			
Program: **Certificate**	Class: **BCA**	Year: **I Year**	Session: **2021-22**

1.	Course Code	S1-BCAC1G	
2.	Course Title	**Computational Mathematics**	
3.	Course Type (Core Course/Elective/Generic Elective/ Vocational	**Elective**	
4.	Pre-Requisite (if any)	Students must have basic analytical aptitude.	
5.	Course Learning Outcomes (CLO)	**On successful completion of the course the students shall be able to:** 1. Implement trigonometric solutions for measurements in real world scenarios 2. Implement matrices and simultaneous equations to solve complex problems 3. Use statistical tools efficiently 4. Use Mathematical Logic and predicate calculus for solving problems 5. Apply the concepts of set theory for finding solutions to set related problems	
6.	Credit Value	**Theory - 6 Credits**	
7.	Total Marks	Max. Marks: **25+75**	**Min. Passing Marks: 33**

PART B: Content of the Course

No. of Lectures (in hours per week): **3 lectures Per week**

Total No. of Lectures: **90 Hrs.**

Unit	Topics	No. of Lectures
I	**Trigonometry:** Angles & their Measurement, Values of Trigonometric Ratios, Height and Distances. **Elementary Matrices** and types of matrices.	18
II	**Equations:** Simultaneous linear equations, Methods of Solving Simultaneous equations, Quadratic equations.	18
III	**Statistics:** Frequency Distribution, Measure of Central Tendency: Mean, Mode, Median, Measures of variation: Mean deviation Standard Deviation,	18
IV	**Mathematical Logic:** Statements and notations, Connectives: Negation, Conjunction, And Disjunction. Statement formulas and truth tables. Tautologies, Tautological implications, contradiction contingency	18
V	**Set Theory:** Basic concepts of set theory, notation, inclusion and equality of sets, the power set, types of sets, operations on set, Venn diagrams.	18

PART A: Introduction			
Program: **Certificate**	Class: **B.C.A.**	Year: **I Year**	Session: **2021-22**

1.	Course Code	S1 - BCAB2T
2.	Course Title	**Operating System**
3.	Course Type (Core Course/Elective/Generic Elective/ Vocational	**Minor**
4.	Pre-Requisite (if any)	Open for all
5.	Course Learning Outcomes (CLO)	• **After the completion of this course, a student shall be able to do the following:** • Describe the importance of computer system resources and the role of operating system in their management policies and algorithms. • Specify objectives of modern operating systems and describe how operating systems have evolved over time. • Understand various process management concepts and can compare various scheduling techniques, synchronization, and deadlocks. • Describe the concepts of memory management techniques. • Identify the best suited process management technique for any process. • Describe various file operations, file allocation methods and disk space management. • To understand and identify potential threats to operating systems and the security features to guard against them. • Learn to operate the Linux system.
6.	Credit Value	**Theory - 4 Credits Practical – 2 Credits**
7.	Total Marks	Max. Marks : **25+75** | Min. Passing Marks: **33**

PART B: Content of the Course

No. of Lectures (in hours per week): **2 Hours per week**

Total No. of Lectures: **60 Hrs.**

Module	Topics	No. of Lectures
I	**Introduction to Operating System**: What is Operating System? History and Evolution of OS, Basic OS functions, Resource Abstraction, Types of Operating Systems– Batch Systems, Multiprogramming Systems, Multiprocessing Systems, Time Sharing Systems, Distributed OS, Real-time systems. Operating System for Personal Computers, Workstations and Hand-held Devices. Applications of various operating system in real world. Some prevalent operating systems – Windows, UNIX/Linux, Android, MacOS, Blackberry OS, Symbian, Bada etc.	6
II	**Process Management**: Process Concepts, Process states & Process Control Block. **Process Scheduling**: Scheduling Criteria, Scheduling Algorithms (Preemptive & Non- Preemptive) – FCFS, SJF, SRTN, RR, Priority,	14

PART A: Introduction			
Program: **Certificate**	Class: **B.C.A.**	Year: **I Year**	Session: **2021-22**

1.	Course Code	S1-BCAA1T	
2.	Course Title	**Computer Fundamentals, Organization and Architecture**	
3.	Course Type (Core Course/Elective/Generic Elective/ Vocational	**Major – Paper I**	
4.	Pre-Requisite (if any)	To study this course, a student must have basic knowledge of Computers.	
5.	Course Learning Outcomes (CLO)	**After the completion of this course, a successful student will be able to :** • Understand the basic structure, operation and characteristics of digital computer. • Design simple combinational digital circuits based on given parameters. • Understand the working of arithmetic and logic unit. • Know about hierarchical memory system including cache memories and virtual memory. • Know the contributions of Indians in the field of computer architecture and related technologies.	
6.	Credit Value	**Theory – 4 Credits Practical - 2 Credits**	
7.	Total Marks	Max. Marks : 25+75	Min. Passing Marks: 33

PART B: Content of the Course

No. of Lectures (in hours per week): **2 Hrs. per week**

Total No. of Lectures: **60 Hrs.**

Module	Topics	No. of Lectures
I	**Fundamentals of computers:** Definition, Characteristics, capabilities and limitations. Types of Computers: Analog, Digital, Micro, Mini, Mainframe & Super Computers, Work Station, Server computers. Generations of Computers. Smart Systems: definition, characteristics and applications. Definition of Embedded system, GIS, GPS, Cloud Computing. Uses of computers in e-governance and various public domains and services.	8
II	Block diagram of computer and its functional units. Concept of hardware, software and firmware. Types of software. **Input devices** - keyboard, scanner, mouse, light pen, bar code reader, OMR, OCR, MICR, track ball, joystick, touch screen camera, mic etc. **Output devices**: monitors – classification of monitors based on technology -CRT & flat panel, LCD, LED monitors, speakers, printers – dot matrix printer, ink jet printer, laser printer, 3D Printers, Wi-Fi enabled printers, plotters and their types , LCD/LED projectors.	10

PART A: Introduction				
Program: **Certificate**		Class: **B.Sc.**	Year: **I Year**	Session: **2021-22**
Subject: **Computer Science**				
1.	Course Code	**S1-COSC IT**		
2.	Course Title	**Computer System Architecture (Paper I)**		
3.	Course Type (Core Course/Elective/Generic Elective/ Vocational	**Core Course**		
4.	Pre-Requisite (if any)	To study this course, a student must have had the subject Physics/Maths in 12th class.		
5.	Course Learning Outcomes(CLO)	**On completion of this course, learners will be able to:** 1. Understand the basic structure, operation and characteristics of digital computer. 2. Be able to design simple combinational digital circuits based on given parameters. 3. Familiarity with working of arithmetic and logic unit as well as the concept of pipelining. 4. Know about hierarchical memory system including cache memories and virtual memory. 5. Understand concept and advantages of parallelism, threading, multiprocessors and multicore processors. 6. Know the contributions of Indians in the field of computer architecture and related technologies.		
6.	Credit Value	**Theory – 4 Credits**		
7.	Total Marks	Max. Marks : **25+75**	Min. Passing Marks: **33**	

PART B: Content of the Course		
No. of Lectures (in hours per week): **2 Hrs. per week**		
Total No. of Lectures: **60 Hrs.**		
Module	**Topics**	**No. of Lectures**
I	**Fundamentals of Digital Electronics**: Data Types, Complements, Fixed-Point Representation, Floating-Point Representation, Binary and other Codes, Error Detection Codes. **Logic Gates**, Boolean Algebra, Map Simplification, Combinational Circuits, Sequential Circuits, simple combinational circuit design problems. **Circuits**- Adder- Subtractor, Multiplexer, Demultiplexer, Decoders, Encoders Flip - Flops, Registers, Counters.	10

Abhilasha Kumar

PART A: Introduction				
Program: **Certificate**		Class: **B.Sc.**	Year: **I Year**	Session: **2021-22**
Subject: **Computer Science**				
1.	Course Code	**S1-COSCZT**		
2.	Course Title	**Programming Methodologies & Data Structures (Paper Z)**		
3.	Course Type (Core Course/Elective/Generic Elective/ Vocational	**Core Course**		
4.	Pre-Requisite (if any)	To study this course, a student must have had the subject Physics/Maths in 12th class.		
5.	Course Learning Outcomes(CLO)	**On completion of this course, learners will be able to:** 1. Develop simple algorithms and flow charts to solve a problem with programming using top down design principles. 2. Writing efficient and well-structured computer algorithms/programs. 3. Learn to formulate iterative solutions and array processing algorithms for problems. 4. Use recursive techniques, pointers and searching methods in programming. 5. Will be familiar with fundamental data structures , their implementation; become accustomed to the description of algorithms in both functional and procedural styles 6. Have knowledge of complexity of basic operations like insert, delete, search on these data structures. 7. Possess ability to choose a data structure to suitably model any data used in computer applications. 8. Design programs using various data structures including hash tables, Binary and general search trees, heaps, graphs etc. 9. Assess efficiency tradeoffs among different data structure implementations. 10. Implement and know the applications of algorithms for searching and sorting etc. 11. Know the contributions of Indians in the field of programming and data structures.		
6.	Credit Value	**Theory – 4 Credits**		
7.	Total Marks	Max. Marks : **25+75**	Min. Passing Marks: **33**	

Abhilasha Kumar

PART A: Introduction				
Program: UG		Class: B.Sc.	Year: First Year	Session: 2021-22
Subject: : **Information Technology**				
1.	Course Code	**S1-ITEC1T**		
2.	Course Title	**Introduction to Information Technology and ICT tools**		
3.	Course Type (Core Course/Elective/Generic Elective/ Vocational	**Core Course**		
4.	Pre-Requisite (if any)	**Open for all**		
5.	Course Learning Outcomes(CLO)	After completing this course student will be able to • describe various formats to represent different types of data • explain basic computer organization and its peripherals • make use of word processor, spreadsheet and slide presentation software for effective information usage • define various cutting edge technologies used in managing Information		
6.	Credit Value	**4 Credits**		
7.	Total Marks	Max. Marks: **25+75**	**Min. Passing Marks**: 33	
PART B: Content of the Course				
Total No. of Lectures-Tutorials-Practicals (in hours per week): L-T-P 4+0+0=4				
Total No. of Lectures: 60 Hrs.				

Unit	Topics	No. of Lectures (Hours)
I	**Data and Information Technology :** Definition of: Data, Information, Information Technology (IT) and Information Communication Technology (ICT), Types of data, simple model of a computer, data processing using a computer, Internal representation of numeric data: Binary, Hexadecimal, conversion from Decimal to Binary and Hexadecimal and vice-versa, Representation of characters in computers: ASCII, EBCDIC, Unicode, Acquisition of Text, Image, Audio and Video data, storage formats for Text, Images, Audio and Video data, Compression standards for Audio and Video, MPEG standard **Keywords:** Binary, Hexadecimal, ASCII, EBCDIC, Unicode, MPEG format	12
II	**Computers, Data Storage and Peripherals:** Types and classification of computers, Block diagram of computer,C.P.U., registers, system bus, main memory unit, RAM, ROM cache memory, Primary, secondary, auxiliary memory, hard disks, pen drive, optical disks, Inside a computer, SMPS, Motherboard, Ports and Interfaces, expansion cards, ribbon cables, memory chips, different processors and clock speed.	12

Vrinda Tolcekar
28/5/2021
(Dr. Vrinda Tolcekar)

PART A: Introduction				
Program: UG		Class: B.Sc.	Year: First Year	Session: 2021-22
Subject: : **Information Technology**				
1.	Course Code	**SI-ITEC2T**		
2.	Course Title	**Problem Solving and Python Programming**		
3.	Course Type (Core Course / Elective/Generic Elective/ Vocational	**Core Course**		
4.	Pre-Requisite (if any)	**Open for all**		
5.	Course Learning Outcomes (CLO)	After completing this course student will be able to - • Write simple Python programs using common data structures • Use files for data input and output • Make use of sequences and standard libraries in programming • Apply object Oriented Programming concepts in problem solving • Gain knowledge of Python frameworks for web development		
6.	Credit Value	**4 Credits**		
7.	Total Marks	Max. Marks: **25+75**	**Min. Passing Marks:** 33	

PART B: Content of the Course		
Total No. of Lectures-Tutorials-Practicals (in hours per week): L-T-P 4+0+0=4		
Total No. of Lectures: **60 Hrs.**		
Unit	**Topics**	**No. of Lectures (Hours)**
I	**Programming Concepts and Python Basics**: Program designing using pseudocode and flowcharts, Basic Python Syntax, Literal Constants, Numbers, Variable and Basic data types, String, Escape Sequences, Operators and Expressions, Evaluation Order, Indentation, Input Output Functions, Comments, Conditional Statements- If, If-else, Nested If-else, Iterative Statement – For, While, Nested Loops, Control statements – Break, Continue, lamda, Sets, Adding, deleting, Processing set elements, Different set operations **Keywords:** Python, flowchart	12
II	**Strings, Function and File Handling:** String Indexing, Slicing, Modify, Concatenate, find, replace, format strings, join, function creation and call, passing parameters, File Handling in python, Regular Expression, Introduction to numpy, arrays, matrix, operations on arrays and matrix **Keywords**: Python Strings, Python Function and Python File	12
III	**Lists, Tuples and Dictionaries:** Introduction to Lists, List Creation, Processing List, Finding Items in Lists with the in Operator, built in function, Copying Lists,	12

Vrinda Tolcekar
28/5/2021
(Dr. Vrinda Tolcekar)

भाग अ - परिचय			
कार्यक्रम: प्रमाण पत्र	कक्षा: बी.एससी. प्रथम वर्ष	वर्ष: 2021	सत्र: 2021-2022
विषय: गणित			
1	पाठ्यक्रम का कोड	S1-MATH1T	
2	पाठ्यक्रम का शीर्षक	बीजगणित, सदिश विश्लेषण एवं ज्यामिति (प्रश्न पत्र 1)	
3	पाठ्यक्रम का प्रकार	कोर कोर्स	
4	पूर्वापेक्षा (Prerequisite)	इस कोर्स का अध्ययन करने के लिए, छात्र ने विषय गणित का अध्ययन कक्षा 12वीं में किया हो।	
5	पाठ्यक्रम अध्ययन की परिलब्धियां (कोर्स लर्निंग आउटकम) (CLO)	पाठ्यक्रम छात्रों को सक्षम करेगा: 1. आव्यूह की जाति का उपयोग करते हुए, संबंधित आव्यूह के संगत सोपानक रूप द्वारा रैखिक समीकरणों की संगत और असंगत प्रणालियों की पहचान करने में। 2. एक वर्ग आव्यूह के लिए आइगेन मान और संगत आइगेन सदिश को ज्ञात करने में। 3. सदिश कलन के ज्ञान को ज्यामिति में उपयोग करने में। 4. विविधीय ज्यामितीय आकृतियों (जैसे अंकु और वेलन) के लिए ज्ञान में वृद्धि करने में।	
6	क्रेडिट मान	सैद्धांतिक: 6	
7	कुल अंक	अधिकतम अंक: 25 + 75	न्यूनतम उत्तीर्ण अंक: 33

भाग ब - पाठ्यक्रम की विषयवस्तु		
व्याख्यान की कुल संख्या (प्रति सप्ताह घंटे में): प्रति सप्ताह 3 घंटे कुल व्याख्यान: 90 घंटे		
इकाई	विषय	व्याख्यान की संख्या
I	1.1 ऐतिहासिक पृष्ठभूमि: 1.1.1 भारतीय गणित का विकास: उत्तर चिरपरिचित काल (500-1250) 1.1.2 वराहमिहिर और आर्यभट्ट की संक्षिप्त जीवनी। 1.2 आव्यूह की जाति	15

(Dr. Amit Rajput)

भाग अ - परिचय				
कार्यक्रम: प्रमाण पत्र		कक्षा: बी एससी, प्रथम वर्ष	वर्ष: 2021	सत्र: 2021-2022
विषय: गणित				
1	पाठ्यक्रम का कोड	SI-MATH21		
2	पाठ्यक्रम का शीर्षक	कलन एवं अवकल समीकरण (प्रथम पत्र 21)		
3	पाठ्यक्रम का प्रकार	कोर कोर्स		
4	पूर्वापेक्षा (Prerequisite)	इस कोर्स का अध्ययन करने के लिए, छात्र ने विषय **गणित** का अध्ययन कक्षा 12वीं में किया हो।		
5	पाठ्यक्रम अध्ययन की परिलब्धियां (कोर्स लर्निंग आउटकम) (CLO)	पाठ्यक्रम छात्रों को सक्षम करेगा: 1. विभिन्न संदर्भित निर्देशांक पद्धतियों में सदिशीय प्रगुणों का उपयोग करते हुए एक समतल में वक्रों को रेखांकित करने में। 2. अनुकूलन, सामाजिक विज्ञान, भौतिकी और जीवन विज्ञान आदि में अवकलज का उपयोग करने में। 3. विभिन्न गणितीय प्रतिरूपों के लिए अवकल समीकरण सूत्रबद्ध करने में। 4. विभिन्न गणितीय प्रतिरूपों को हल करने और उनका विश्लेषण करने के लिए तकनीकों का उपयोग करने में।		
6	क्रेडिट मान	सैद्धांतिक: 6		
7	कुल अंक	अधिकतम अंक: 25 + 75	न्यूनतम उत्तीर्ण अंक: 33	

भाग ब - पाठ्यक्रम की विषयवस्तु		
व्याख्यान की कुल संख्या (प्रति सप्ताह घंटे में): प्रति सप्ताह 3 घंटे कुल व्याख्यान: 90 घंटे.		
इकाई	विषय	व्याख्यान की संख्या
I	1.1 ऐतिहासिक पृष्ठभूमि: 1.1.1 भारतीय गणित का विकास: प्राचीन और प्रारंभिक चित्रप्रतिसित काल (500 सीई तक) 1.1.2 भास्कराचार्य (लीलावती के विशेष संदर्भ में) और माधव की संक्षिप्त जीवनी	18

(Dr. Anil Rajput)

भाग अ - परिचय				
कार्यक्रम: प्रमाण पत्र		कक्षा: बी.एससी. प्रथम वर्ष	वर्ष: 2021	सत्र: 2021-2022
विषय: भौतिक विज्ञान				
1.	पाठ्यक्रम का कोड	S1-PHYS1T (1T)		
2.	पाठ्यक्रम का शीर्षक	ऊष्मागतिकी तथा सांख्यिकीय भौतिकी (प्रश्न पत्र 1) (1)		
3.	पाठ्यक्रम का प्रकार :(कोर कोर्स/इलेक्टिव/जेनेरिक इलेक्टिव/वोकेशनल/.....)	कोर कोर्स		
4.	पूर्वापेक्षा (Prerequisite) (यदि कोई हो)	इस कोर्स का अध्ययन करने के लिए छात्र के पास 12 वीं कक्षा में भौतिकी विषय होना चाहिए।		
5.	पाठ्यक्रम अध्ययन की परिलब्धियां (कोर्स लर्निंग आउटकम) (CLO)	1. इस पाठयक्रम में विद्यार्थी ऊष्मा एवं ताप की मूल भौतिकी तथा इनके ऊर्जा, कार्य वितरण एवं पदार्थ से संबंध सीखने सक्षम हो सकेगा। 2. छात्रो से यह अपेक्षा की जाती है कि वे सीखे कि, कैसे ऊष्मागतिकी नियमों का उपयोग करके ऊष्मा इंजन में ऊष्मा कार्य में परिवर्तित करते है। 3. यह पाठ्यक्रम सांख्यिकी की विभिन्न अवधारणाओं और उष्मागतिकी में उन्हें लागू करने के तरीकों की समझ भी विकसित करेगा। 4. छात्र चिरसंमत और क्वांटम परिस्थितियों में कणों के व्यवहार के साथ सांख्यिकीय यांत्रिकी के अध्ययन का महत्त्व समझेंगे।		
6.	क्रेडिट मान	4		
7.	कुल प्राप्त अंक	अधिकतम अंक: 25+75	न्यूनतम उत्तीर्ण अंक: 33	

भाग अ - परिचय			
कार्यक्रम: प्रमाण पत्र	कक्षा: बी.एससी. प्रथम वर्ष	वर्ष: 2021	सत्र: 2021-2022
विषय - भौतिक विज्ञान			
1.	पाठ्यक्रम का कोड	S1-PHYS2T (2T)	
2.	पाठ्यक्रम का शीर्षक	यांत्रिकी और पदार्थ के सामान्य गुण (प्रश्न पत्र 2) (2)	
3.	पाठ्यक्रम का प्रकार :(कोर कोर्स/इलेक्टिव/जेनेरिक इलेक्टिव/बोकेशनल/.....)	कोर कोर्स	
4.	पूर्वापेक्षा (Prerequisite) (यदि कोई हो)	इस कोर्स का अध्ययन करने के लिए छात्र के पास 12 वीं कक्षा में भौतिकी विषय होना चाहिए।	
5.	पाठ्यक्रम अध्ययन की परिलब्धियां (कोर्स लर्निंग आउटकम) (CLO)	1. पाठ्यक्रम छात्रों को भौतिक निकायों के व्यवहार के बारे में विचार कर विकसित करने के लिए सशक्त करेगा। 2. यह दैनिक जीवन में हमारे आस-पास की सभी वस्तुओं का गति से संबंधित बुनियादी अवधारणा को प्रदान करेगा। 3. यह छात्रों को विज्ञान और प्रौद्योगिकी के विभिन्न अनुप्रयुक्त क्षेत्र खासकर मैकेनिकल इंजीनियरिंग के क्षेत्र में नींव का निर्माण करने में सक्षम/ सहायक होगा। 4. छात्र भौतिक विज्ञान में विभिन्न समस्याओं को हल करने के लिए गणितीय तरीकों का बुनियादी ज्ञान प्राप्त कर सकेंगे। 5. छात्र ऊर्जा और द्रव्यमान के बीच संबंध, सापेक्षता प्रभाव को समझने में सक्षम होंगे।	
6.	क्रेडिट मान	4	
7.	कुल अंक	अधिकतम अंक: 25+75	न्यूनतम उत्तीर्ण अंक: 33

Syllabus of Paper
BA I Year: Generic English (Theory + Tutorial)

Part A Introduction				
Program: Certificate Course		Class': BA	Year: I	Session: 2021-22
Subject: Generic English				
1	Course Code	AI-ELTTG		
2	Course Title	Communicative English (Paper , Theory + Tutorial)		
3	Course Type (Core Course/Elective/Generic Elective/Vocational/.)	. Elective		
4	Pre-requisite (if any)	This course can be opted as an elective by the students of following subjects: Class 12th passed in any discipline /Open for all		
5	Course Learning Outcomes (CLO)	The study of this course will enable the students to acquire the knowledge of • Phonology and Morphology, • Syntax and Structure, and • Vocabulary and Discourse. The students will be able to converse in real-life situations with effective language skills. The course will also help them, • Acquire literary sense, • Use idiomatic and lexical language, and • Communicate effectively across the globe		
6	Credit Value (T+P)	4(3+1)+0=4		
7	Total Marks	Max. Marks: 25+75	Min. Passing Marks: 33	

Part B- Content of the Course			
Total No. of Lectures-Tutorials-Practical (in hours per week): 1.5+0.5+00=02 L-T-P: 45+15+00=60			
Unit	Topics	No. of Lectures	No of Tutorials
I	• Communication 1.1 What is communication? Its meaning, types & its purpose in the age of Globalization	10	03

PART A: Introduction				
Program: **Certificate**		Class: **B.Sc.**	Year: **I Year**	Session: **2021-22**
Subject: **Computer Science**				
1.	Course Code	**S1-COSC1G**		
2.	Course Title	**Data Analysis & Visualization through spreadsheet**		
3.	Course Type (Core Course/Elective/Generic Elective/ Vocational	**Elective**		
4.	Pre-Requisite (if any)	To study this course, a student must have prior basic knowledge of using computer and internet. This course is **open for all.**		
5.	Course Learning Outcomes (CLO)	**On completion of this course, learners will be able to:** 1. Prepare a spreadsheet file and enter data into the sheet 2. Illustrate formatting and editing capabilities on the data 3. Demonstrate basic calculations and save data 4. Import and export data into the spreadsheet 5. Demonstrate basic visualizing, analyzing, organizing and sharing techniques		
6.	Credit Value	**Theory – 2 Credits**		
7.	Total Marks	Max. Marks: **25+75**	Min. Passing Marks: **33**	

PART B: Content of the Course		
No. of Lectures (in hours per week): **1 Lecture per week**		
Total No. of Lectures: **30 Hrs.**		
Module	**Topics**	**No. of Lectures**
I	**Introduction to Spreadsheet:** What is Spreadsheet, History, Importance; Brands and platforms, Excel, Calc, and Google Sheets, User interface, Ribbon, Quick Access toolbar. **Basics of Spreadsheet:** Overview of spreadsheet, opening new file and saving spreadsheet (through menu and keyboard shortcut), rows, columns, cells, workbooks and worksheets. Fundamentals of rows, columns and cell and navigation; various modes of selecting cells (shift arrow, ctrl shift arrow, mouse click and drag, mouse click and shift click); merging cells; Selecting rows and columns, Non-contiguous cells; How to enter data (numeric, text, date), Autofit, keyboard navigation, Autocomplete, navigating edges, Navigating first and last used cells. Working with multiple sheet, inserting and deleting sheets, renaming sheets. **Number formatting** - Introduction, General and text, Number and fraction, Currency, Accounting, Percentage, Date, Time; Inserting and deleting rows, columns and cells. **Formatting cells** - Introduction, Bold, Italics and Underline, Border, Fill and Font, Alignment, Format painter and clear format, Editing the cell content, entering multiple lines of text using Ctrl+Enter, auto fill, copy and paste, cut and paste, auto fill series, use of fill handle through mouse.	6
II	**Printing worksheet:** Select print area, see print preview, adjusting margin during print preview.	6

Abhilasha Kumar

Part A Introduction		
Program: Certificate	**Year: First Year**	**Session: 2021-22**
Course Code	**V1-COS-WEBT**	
Course Title	**Web Designing**	
Course Type	**Vocational**	
Pre-requisite (if any)	**Open for All**	
Course Learning outcomes (CLO)	**After studying this Course the student will be able to –** ❖ Code a handful of useful HTML & CSS examples ❖ Build semantic, HTML & CSS webpage ❖ Write basic scripts ❖ Use Names, Objects, and Methods ❖ Add Interactivity to a Web Page ❖ Create Dynamic Web Pages using Java Script in HTML forms.	
Expected Job Role / Career opportunities	**Job Role** - Web Designer / Front End Developer/ Creative Ad Designer **Job Description** – Web designers develop functional and appealing web pages, websites, web applications, online advertisements for individuals, businesses and government agencies to establish their online presence. They use knowledge of computer programming and graphic design to create websites that meet client needs. **Career Opportunities** – Typical employers of web designers are – ❖ Software companies ❖ IT consultancies ❖ Specialist web design companies ❖ Large corporate organisations ❖ Any organisation that uses computer systems ❖ Self-employment/freelance work is often possible for individuals with appropriate experience. ❖ Vacancies are advertised online, by career services and by recruitment agencies.	
Credit Value	**(4) Theory – 2 Practical – 2**	

भाग ए परिचय		
कार्यक्रम: प्रमाण पत्र	वर्ष: प्रथम वर्ष	सत्र : 2021 - 22
पाठ्यक्रम क्रमांक	V1-COM-DIGT	
पाठ्यक्रम शीर्ष	डिजिटल मार्केटिंग	
पाठ्यक्रम का प्रकार	व्यवसायिक	
पूर्व आवश्यकता	सभी संकाय के विद्यार्थियों के लिए उपलब्ध	
पाठ्यक्रम सीखने के परिणाम (सीएनओ)	पाठ्यक्रम के सफल समापन के बाद, छात्र निम्नलिखित में सक्षम होगा: • डिजिटल मार्केटिंग , उसका महत्व, वेब साइट का अर्थ और वेब साइट के स्तर, ब्लॉग, पोर्टल और वेबसाइट के बीच अंतर. • पेज ऑप्टिमाइजेशन, ऑफ पेज ऑप्टिमाइजेशन पर SEO (सर्च इंजन ऑप्टिमाइजेशन) की कार्यप्रणाली की समझ और रिपोर्ट तैयार करना • फेसबुक, ट्विटर, लिंक्डइन, टम्बलर, पिंटेरेस्ट और अन्य सोशल मीडिया सेवाओं के अनुकूलन जैसे एसएमओ (सोशल मीडिया ऑप्टिमाइजेशन) के बारे में ज्ञान • भुगतान किए गए टूल जैसे Google विज्ञापन शब्द, प्रदर्शन विज्ञापन तकनीक • वेबसाइट ट्रैफिक, कीवर्ड विश्लेषण और ईमेल मार्केटिंग और विज्ञापन डिजाइनिंग सीखने के लिए SEO के लिए उपयोगी टूल पर व्यावहारिक अनुभव।	
अपेक्षित नौकरी की भूमिका कैरियर के अवसर	• डिजिटल मार्केटिंग मैनेजर • खोज इंजन अनुकूलक • सोशल मीडिया मार्केटर • सामग्री विपणक • एआर-वीआर के लिए सामग्री निर्माता • आवाज सहायता के लिए एसईओ विशेषज्ञ	
क्रेडिट मूल्य	4	

Part A :Introduction				
Program: Certificate Course		**Class:** B.Sc. I Year	**Year :** 2021	**Session :** 2021-2022
Subject : Biotechnology				
1	**Course Code**	**CORE TH-1-SI-BTE C1 T**		
2	**Course Title**	**Cell Biology and Biochemistry**		
3	**Course Type**	**Core Course**		
4	**Pre-requisite (If any)**	To study this course, a student must have had the subject Biology in 12^{th} class.		
5	**Course Learning outcomes (CLO)**	**Course Objective :-**The Main Objective of the course will be to build the basic foundation for studying Biotechnology. The Demand For Trained workforce in Biotechnology is ever growing in Fundamental Research and Industry Sector. Academic and Research Sectors also Require Interdisciplinary trained manpower to foster the Biotechnology Revolution. The restructured syllabus combines basic principles of Chemical and Biological sciences in light of advancements in technology. The curriculum aims to impart basic knowledge with emphasis on its applications to make the students ready for industries and research work in concerned field. **Learning Outcome :-**At the end of the paper , a student should be able to : 1. Understand basics of cell biology. 2. Appreciate the importance of bonding and spatial arrangements of molecules for proper functioning and stability. 3. Understand both the physical as well as chemical properties of biomolecules 4. The Student Could Pursue a career in biochemical testing. The decrease of increase in the amount of some of the biomolecules can have clinical significance. 5. Students can also go in for medical Laboratory Technique Courses, opening opportunities in hospitals and pathological laboratories.		
6	**Credit Value**	**Theory – 4**		
7	**Total Marks**	**Max. Marks: 25+75**	**Min. Passing Marks : 33**	

28/5/21
(Rajini Gothankar)

	Total		**75**

Part A :Introduction

Program: Certificate Course	**Class:** B.Sc. I Year	**Year :** 2021	**Session :** 2021-2022

Subject : Biotechnology

1	**Course Code**	**CORE- PR-1-SI-BTE C1 P**	
2	**Course Title**	Labwork for Cell Biology and Biochemistry	
3	**Course Type**	**Core Course**	
4	**Pre-requisite (If any)**	To study this course, a student must have had the subject Biology in 12th class.	
5	**Course Learning outcomes (CLO)**	**Course Objective :-**The Main Objective of the course will be to give hands-on practical knowledge in Biotechnology. The Demand For Trained workforce in Biotechnology is ever growing in Fundamental Research and Industry Sector. Academic and Research Sectors also Require Interdisciplinary trained manpower to foster the Biotechnology Revolution. The curriculum aims to impart basic knowledge with emphasis on its applications to make the students ready for industries and research work in concerned field. **Learning Outcome :-**At the end of the paper , a student will be able to : 1. Understand basic techniques of cell biology. 2. Know the physical as well as chemical properties of biomolecules 3. Pursue a career in biochemical testing. The decrease of increase in the amount of some of the biomolecules can have clinical significance. 4. Take medical Laboratory Technique Courses, opening opportunities in hospitals and pathological laboratories.	
6	**Credit Value**	**Practical - 2**	
7	**Total Marks**	**Max. Marks: 25+75**	**Min. Passing Marks : 33**

Part B : Content of the Practical Course

Total numbers of Lectures (in hours per week) : 2 hours per week

Credits – 2 (Practical: 30 hours)

Scheme of Practical Examination: - **Max. Marks (25 + 75 = 100)**

(A) Internal Assessment. :- **Max. Marks- 25**

1. Class Interaction. 05
2. Quiz. 05
3. Seminar. 07
4. Assigments (Charts, Rural Service, Technology Dissemination/Excursion/ Lab Visit/Industrial Training. 08

(B) External Assessment:- **Max. Marks- 75**

1. Major experiment 15
2. Minor Experiment -1 10
3. Minor experiment-2 10
4. Spotting. 15
5. Viva – Voce 15
6. Practical Record. 10

List of Experiments/Exercise.

1. To study the plant cell structure using various plant materials.
2. To study the animal cell structure using cheek cells.
3. To Prepare Onion root tip for the stages of Mitosis.
4. To Prepare and study the different stages of Mitosis and Meiosis.
5. To analyze Carbohydrates Quantitatively
6. To analyze proteins Quantitatively
7. To analyze lipids Quantitatively

	Total		**75**

Part A :Introduction

Program: Certificate Course	**Class:** B.Sc. I Year	**Year :** 2021	**Session :** 2021-2022

Subject : Biotechnology

1	**Course Code**	**CORE- PR-1-SI-BTE C1 P**	
2	**Course Title**	Labwork for Cell Biology and Biochemistry	
3	**Course Type**	**Core Course**	
4	**Pre-requisite (If any)**	To study this course, a student must have had the subject Biology in 12th class.	
5	**Course Learning outcomes (CLO)**	**Course Objective :-**The Main Objective of the course will be to give hands-on practical knowledge in Biotechnology. The Demand For Trained workforce in Biotechnology is ever growing in Fundamental Research and Industry Sector. Academic and Research Sectors also Require Interdisciplinary trained manpower to foster the Biotechnology Revolution. The curriculum aims to impart basic knowledge with emphasis on its applications to make the students ready for industries and research work in concerned field. **Learning Outcome :-**At the end of the paper , a student will be able to : 1. Understand basic techniques of cell biology. 2. Know the physical as well as chemical properties of biomolecules 3. Pursue a career in biochemical testing. The decrease of increase in the amount of some of the biomolecules can have clinical significance. 4. Take medical Laboratory Technique Courses, opening opportunities in hospitals and pathological laboratories.	
6	**Credit Value**	**Practical - 2**	
7	**Total Marks**	**Max. Marks: 25+75**	**Min. Passing Marks : 33**

Part B : Content of the Practical Course

Total numbers of Lectures (in hours per week) : 2 hours per week

Credits – 2 (Practical: 30 hours)

Scheme of Practical Examination: - **Max. Marks (25 + 75 = 100)**

(A) Internal Assessment. :- **Max. Marks- 25**

1. Class Interaction. 05
2. Quiz. 05
3. Seminar. 07
4. Assigments (Charts, Rural Service, Technology Dissemination/Excursion/ Lab Visit/Industrial Training. 08

(B) External Assessment:- **Max. Marks- 75**

1. Major experiment 15
2. Minor Experiment -1 10
3. Minor experiment-2 10
4. Spotting. 15
5. Viva – Voce 15
6. Practical Record. 10

List of Experiments/Exercise.

1. To study the plant cell structure using various plant materials.
2. To study the animal cell structure using cheek cells.
3. To Prepare Onion root tip for the stages of Mitosis.
4. To Prepare and study the different stages of Mitosis and Meiosis.
5. To analyze Carbohydrates Quantitatively
6. To analyze proteins Quantitatively
7. To analyze lipids Quantitatively

Part A Introduction			
Program: Certificate	**Class: B.Sc.**	**Year: I**	**Session: 2021-22**
Subject: Biotechnology			

1	**Course Code**	**CORE-TH-2 SI BTEC 2T**
2	**Course Title**	Microbiology and Immunology
3	**Course Type**	Core Course
4	**Prerequisite**	To study this course a student must have had the subject Biology in class 12th.
5	**Course Learning Outcomes**	**Course Objectives**: To create general understanding about microbiology and immunology 1.The students will be able to understand microbial diversity and Nutrition. 2. The students will be able to understand immune system, Immune responses and Vaccination. 3. The students will be able to describe role of immune system in both maintaining health and contributing to disease. 4. The students will be able to understand immunological techniques. **Course Learning Outcomes:** At the end of the course student will familiar with - 1. Microbial diversity and nutrition. 2. Immune system, its properties and types. 3. Immunoglobulin structure, types and functions and can apply the concept of hypersensitivity and vaccination for different diseases. 4 Perform various immunological techniques.
6	**Credit Value**	4
7	**Total Marks**	Max.Marks 25+75 / Min. Marks 33

Rajni Gahlaut
28-5-21
(Ragini Gahlaut)

Part A Introduction			
Program: Certificate	**Class: B.Sc.**	**Year: I**	**Session: 2021-22**
Subject: Biotechnology			

1	**Course Code**	**CORE-TH-2 SI BTEC 2T**	
2	**Course Title**	Microbiology and Immunology	
3	**Course Type**	Core Course	
4	**Prerequisite**	To study this course a student must have had the subject Biology in class 12th.	
5	**Course Learning Outcomes**	**Course Objectives**: To create general understanding about microbiology and immunology 1.The students will be able to understand microbial diversity and Nutrition. 2. The students will be able to understand immune system, Immune responses and Vaccination. 3. The students will be able to describe role of immune system in both maintaining health and contributing to disease. 4. The students will be able to understand immunological techniques. **Course Learning Outcomes:** At the end of the course student will familiar with - 1. Microbial diversity and nutrition. 2. Immune system, its properties and types. 3. Immunoglobulin structure, types and functions and can apply the concept of hypersensitivity and vaccination for different diseases. 4 Perform various immunological techniques.	
6	**Credit Value**	4	
7	**Total Marks**	Max.Marks 25+75	Min. Marks 33

Rajinikant
28-5-21
(Ragini Gothalwal)

Part A - Introduction				
Program : Diploma Course		**Class: B.Sc.**	**Year: Second Year**	**Session :2022-23**
Subject: Biotechnology				
1.	**Course Code**	**S2-BTEC1T**		
2.	**Course Title**	**Basic Molecular Biology**		
3.	**Course Type**	**Major- 1 Core Course**		
4.	**Pre-requisites**	**To study this course a student must have the subject Biotechnology in certificate course.**		
5.	**Course Learning outcomes**	1. Students will be able to explain role of different protein/ enzymes involved in cell signalling. 2. They will be able to understand mechanism of genetic damage caused by mutation and role of various repair system in neglecting the effect of these mutation. 3. Students will be able to explain mechanism of DNA replication, transcription, translation and other related processes		
6.	**Credit Value**	**Theory- 4**		
7.	**Total Marks**	**Max. Marks-30+70**		**Min Marks : 33**

Part A Introduction			
Program: Diploma Course	**Class : B.Sc.**	**Year: Second**	**Session: 2022-23**
Subject: Biotechnology			
1	**Course Code**	**- S2-BTE C2 T**	
2	**Course Title**	**Recombinant DNA Technology**	
3	**Course Type**	**Major-2 / Minor/ Elective- Core Course**	
4	**Pre-requisites (if any)**	**To study this course a student must have the subject Biotechnology in certificate course.**	
5	**Course Learning outcomes (CLO)**	1. The objectives of this course are to teach students with various approaches to conduct genetic engineering and their applications in biological research as well as in biotechnology industries. 2. Genetic engineering is a technology that has been developed based on our fundamental understanding of the principles of molecular biology and this is reflected in the contents of this course. 3. Given the impact of genetic engineering in modern society, the students should be endowed with strong theoretical knowledge of this technology. 4. In conjunction with the practicals in molecular biology and genetic engineering, the students should be able to take up biological research as well as placement in the relevant biotech industry	
6	**Credit Value**	**Theory- 4**	
7	**Total Marks**	**Max. Marks-30+70**	**Min Marks : 33**

Part A Introduction

Program Diploma Course	- Second year	Session: 2022-23

Course Code	**V2- CLN-NUTT**
Course Title	**Management of Nutrition in life cycle**
Course Type	**Vocational**
Pre-requisite (if any)	**Certificate course**
Course Learning outcomes (CLO)	**After completion of course, students will be able to** • Plan diets for early childhood. • Plan diets for school going children • Plan diets for adolescent • Plan diets for adults • Plan a diet for pregnancy and lactation. • Plan a diet for old age.
Expected Job Role / career opportunities	• Community dietician • Nutritionist in NGOs • Freelancing • Anganwadi / Balwadi
Credit Value	**2 (Theory) + 2 (Practical) = 04**

Part B- Content of the Course

Total No. of Lectures + Practical (in hours per week): **L-1 Hr / P-1 Lab Hr (=2 Hrs)**

Total No. of Lectures/ Practical: L-30 /P-30 (60 Hrs)

Module	Topics	No. of lectures (Total 30)
1	**Dietary Management for different age group** **1. Dietary Management** **1.1** Introduction to Dietary management 1.2 Factors affecting dietary management 1.3 Recommended Dietary Allowances (RDA) 1.4 Translating RDA into daily food intake **2. Food and our body**	6

Sharma
Dr Aparna Sharma
Chairperson CBOS
Nutrition & Dietetics

Part A Introduction

Program Diploma Course	- Second year	Session: 2022-23

Course Code	**V2- CLN-NUTT**
Course Title	**Management of Nutrition in life cycle**
Course Type	**Vocational**
Pre-requisite (if any)	**Certificate course**
Course Learning outcomes (CLO)	**After completion of course, students will be able to** • Plan diets for early childhood. • Plan diets for school going children • Plan diets for adolescent • Plan diets for adults • Plan a diet for pregnancy and lactation. • Plan a diet for old age.
Expected Job Role / career opportunities	• Community dietician • Nutritionist in NGOs • Freelancing • Anganwadi / Balwadi
Credit Value	**2 (Theory) + 2 (Practical) = 04**

Part B- Content of the Course

Total No. of Lectures + Practical (in hours per week): **L-1 Hr / P-1 Lab Hr (=2 Hrs)**

Total No. of Lectures/ Practical: L-30 /P-30 (60 Hrs)

Module	Topics	No. of lectures (Total 30)
1	**Dietary Management for different age group** **1. Dietary Management** **1.1** Introduction to Dietary management 1.2 Factors affecting dietary management 1.3 Recommended Dietary Allowances (RDA) 1.4 Translating RDA into daily food intake **2. Food and our body**	6

Dr Aparna Sharma
Chairperson CBOS
Nutrition & Dietetics

Part A Introduction

Program Diploma Course	- Second year	Session: 2022-23

Course Code	V2- CLN-NUTT
Course Title	Management of Nutrition in life cycle
Course Type	Vocational
Pre-requisite (if any)	Certificate course
Course Learning outcomes (CLO)	After completion of course, students will be able to • Plan diets for early childhood. • Plan diets for school going children • Plan diets for adolescent • Plan diets for adults • Plan a diet for pregnancy and lactation. • Plan a diet for old age.
Expected Job Role / career opportunities	• Community dietician • Nutritionist in NGOs • Freelancing • Anganwadi / Balwadi
Credit Value	2 (Theory) + 2 (Practical) = 04

Part B- Content of the Course

Total No. of Lectures + Practical (in hours per week): L-1 Hr / P-1 Lab Hr (=2 Hrs)

Total No. of Lectures/ Practical: L-30 /P-30 (60 Hrs)

Module	Topics	No. of lectures (Total 30)
I	**Dietary Management for different age group** **1. Dietary Management** **1.1** Introduction to Dietary management 1.2 Factors affecting dietary management 1.3 Recommended Dietary Allowances (RDA) 1.4 Translating RDA into daily food intake **2. Food and our body**	6

Dr Aparna Shaw
Chairperson CBOS
Nutrition & Dietetics

Part A Introduction				
Program: Diploma Course	**Class : B.Sc.**	**Year: Second**		**Session: 2022-23**
Subject: Biotechnology				
1	**Course Code**	**S2-BTEC2P**		
2	**Course Title**	**Lab work for Recombinant DNA Technology**		
3	**Course Type**	**Major-2 / Minor/ Elective -Core Course**		
4	**Pre-requisites (if any)**	**To study this course a student must have the subject Biotechnology in certificate course.**		
5	**Course Learning outcomes (CLO)**	1. The objectives of this course are to teach students with various approaches to conduct genetic engineering and their applications in biological research as well as in biotechnology industries. 2. Genetic engineering is a technology that has been developed based on our fundamental understanding of the principles of molecular biology and this is reflected in the contents of this course. 3. Given the impact of genetic engineering in modern society, the students should be endowed with strong theoretical knowledge of this technology. 4. In conjunction with the practicals in molecular biology and genetic engineering, the students should be able to take up biological research as well as placement in the relevant biotech industry		
6	**Credit Value**	**2**		
7	**Total Marks**	**Max. Marks-30+70**		**Min Passing Marks : 33**

Part A Introduction				
Program: Diploma Course	**Class : B.Sc.**	**Year: Second**		**Session: 2022-23**
Subject: Biotechnology				
1	**Course Code**	**S2-BTEC2P**		
2	**Course Title**	**Lab work for Recombinant DNA Technology**		
3	**Course Type**	**Major-2 / Minor/ Elective -Core Course**		
4	**Pre-requisites (if any)**	**To study this course a student must have the subject Biotechnology in certificate course.**		
5	**Course Learning outcomes (CLO)**	1. The objectives of this course are to teach students with various approaches to conduct genetic engineering and their applications in biological research as well as in biotechnology industries. 2. Genetic engineering is a technology that has been developed based on our fundamental understanding of the principles of molecular biology and this is reflected in the contents of this course. 3. Given the impact of genetic engineering in modern society, the students should be endowed with strong theoretical knowledge of this technology. 4. In conjunction with the practicals in molecular biology and genetic engineering, the students should be able to take up biological research as well as placement in the relevant biotech industry		
6	**Credit Value**	**2**		
7	**Total Marks**	**Max. Marks-30+70**		**Min Passing Marks : 33**

Part A Introduction			
Program: Certificate	Class: B.Sc.	Year: I	Session: 2021-22
Subject: Biotechnology			

1	Course Code	CORE-PR-2-SI-BTEC 2P	
2	Course Title	Lab on Microbiology and Immunology	
3	Course Type	Core Course	
4	Prerequisite	To study this course a student must have had the subject Biology in class 12th.	
5	Course Learning Outcomes	**Course Objective** : The objective of the course is to prepare students competent in subject through in-depth lecture and laboratory practices- 1 The students will be able to identify microbes using modern techniques. 2 The students will acquire skill and competence in microbiological and immunological laboratory practices applicable to microbiological research or clinical methods of immunology, including accurately reporting observations and analysis. **Course Learning Outcomes:** On completion of this course, learners will be able to have sufficient scientific understanding of microbiology and immunology- 1 Students apply concept, Principle and types of sterilization methods viz performing microbiological experiments. 2 Students apply the concept and characteristics of antiseptic, disinfected and their mode of action in day to day life. 3 Students will apply principle, working and applications of instruments – Laminar airflow, Autoclave, Hot air oven etc	
6	Credit Value	2	
7	Total Marks	Max Mark 25+75	Min Marks 33

28.5.21
(Ragini Gotalwal)

Part A Introduction			
Program: Certificate	Class: B.Sc.	Year: I	Session: 2021-22
Subject: Biotechnology			
1	Course Code	CORE-PR-2-SI-BTEC 2P	
2	Course Title	Lab on Microbiology and Immunology	
3	Course Type	Core Course	
4	Prerequisite	To study this course a student must have had the subject Biology in class 12th .	
5	Course Learning Outcomes	**Course Objective** : The objective of the course is to prepare students competent in subject through in-depth lecture and laboratory practices- 1 The students will be able to identify microbes using modern techniques. 2 The students will acquire skill and competence in microbiological and immunological laboratory practices applicable to microbiological research or clinical methods of immunology, including accurately reporting observations and analysis. **Course Learning Outcomes:** On completion of this course, learners will be able to have sufficient scientific understanding of microbiology and immunology- 1 Students apply concept, Principle and types of sterilization methods viz performing microbiological experiments. 2 Students apply the concept and characteristics of antiseptic, disinfected and their mode of action in day to day life. 3 Students will apply principle, working and applications of instruments – Laminar airflow, Autoclave, Hot air oven etc	
6	Credit Value	2	
7	Total Marks	Max Mark 25+75	Min Marks 33