FACULTY OF ECONOMICS AND BUSINESS

SYLLABUS
of
B.Sc. Economics
(Semester I -IV)
(Under Continuous Evaluation System)

Session: 2019-20

The Heritage Institution
KANYA MAHA VIDYALAYA
JALANDHAR
(Autonomous)

Program Specific Outcome – B.Sc. (Economics)

B.Sc. (Economics) is a three year graduation degree program. The program aims at creation and dissemination of knowledge regarding core economic principles and issues; focusing on the link between theory and real world.

Upon successful completion of this course, students will be able to: PSO1: understand the basic concepts and principles of economics.

PSO2: recognize the importance of assumptions in laws and economic models.

PSO3: recognize the connection between theory and applications.

PSO4: examine the empirical validity of different theories and their policy implications.

PSO5: develop statistical approach and mathematical thinking among students to problem solving on a diverse variety of disciplines.

PSO6: understand equilibrium of firm and industry under different market structure to students.

PSO7: analyze the impact of various economic policies on the growth and employment.

PSO8: apply economic theories to solve economic problems like inflation, unemployment and poverty.

PSO9: describe the role of international trade and finance in domestic economic activity.

PSO10: learn implications of global policies and apply them to improve domestic environment.

PSO11: think critically and learn a plethora of tools to improve the working of the economy.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
SCHEME AND CURRICULUM OF EXAMINATIONS OF THREE YEAR DEGREE PROGRAM

Bachelor of Science (Economics)

Session: 2019-20

Bachelor of Science (Economics) Semester I									
Course Code		**Course Name**			**Course Type**	**Marks**			**Examination time (in Hours)**
						Total	**Ext.**	**CA**	
							L / **P**		
BECL-1421 BECL-1031 BECL-1431		Punjabi(Compulsory) [1]Basic Punjabi [2]Punjab History and Culture			C	50	40 / -	10	3
BECL-1212		English (Compulsory)			C	50	40 / -	10	3
BECM-1333		**Mathematics**	I	(Algebra)	E	100	80 (40+40) / -	20	3+3
			II	(Calculus and Trigonometry)					
BECL-1453		**Quantitative Techniques** (Quantitative Techniques-I)			E	100	80 / -	20	3
BECM-1134		**Computer Science** (Computer Fundamentals and PC Software)			E	100	50 / 30	20	3+3
	(P)	**Computer Science**(Computer Fundamental and PC Software) (PRACTICAL)							
BECM-1124		**Computer Applications (Vocational)**(Computer Fundamentals and PC Software)			E	100	50 / 30	20	3+3
	(P)	**Computer Applications (**Computer Fundamentals and PC Software) (PRACTICAL)							
BECL-1175		**Economics**(Microeconomics)			C	100	80 / -	20	3
AECD-1161		*Drug Abuse: Problem Management and Prevention (Compulsory)			AC	50	40 / -	10	3
SECF-1492		*Foundation Course			AC	25	20 / -	5	1
Total						**400**			

C-Compulsory
E-Elective
AC- Audit Course
[1] Special paper in lieu of Punjabi (Compulsory).
[2] Special paper in lieu of Punjabi (Compulsory) for those students who are not domicile of Punjab.
***Marks of these papers will not be added in total marks and only grades will be provided.**

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
SCHEME AND CURRICULUM OF EXAMINATIONS OF THREE YEAR DEGREE PROGRAM

Bachelor of Science (Economics)

Session: 2019-20

Bachelor of Science (Economics) Semester II									
Course Code		**Course Name**			**Course Type**	**Marks**			**Examination time (in Hours)**
						Total	**Ext.**	**CA**	
							L / **P**		
BECL-2421 BECL-2031 BECL-2431		Punjabi(Compulsory) [1]Basic Punjabi [2]Punjab History and Culture			C	50	40 / -	10	3
BECL-2212		English (Compulsory)			C	50	40 / -	10	3
BECM-2333		**Mathematics**	I	Calculus and Differential Equations	E	100	80 (40+40) / -	20	3+3
			II	Calculus					
BECL-2453		**Quantitative Techniques** (Quantitative Techniques-II)			E	100	80 / -	20	3
BECM-2134		**Computer Science** (Programming in C)			E	100	50 / 30	20	3+3
	(P)	**Computer Science** (Programming in C) (PRACTICAL)							
BECM-2124		**Computer Applications (Vocational)**(Programming in C)			E	100	50 / 30	20	3+3
	(P)	**Computer Applications (**Programming in C) (PRACTICAL)							
BECL-2175		**Economics**(Macroeconomics)			C	100	80 / -	20	3
AECD-2161		*Drug Abuse: Problem Management and Prevention (Compulsory)			AC	50	40 / -	10	3
SECM-2502		*Moral Education			AC	25	20 / -	5	1
Total						**400**			

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E-Elective
AC- Audit Course
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Kanya Maha Vidyalaya, Jalandhar (Autonomous)
SCHEME AND CURRICULUM OF EXAMINATIONS OF THREE YEAR DEGREE PROGRAM

Bachelor of Science (Economics)

Session: 2019-20

Bachelor of Science (Economics) Semester III									
Course Code		**Course Name**			**Course Type**	**Marks**			**Examination time (in Hours)**
						Total	**Ext.**	**CA**	
							L / **P**		
BECL-3421 BECL-3031 BECL-3431		Punjabi(Compulsory) [1]Basic Punjabi [2]Punjab History and Culture			C	50	40 / -	10	3
BECL-3212		English (Compulsory)			C	50	40 / -	10	3
BECM-3333		**Mathematics**	I	(Analysis)	E	100	80 (40+40) / -	20	3+3
			II	(Analytical Geometry)					
BECL-3453		**Quantitative Techniques** (Quantitative Techniques-III)			E	100	80 / -	20	3
BECM-3134		**Computer Science** (Computer Oriented Numerical And Statistical Methods)			E	100	50 / 30	20	3+3
	(P)	**Computer Science** (Computer Oriented Numerical And Statistical Methods) (PRACTICAL)							
BECM-3124		**Computer Applications (Vocational)**(Operating System)			E	100	50 / 30	20	3+3
	(P)	**Computer Applications (**Operating System (PRACTICAL)							
BECL-3175		**Economics** (Macroeconomics)			C	100	80 / -	20	3
AECE-3221		*Environmental Studies (compulsory)			AC	100	60 / 20	20	3
SECP-3512		* Personality Development			AC	25	20 /	5	1
Total						**400**			

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AC- Audit Course
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***Marks of these papers will not be added in total marks and only grades will be provided.**

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
SCHEME AND CURRICULUM OF EXAMINATIONS OF THREE YEAR DEGREE PROGRAM

Bachelor of Science (Economics)

Session: 2019-20

Bachelor of Science (Economics) Semester IV									
Course Code		**Course Name**			**Course Type**	**Marks**			**Examination time (in Hours)**
						Total	**Ext.**	**CA**	
							L / **P**		
BECL-4421 BECL-4031 BECL-4431		Punjabi(Compulsory) [1]Basic Punjabi [2]Punjab History and Culture			C	50	40 / -	10	3
BECL-4212		English (Compulsory)			C	50	40 / -	10	3
BECM-4333		**Mathematics**	I	Statics and Vector Calculus	E	100	80 (40+40) / -	20	3+3
			II	Solid Geometry					
BECL-4453		**Quantitative Techniques** (Quantitative Techniques-IV)			E	100	80 / -	20	3
BECM-4134		**Computer Science** (Data Structures and Programming Language uing C++)			E	100	50 / 30	20	3+3
	(P)	**Computer Science** (Data Structures and Programming Language uing C++) (PRACTICAL)							
BECM-4124		**Computer Applications (Vocational)** (Relational Database Management Systems and Oracle)			E	100	50 / 30	20	3+3
	(P)	**Computer Applications (**Relational Database Management Systems and Oracle) (PRACTICAL)							
BECL-4175		**Economics (**International Economics and Public Finance)			C	100	80 / -	20	3
SECS-4522		*Social Outreach			AC	25	/ 20	5	
Total						**400**			

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***Marks of these papers will not be added in total marks and only grades will be provided.**

Session 2019-20

B.A/B.Sc/B.Com/BBA

Semester I

PUNJABI (COMPULSORY)

COURSE CODE-BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-1421

COURSE OUTCOMES

CO1 d ozr (eftsk Gkr) B gVQkT[D dk wB'oE ftfdnkoEhnK nzdo eftsk gqsh fdbu;gh, ;{M B g?dk eoBkj? sK fe T[j nkX[fBe d"o ftu uZb ojhnK ekft XkoktK ns/ ethnK pko frnkB jkf;b eo ;eD.

CO2:fJ; dk j'o wB'oE eftsk dh ftnkfynk, ftPb/PD s/ w[bzeD dh gqfefonk s'i ikD{ eokT[Dk th j? sK fe T[j ;wekbh ;wki dhnK ;wZf;nktK B ;wM ;eD ns/ nkb'uBkswe fdqPNh pDk ;eD.

CO3:;z;ko dhnK gqf;X j;shnK ihtBh dh ftXk B f;b/p; ftu Pkfwb eo e/ ftfdnkoEhnK nzdo ihtBh BgVQD dh o[uh B g?dk eoBk j? ns/ ihtBh irs Bkb i'VDk j?.

CO4:g?o ouBk ns/ g?o gVQ e/ gqPBk d T[so d/D dk wBo'E ftfdnkoEhnK dh p[ZXh B shyD eofdnk T[Bkdh fbyD g[sGk B T[ikro eoBk j?.

CO6: XBh ftT[As gVQD Bkb ftfdnkoEh X[BhnK dh T[ukoB gqDkbh s'A tke| j'Dr/.

Session 2019-20
B.A/B.Sc/B.Com/BBA

Semester I

PUNJABI (COMPULSORY)

COURSE CODE-BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-1421

;wKL 3 xzN/ **Maximum Marks: 50**

Theory: 40 {fBN-I

gkm eqw ns/ gkmg[;seK

CA: 10

d ozr (eftsk Gkr) (;zgkH **jofiido** f;zx fYb'A ns/ gqhsw f;zx **;or'Xhnk), r[o BkBe d/t :{Bhtof;Nh,** nzfwqs;o.
(ि ि □ि □ ि ि ि □ि □-□ि ि□$;ko) **8 nze**

:{fBN-II

;z;ko dhnK gqf;X j;shnK (ihtBh BL 1 s'I 9 se)

(;zgkH fgqd s/ik f;zx, **jo**Bkw f;zx Pkw),gzikph ;**kfjs** gqekPB, **n**zfwqs;o.

(ि □ि □-□ि ि ि /ि □ि) **8 nze**

:{fBN-III

(T) g?o **ouBk (fszB ftu'A fJe)**

(n) g?o gVQ e/ gqPBK **d T[so.** **8 nze**

:{fBN-IV

(T) gzikph X[Bh **ftT**[As L gfoGkPk s/ T**ukoB** nzr

(n) **;to, ftnziB** **8 nze**

nze tzv ns/ gohfyne bJh **jd**kfJsK

1H gqPB gZso **d** uko ;?ePB **j'Dr/.**;?ePB A-D sZe **d** gqPB :{fBN I-IV ftu'A g[ZS/ **ikDr/. jo** ;?ePB **ftu d** gqPB g[ZS/ **ikDr/.**

2H **ftfdnkoEh** B e[b gzi gqPB eoB **jB. jo** ;?ePB ftu'A **fJe** gqPB bkIwh j?. gzitK gqPB fe;/ th

;?ePB ftu'A ehsk **ik ;edk j?.**

3H **jo**/e gqPB **d** 08 nze **jB.**

4H g/go ;?ZN eoB tkbk **i**/eo ukj/ sK gqPBK **dh** tzv **nr tZX** s'A tZX uko T[g gqPBK**ftu** eo **;edk j?.**

BASIC PUNJABI

In lieu of Punjabi (Compulsory)

COURSE CODE -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/ BHSL/BCAL/BITL/BBTL/BOEL/BOML/ BACL/BCOL/BOPL-1031

Course outcomes

CO1:w[ZYbh gzikph gVQkTD dk wB'oE ftfdnkoEhnK B{ gzikph GkPk B{ f;ykT[D dh gqfefonk ftu gk e/ fJe j'o GkPk f;ZyD dk w"ek gqdkB eoBk j?.

CO2:fJ; ftu ftfdnkoEh B{ pkohephBh Bkb GkPk dk nfXn?B eotkfJnk ikt/rk.

CO3:ftfdnkoEhnK B{ gzikph Ppd ouBk s'A ikD{ eotkfJnk ikt/rk.

CO4:w[ZYbh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK B{ fBZs tos'A dh gzikph Ppdktbh pko dZ;Dk j?.

CO5:w[ZYbh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK dk Ppd x/ok ftPkb eoBk j?.

CO6:ftfdnkoEhnK B{ gzikph ftu j|s/ d ;|s fdBK d BK, pko{ wjhfBnK d BK, oZ[sK d BK, fJe s'A ;" se frDsh PpdK ftu f;ykT[Dk j?.

SESSION 2019-20

SEMESTER–I

BASIC PUNJABI

In lieu of Punjabi (Compulsory)

COURSE CODE -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/ BHSL/BCAL/BITL/BBTL/BOEL/BOML/ BACL/BCOL/BOPL-1031

;wK L 3 xzN **Maximum Marks: 50**

Theory: 40

CA:10

gkm eqw

:[BN-I

g?sh n\yoh, n\yo eqw, g?o fpzdh tkb toD ns/ g?o ftu g?D tkb toD ns/ wksqtK (w[Ybh ikD gSkD) br\yo (fpzdh, fN\gh, n\Xe) L gSkD ns/ tos'A

-

:[BN-II

gzikph Ppd pDso L w[Ybh ikD gSkD (;kXkoB Ppd, ;z:[es Ppd, fwPos Ppd, w[b

Ppd, nr/so ns/ fgSso) 08nze

:[BN-III

fBs tos'A dh gzikph Ppdktbh L pkIko, tgko, foPs/Bks/, y/sh ns/ j'o X\dnK nkfd Bkb
;zpzXs. 08 nze

:[BN-IV

j[s/ d ;[s fdBk d Bk, pko\ wjhfBnK d BK, o[sK d BK, fJe s'A ;" se fr-Dsh Ppdk ftu -
08nze
nze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d uko ;?ePB j'Dr/.;?ePB A-D sZe d gqPB :[BN I-IV ftu'A g[ZS/ ikDr- jo ;?ePB ftu d gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B e[b gzi gqPB eoB jB- jo ;?ePB ftu'A fJe gqPB bkIwh j?- gzitK gqPB fe;/ th

;?ePB ftu'A ehsk ik ;edk j?.

3H jo/e gqPB d 08 nze jB-

4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBk dh tzv n\r\ tZX s'A tZX uko T[g gqPBkftu eo ;edk j?.

Course Title: Punjab History and Culture (From Earliest Times to C 320)

(Special paper in lieu of Punjabi Compulsory)

Session 2019-20

(Semester-I)

COURSE OUTCOMES

After completing Semester I and course on Punjab History and Culture students of History will be able to identify and have a complete grasp on the sources & writings of Ancient Indian History of Punjab.

CO1: Identify and describe the emergence of earliest civilizations in: Indus Valley Civilization and Aryan Societies.

CO2: Identify and analyses the Buddhist, Jain and Hindu faith in the Punjab

CO3: Analyses the emergence of Early Aryans and Later Vedic Period, their Society, Culture, Polity and Economy

CO4: To make students understand the concepts of two faiths Jainism and Buddhism, its principles and their application and relevance in present times

FACULTY OF ARTS AND SOCIAL SCIENCES
KANYA MAHA VIDYALAYA, JALANDHAR
(Autonomous)
Session 2019-20
Course Title: Punjab History and Culture (From Earliest Times to C 320)
(Special paper inlieu of Punjabi Compulsory)
(Semester-I)
Course Code: BARL-1431/ BSML-1431/ BSNL-1431/ BOML-1431/ BOPL-1431/ BCSL-1431/ BECL-1431/ BCRL-1431/ BBRL-1431/ BJML-1431/ BFDL-1431/ BHSL-1431/ BCAL-1431/ BITL-1431 / BBTL-1431/BOEL-1431/ BCFL-1431 / BIDL-1431

Examination Time: 3 Hours **Max. Marks: 50**

Theory: 40

C A: 10

Instructions for the Paper Setters

The Question Paper will have 4 Units namely unit I,II,III and IV.
Question paper shall consist of four Units. Candidates shall attempt 5 questions in all, by at least selecting One Question from eachUnit and the 5th question may be attempted from any of the four Units.Each question will carry 8 marks**.**

Unit-I

1. Physical features of the Punjab and impact on history
2. Sources of the ancient history of Punjab

Unit-II

3. Harappan Civilization:Town planning; social, economic and religious life of the Indus Valley People.
4. The Indo-Aryans: Original home and settlement in Punjab

Unit-III

1. Social, Religious and Economic life during Early Rig Vedic Age.
2. Social, Religious and Economic life during Later Vedic Age.

UNIT-IV

3. Teachings and impact of Buddhism
4. Jainism in Punjab

Suggested Readings

1. B.N. Sharma, *Life in Northern India*, Delhi. 1966.
2. Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.
3. L. Joshi (ed.), *History and Culture of the Punjab*, Art-I, Patiala, 1989 (3rd edition)
4. L.M. Joshi and Fauja Singh (ed.), *History of Punjab*, Vol.I, Patiala 1977.

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOROF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATION Semester I

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-1212

Session 2019-20 ENGLISH (COMPULSORY)

COURSE OUTCOMES

After passing this course, the students will be able to:

CO 1: appreciate the writings of various Indian and foreign story and prose writers and relate them to their socio-cultural milieu

CO 2: comprehend the meaning of texts and answer questions related to situations, episodes, themes and characters depicted in them

CO 3: understand fundamental grammatical rules governing tenses, the use of modal verbs and make correct usage in their language

CO 4: develop an understanding of translation of written text from Hindi/Punjabi to English

CO 5: independently write paragraphs on any given topic

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOROF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATION Semester I

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-1212

Session 2019-20 ENGLISH (COMPULSORY)

Examination Time: 3 Hrs

Max. Marks: 50
Theory: 40
CA: 10

Instructions for the Examiner:

The question paper will consist of 4 sections & distribution of marks will be as under:

Section A: The question will be set from Unit I of the syllabus. Fifteen sentences will be set and the students would be required to attempt any ten. Each sentence will carry one mark.

(1x10=10)

Section B: Two questions will be set from Unit II of the syllabus. The students would be required to attempt one paragraph out of the given two topics (word limit 150 words). It will carry five marks. The second question will be based on translation. The students would be required to translate a paragraph from Hindi/Punjabi to English. **(2x5=10)**

Section C: This section will be divided into two parts. Two questions will be set from Unit III of the syllabus. Part one will have one essay type question with internal choice carrying six marks (word limit 300 words). The students would be required to attempt any one. The second part will have three questions. The students would be required to attempt any two. Each question will carry two marks (50 words each).

(6+2x2=10)

Section D: This section will be divided into two parts. Two questions will be set from Unit IV of the syllabus. Part one will have one essay type question with internal choice carrying six marks (word limit 300 words). The students would be required to attempt any one. The second part will have three questions. The students would be required to attempt any two. Each question will carry two marks (50 words each).

(6+2x2=10)

Unit I

English Grammar in Use, 4th Edition by Raymond Murphy, CUP (Units: 1-37)

Unit II

Paragraph Writing and Translation of paragraph (from Hindi/Punjabi to English)

Unit III

Tales of Life (Guru Nanak Dev University, Amritsar): Stories at Sr. No. 1, 2, 3, 5, 6

Unit IV

Prose for Young Learners: Essays at Sr. No. 1, 2, 3, 5, 6

Texts Prescribed:

1. *English Grammar in Use* (Fourth Edition) by Raymond Murphy, CUP
2. *Tales of Life* (Guru Nanak Dev University, Amritsar)

Prose for Young Learners (Guru Nanak Dev University, Amritsar

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)
Semester–I

Session: 2019-20

Course Title: Mathematics (Algebra)

Course Code: BARM/BECM/BSCM/BSNM-1331(I)

Course Outcomes

After passing this course, the students will be able to:

CO 1: Distinguish between solution of cubic equations and Bi-quadratic equations.

CO 2: Classify real quadratic form in variables, definite, semi- definite and indefinite real quadratic form.

CO 3: Understand the concept of matrix congruence of skew symmetric matrices and its reduction in real field.

CO 4: Solve system of linear equations and obtain Eigen values, Eigen vectors, minimal and characteristic equation of a matrix and to apply it in advanced dynamics and electric current.

CO 5: To find the relations between the roots and coefficients of general polynomial equation in one variable.

B. A. / B.Sc.(Economics)Semester–I

Session: 2019-20

Course Title: Mathematics (Algebra)

Course Code: BARM/BECM/BSCM/BSNM-1331(I)

Examination Time : 3 hrs. Max.Marks:50

Theory:40

CA:10

Instructions for the Paper Setter: Eight questions of equal marks(8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

.Unit–I

Linear independence of row and column vectors. Row rank, Column rank of a matrix, Equivalence of column and row ranks, Nullity of matrix, Applications of matrices to a system of linear (both homogeneous and non–homogeneous) equations. Theorems on consistency of a system of linear equations.

Unit-II

Eigen values, Eigen vectors, minimal and the characteristic equation of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix. Quadratic Forms, quadratic form as a product of matrices. The set of quadratic forms over a field.

Unit–III

Congruence of quadratic forms and matrices. Congruent transformations of matrices. Elementary congruent transformations. Congruent reduction of a symmetric matrix. Matrix Congruence of skew–symmetric matrices. Reduction in the real field. Classification of real quadratic forms in variables. Definite, semi–definite and indefinite real quadratic forms. Characteristic properties of definite, semi–definite and indefinite forms.

Unit-IV

Relations between the roots and coefficients of general polynomial equation in one variable. Transformation of equations and symmetric function of roots, Descarte's rule of signs, Newton's Method of divisors, Solution of cubic equations by Cardon method, Solution of biquadratic equations by Descarte's and Ferrari's Methods.

Books Recommended:

1 1.K.B. Dutta: Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd., New Delhi (2002).
2. H.S. Hall and S.R. Knight: Higher Algebra, H.M. Publications, 1994.
3. Chandrika Parsad: Text book on Algebra and Theory of Equations, PothishalaPvt. Ltd., Allahabad.
4. S.L.Loney: Plane Trignometry Part-II, Macmillan and Company, London.
5. Shanti Narayan and P.K. Mittal : Text Book of Matrices.

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)
Semester–I
Session: 2019-20

Course Title: Mathematics (Calculus and Trigonometry) Course Code: BARM/ BECM/ BCSM/ BSNM-1333(II)

Course Outcomes

After passing this course, the students will be able to:

CO 1: Understand real number system, lub& glb of set of real numbers, limit of a function, basic properties of limit & to apply it in real world problem.

CO 2: Analyse continuous and discontinuous function, Apply concept of continuity in uniform continuity.

CO 3: Manage to solve problems related to successive differentiation, Leibnitz theorem, Taylor's & Maclaurin's theorem with various forms of remainders and to use these expansion to compute values of Sine, Cosine, tangent or log function.

CO 4: Understand the concept of De Moivre's theorem & its applications. Identify circular, hyperbolic function and their inverses and use these function to describe the shape of the curve formed by high voltage line suspended between two towers.

CO 5: Demonstrate exponential and logarithmic function of complex numbers, and to solve Gregory's series and summation of series.

B. A./ B.Sc.(Economics) Semester–I
Session: 2019-20

Course Title: Mathematics (Calculus and Trigonometry)

CourseCode: BARM/ BECM/ BCSM/BSNM-1333(II)

Time : 3 hrs. Max.Marks:50

Theory :40
CA:10

Instructions for the Paper Setter: Eight questions of equal marks(8 marks each)are to be set, two in each ofthe four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

Unit–I

Real number system and its properties, lub, glb of sets of real numbers, limit of a function, Basic properties of limits, Continuous functions and classification of discontinuities, Uniform continuities.

Unit-II

Differentiation of hyperbolic functions, Successive differentiation, Leibnitz theorem, Taylor's and Maclaurin's theorem with various forms of remainders, Indeterminate forms.

Unit-III

De–Moivre's Theorem and its applications, circular and hyperbolic functions and their inverses.

Unit-IV

Exponential and Logarithmic function of a complex numbers, Expansion of trigonometric functions, Gregory's series, Summation of series.

Books Recommended:

1. N. Piskunov: Differential and Integral Calculus, Peace Publishers, Moscow.
2. Gorakh Prasad: Differential Calculus, PothishalaPvt. Ltd., Allahabad.
3. Erwin Kreyszig: Advanced Engineering Mathematics, John Wiley and Sons, 1999.

Bachelor of Science (Economics)
Session 2019-20
SEMESTER- I
Course Code: BECM-1134

COMPUTER FUNDAMENTALS & PC SOFTWARE

(THEORY)

Course Outcomes:

After passing this course the student will be able to:
CO1: have knowledge of Computer components - hardware and software.
CO2: use computer system for general tasks at user level, including operative systems and programming environments.
CO3: learn the basics of Operating System and Programming environment.
CO4: gain knowledge on office automation software and recognise when to use a particular office program to create professional and academic documents.
CO5: analyse, design and implement solutions to various problems using algorithms, flowcharts, decision tables and psuedocodes.

Bachelor of Science (Economics)
Session 2019-20
SEMESTER- I
Course Code: BECM-1134
COMPUTER FUNDAMENTALS & PC SOFTWARE
(THEORY)

Time: 3+3 Hrs

Max Marks : 100
Theory : 50
Practical : 30
CA : 20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions,selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

1. Introduction to computer and its uses: milestones in hardware and software. Batch oriented/Online/real time application.
2. Computer as a system: basic concepts: stored programs, functional units and their inter–relation: communication with the computer.
3. Data storage devices and media: primary storage: storage addressed, and capacity, type of memory: secondary storage; magnetic tape – data representation and R/W: magnetic disc,fixed & removable, data representation and R/W, floppy disc drives, Winchester disc drive, conventional disc drives, Data organization, Compact Disc.

UNIT -II

1. Input/Output devices: Key–tape/diskette devices, light pen mouse and joystick, source data automation (MICR, OMR, and OCR), screen assisted data entry; portable/hand held terminals for data collection, vision input system.
2. Printed output: Serial, line, page, printers; plotters, visual output; voice response units.

UNIT–III

Introduction to Windows based operating system and Desktop icons

UNIT–IV

MS–Word:
Introduction to Word, Introduction to Parts of Word Window (Title Bar, Menu Bar, Tool Bar,The Ruler, Status Area), Page Setup, Creating New Documents, Saving Documents, Opening an Existing documents, insert a second document into an open document, Editing and formatting in document, Headers and Footers, Spell Checking, Printing document, Creating a Table Using the Table Menu and table formatting, Borders and Shading, Templates and Wizards, Mail Merge

MS Power Point:
Introduction to MS Power point, Power point elements, Templates, Wizards, Views, Exploring Power Point Menu, Working with Dialog Boxes, Adding Text, Adding Title, Moving Text Area, Resizing Text Boxes, Adding Art, Starting a New Slide, Starting Slide Show, Saving presentation; Printing Slides, Views (View slide sorter view, notes view, outlines view) Formatting and enhancing text formatting, Creating Graphs (Displaying slide show and adding multi–media).

References:
1. R.K. Taxali: Introduction to Software Packages, GalgotiaPublicaions.
2. MS–Office Compiled by SYBIX
3. MS–Office BPB Publications.
4. Introduction to Computer by P.K. Sinha
5. Windows Based Computer Courses by Gurvinder Singh &Rachpal Singh, Kalyani Publishers.

Bachelor of Science (Economics)
Session 2019-20
SEMESTER- I
Course Code: BECM-1134
COMPUTER FUNDAMENTALS & PC SOFTWARE
(PRACTICAL)

Practical based on Computer Fundamental & PC Software
Windows, MS Word, Power Point

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL)
Session 2019-20
SEMESTER I
Course Code : BARM-1124 / BECM-1124
COMPUTER FUNDAMENTALS AND PC SOFTWARE
(THEORY)

Course Outcomes:

After passing this course the student will be able to:

CO1: gain knowledge about various generations of computers.

CO2: understand the functionalities of hardware and software parts of the computer system.

CO3: make use of computer as per the need.

CO4: use and configure essential office applications including word processing, spreadsheets etc.

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL)
Session 2019-20
SEMESTER I
Course Code : BARM-1124 / BECM-1124
COMPUTER FUNDAMENTALS AND PC SOFTWARE
(THEORY)

Time: 3+3 Hrs

Max Marks : 100
Theory : 50
Practical : 30
CA : 20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT-I

1. Elements of a Computer System:
1.1 What is a Computer?
1.2 Evolution of Computers, their classification and limitations, Computer organization.
1.3 Uses of Computers in modern society (e.g. Weather forecasting, Census, Oil Exploration, Speech Recognition, Banking, Publishing, Accounting, Research, etc.)
1.4 Characteristics of Desktop
1.5 Characteristics of Portables/Laptops
1.6 Introduction to Hardware, Software, Operating System, Translators.
2. Input Output Devices:
2.1 Input Devices and Functions
* Keyboard and teletypewriter terminals
* Joystick
* Mouse
* Light Pen
* Magnetic Tapes and cassettes
* Magnetic Disks
* Floppy and Winchester Disks
* Optical Marks Reader (OMR)
* Optical Character Reader (OCR)
* Magnetic Ink Character Reader (MICR)
* Punched Cards
2.2 Output Devices and Functions:
a) Visual Display UNIT (Monitor), Pixel & resolution, Monitors Size, Monochrome & Color, VGA & SVGA
b) Plotters
c) Printers
d) CTD
3. H/W Organization of a Desktop Computer:
3.1 Introduction to hardware components
3.2 C.P.U. Control units, ALU, Registers
3.3 Instruction Characteristic and Instruction Cycle
3.4 Memory
a) RAM – Dynamic RAM, Static RAM

b) ROM–PROM, EPROM, EEPROM
c) Cache, Virtual, Extended and Expanded Memories
3.5 Secondary Memory (Storage devices)
a) Floppy Disk
b) Hard Disk
c) DAT
d) Video or Optical Disk (CD ROM)
e) CTD
3.6 Moderns and its Types

UNIT -II

4. Basics of Windows Vista:
a) The Desktop, the Taskbar
b) Start Menu
c) Program, Document, Settings, Find, Help, Run, Shutdown
d) About the My Computer Icon
e) About the networking neighborhood Icon
f) Recycle bin
g) Folders–Creation and Definition
h) New Rules for File Names
i) Windows Explorer (Definition)
j) Shortcut Icons with creation and definition

UNIT-III

MS–Word:

Introduction to Word, Introduction to Parts of Word Window (Title Bar, Menu Bar, Tool Bar, The Ruler, Status Area), Page Setup, Creating New Documents, Saving Documents, Opening an Existing documents, insert a second document into an open document, Editing and formatting in document, Headers and Footers, Spell Checking,Printing document, Creating a Table Using the Table Menu and table formatting, Borders and Shading, Templates and Wizards, Mail Merge Drawing Objects, Using Frames to position Objects.

UNIT-IV

MS Power Point:

Introduction to MS Power point, Power point elements, Templates, Wizards, Views, Exploring Power Point Menu, Working with Dialog Boxes, Adding Text, Adding Title, Moving Text Area, Resizing Text Boxes, Adding Art, Starting a New Slide, Starting Slide Show, Saving presentation; Printing Slides, Views (View slide sorter view, notes view, outlines view) Formatting and enhancing text formatting, Creating Graphs (Displaying slide show and adding multi–media)

Text Books:

1. MS–Office Compiled by SYBIX
2. MS–Office BPB Publications.
3. Introduction to Computer by P.K. Sinha
4. Introduction to Information Technology by Anshuman Sharma

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL)
Session 2019-20
SEMESTER I
Course Code : BARM-1124 / BECM-1124
COMPUTER FUNDAMENTALS AND PC SOFTWARE
(PRACTICAL)

Lab Based on Computer Fundamental

B.Sc. (Eco.) (Semester-I)
Course Code:BECL-1453
Quantitative Techniques–I

Course Outcomes:

After the successful completion of this course, the students will be able to
CO1: Solve linear equations of two variables and its applications in economics, under the quadratic equations, arithmetic progression, geometric progression and their applications in economics.
CO2: Develop understanding of elements of analytical geometry, straight lines, basic concepts of trigonometry and permutations and combinations.
CO3: Differentiate between a constant and a variable, graph of linear and quadratic functions and its applications in economics.
CO4: Recognize derivative of implicit functions, parametric functions, exponential functions, logarithmic functions and how to apply these derivatives in economics theory

B.Sc. (Eco.) (Semester-I)
Session 2019-20
Course Code:BECL-1453
Quantitative Techniques–I

Time: 3 Hours **Max. Marks: 100**
Theory: 80
CA: 20

Note: Instructions for the Paper–Setters:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT–I

Solution of Linear Equations: Solution of Simultaneous Linear Equations (upto two variablecase), Application of Linear Equation in Economics; Solution of Quadratic Equations.Series:
Arithmetic Progression Series, Geometric Progression Series and their applications in economics.

UNIT–II

Elements of Analytical Geometry: Straight line; Basic concepts of trigonometry(with formulae);Concepts of combination and permutation, Elements of set theory, union, intersection, difference,symmetric difference, complementation, Venn diagrams.

UNIT–III

Difference between a constant and a variable, concept of functions, classifications of functions,graph of linear and quadratic functions (Economic applications).
Limits and continuity of a function. Concept of differentiation.

UNIT–IV

Derivatives of elementary functions excluding inverse trigonometric functions,,Rules of derivatives; functions of functions rule; derivatives of implicit functions, parametric functions, logarithmic differentiation (Application in Economics)

Books Recommended:

1. Monga G.S.: Mathematics and Statistics for Economics.
2. Yamane, Taro: Mathematics for Economists.
3. Allen R.G.D.: Mathematical Analysis for Economists.
4. Edward T Dowling: Introduction to Mathematical Economics.
5.Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New York.

B.Sc. (Eco.) (Semester-I)
Course Code: BECL-1175
Microeconomics

Course Outcomes:

After passing this course students will be able to:
CO1: examine the empirical validity of different theories and their policy implications.
CO2: recognize the importance of assumptions in laws and economics models.
CO3: understand the various aspects of demand for a particular product and theoretical consumerbehaviour in the context of demand for a product and multiple products.
CO4: understand different concepts of cost structure of a firm in short run and long run.
CO5: understand the production decisions of a producer in the context of inputs and different market structures.

B.Sc. (Eco.) (Semester-I)
Session 2019-20
Course Code: BECL-1175
Microeconomics

Time: 3 Hours **Max. Marks: 100**
Theory: 80
CA: 20

Note: Instructions for the Paper–Setters:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT–I

Introductory: Definition of Economics, Nature and Scope of Microeconomics. Demand Function;
Supply Function, Price Determination, Elasticity of Demand – Price, Income and Cross elasticities and their Measurement.
Utility Analysis: law of diminishing marginal utility and law of equi-marginal utility, Indifference Curve Analysis and Revealed Preference Analysis (Meaning and Equilibrium).

UNIT–II

Theory of Production and Costs: Concept of Production Function. Laws of Returns to Scale and Returns to Factor
Cost: Traditional and modern cost Theory, Concepts and Costs curves in the short and in the long run.
Revenue Curves and their relationship with elasticity of demand.

UNIT–III

Market forms: Perfect Competition; Assumptions, Price and output determination of firm andIndustry in Short run and Long run; Monopoly: Assumptions and Equilibrium.
Monopolistic Competition: Assumptions and Equilibrium (except Group Equilibrium).

UNIT–IV

Marginal Productivity Theory; Factor Pricing (with reference to labour) under Perfect Competitionand Imperfect Competition, Modern Theory of Distribution.
Rent: Concept, Ricardian Theory and Modern Theory of Rent.
Interest: Concept of interest; classical theory, lonable funds theory.
Profit: Concept of profit; Risk and uncertainty theories.

Books Recommended:

1. Stonier & Hague,A Text book of Economics Theory, 9th ed., ELBS, London.
2. Koutsoyiannis, Modern microeconomics, Macmillan, New York.
3. H. L. Ahuja, Advanced Economic Theory, S. Chand, publicationsNewDelhi.
4. R.G. Lipsey, Introduction to Positive Economics, EL BS, London.
5. D.N. Dwivedi, Microeconomics -Theory and Applications, Pearson Education Pvt. Ltd.

B.Sc. (Economics) (Session -2019-20)

SEMESTER-I

DRUG ABUSE

Course code: AECD-1161

(Theory)

Course Outcomes:

CO1. This information can include factual data about what substance abuse is: warning signs of addiction;information about how alcohol and specific drugs affect the mind and body.

CO2. How to be supportive during the detoxification and rehabilitation process.

CO3. Main focus of substance abuse education is teaching individuals about drugand alcohal abuse and how to avoid,stop and get help for substance use disorder.

CO4. Substance abuse education is important for students alike;there are many misconceptions about commonly used legal and illegal substance,suchas alcohal,marijuana etc.

B.Sc.(Economics) (Session2019-20)
Semester – I
DRUG ABUSE
Course Code: AECD-1161
(Theory)

Time: 3 Hrs **Max. Marks: 50**

Theory: 40
CA: 10

Instructions for the Paper Setter

Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth questionmay be attempted from any Section.

UNIT-I

1) Meaning of Drug Abuse: Concept and Overview, Historical Perspective of DrugAbuse, Drug Dependence, Drug Addiction, Physical and Psychological Dependence: DrugTolerance and withdrawal symptoms.

UNIT-II

2) Types of Abused Drugs and their Effects -I

1) Stimulants: Amphetamines – Benzedrine, Dexedrine, Cocaine.
2) Depressants: Alcohol Barbiturates: Nembutal, Seconal, Phenobarbital and Rohypnol.
3) Narcotics: Heroin, Morphine, Oxycodone.

UNIT-III

3) Types of abused drugs and their effects - II

1) Hallucinogens: Cannabis, Marijuana, Hashish, Hash Oil, MDMA, LSD.
2) Steroids.

UNIT-IV

4) Nature and Extent of the Problem: Magnitude or prevalence of the menace of Drug Abuse in India and Punjab, Vulnerable groups by age, gender and economic status, Signs andSymptoms of Drug Abuse: Physical, Academic, Behavioural and Psychological Indicators.

References:

a. Ahuja, Ram (2003), *Social Problems in India*, Rawat Publication, Jaipur.
b. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment,Government of India, 2004
c. Inciardi, J.A. 1981. *The Drug Crime Connection.* Beverly Hills: Sage Publications.
d. Kapoor. T. (1985) *Drug epidemic among Indian Youth*, New Delhi: Mittal Pub.
e. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: RawatPublication.
f. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
g. Sain, Bhim 1991, *Drug Addiction Alcoholism,* Smoking obscenity New Delhi: MittalPublications.
h. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab*: A Sociological Study. Amritsar:Guru Nanak Dev University.
i. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi:Shipra.
j. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation,* Cambridge University Press.

FOUNDATION PROGRAMME (2019-20)

Course Title: Foundation Programme

Course Duration: 30 hours

Course intended for: Semester I students of undergraduate degree programmes of all streams.

Course Credits: 1

Course Code: SECF-I

PURPOSE & AIM

This course has been designed to strengthen the intellectual foundation of all the new entrants inthe college. One of the most common factors found in the students seeking admission in college after high school is the lack of an overall view of human history, knowledge of global issues, peaksof human intellect, social/political benchmarks and inventors & discoverers who have impacted human life. For a student, the process of transformation from school to college is full of apprehension and intimidation of the system. The Foundation Programme intends to bridge the gap between high school and college education and develop an intellectual readiness and base for acquiring higher education.

INSTRUCTIONAL OBJECTIVES

- to enable the students to realise their position in the whole saga of time and space
- to inculcate in them an appreciation of life, cultures and people across the globe
- to promote, in the students, an awareness of human intellectual history
- to make them responsible and humane world citizens so that they can carry forward the rich legacy of humanity

CURRICULUM

MODULE	TITLE	HOURS
I	Introduction & Initial Assessment	2
II	The Human Story	3
III	*The Vedas*, *The Gita* & Eastern Philosophy	2.5
IV	*The Holy Bible* & Genesis	2.5
V	Woman: A Journey through the Ages	2.5
VI	Changing Paradigms in Society, Religion & Literature	2.5
VII	Makers of Modern India	2.5
VIII	Racism & Martin Luther King Jr.	2.5
IX	Modern India at a Glance: Political & Economic Perspective	2.5
X	Technology & Human Life	2.5
XI	The KMV Experience	2.5
XII	Final Assessment, Feedback & Closure	2.5

EXAMINATION

- Total Marks: 25 (Final Exam: 20; Internal Assessment: 5)
- Final Exam: multiple choice quiz**.** Marks – 20; Time: 1 hour
- Internal Assessment: 5 (Assessment: 3; Attendance:2)

Comparative assessment questions (medium length) in the beginning and close of the programme. Marks: 3; Time: 0.5 hour each at the beginning and end.

- Total marks: 25 converted to grade for final result
- Grading system: 90% marks & above: A grade

80% - 89% marks : B grade
70% - 79% marks : C grade
60% - 69% marks : D grade
50% - 59% marks : E grade

Below 50% marks : F grade (Fail - must give the exam again)

SYLLABUS

Module I Being a Human: Introduction & Initial Assessment

- Introduction to the programme
- Initial Assessment of the students through written answers to a couple of questions

Module 2 The Human Story

- Comprehensive overview of human intellectual growth right from the birth of human history
- The wisdom of the Ancients
- Dark Middle Ages
- Revolutionary Renaissance
- Progressive modern times
- Most momentous turning points, inventions and discoveries

Module 3 *The Vedas*, *The Gita* & The Indian Philosophy

- Origin, teachings and significance of *The Vedas*
- Upnishads and Puranas
- Karma Theory of *The Bhagwad Gita*
- Main tenets of Buddhism & Jainism
- Teachings of Guru Granth Sahib

Module 4 *The Holy Bible* & Genesis

- Book of Genesis: Creation and Fall
- Noah's Ark

- Moses & The Ten Commandments
- Christ and His teachings
- Christianity and the world

Module 5 Changing Paradigms in Society, Religion & Literature

- Renaissance: The Age of Rebirth
- Transformation in human thought
- Importance of humanism
- Geocentricism to heliocentricism
- Copernicus, Galileo, Columbus, Darwin and Saint Joan
- Empathy and Compassion

Module 6 Woman: A Journey through the Ages

- Status of women in pre-vedic times
- Women in ancient Greek and Roman civilizations
- Women in vedic and ancient India
- Status of women in the Muslim world
- Women in the modern world
- Crimes against women
- Women labour workforce participation
- Women in politics
- Status of women- our dream

Module 7 Makers of Modern India

- Early engagement of foreigners with India
- Education: The first step tomodernization
- Railways: The lifeline of India
- Raja Ram Mohan Roy, Gandhi, Nehru, Vivekanand, Sardar Patel etc.
- Indira Gandhi, Mother Teresa, Homai Vyarawala etc.
- The Way Ahead

Module 8 Racism: Story of the West

- European beginnings of racism
- Racism in the USA - Jim Crow Laws
- Martin Luther King Jr. and the battle against racism
- Apartheid and Nelson Mandela
- Changing face of racism in the modern world

Module 9 Modern World at A Glance: Political & Economic Perspective

- Changing world order
- World War I & II

- UNO and The Commonwealth
- Nuclear Powers; Terrorism
- Economic Scenario: IMF, World Bank
- International Regional Economic Integration

Module 10 Technology and Human Life

- Impact of technology on modern life
- Technological gadgets and their role in our lives
- Technology and environment
- Consumerism and materialism
- Psychological and emotional consequences of technology
- Harmonising technology with ethics and humaneness

Module 11 The KMV Experience

- Historical Legacy of KMV
- Pioneering role in women emancipation and empowerment
- KMV Contribution in the Indian Freedom Struggle
- Moral, cultural and intellectual heritage of KMV
- Landmark achievements
- Innovative initiatives; international endeavours
- Vision, mission and focus
- Conduct guidelines for students

Module 12 Final Assessment, Feedback & Closure

- Final multiple choice quiz
- Assessment through the same questions asked in the beginning
- Feedback about the programme from the students
- Closure of the programme

PRESCRIBED READING

- ***The Human Story*** published by Dawn Publications

SESSION 2019-20

B.A/B.Sc/B.Com/BBA

(Semester II)

PUNJABI (COMPULSORY)

COURSE CODE-BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-2421

COURSE OUTCOMES

CO1: d' ozr (ejkDh Gkr) Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo eftsk gqsh fdbu;gh, ;{M Bz{ g?dk eoBk j? sK fe T[j nkX[fBe d"o ftu uZb ojhnK ekft XkoktK ns/ ethnK pko/ frnkB jkf;b eo ;eD.

CO2:fJ; dk j'o wB'oE eftsk dh ftnkfynk, ftPb/PD s/ w[bzeD dh gqfefonk s'A ikD{ eokT[Dk th j? sK fe T[j ;wekbh ;wki dhnK ;wZf;nktK Bz{ ;wM ;eD ns/ nkb'uBkswe fdqPNh pDk ;eD.

CO3:;z;ko dhnK gqf;X j;shnK ihtBh dh ftXk Bz{ f;b/p; ftu Pkfwb eo e/ ftfdnkoEhnKnzdo ihtBh Bz{ gVQD dh o[uh Bz{ g?dk eoBk j? ns/ ihtBh irs Bkb i'VDk j?.

CO4:Ppd pDso ns/ Ppd ouBk gVQD Bkb ftfdnkoEh fJ;d/ w[ZYb/ ;zebgK B{z nkXko pDk e/fJjBK ;zebgK s'A ikD{ j'Dr/ .

CO5:Ppd Pq/DhnK Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo gzikph GkPk dh nwhoh dk ns/pkohehnK Bz{ ;wMD bJh tZyo/ - tZyo/ f;XKsK dk ftek; eoBk j?.

CO6: w[jktfonK dh tos'A Bkb rZbpks ftu gogZesk nkT[Adh j?.fJj ftfdnkoEhnK dhrZbpks ftu fByko fbnkT[D dk ezw eoBr/.

SESSION 2019-20

B.A/B.Sc/B.Com/BBA

(Semester II)

PUNJABI (COMPULSORY)

COURSE CODE-BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-2421

;wKL 3 xzN/ **Maximum Marks: 50**

Theory: 40

CA: 10

gkm eqw ns/ gkm g[;seK

:{fBN-I

d' ozr (ejkDh Gkr) (;zgkH jofizdo f;zx fYb'A ns/ gqhsw f;zx ;or'Xhnk),r[o{ BkBed/t :{Bhtof;Nh, nzfwqs;o.
(ਵਵਵਵ-ਵਵਵਵ$;ko) **8 nze**

:{fBN-II

;z;ko dhnK gqf;ZX j;shnK (ihtBh BzL 10 s'A18 se) (;zgkH fgqzH s/ik f;zx, joBkwf;zx Pkw), gzikph ;kfjs gqekPB, nzfwqs;o.
(ਵਵਵਵ/ਵਵਵ)
8 nze

:{fBN-III

(T) Ppd pDso ns/ Ppd ouBk L gfoGkPk, w[ZYb/ ;zebg.

(n) Ppd **Pq/DhnK**
8 nze

:{fBN-IV

(T) d|soh fuZmh gZso
(n) w[jkto/
8 nzenze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d/ uko ;?ePB j'Dr/.;?ePB A-D sZe d/ gqPB :{fBN I-IV ftu'Ag[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B/ e[b gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkIwh j?.gzitK gqPB fe;/ th ;?ePB ftu'A ehsk ik ;edk j?.

3H jo/e gqPB d/ 08 nze jB.

4Hg/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX uko T[ggqPBK ftu eo ;edk j?.

SESSION 2019-20

B.A/B.Sc/B.Com/BBA

SEMESTER–II

BASIC PUNJABI

In lieu of Punjabi (Compulsory)

COURSE CODE -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/ BHSL/BCAL/BITL/BBTL/BOEL/BOML/ BACL/BCOL/BOPL-2031

Course outcomes

CO1:w[ZYbh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK B{z gzikph GkPk B{z f;ykT[Ddh gqfefonk ftu gk e/ fJe j'o GkPk f;ZyD d/ w"e/ gqdkB eoBk j?.

CO2:fJ; ftu ftfdnkoEh B{z pkohephBh Bkb GkPk dk nfXn?B eotkfJnk ikt/rk.

CO3:ftfdnkoEhnK B{z gzikph Ppd ouBk s'A ikD{ eotkfJnk ikt/rk.

CO4:Ppd Pq/DhnK Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo gzikph GkPk dh nwhohdk ns/ pkohehnK Bz{ ;wMD bJh tZyo/ - tZyo/ f;XKsK dk ftek; eoBk j?.

CO5:w[ZYbh gzikph gVQkT[D dk wB'oE ftfdnkoEhnK dk Ppd x/ok ftPkb eoBk j?.

CO6:ftfdnkoEh tke dh gfoGkPk ns/ fJ;dh pDso s'A ikD{ j'Dr/ ns/ GkPk s/ geVwip{s j't/rh.

CO7:g?oQk ouBk dk wB'oE ftfdnkoEhnK dh p[ZXh B{z shyD eofdnK T[BK dh fbyDgqfsGk B{z T[ikro eoBk j?.

CO8: ;zy/g ouBk eoB Bkb ftfdnkoEh nkgDh rZb B{z ;zy/g ftu efjD dh ikuf;ZyDr/ ns/ fJj fdwkrh e;os ftu ;jkJh j't/rh.

CO9:xo/b{ ns/ d|soh fuZmh gZso fbyD dk wB'oE ftfdnkoEhnK B{z fJ; ebk ftufBg[zB eoBk j?.

CO10: w[jktfonK dh tos'A Bkb rZbpks ftu gogZesk nkT[Adh j?.fJj ftfdnkoEhnKdh rZbpks ftu fByko fbnkT[D dk ezw eoBr/.

SESSION 2019-20

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL) / BACHELOR OF SCIENCE (NON MEDICAL) / BACHELOR OF SCIENCE (COMPUTER SCIENCE) / BACHELOR OF SCIENCE (ECONOMICS) / BACHELOR OF COMMERCE / BACHELOR OF BUSINESS ADMINISTRATION/BACHELOR OF ARTS (JOURNALISM & MASS COMMUNICATION) / BACHELOR OF SCIENCE (FASHION DESIGNING)
/ BACHELOR OF SCIENCE. (HOME SCIENCE) / BACHELOR OF COMPUTER APPLICATIONS/BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)/ BACHELOR OF SCIENCE (BIO-TECHNOLOGY)/ BACHELOR OF SCIENCE (HONOURS)AGRICULTURE/ BACHELOR OF SCIENCE (HONOURS)MATHEMATICS/ BACHELOR OF ARTS (HONOURS) ENGLISH/ BACHELOR OF COMMERCE (HONOURS) BACHELOR OF SCIENCE (HONOURS) PHYSICS

SEMESTER–II

BASIC PUNJABI

In lieu of Punjabi (Compulsory)

COURSE CODE -BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL/BJML/BFDL/ BHSL/BCAL/BITL/BBTL/BOEL/BOML/ BACL/BCOL/BOPL-2031

smW: 3 GMty **Maximum Marks: 50**

Theory : 40

CA 10

gkm eqw

:{fBN-I

Ppd P/qDhnK L gSkD ns/ tos'A (BKt, gVBKt, fefonk, ftP/PD, fefonkftP/PD, ;pzXe, :'ie ns/ ft;fwe)

:{fBN-IV

:{fBN-II

gzikph tke pDso L w[ZYbh ikD gSkD

(T) ;kXkoB tke, ;z:[es tke ns/ fwPos tke (gSkD ns/ tos'A)

(n) fpnkBhnk tke, gqPBtkue tke ns/ j[ewh tke (gSkD ns/ tos'A)

:{[fBN-III

g?oQk ouBk

;zy/g ouBk08

nze

08 nze

fuZmh gZso (xo/b{ ns/ d|soh)

w[jkto/ 08 nze

nze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d/ uko ;?ePB j'Dr/.;?ePB A-D sZe d/ gqPB :{fBN I-IV ftu'A g[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B/ e[b gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkIwh j?. gzitK gqPB fe;/ th ;?ePB ftu'A ehsk ik ;edk j?.

3H jo/e gqPB d/ 08 nze jB.

4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX uko T[g gqPBK ftu eo ;edk j?.

Punjab History and Culture (C. 320 to 1000 B.C.)
(Special paper in lieu of Punjabi Compulsory)
Session 2019-20
(Semester-II)

COURSE OUTCOMES

After completing Semester II and course on Ancient History of Punjab, students of History will be able to identify and have a complete grasp on the sources & writings of Ancient History of Punjab

CO 1: Analyse the emergence of Mauryan, Gupta empires during the classical age in India

CO 2: To understand the various factors leading to rise and fall of empires and emergence of new dynasties and their Culture, society, administration , polity and religion specifically of Kushans and Vardhanas in the Punjab

CO 3: Students will be adept in constructing original historical argument based on primary source material research

CO 4: To have an insight on the existing Literature of this period and understand the past developments in the light of present scenario.

CO 5: To enable students to have thorough insight into the various forms/styles of Architecture and synthesis of Indo - Muslim Art and Architecture in Punjab

FACULTY OF ARTS AND SOCIAL SCIENCES
KANYA MAHA VIDYALAYA, JALANDHAR
(Autonomous)
Session 2019-20
Punjab History and Culture (C. 320 to 1000 A.D.)
(Special paper in lieu of Punjabi Compulsory)
(Semester-II)
Course Code: BECL-2431

Examination Time: 3 Hours **Max. Marks: 50**
Theory: 40
CA: 10

Instructions for the Paper Setter:

The Question Paper will have 4 Units, namely unit I,II,III and IV.

Question paper shall consist of four Units. Candidates shall attempt 5 questions in all, by at least selecting One Question from each Unit and the 5th question may be attempted from any of the four Units.Each question will carry 8 marks.

Unit-I

1. Punjab under Chandragupta Maurya and Ashoka.
2. The Kushansv and their contribution to Punjab

Unit-II

3. The Punjab under the Gupta Emperor
4. The Punjab under the Vardhana Emperors

Unit-III

5. Political Developments 17th Centuries to 1000 A.D.(Survey of Political)
6. Socio-cultural History of Punjab from 7th to 1000 A.D.

UNIT IV

7. Development of Languages and Literature
8. Development to Art and Architecture

Suggested Readings

1. B.N. Sharma: *Life in Northern India*, Delhi. 1966.
2. Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.
3. L. Joshi (ed), *History and Culture of the Punjab*, Art-I, Punjabi University, Patiala, 1989 (3rd edition)
4. L.M. Joshi and Fauja Singh (ed.), *History of Punjab* , Vol.I, Punjabi University, Patiala, 1977.

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOR OF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATIONSemester II

Session 2019-20

ENGLISH

(COMPULSORY)

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-2212

COURSE OUTCOMES

After passing this course, the students will be able to:

CO1: appreciate the writings of various Indian and foreign story and prose writers and relate them to their socio-cultural milieu

CO2: comprehend the meaning of texts and answer questions related to situations, episodes, themes and characters depicted in them

CO3: change the narration and voice of sentences after understanding fundamental grammatical rules governing them

CO4: enrich their vocabulary and use new words in their spoken and written language

CO5: independently write personal letters to their family and friends on various issues

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOR OF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATIONSemester II

Session2019-20

ENGLISH (COMPULSORY)

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-2212

Max. Marks: 50

Examination Time: 3 Hrs **Theory: 40**

CA: 10

Instructions for the Examiner:

The question paper will consist of 4 sections & distribution of marks will be as under:

Section A: The question will be set from Unit I of the syllabus. Fifteen sentences will be set and the students would be required to attempt any ten. Each sentence will carry one mark. **(10x1=10)**

Section B: Two questions will be set from Unit II of the syllabus. The students would be required to attempt one personal letter out of the given two. It will carry five marks (word limit 150 words). The second question will be based on vocabulary. The students would be required to write Antonyms or Synonyms for given words choosing any 5 out of 8 and each carrying one mark. **(2x5=10)**

Section C: This section will be divided into two parts. Two questions will be set from Unit III of the syllabus. Part one will have one essay type question with internal choice carrying six marks (word limit 300 words). The students would be required to attempt any one. The second part will have three questions. The students would be required to attempt any two. Each question will carry two marks (50 words each). **(6+2x2=10)**

Section D: This section will be divided into two parts. Two questions will be set from Unit IV of the syllabus. Part one will have one essay type question with internal choice carrying six marks (word limit 300 words). The students would be required to attempt any one. The second part will have three questions. The students would be required to attempt any two. Each question will carry two marks (50 words each). **(6+2x2=10)**

Unit I

English Grammar in Use, 4th Edition by Raymond Murphy, CUP (Units: 42-52, 69-81)

Unit II

Personal letter Writing and *The Students' Companion* (Section 9: Antonyms and Synonyms)

Unit III

Tales of Life (Guru Nanak Dev University, Amritsar): Stories at Sr.No. 7, 9, 10, 11, 12

Unit IV

Prose for Young Learners: Essays at Sr.No. 7,8, 9, 10, 11

Texts Prescribed:

1. *English Grammar in Use* (Fourth Edition) by Raymond Murphy, CUP
2. *The Students' Companion* by Wilfred D. Best
3. *Tales of Life* (Guru Nanak Dev University, Amritsar)
4. *Prose for Young Learners* (Guru Nanak Dev University, Amritsar)

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)Semester–II
Session: 2019-20
Course Title: Mathematics (Calculus and Differential Equations)
Course Code: BARM/BECM/ BCSM/BSNM-2333(I)

Course Outcomes

After passing this course, the students will be able to:

CO 1: Demonstrate Asymptotes, points of inflexion, multiple points on a curve & also to differentiate between concavity and convexity & hence tracing of curve.

CO 2: Understand the concept of linear differential equation with constant and variable coefficients & also the exact differential equations & to apply in a wide variety of disciplines like Bio, Eco, Physics & Engineering.

CO 3: Demonstrate the geometrical meaning of a differential equation & the orthogonal trajectories.

CO 4: Manage to solve the problem related to series solution of differential equations like Bessel and Legendre equation by Power series method.

CO 5: Apply reduction formula on different functions & to develop the concept of variation of parameter.

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)Semester–II
Session: 2019-20
Course Title: Mathematics (Calculus and Differential Equations)
Course Code: BARM/BECM/ BCSM/BSNM-2333(I)

Examination Time: 3 Hours

Max.Marks:50
Theory :40
CA:10

Instructions for the Paper Setter: Eight questions of equal marks(8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

Unit–I

Asymptotes, Tests for concavity and convexity, Points of inflexion, Multiple Points, Curvature, Tracing of Curves (Cartesian and Parametric coordinates only).

Unit-II

Integration of hyperbolic functions. Reduction formulae. Definite integrals. Fundamental theorem of integral calculus. Quadrature, rectification.

Unit– III

Exact differential equations. First order and higher degree equations solvable for x,y,p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories.

Unit-IV

Linear differential equations with constant and variable coefficients. Variation of Parameters method, reduction method, series solutions of differential equations. Power series method, Bessel and Legendre equations (only series solution).

Books Recommended:

1. D.A. Murray: Introductory Course in Differential Equations. Orient Longman (India), 1967.
2. G.F. Simmons: Differential Equations, Tata McGraw Hill, 1972.
3. E.A. Codington: an introduction to Ordinary Differential Equations , Prentice Hall of India, 1961.
4. Gorakh Prasad: Integral Calculus, PothishalaPvt. Ltd., Allahabad.
5. Erwin Kreyszig: Advanced Engineering Mathematics, John Wiley and Sons, 1999.

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)

Semester–II

Session: 2019-20

Course Title:M athematics (Calculus)

Course Code: BARM/BECM/ BCSM/BSNM-2333(II)

Course Outcomes

After passing this course, the students will be able to:

CO 1: Understand the concept of Double and Triple integrals, & application to evaluation of areas, volumes, surfaces of solid of revolution and to apply to find out area and volume of plane and solid figure.

CO 2: Differentiate between limit and continuity of function of two variables and apply this concept in partial derivatives & differentiability of real valued function of two variables.

CO 3: Manage to solve problems related to Maxima, Minima & Saddle points of functions of two variables.

CO 4: Classify Envelopes & Evolutes, Application of inverse & implicit function theorems.

B.A/B.Sc. Semester–II
Session: 2019-20
Course Title:M athematics (Calculus)
Course Code: BARM/BECM/BCSM/BSNM-2333(II)
ExaminationTime:3Hours

Max.Marks:50
Theory :40
CA:10

Instructions for the Paper Setter: Eight questions of equal marks(8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

Unit–I

Limit and Continuity of functions of two variables, Partial differentiation, Change of variables, Partial derivatives and differentiability of real–valued functions of two variables, Schwartz's and Young's Theorem, Statements of Inverse and implicit function theorems and applications.

Unit-II

Euler's theorem on homogeneous functions, Taylor's theorem for functions of two variables, Jacobians, Envelopes. Evolutes, Maxima, Minima and saddle points of functions of two variables.

Unit-III

Lagrange's undetermined multiplier method, Double and Triple Integrals, Change of variables, application to evaluation of areas, Surface of solid of revolution,Change of order of integration in double integrals.

Unit-IV

Application to evaluation of area, volume, surface of solids of revolutions.

Books Recommended:

1. Narayan, S. and P.K. Mittal: Integral Calculus. Sultan Chand & Sons.
2. Kreyszig, E.: Advanced Engineering Mathematics.
3. Narayan S. and P.K. Mittal : Differential Calculus, Sultan Chand & Sons.

Bachelor of Arts / Bachelor of Science (Economics)
Session 2019-20
SEMESTER- II
Course Code: BARM-2134 / BECM-2134
PROGRAMMING IN C
(THEORY)

Course Outcomes:

After passing this course the student will be able to:
CO1: Understand problem solving techniques.
CO2: Write different algorithms to solve programming problems.
CO3: Write C Code for given problem.
CO4: Read, Understand, Trace the execution of C Programs.
CO5:Understand different programming elements like Functions, Arrays, Pointers, Structures and File handling

Bachelor of Arts / Bachelor of Science (Economics)
Session 2019-20
SEMESTER- II
Course Code: BARM-2134 / BECM-2134
PROGRAMMING IN C
(THEORY)

Time: 3+3 Hr

Max Marks : 100
Theory : 50
Practical : 30
CA : 20

Instructions fo Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

Data Representation, Introduction to Number Systems and Character Codes, Flow Charts,Problem Analysis, decision tables, pseudo codes and, algorithms.

UNIT–II

Programming Languages C:
Basics of C: Introduction to C, Applications and Advantages of C, Tokens, Types of Errors
Data Types: Basic & Derived Data Types, User Defined Data Types, Declaring and initializingvariables.
Operators and Expressions: Types of operators (Unary, Binary, Ternary), Precedence andAssociativity
Data I/O Functions: Types of I/O function, Formatted & Unformatted console I/O Functions

UNIT–III

Control Statements: Jumping, Branching and Looping–Entry controlled and exit controlled,
Advantages/Disadvantages of loops, difference between for, while and do–while.
Arrays: Types of Arrays, One Dimensional and Two Dimensional Arrays.
Strings: Introduction to Strings and String functions, array of strings.

UNIT-IV

Functions: User Defined & Library Function, Function (Prototype, Declaration,Definition),Methods of passing arguments, local and global functions, Recursion.Storage Classes: Introduction to various storage classes, scope and lifetime of a variable,Storage class specifiers (auto, register, static, extern), advantages and disadvantages.
Structure and Union: Introduction to structure and union, pointers with structure.

Books Suggested:
(i) Programming with C Languages C. Schaum Series.
(ii) YashwantKanitkar – Let Us C
(iii) C Programming by Stephen G Kochan
(iv) Balaguruswamy: “Programmi Bachelor of Arts / Bachelor of Science (Computer Science) - SEMESTER–III

Bachelor of Arts / Bachelor of Science (Economics)
Session 2019-20
SEMESTER- II
Course Code: BARM-2134 / BECM-2134
PROGRAMMING IN C
(PRACTICAL)

Practical based on Programming in C

Bachelor of Arts / Bachelor of Science (Economics)
Session 2019-20
COMPUTER APPLICATION (VOCATIONAL)
SEMESTER II
Course Code : BARM-2124 / BECM-2124
COMPUTER APPLICATIONS (VOCATIONAL)
PROGRAMMING USING C
(THEORY)

Course Outcomes:

After passing this course the student will be able to:

CO1: understand fundamentals of computer, arithmetic & logic gates, assembly language, high level language, compiler, assembler, operating systems, algorithm & flow chart.

CO2: understand the application of various operators, type conversion, Standard input/output and formatted output/input.

CO3: create user defined functions to solve real time problems using conditional and iterative statements in C language.

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL)
Session 2019-20
SEMESTER II
Course Code : BARM-2124 / BECM-2124
COMPUTER APPLICATIONS (VOCATIONAL)
PROGRAMMING USING C
(THEORY)

Time: 3+3 Hrs **Max Marks : 100**
Theory : 50
Practical : 30
CA : 20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT-I

Data Representation, Flow Charts, Problem Analysis, Decision tables, Pseudo codes and Algorithms.
Programming Using C:
Basics of C: Introduction to C, Applications and Advantages of C, Tokens, Types of Errors
Data Types: Basic & Derived Data Types, User Defined Data Types, Declaring and initializing variables.

UNIT-II

Operators and expressions: Types of operators (Unary, Binary, Ternary), Precedence and Associativity
Data I/O Functions: Types of I/O function, Formatted & Unformatted console I/O Functions Control Statements: Jumping, Branching and Looping–Entry controlled and exit controlled, Advantages/Disadvantages of loops, difference between for, while and do–while.

UNIT-III

Arrays: Types of Arrays, Advantages/Disadvantages of arrays. Insertion, Deletion, Searching and sorting operations on array Strings: Introduction to Strings and String functions, array of strings.
Functions: User Defined & Library Function, Function (Prototype, Declaration, Definition),Methods of passing arguments, local and global functions, Recursion.

UNIT-IV

Storage classes: Introduction to various storage classes, scope and lifetime of a variable, Storage class specifiers (auto, register, static, extern), advantages and disadvantages. Pointers: Introduction, Advantages/Uses of pointers, Limitations of pointers, Difference between void pointer and Null pointer, Pointer arithmetic, operators not allowed on pointers,
Types of Pointer, PassingPointers to function, concept of pointer to pointer.
Structure and Union: Introduction to structure and union, pointers with structure.

References:
1. Programming in C by Schaum Outlines Series.
2. C Programming by Stephen G. Kochan.
3. Let Us C by YashwantKanitkar
4. Programming in ANSI C by Balaguruswamy

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL)
Session 2019-20
SEMESTER II
Course Code : BARM-2124 / BECM-2124
LAB – I (PROGRAMMING USING C)
(PRACTICAL)

Lab based on PROGRAMMING USING C

B.Sc. (Eco.) (Semester-II)
Course Code: BECL-2453
QUANTITATIVE TECHNIQUES–II

Course Outcomes:

After passing this course students will be able to:
CO1: understand the basic concepts and techniques for analysing data.
CO2: identify the population of interest, parameter, sample and statistics from a study.
CO3: identify whether a probability sampling method or a non probability sampling method as used to obtain the study data.
CO4:recognize the connection between theory and applications by appropriately fitting, assessing and interpreting the results/ outcomes.
CO5: develop statistical approach and thinking among students to problem solving on a diverse variety of disciplines.

B.Sc. (Eco.) (Semester-II)
Session 2019-20
Course Code: BECL-2453
QUANTITATIVE TECHNIQUES–II

Time: 3 Hours **Max. Marks: 100**
Theory: 80
CA: 20

Note: Instructions for the Paper–Setters/Examiners:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section
.

UNIT–I

Statistics: Definition, Scope in Economics, Significance, Limitations. Classification, Tabulation,Diagramaticand Graphical representation of data,Applications in MS Excel

UNIT–II

Concepts and Measures of Central Tendency: Mean, Median, Mode, GM, and HM; Concepts and Measures of Relative Dispersion; Concepts and Measures of Skewness (Stress on numerical examples).

UNIT–III

Correlation Analysis: Introduction, Importance, Karl-Pearson's Coefficient of Correlation,Spearman's Rank Correlation Coefficient, Simple Regression Analysis; Difference betweenCorrelation and Regression, Lines of Regression, Properties of Correlation and RegressionCofficients (Stress on numerical examples).

UNIT–IV

Index Numbers: Concept of Index Number, Purpose Construction & Problems, Laspeyre,Paasche and Fisher's Formulae, Tests of Consistency.
Analysis of Time Series: Definition, Components of Time Series, Measurement of Trend bydifferent methods, Measurement of Seasonal Variations (stress on examples).

Books Recommended:

1. Gupta S.P.,Statistical Methods.
2. Murry R. Speigal, Theory and Problems of Statistics.
3. S.C Gupta, Fundamentals of Statistics.
4. Croxton, Cowden & Klein, Applied General Statistics.
5. Murry R. Speigal, Theory and Problems of Statistics.

B.Sc. (Eco.) (Semester-II)
Session 2019-20
Course Code: BECL-2175
Course Code: Macroeconomics

Course Outcomes:

After passing this course students will be able to:
CO1: understand the consumption and investment behaviour of an economy and factor affecting consumption and investment decisions.
CO2: understand the mechanism of income and investment propagation in an economy and problems associated with it.
CO3: demonstrate an understanding of nature and functions of money and the role of financial markets in the economy.
CO4: discuss the instruments of money and capital market in India
CO5: understand the problem of inflation, its causes, effects and solutions in an economy.

B.Sc. (Eco.) (Semester-II)
Session 2019-20
Course Code: BECL-2175
Course Code: Macroeconomics

Time: 3 Hours **Max. Marks: 100**
Theory: 80
CA: 20

Note: Instructions for the Paper–Setters/Examiners:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT–I

Distinction between Micro and Macro Economics; Determination of Income and Employment:Classical and Keynesian models; Say's Law of Market and aggregate demand and aggregatesupply.Consumption functions; average (short-run and long run) and marginal propensity to consume;Keynes' Psychological Law of Consumption, Multiplier: Meaning and its working.

UNIT–II

Investment: Meaning, Investment Demand schedules and factors affecting investment decision.
MarginalEfficiency of Capital. Accelerator, multiplier-accelerator interaction.
Trade cycles-meaning, characteristics and phases. Samuelson and Hicks Models of trade cycles.

UNIT–III

Money: Its functions and role. Money and Capital Markets (Introductory); Quantity Theory ofMoney: Fisher's and Cambridge's equations, Liquidity preference theory.
Banking:Meaning and Functions of commercial and central banks, Credit creation and credit control.

UNIT–IV

Inflation: Concept, Causes and cures. Inflation-unemployment Trade-off (only Phillips'contribution).
Macroeconomic Policies: Fiscal policy – meaning, objectives and instruments. Monetary policy:meaning, objectives and instruments.

Recommended Texts:

1. Shapiro E., Macroeconomic Analysis, Harcourt, Brach and World, New York.
2. Dwivedi D.N.,Macroeconomics: Theory and Policy, Tata McGraw-Hill.
3. Jhingan M. L., Macroeconomic Theory, Vrinda PublicationsDelhi.
4. Gupta S.B., Monetary Economics: Institutions, Theory and Policy, S. Chand, New Delhi..

B.Sc. (Economics) (Session- 2019-20)

Semester II

DRUG ABUSE

Course Code: AECD-2161

Course Outcomes:

CO 1. This information can include factual data about what substance abuse is; warning signs of addiction; information about how alcohol and specific drugs affect the mind and body;

CO 2. How to be supportive during the detoxification and rehabilitation process.

CO 3. Main focus of substance abuse education is teaching individuals about drug and alcohol abuse and how to avoid, stop, or get help for substance use disorders.

CO 4. Substance abuse education is important for students alike; there are many misconceptions about commonly used legal and illegal substances, such as alcohol and marijuana.

B.Sc. (Economics)
Semester-II
(Session 2019-20)
Drug Abuse: Problem, Management and Prevention (COMPULSORY PAPER)
PROBLEM OF DRUG ABUSE
Course Code: AECD-2161
(Theory)

Time: 3 Hrs **Max. Marks: 50**
Theory: 40
CA: 10

Instructions for the Paper Setter
Eight questions of equal marks(8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT-I
Prevention of Drug abuse: Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

UNIT-II
School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

UNIT-III
Controlling Drug Abuse: Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program

UNIT-IV
Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

References:
1.Ahuja, Ram (2003), Social Problems in India, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. The Drug Crime Connection. Beverly Hills: Sage Publications.
4. Kapoor. T. (1985) Drug epidemic among Indian Youth, New Delhi: Mittal Pub.
5. Modi, Ishwar and Modi, Shalini (1997) Drugs: Addiction and Prevention, Jaipur: Rawat Publication.

6. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
7. Sain, Bhim 1991, Drug Addiction Alcoholism, Smoking obscenity New Delhi: Mittal Publications.
8. Sandhu, Ranvinder Singh, 2009, Drug Addiction in Punjab: A Sociological Study. Amritsar: Guru Nanak Dev University.
9. Singh, Chandra Paul 2000. Alcohol and Dependence among Industrial Workers: Delhi: Shipra.
10. Sussman, S and Ames, S.L. (2008). Drug Abuse: Concepts, Prevention and Cessation, Cambridge University Press.

B.Sc. (Economics) (Session- 2019-20)

SEMESTER-II

Course title: Moral Education Programme

Course duration: 30 hours

Course intended for: Sem II students of all streams(UG only)

Course credits: 1

Course code: SECM-2502

Course Objectives:

- To sensitize students about the role and importance of human values and ethics in personal, social and professional life.
- To enable students to understand and appreciate ethical concerns relevant to modern lives.
- To prepare a foundation for appearing in various competitive examinations.
- To sensitize the students about the current issues and events of national and international importance.
- To highlight plausible implications of ethical human conduct, trustful and mutually fulfilling human behaviour and mutually enriching interaction with nature.

Course Contents:

- Introduction to Moral Education
- Need , content and purpose
- Vedic values
- Character building

The Self and You

- Understanding the Self –Self awareness, fighting the five evils (lust, anger, attachment, ego and greed), Self growth.
- Personal ethics
- Aspiration v/s ambition, self- seeking v/s selflessness
- Physical and mental health

The Family and You

- Importance of family- the basic unit of human interaction.
- Generation gap
- Relationship with siblings and elders

The Society and You

- Social responsibility
- Our rights and duties
- Civic sense
- Opposite sex relations
- Globalization and IT boom – cellphone menace
- Peer pressure
- Gender issues

The Nation and You

- International peace and brotherhood
- Saving the environment
- Communal harmony, Tolerance, Understanding of Cultures
- Respect for Martyrs
- National Pride

Session 2019-20

B.A/B.Sc/B.Com/BBA

Semester III

PUNJABI COMPULSORY

COURSE CODE- BARL/BSML/BSNL/BCSL/BECL/BCRL /BBRL-3421

COURSE OUTCOMES

CO1:ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਵਾਰਤਕ Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo ਵਾਰਤਕ gqsh fdbu;gh, ;{M Bz{ g?dk eoBk j?.

CO2: ‘;wK wzr eodk j?’ fJeKrh ;zrqfj Bz{ f;b/p; ftu Pkfwb eo e/ ftfdnkoEhnK nzdo fJeKrh gVQD dh o[uh Bz{ g?dk eoBk j? ns/ fJ; ;kfjs o{g Bkb Bkb i'VDk j?.

CO3: ;zy/g ouBk eoB Bkb ftfdnkoEh nkgDh rZb B{z ;zy/g ftu efjD dh iku f;ZyDr/ ns/ fJj fdwkrh e;os ftu ;jkJh j't/rh.

CO4: b/y ouBk dk wB'oE ftfdnkoEhnK dh p[ZXh B{z shyD eofdnK T[BK dh fbyD gqfsGk B{z T[ikro eoBk j?.

CO5:w{b ftnkeoDe fJekJhnK L gfoGkPk ns/ tzBrhnK (GktzP, Ppd, tkezP, T[gtke ns/ tke)Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo GkPk dh nwhoh ns/ pkohehnK Bz{ ;wMD bJh tZyo/ - tZyo/ f;XKsK dk ftek; eoBk j?.

Session 2019-20
B.A/B.Sc/B.Com/BBA
Semester III
PUNJABI COMPULSORY
COURSE CODE- BARL/BSML/BSNL/BCSL/BECL/BCRL /BBRL-3421

;wK L 3 xzN/ **Maximum Marks: 50**
Theory: 40
CA: 10

gkm eqw ns/ gkm g[;seK
:{fBN-I

1H ਆਧੁਨਿਕ ਪੰਜਾਬੀ ਵਾਰਤਕ (;zgkHਡਾ. ਗੁਰਬਚਨ ਸਿੰਘ ਤਾਲਿਬ), gzikph ;kfjs gqekPB,nzfwqs;o.

ftPk t;s{$;ko/BkfJe fpzp (d' ftu'A fJe) 8 nze
:{fBN-II

2H ;wK wzr eodk j? (fJeKrh ;zrqfj) (ਸੰਪਾ. ਕੇਵਲ ਧਾਲੀਵਾਲ) u/sBk gqekPB,b[fXnkDk.

ftPk t;s{ $;ko (d' ftu'A fJe) iK uko ftu'A d' gksoK dh gkso T[;koh 8 nze
:{fBN-III

3H (T) ;zy/g ouBk (gq?;h)
(n) b/y ouBk 8 nze
:{fBN-IV

4H w{b ftnkeoDe fJekJhnK L gfoGkPk ns/ tzBrhnK (GktzP, Ppd, tkezP, T[gtke ns/ tke)
8 nze

nze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d/ uko :{fBN j'Dr/.;?ePB A-D sZe d/ gqPB :{fBN I-IV ftu'A g[ZS/ ikDr/.jo :{fBN ftu'A d' gqPB g[ZS/ ikDr/.
2H ftfdnkoEh B/ e[Zb gzi gqPB eoB/ jB. jo :{fBN ftu'A fJe gqPB bkIwh j?.gzitK gqPB fe;/ th :{fBN ftu'A ehsk ik ;edk j?.
3H jo/e gqPB d/ 08 nze jB.
4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX uko T[g-gqPBK ftu eo ;edk j?.

SESSION 2019-20
BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL) / BACHELOR OF SCIENCE (NON MEDICAL) BACHELOR OF SCIENCE (COMPUTER SCIENCE) / BACHELOR OF SCIENCE (ECONOMICS) / BACHELOR OF
COMMERCE / BACHELOR OF BUSINESS ADMINISTRATION
SEMESTER–III

Basic Punjabi (In lieu of Punjabi Compulsory)
COURSE CODE- BARL/BSML/BSNL/BCSL /BECL/BCRL /BBRL-3031

Course outcomes

CO1:ivAwkrxk iekweIAW Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo gzikph GkPk dh nwhoh dk ns/ pkohehnK Bz{ ;wMD bJh tZyo/ - tZyo/ f;XKsK dk ftek; eoBk ns/ gzikph GkPk B{z f;ykT[D dh gqfefonk ftu gk e/ fJe j'o GkPk f;ZyD d/ w"e/ gqdkB eoBk j?.

CO2:g?oQk ouBk d/D dk wB'oE ftfdnkoEhnK dh p[ZXh B{z shyD eofdnK T[BQ K dh fbyD gqfsGk B{z T[ikro eoBk j?.

CO3:xo/b{ ns/ d|soh fuZmh gZso fbyD dk wB'oE ftfdnkoEhnK B{ z fJ; ebk ftu fBg[zB eoBk j? I

CO4:nykD ns/ w[jktfonK dh tos'A Bkb rZbpks ftu gogZesk nkT[Adh j?.fJj ftfdnkoEhnK dh rZbpks ftu fByko fbnkT[D dk ezw eoBr/.

CO5: g?oQk gVQ e/ gqPBK d/ TZ[so d/D dk wB'oE ftfdnkoEhnK dh p[ZXh B{z shyD eofdnK T[BK dh fbyD gqfsGk B{ z
T[ikro eoBk j?.

CO6:;zy/g ouBk eoB Bkb ftfdnkoEh nkgDh rZb B{z ;zy/g ftu efjD dh iku f;ZyDr/ ns/ fJj fdwkrh e;os ftu ;jkJh j't/rh.

SESSION 2019-20
BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL) / BACHELOR OF SCIENCE (NON MEDICAL) / BACHELOR OF SCIENCE (COMPUTER SCIENCE) / BACHELOR OF SCIENCE (ECONOMICS) / BACHELOR OF COMMERCE / BACHELOR OF BUSINESS ADMINISTRATION
SEMESTER–III
Basic Punjabi (In lieu of Punjabi Compulsory)
COURSE CODE- BARL/BSML/BSNL/BCSL /BECL/BCRL /BBRL-3031

smW: 3 GMty **Maximum Marks : 50**
Theory 40
CA : 10

gkm eqw
:{fBN-I
ivAwkrxk iekweIAW dI pCwx Aqy vrqoN; vwkMS, aupvwk Aqy vwk
:{fBN-II
gqekoih gzikph L g?oQk ouBk,fuZmh gZso

:{fBN-III

I.nykD
II. w[jkto/

:{fBN-IV

I.g?oQk ADwirq pRSn
II. sMKyp rcnw

nze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d/ uko ;?ePB j'Dr/..;?ePB A-D sZe d/ gqPB :{fBN I-IV ftu'A g[ZS/ ikDr/. jo :{fBN ftu'A d' gqPB g[ZS/ ikDr/.
2H ftfdnkoEh B/ ea[Z b gzi gqPB eoB/ jB. jo Gkr ftu'A fJe gqPB bkIwh j?. gzitK gqPB fe;/ th Gkr ftu'A ehsk ik ;edk j?.
3H jo/e gqPB d/ nZm nze jB.
4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX uko T[g-gqPBK ftu eo ;edk j?.

B.A./B.SC./B.Com/B.B.A
PUNJAB HISTORY AND CULTURE
(FROM 1000-1605 A. D.)

(Special paper in lieu of Punjabi Compulsory)

(Semester III)

Session 2019-20

After completing the paper the students will have a thorough insight into the origin ofSikh faith and its major institutions in Punjab

CO 1: To able to construct original historical arguments using a blend of primary and secondary source material

CO 2: To be able to demonstrate the significance of historical topics with reference to broader historical context and their contemporary relevance

CO 3: Students will develop an ability to convey verbally their historical knowledge

CO 4: Students will develop skills in critical thinking and reading

CO 5: To discuss understand and evaluate causes and results of the conflict with Mughals

FACULTY OF ARTS AND SOCIAL SCIENCES
KANYA MAHA VIDYALAYA, JALANDHAR
(Autonomous)
Session 2019-20
PUNJAB HISTORY AND CULTURE (From 1000-1605 A. D.)
(Special paper in lieu of Punjabi Compulsory)
(Semester III)
COURSE CODE: BARL-3431/BSML-3431/BSNL-3431/BCSL-3431/BECL-3431/BCRL-3431/BBRL-3431

Examination Time: 3 Hours **Max. Marks: 50**
Theory: 40
CA: 10

Instructions for the Paper Setters
The Question Paper will have 4 Units namely unit I,II,III and IV.

Question paper shall consist of four Units. Candidates shall attempt 5 questions in all, by at least selecting One Question from each Unit and the 5th question may be attempted from any of the four Units.Each question will carry 8 marks.

Unit -1.

1. Society and Culture of Punjab during Turko - Afghan Rule
2. The Punjab under the Mughals

Unit-II:

3. Bhakti Movement and Impact on Society of Punjab
4. Sufism in Punjab WITH Special reference to Baba Farid

Unit-III:

5. Guru Nanak Life and Travels
6. Teachings of Guru Nanak Concept of Sangat, Pangat nd Dharmsal

Unit-IV:

7. Contribution of Guru Angad Dev, Guru Amar Das and Guru Ram Das
8. Compilation of Adi Granth Martyadom of Guru Arjun Dev

Suggested Readings:

- **Chopra, P. N., Puri, B.N., &Das. M.N. (1974). A Social, Cultural and Economic History ofIndia, Vol. II. New Delhi : Macmillan India.**
- **Grewal, J.S. (1994) The Sikhsof the Punjab, Cambridge University Press, New Delhi.**
- **Singh, Fauja (1972), A History of the Sikhs, Vol. II,I. Patiala: Punjabi University.**
- **Singh, Khuswant (2011). A History of Sikhs- Vol. I (1469-1839), New Delhi:OxfordUniversity press.**

Session 2019-20

ENGLISH

(COMPULSORY)

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-3212

COURSE OUTCOMES

After passing this course, the students will be able to:

CO 1: develop an understanding of the poems taught, relate to the socio-cultural background of England and be able to answer questions regarding tone, style and central idea

CO 2: comprehend the basics of grammatical rules governing relative clauses, adjectives, adverbs, conjunctions and prepositions

CO 3: enhance their reading and analysing power of texts through guided reading

CO 4: enrich their vocabulary and use new words in their spoken and written language

CO 5: develop skills to write an essay on a given topic

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOR OF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATION Semester III

Session 2019-20

ENGLISH

(COMPULSORY)

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-3212

Max. Marks: 50

Examination Time: 3 Hrs **Theory: 40**

CA: 10

Instructions for the Examiner:

(The paper setters should avoid questions of theoretical nature from *Making Connections*.)

Section A: One question with sub-parts will be set from Unit I of the syllabus. Fifteen sentences will be set and the students would be required to attempt any ten. Each sentence will carry one mark. **(10x1=10)**

Section B: Two questions will be set from Unit II of the syllabus. The students would be required to attempt one essay out of the given two topics carrying six marks (word limit 300 words). The second question will be based on vocabulary. The students would be required to write single words for phrases and sentences choosing any four out of six and each carrying one mark. **(1x6+4x1=10)**

Section C: The students would be required to attempt two questions (with sub parts) based on exercises as given before and after reading essays in the prescribed text book *Making Connections*. **(2×5=10)**

Section D: This section will be divided into two parts. In part one, three questions based on central idea, theme, tone and style etc. of the poems from the prescribed textbook, *Moments in Time* from Unit IV of the syllabus will be set. The students would be required to attempt any two, each carrying three marks (100 words each). **(2×3=6)**

Part two will have one question (with internal choice) requiring students to explain a stanza with reference to context carrying four marks (word limit 200 words). The stanzas for explanation will be taken from the prescribed textbook, *Moments in Time* from Unit IV in the syllabus. **(1×4=4)**

Unit I

English Grammar in Use, 4th Edition by Raymond Murphy, CUP (Units 92-120)

Unit II

Essay Writing and *The Students' Companion* by Wilfred D. Best (Section 1: Single words for phrases and sentences: Words denoting Numbers and words denoting Places)

Unit III

Making Connections by Kenneth J. Pakenham, 2nd Edn. CUP: Unit-II

Unit IV

Moments in Time: Poems at Sr. No. 1-6

Texts Prescribed:

1. *English Grammar in Use* (Fourth Edition) by Raymond Murphy, CUP
2. *The Students' Companion* by Wilfred D. Best
3. *Making Connections* by Kenneth J. Pakenham, 2nd Edn. CUP
4. *Moments in Time: An Anthology of Poems*, GNDU, Amritsar

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science) Semester–III

Session: 2019-20

Course Title: Mathematics (Analysis)
Course Code: BARM/BECM/BCSM/BSNM-3333(I)

Course Outcomes

After passing this course, the students will be able to:

CO 1: Demonstrate an understanding of limits and how they are used in sequences and series.

CO 2: To understand the concepts of Riemann sum, partitions, upper and lower sums, Riemann integrability of continuous functions and of monotone functions.

CO 3: To know and describe the converging behavior of improper integrals and Beta , Gamma functions.

CO 4: Distinguish between the absolute convergence and conditional convergence.

CO 5: To find the relation between Beta and Gamma functions.

B.A./B.Sc. Semester–III

Session: 2019-20

Course Title: Mathematics (Analysis)
Course Code: BARM/BECM/BCSM/BSNM-3333(I)

Examination Time : 3 hrs. Max.Marks:50
Theory:40
CA:10

Instructions for the Paper Setter: Eight questions of equal marks (8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

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Unit-I

Definition of a sequence. Theorems on limits of sequences. Bounded and monotonic sequences. Cauchy's convergence criterion.

Unit-II

Series of non-negative terms. Comparison tests. Cauchy's integral tests. Ratio tests. Cauchy's root test. Raabe's test, logarithmic test. Demorgan's and Bertrand's tests. Kummer's test, Cauchy Condensation test, Gauss test, Alternating series. Leibnitz's test, absolute and conditional convergence.

Unit-III

Partitions, Upper and lower sums. Upper and lower integrals, Riemann integrability. Conditions of existence of Riemann integrability of continuous functions and of monotone functions. Algebra of integrable functions.

Unit-IV

Improper integrals and statements of their conditions of existence. Test of the convergence of improper integral, beta and gamma functions.

Books Recommended:

1. Malik, S.C.: Mathematical Analysis, Wiley Eastern Ltd. (1991).
2. Apostal, T.M.: Mathematical Analysis, Addison Wesley Series in Mathematics (1974).

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)

Semester–III

Session: 2019-20

Course Title: Mathematics (Analytical Geometry)

Course Code: BARM/ BECM/ BCSM/ BSNM-3333(II)

Course Outcomes

After passing this course, the students will be able to:

CO 1: Understand the concept of the geometry of lines and conics in the Euclidian plane.

CO 2: Develop geometry with a degree of confidence and will gain fluency in the basics of Euclidian geometry.

CO 3: Sketch conic sections; identify conic sections, their focal properties and classifications.

CO 4: Demonstrate the concept of parabola, ellipse, hyperbola, sphere and the general quadratic equation.

CO 5: Understand the concept of coordinate geometry on a wider scale with the help of shifting of origin and rotation of axis.

B.A. /B.Sc. Semester–III
Session: 2019-20

Course Title: Mathematics (Analytical Geometry)
Course Code: BARM/ BECM/ BCSM/ BSNM-3333(II)

Examination Time : 3 hrs Max.Marks:50
Theory:40
CA:10

Instructions for the Paper Setter: Eight questions of equal marks (8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

Unit-I

Transformation of axes, shifting of origin, Rotation of axes in two dimension and three dimension, the invariants, Joint equation of pair of straight lines, equations of bisectors

Unit-II

Parabola and its properties. Tangents and normal, Pole and polar, pair of tangents at a point, Chord of contact, equation of the chord in terms of mid point and diameter of conic.

Unit-III

Ellipse and hyperbola with their properties. Tangents and normal, Pole and polar. pair of tangents at a point, Chord of contact, Identifications of curves represented by second degree equation (including pair oflines).

Unit-IV

Intersection of three planes, condition for three planes to intersect in a point or along a line or to form a prism. Sphere: Section of a sphere by a plane, spheres of a given circle. Intersection of a line and a sphere. Tangent line, tangent plane, power of a point with respect to a sphere, radical planes.

Books Recommended:

1. Gorakh Prasad and H.C. Gupta: Text Book on Coordinate Geometry.
2. S.L. Loney: The Elements of Coordinate Geometry, Macmillan and Company, London.
3. Narayan, S and P.K.Mittal.: Analytical Solid Geometry, Sultan Chand & Sons (2005).
4. Kreyszig, E.: Advanced Engineering Mathematics.
5. Thomos, G.B. and Finney, R.L.: Calculus and Analytic Geometry.

Bachelor of Arts / Bachelor of Science (Economics)
(Session 2019-20)
COURSE CODE: BARM-3134 / BECM-3134
COMPUTER ORIENTED NUMERICAL AND STATISTICAL METHODS
(THEORY)

Course Outcomes:

After passing this course the student will be able to:
CO1: Understand numerical methods, non linear equations, interpolation methods and Simultaneous Solution of Equations.
CO2: Learn about Interpolation and Curve Fitting and Numerical differentiation.
CO3: Learn Correlation, Regression, Bivariate & Multivariate distribution and Interpretation of Trend Analysis.

Bachelor of Arts / Bachelor of Science (Economics)
(Session 2019-20)
COURSE CODE: BARM-3134 / BECM-3134
COMPUTER ORIENTED NUMERICAL AND STATISTICAL METHODS
(THEORY)

Time: 3+3 Hrs **Max Marks : 100**
Theory : 50
Practical : 30
CA : 20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

Introduction:
1 Numerical methods, Numerical methods versus numerical analysis, Errors and Measures of Errors.
2 Non-linear Equations, Iterative Solutions, Multiple roots and other difficulties, Interpolation methods, Methods of bisection, False position Method, Newton Raphson-method.
3 Simultaneous Solution of Equations, Gauss Elimination Method Gauss Jordan method. Gauss Siedel Method, Matrix Inversion Method.

UNIT–II

4 Interpolation and Curve Fitting, Lagrangian Polynomials, Newton's Methods: Forward Difference Method, Backward Difference Method Divided Difference Method.
5 Numerical Integration and Different Tryaperzoidal Rule, Simpson's 1/3 Rule Simpson's 3/8 Rule. Numerical differentiation by Polynomial Fit Statistical Techniques

UNIT-III

1 Measure of Central Tendency, Preparing frequency distribution table, Mean Arithmetic, Mean geometric, Mean harmonic, Mean median Mode.
2 Measure of dispersion, Skewness and Kurtosis Range, Mean deviation, Standard deviation, co-efficient of variation, Moments Skewness Kurtosis.

UNIT–IV

1. Correlation Bivariate Distribution Multivariate distribution.
2. Regression B.C., Linear Regression, Multiple Regression.
3. Trend Analysis least square fit linear trend, Non-linear trend
Y=axb
Y=abx
Y=acx
Polynomial fit: Y=a+alX+ea^2x2+a^nxn+n

References

1 B.S. Grewal: Numerical Methods for Engineering, Sultan Chand Publications.
2 V. Rajaraman: Computer Oriented Numerical Methods, Prentice Hall of India Private Ltd., New Delhi.ng in ANSIC".

Bachelor of Arts / Bachelor of Science (Economics)
(Session 2019-20)
COURSE CODE: BARM-3134 / BECM-3134
COMPUTER ORIENTED NUMERICAL AND STATISTICAL METHODS
LAB (PRACTICAL)

Practical based on Computer Oriented Numerical and Statistical Methods

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL) - SEMESTER–III
(Session 2019-20)
COURSE CODE: BARM-3124 / BECM - 3124
OPERATING SYSTEM (THEORY)

Course Outcomes:
After passing this course the student will be able to:
CO1: Understand the basic knowledge of operating system, its types and functions.

CO2: Have knowledge of Unix operating system and its uses.

CO3: Gain knowledge about piping, filters, batch processing, shell programming and vi editors.

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL) - SEMESTER–III
(Session 2019-20)
COURSE CODE: BARM-3124 / BECM - 3124
OPERATING SYSTEM (THEORY)

Time: 3+3 Hrs **Max Marks : 100**
Theory : 50
Practical : 30
CA : 20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

1 What is an Operating System - Evolution of OS Machine Language, Assembly, Compiler, Interpreter.
2 Types of Operating Systems with Examples
a) Single User Systems
b) Multi User Systems : Unix, Xenix, Vax/VMS.
3 Functions of Operating System
4. CPU Management (For come First served, Shortest Job First, Round Robin Policy).

UNIT-II

1. Memory Management (Fixed Sized partition, Variable Sized Partition, Dynamic Memory Management with Reallocation Technique, Paging Demand Paging Techniques).
2. File Management.
3. I/O Device Management.
4. Command Interpreter.
5. Data Management.
6. Programme Developing Tools.
7. Time Sharing.
8. Security.
9. Communication

UNIT-III

1. Booting a System.
2. Features and Benefits of Unix.
3. Unix System (Multi-programming, time-sharing, multitasking).
4. Components of Unix (Kernel, Shell).
5. UNIX file system (Data Block, list, super block, boot block).
6. Types of Files (Ordinary, Directory and Special Files).
7. Types of users in UNIX - levels of users (0-2).

UNIT–IV

1. Login and Logout from Unix Session.
2. Types of Shells (Bourne, c-shell, r-shell).
3. Shell as a command interpreter, clear.
4. Simple Directory and File Commands Cat, is, in, chmod, mail, who, whoami, cal, pwd,

date, ps, mkdir, cd, rmdir, rm, tput, clear.
5. Piping, filters, batch processing, shell programming (echo, read, case constructs)
6. Editors (vi): Commands for opening, inserting, modifying, deleting and saving files.

References:

1. “UNIX Basics”, Ian Darwin TCP Informatics January, 2005. 2. “Basics of Os Unix and Shell Programming”, Isrd, Tata McGraw-Hill Education,
01-Aug-2006. 3. “UNIX in a Nutshell”: System V Edition: A Desktop Quick Reference for System V Release
4 and Solaris 2.0 by Daniel Gilly, The staff of O'Reilly Media, O'Reilly Media Inc.

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL) - SEMESTER–III
(Session 2019-20)
COURSE CODE: BARM-3124 / BECM - 3124
OPERATING SYSTEM (PRACTICAL)
Practical based on UNIX

B. Sc. (Eco.) (Semester –III)
Session 2019-20
Course Code: BECL-3453
QUANTITATIVE TECHNIQUES–III

Course Outcomes:

After passing this course students will be able to:

CO1: understand differentiation and higher order derivatives for univariate function and partial derivatives and total differentials for multivariate functions.

CO2: demonstrate understanding of and ability to explain the economic applications of differentiation , and use it to formulate economic problems, including elasticities, marginal cost and revenue, marginal product of labour and capital, marginal utilities.

CO3: understand and use constrained and unconstrained optima of functions to solve problem in economics, such as profit maximization, cost minimization or utility optimization.

CO4: explain indefinite and definite integrals and use them to solve problems related to consumer and producer surplus.

CO5: explain and use matrix operations to solve system of equations.

B. Sc. (Eco.) (Semester –III)
Session 2019-20
Course Code: BECL-3453
QUANTITATIVE TECHNIQUES–III

Time: 3 Hours **Max. Marks: 100**
Theory: 80
CA: 20

Note: Instructions for the Paper–Setters/Examiners:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT–I

Differentiation: Maxima and Minima of Functions, Partial derivatives, Higher order partial derivatives.

UNIT–II

Integration (Excluding Trigonometric and Inverse Functions): Indefinite Integrals; Integration by Partial Fractions; Integration by substitution; Integration by parts; Definite Integrals. Application of Integration in Consumer Surplus and Producer Surplus.

UNIT–III

Matrices: Definition, Types, Addition, Subtraction and Multiplication of Matrices, Scaler Multiplication, Transposition, Determinants and their Properties, Minors and Co-factors, Rank of a Matrix, Inverse of a Matrix, Crammer's Rule for Solution of Simultaneous system of equations. Applications of matrices in economics.

UNIT–IV

Linear Programming: Formulation of problem, Assumptions, Graphical solution, Simplex method. Use of Artificial Variables, Dual Simplex method. Input-Output Analysis: Basic concepts, Input- Output tables for closed and open economies, Leontief Basic Input-Output Model, Simple Applications of Input-Output Analysis.

Recommended Texts:
1. Yamane Taro, Mathematics for Economics, Prentice Hall of India, New Delhi.
2. Allen R.G.D., Mathematical Analysis for Economists, ELBS and Macmillan Press.
3. Chaing, A., Fundamental Methods of Mathematical Economics**.**

B. Sc. (Eco.) (Semester –III)
Session 2019-20
Course Code: BECL-3175
MACRO ECONOMICS

Course Outcomes:

After passing this course students will be able to:

CO1: understand the consumption and investment behaviour of an economy and factor affecting consumption and investment decisions.

CO2:understand the mechanism of income and investment propagation in an economy and problems associated with it.

CO3: demonstrate an understanding of nature and functions of money and the role of financial markets in the economy.

CO4: To discuss the instruments of money and capital market in India

CO5:understand the problem of inflation, its causes, effects and solutions in an economy.

B. Sc. (Eco.) (Semester –III)
Session 2019-20
Course Code: BECL-3175
MACRO ECONOMICS

Time: 3 Hours **Max. Marks: 100**
Theory: 80
CA: 20

Note: Instructions for the Paper–Setters/Examiners:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT–I

Distinction between Micro and Macro Economics; Determination of Income and Employment:Classical and Keynesian models; Say's Law of Market and aggregate demand andaggregatesupply.Consumption functions; average (short-run and long run) and marginal propensity to consume;Keynes' Psychological Law of Consumption, Multiplier: Meaning and its working.

UNIT–II

Investment: Meaning, Investment Demand schedules and factors affecting investment decision. MarginalEfficiency of Capital. Accelerator, multiplier-accelerator interaction.
Trade cycles-meaning, characteristics and phases. Samuelson and Hicks Models of trade cycles.

UNIT–III

Money: Its functions and role. Money and Capital Markets (Introductory); Quantity Theory ofMoney:Fisher's and Cambridge's equations, Liquidity preference theory.
Banking: Meaning and Functions of commercial and central banks, Credit creation and credit control.

UNIT–IV

Inflation: Concept, Causes and cures. Inflation-unemployment Trade-off (only Phillips'contribution).
Macroeconomic Policies: Fiscal policy – meaning, objectives and instruments. Monetary policy:meaning, objectives and instruments.

Recommended Texts:

1. Shapiro E., Macroeconomic Analysis, Harcourt, Brach and World, New York.
2. Dwivedi D.N.,Macroeconomics: Theory and Policy, Tata McGraw-Hill.
3. Jhingan M. L., Macroeconomic Theory, Vrinda PublicationsDelhi.
4. Gupta S.B., Monetary Economics: Institutions, Theory and Policy, S. Chand, New Delhi..

Semester-III

B.Sc. (Medical, Non Medical, Computer Science, HomeScience, IT, BioTechnology) /B.Sc (Hons.)Agriculture) / B.Com. / BBA/BCA/B.Com (Hons.)/B.Sc. (Hons.) Mathematics

(Session 2019-20)

Environmental studies (COMPULSORY PAPER)

Question paper is to be set on the spot jointly by the external and internal examiners. Two copies of thesame to be submitted for the record to COE office, Kanya Maha Vidyalaya, Jalandhar

General Guidelines for Practical Examination

I. The distribution of marks is as follows: **Marks: 20**
i) One experiment **7 Marks**
ii) Brief Theory **3 Marks**
iii) Viva–Voce **5 Marks**
iv) Record (Practical file) **5 Marks**
II. There will be one sessions of 3 hours duration. The paper will have one session.
Paper will consist of 8 experiments out of which an examinee will mark 6 experiments and one of these is to be allotted by the external examiner.

III. Number of candidates in a group for practical examination should not exceed 12.
IV. In a single group no experiment is to be allotted to more than three examinees in any group.

List of Experiments

1. To determine refractive index of glass and liquid using spectrometer.
2. To determine the Cauchy's constants.
3. To study the refractive index of a doubly refracting prism.
4. To set up Newton's rings to determine wavelength of sodium light.
5. To determine the wavelength by using plane diffraction grating (Use Hg source)
6. To determine dispersive power of plane diffraction grating.
7. To determine resolving power of a telescope.
8. To measure an accessible (Horizontal and vertical) height using sextant.
9. To measure inaccessible height by using sextant.
10. Verify laws of probability distribution by throwing of similar coins.
11. To determine the wavelength of given laser source using Young's double slit experiment

Semester-III

B.Sc. (Medical, Non Medical, Computer Science, HomeScience, IT, BioTechnology) /B.Sc (Hons.)Agriculture) / B.Com. / BBA/BCA/B.Com (Hons.)/B.Sc. (Hons.) Mathematics

(Session 2019-20)

Environmental studies (COMPULSORY PAPER)

COURSE OUTCOMES

After passing this course the student will be able to:

- CO1 Demonstrate and Understand the ecological relationships between organisms and their environment.
- CO2 Present an overview of diversity of life forms in an ecosystem.
- CO3 Explain and identify the role of the organism in energy transfers.
- CO5 Understand the Environmental Pollution and their management.
- CO6Understanding and awareness for wildlife conservation.
- CO7Knowledge of conservation of threatened animal species

Semester-III

B.Sc. (Medical, Non Medical, Computer Science, HomeScience, IT, BioTechnology) /B.Sc (Hons.)Agriculture) / B.Com. / BBA/BCA/B.Com (Hons.)/B.Sc. (Hons.) Mathematics

(Session 2019-20)

Environmental studies (COMPULSORY PAPER)

Time: 3 Hours. **Max. Marks: 100**

Theory: 60

Field Report:20

CA: 20

Instructions for the Paper Setter:
The question paper should carry 60 marks.

The structure of the question paper being:

Part-A, Short answer pattern – 20 marks
Attempt any five questions out of seven. Each question carries 4 marks. Answer to each question should not exceed 2 pages
Part-B, Essay type with inbuilt choice – 40 marks
Attempt any five questions out of eight. Each question carries 8 marks. Answer to each question should not exceed 5 pages.

Unit 1

The multidisciplinary nature of environmental studies

Definition, scope and importance, Need for public awarenes

Unit 2

Natural Resources: Renewable and non-renewable resources:
Natural resources and associated problems.

(a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
(b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
(c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
(d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
(e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

(f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles.

Unit 3

Ecosystems

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

Unit 4

Biodiversity and its conservation

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

Unit 5

Environmental Pollution

Definition

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslide.

Unit 6

Social Issues and the Environment

- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act

- ➢ Issues involved in enforcement of environmental legislation
- ➢ Public awareness

Unit 7

Human Population and the Environment

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health
- Human Rights
- Value Education
- HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

Unit 8

Field Work

- Visit to a local area to document environmental assets river/forest/grassland/hill/mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

References:

1. Bharucha, E. 2005. Textbook of Environmental Studies, Universities Press, Hyderabad.
2. Down to Earth, Centre for Science and Environment, New Delhi.
3. Heywood, V.H. &Waston, R.T. 1995. Global Biodiversity Assessment, Cambridge House, Delhi.
4. Joseph, K. &Nagendran, R. 2004. Essentials of Environmental Studies, Pearson Education (Singapore)Pte. Ltd., Delhi.
5. Kaushik, A. & Kaushik, C.P. 2004. Perspective in Environmental Studies, New Age International (P)Ltd, New Delhi.
6. Rajagopalan, R. 2011. Environmental Studies from Crisis to Cure. Oxford University Press, New Delhi.
7. Sharma, J. P., Sharma. N.K. & Yadav, N.S. 2005. Comprehensive Environmental Studies, LaxmiPublications, New Delhi.
8. Sharma, P. D. 2009. Ecology and Environment, Rastogi Publications, Meerut.
9. State of India's Environment 2018 by Centre for Sciences and Environment, New Delhi
10. Subramanian, V. 2002. A Text Book in Environmental Sciences, Narosa Publishing House, New Delhi

B.Sc.(Economics (Session:2019-20)

PERSONALITY DEVELOPMENT PROGRAMME

Course Title: Personality Development Programme
Nature of course: Audit Course (SkillBased)
Course duration: 30 hours
Course intended for: Sem. III students of all streams (UG Only)
Coursecredits: 2
Course Code: SECP-3512

PURPOSE
To enhance holistic development of students and improve their employability skills.

INSTRUCTIONAL OBJECTIVES

- To re-engineer attitude and understand its influence on behaviour.
- To develop inter-personal skills and be an effective goal-oriented team player.
- To develop communication and problem solving skills.
- To develop professionals with idealistic, practical and moral values.

CURRICULUM
Course credits-2 **Total Contact Hours-30**

MODULE	TITLE	HOURS
1.	Positive Thinking & Attitude	2
2.	Self Analysis & Self Confidence	2
3.	Communication Skills	10
	• Basic Communication Skills • Body Language • Interview Skills • Résumé Writing • Group Discussion • Telephone and E-mail etiquette • Public Speaking	
4.	Time Management	2
5.	Stress and Conflict Management	2
6.	Physical Fitness and Personal Grooming	2
7.	Appropriateness of Apparel	2
8.	Social Etiquette	2
9.	Decision Making process & Problem Solving Skills • Leadership Skills • Goal Setting • Motivation	5
10.	Closure	1

SYLLABUS

MODULE 1: Positive Thinking & Attitude

- Factors Influencing Attitude
- Essentials to develop Positive Attitude
- Challenges & Lessons from Attitude

MODULE 2: Self Analysis & Self Confidence

- Who am I
- Importance of Self Confidence
- SWOT Analysis

MODULE 3: Communication Skills

(i) Basic Communication Skills

- Speaking Skills
- Listening Skills
- Presentation Skills

(ii) Body Language

- Forms of Non-Verbal Communication
- Interpreting Body Language clues
- Effective use of Body Language

(iii) Interview Skills

- Type of Interviews
- Ensuring success in job interviews
- Appropriate use of Non-verbal Communication

(iv) Résumé Writing

- Features
- Different types of Résumés for Different Posts

(v) Group Discussion

- Differences between Group Discussion and Debate
- Importance of Group Discussion
- Group Decision
- Ensuring Success in Group Discussions

(vi) Telephone & E-mail Etiquette

- Telephone etiquette
- E-mail etiquette

(vii) Public Speaking

- Introductory Speech
- Informative Speech
- Persuasive Speech
- Extempore Session

MODULE 4: Time Management

- Importance of Time Management
- Values & Beliefs
- Goals and Benchmarks – The Ladders of Success
- Managing Projects and Commitments
- Prioritizing your To-do's
- Getting the results you need

MODULE 5: Stress & Conflict Management

- Introduction to Stress
- Types of Stressors
- Small Changes and Large Rewards
- Stress Prevention
- Overcoming Unhealthy Worry
- Stress at Home and Workplace
- Dealing with Frustration and Anger
- Stress reducing Exercises
- Understanding Conflicts
- Violent and Non-violent Conflicts
- Source of Conflict
- Structural and Cultural Violence

MODULE 6: Physical Fitness and Personal Grooming

- Fitness and Exercise
- Balanced & Healthy Diet
- Skin Care & Hair Care
- Make-up Skills

MODULE 7: Appropriateness of Apparel

- Apparel & Personality
- Psycho-social aspects of Apparel

- Style-tips for smart dressing & effective use of design elements

MODULE 8: Social Etiquette

- Civic Sense
- Workplace Skills
- Meeting and greeting people
- Table Setting and Table Manners

MODULE 9: Decision Making Process and Problem Solving Skills

- Anatomy of a Decision
- How to use Problem solving steps and Problem solving tools
- How to distinguish root causes from symptoms to identify right solution for right problems
- How to improve Problem solving and Decision making by identifying individual problem solving styles
- The Creative process for making decisions
- Tools to improve creativity
- Implementing the Decision – Wrap up

(i) Leadership Skills

- Handling Peer Pressure and Bullies
- Team Work
- Decision Making
- Taking initiatives

(ii) Goal Setting

- Wish List
- SMART Goals
- Blueprint for Success
- Short-term, Long-term, Life-term Goals

(iii) Motivation

- Factors of motivation
- Self Talk
- Intrinsic & Extrinsic Motivators

Books Recommended

1. Everyday Etiquette: How to navigate 101 common and uncommon social situations by PatricaRossi.
2. Building career success skills by Theodore Pietrzak, Mike Fraum.
3. Creative problem solving: An Introduction by Donald J Treffinger, Scott G.Isaksen, K. Brian.
4. Positive Psychology: The science of happiness and human strengths by Alan Carr
5. Speech craft: An Introduction to public speaking by Brent C Oberg.

6. Effective communication skills: The foundations for change by John Nielsen.
7. Conflict Resolution smarts: How to communicate, negotiate promise and more by Matt Doeden.
8. What you wear can change your life by Trinnywoodall, Susannah Constantine.
9. World Famous Personalities by Dr. B.R. Kishore.
10. Personality Development by John Aurther.
11. World Famous Leaders who reshaped the World! by Dr. Gagan Jain, D.Litt.
12. Personality Development by Elizabeth B. Hurlock
13. Personality Plus by Divya Chopra

Examination

1. Total marks of the course will be 25 (Final Examination: 20 Marks; Internal Assessment: 5Marks)
2. The pattern of the final examination will be multiple choice questions. 20 multiple choice type questions will be set. Each question will carry 1 mark (20 X 1 = 20). The student will have to attempt all the questions. Total time allotted will be 1 hour.
3. Internal Assessment will consist of Attendance: 2 Marks, Viva: 3 Marks.(Total:5 Marks)
4. Internal Assessment will be based on the student's level of participation, interaction and communication during the classes.
5. Viva will be conducted by the resource persons of the programme.
6. The syllabus of the programme will be duly signed and provided to the COE officeby the co- ordinator.
7. The co-ordinator will convey about the completion of the programme to the COE office to facilitate conduct of examination.
8. The list of paper setters will be provided to the COE office out of which any one can be appointed by it.
9. Final examination will be conducted by COE office as per norms of the college. Marks secured by the student will not be added in total marks and only grades will beprovided.

Letter grade would be awarded on a 10 point scale as per university/UGC rgulations.

SESSION 2019-20

B.A/B.Sc/B.Com/BBA

(Semester IV)

Punjabi (Compulsory)

COURSE CODE- BARL/BSML/BSNL/BCSL/BECL/BCRL /BBRL-4421

COURSE OUTCOMES

CO1: ‘grvzvhnK’ (ववववववववव) Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo ववववववववव fJ; ;kfjs o{g gqshfdbu;gh, ;{M Bz{ g?dk eoBk j?.

CO2: ‘ववववव’ (ववववव) Bz{ f;b/p; ftu Pkfwb eo e/ ftfdnkoEhnK nzdo ववववव Bz{ gVQD dh o[uh Bz{ g?dk eoBk j? ns/ ववववव irs Bkb i'VDk j?.

CO3: d|soh fuZmh gZso fbyD dk wB'oE ftfdnkoEhnK B{z fJ; ebk ftu fBg[zB eoBk j?I

CO4: Ppd i'VK d/ fB:w B{z f;b/p; ftu Pkfwb eoB dk we;d ftfdnkoEhnK d[nkok fb\s ftu ehshnK ikD tkbhnK rbshnK B{z ;[XkoBk j?.

CO5: r[ow[yh fbgh dhnK ftP/PsktK Bz{ gVQkT[D dk wB'oE ftfdnkoEhnK nzdo gzikph GkPk dh nwhoh dk ns/ pkohehnK Bz{ ;wMD bJh tZyo/ - tZyo/ f;XKsK dkftek; eoBk j?.

SESSION 2019-20

B.A/B.Sc/B.Com/BBA

(Semester IV)

Punjabi (Compulsory)

COURSE CODE- BARL/BSML/BSNL/BCSL/BECL/BCRL /BBRL-4421

;wK L 3 xzN/ **Maximum Marks: 50**

Theory: 40

CA: 10

gkm eqw ns/ gkm g[;seK

:{fBN-I

grvzvhnK (वववववववव) : वव.pfuzs e"o

(;ko/ftPk t;s{) **8 nze**

:{fBN-II

वववववव (वववव) : ifszdo pkV,

ftPk t;s{$;ko
8 nze

:{fBN-III

d|soh fuZmh gZso
8 nze

:{fBN-IV

ftnkeoD

(T) Ppd i'VK d/ fB:w

(n) r[ow[yh fbgh dhnK ftP/PsktK
8 nze

nze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d/ uko ;?ePB j'Dr/.;?ePB A-D sZe d/ gqPB :{fBN I-IV ftu'Ag[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B/ e[b gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkIwhj?. gzitK gqPB fe;/ th ;?ePB ftu'A ehsk ik ;edk j?.

3H jo/e gqPB d/ 08 nze jB.

4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX ukoT[g gqPBK ftu eo ;edk j?.

SESSION 2019-20

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL) / BACHELOR OF SCIENCE (NON MEDICAL) / BACHELOR OF SCIENCE (COMPUTER SCIENCE) / BACHELOR OF SCIENCE (ECONOMICS) / BACHELOR OFCOMMERCE / BACHELOR OF BUSINESS ADMINISTRATION

SEMESTER–IV

Basic Punjabi (In lieu of Punjabi Compulsory)

COURSE CODE- BARL/BSML/BSNL/BCSL/BECL/BCRL/BBRL-4031

Course outcomes

CO1: 'wzu xo' fJeKrh Bz{ f;b/p; ftu Pkfwb eo e/ ftfdnkoEhnK nzdo fJekrh Bz{ gVQD dh o[uh Bz{ g?dk eoBk j? ns/ fJeKrh irs Bkb i'VDk j?.

CO2: nYiqk is`iKAw nwl sMbMDq khwxIAW** pVHwaux dw mnorQ **ividAwrQIAW dI bu`DI nUM qIKx kridAW aunHW iv`c smwjk smJ aujwgr krnw hY[

CO3: ieSiqhwr ilKx dw mnorQ ividAwrQIAW nUM ies klw iv`c inpuMn krnw hY[

CO4: ivAwkrn pVHwaux dw mnorQ ividAwrQIAW AMdr pMjwbI BwSw dI AmIrI dw Aqy bwrIkIAW nUM smJx leI v`Kry-v`Kry isDwqW dw ivkws krnw Aqy pMjwbI BwSw nUM isKwaux dI pRikirAw iv`c pw ky ie`k hor BwSw is`Kx dy mOky pRdwnkrnw hY[

SESSION 2019-20

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL) / BACHELOR OF SCIENCE (NON MEDICAL) / BACHELOR OF SCIENCE (COMPUTER SCIENCE) / BACHELOR OF SCIENCE (ECONOMICS) / BACHELOR OFCOMMERCE / BACHELOR OF BUSINESS ADMINISTRATION

SEMESTER–IV

Basic Punjabi (In lieu of Punjabi Compulsory)

COURSE CODE- BARL/BSML/BSNL/BCSL /BECL/BCRL /BBRL-4031

smW: 3 GMty **Maximum Marks : 50**

Theory : 40

CA : 10

gkm eqw

:{fBN-I

wzu xo (fJeKrh ;zfrqj)(;zgkH e[bdhg f;zx Xho ns/ fjod/ihs f;zx G'rb),r[o{ BkBe d/t

:{Bhtof;Nh, nzfwqs;o.

d{ik ftnkj,wB dhnK wB ftu,pqjw G'i(fJeKrhnK f;b/p; dk fjZ;k jB)

(ਵਵਵ)

08nze

:{fBN-II

nYiqk is`iKAw nwl sMbMDq khwxIAW:

1. **AMgUr K`ty hn**
2. **lwlc burI blw hY**
3. **eykqw iv`c bl hY**
4. **ij`Qy cwh, au~Qy rwh**
5. **AMq Bly dw Blw**

08nze

:{fBN-III

ieSiqhwr 1.vpwr

sMbMDI2.ivAwh

sMbMDI

3.vsqUAW dI ^rId-vyc sMbMDI

4.AswmIAW dw ieSiqhwr

5 . is`iKAw pRwpqI sMbMDI

08nze

:{fBN-IV

svr: svrW dI pirBwSw,svrW dw vrgIkrn

ivAMjn: ivAMjnW dI pirBwSw,ivAMjnW dw vrgIkrn

08nze

nze tzv ns/ gohfyne bJh jdkfJsK

1H gqPB gZso d/ uko ;?ePB j'Dr/.;?ePB A-D sZe d/ gqPB :{fBN I-IV ftu'Ag[ZS/ ikDr/. jo ;?ePB ftu d' gqPB g[ZS/ ikDr/.

2H ftfdnkoEh B/ eZb gzi gqPB eoB/ jB. jo ;?ePB ftu'A fJe gqPB bkIwhj?. gzitK gqPB fe;/ th ;?ePB ftu'A ehsk ik ;edk j?.

3H jo/e gqPB d/ 08 nze jB.

4H g/go ;?ZN eoB tkbk i/eo ukj/ sK gqPBK dh tzv nZr'A tZX s'A tZX ukoT[g gqPBK

ftu eo ;edk j?.

B.A. / B.Sc. / B.Com. / BBA
Session 2019-20
Semester IV
PUNJAB HISTORY & CULTURE
(From 1605 to 1849 A.D.)

COURSE OUTCOMES

After passing this course, the students will

CO 1: understand the Physical features of the Punjab

CO 2: To understand and interpret sources of history of Punjab

CO 3: To discuss, understand and analyze the institutions started by Sikh Gurus and their implications till date

CO 4: To study the conflicts with Mughal Governors

CO 5: To understand the causes that led to the establishment of Sikh Misls and rise of Maharaja Ranjit Singh

CO 6: to identify and have complete grasp on the writings of History of Punjab

FACULTY OF ARTS AND SOCIAL SCIENCES
KANYA MAHA VIDYALAYA, JALANDHAR
(Autonomous)
Session 2019-20
PUNJAB HISTORY AND CULTURE (From 1605 TO 1849 A. D.)

(Special paper in lieu of Punjabi Compulsory)
(Semester IV)

Examination Time: 3 Hours **Max. Marks: 50**
Theory: 40
CA: 10

Instructions for the Paper Setters

The question paper will have 4 units, namely unit I, II, III and IV.
Question paper shall consist of four Units. Candidates shall attempt 5 questions in all, by at least selecting one question from each section and the 5 th question may be attempted from any of the four units. Each question will carry 8 marks.

Unit-I

Politicization of Sikhism under Guru HarGobind
Martydom of Guru Teg Bahadur

Unit –II

Creation of Khalsa
Khalsa and Its impact on Punjab

Unit-III

Rise of Banda Bahadur and his achievements
Rise of Misls

Unit – IV

Ranjit Singh's rise to Power, Civil, Military and Land Revenue administration
Art and Architecture, Fair, Festivals and Folk Music in the Punjab during the Medieval Period

Suggested Readings

1. Chopra P.N., Puri, B.N., & Das, M.N.(1974), *A Social, Cultural & Economic History of India.* Vol.II, Macmillan India Limited, New Delhi.
2. Grewal, J.S. (1994). *The Sikhs of the Punjab*, Cambridge University Press, New Delhi.
3. Singh, Fauja (1972). *A History of the Sikhs*, Vol. III, Patiala: Punjabi University.
4. Singh, Kushwant (2011). *A History of the Sikhs*- Vol. I (1469-1839). New Delhi: Oxford University Press.

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOR OF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATIONSemester IV

Session 2019-20

ENGLISH (COMPULSORY)

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-4212

COURSE OUTCOMES

After passing this course, the students will be able to:

CO 1: develop an understanding of the poems taughtand be able to answer questions regarding situations, themes and characters depicted in them

CO 2: comprehend the basics of grammatical rules governing prepositions and phrasal verbs

CO 3: enhance their reading and analysing power of texts through guided reading

CO 4: enrich their vocabulary and use newly learnt words in both spoken and written language

CO 5: develop skills to write an essay on a given topic

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOR OF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATION

Semester IV

Session2019-20

ENGLISH (COMPULSORY)

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-4212

Max. Marks: 50

Examination Time: 3 Hrs **Theory: 40**

CA: 10

Instructions for the Examiner:

The paper setters should avoid questions of theoretical nature from *Making Connections*.

Section A: One question with sub-parts will be set from Unit I of the syllabus. Fifteen sentences will be set and the students would be required to attempt any ten. Each sentence will carry one mark. **(10x1=10)**

Section B: Two questions will be set from Unit II of the syllabus. The students would be required to attempt one essay out of the given two topics carrying six marks (word limit 300 words). The second question will be based on vocabulary. The students would be required to write single words for phrases and sentences choosing any four out of six and each carrying one mark. **(1x6+4x1=10)**

SectionC: Thestudents would be required to attempttwo questions (with sub parts) based on exercises as given before and after reading essays in the prescribed text book *Making Connections*. **(2×5=10)**

Section D: This section will be divided into two parts. In part one, three questions based on central idea, theme, tone and style etc. of the poems from the prescribed textbook,*Moments in Time* from Unit IV of the syllabus will be set. The students would be required to attempt any two, each carrying three marks (100 words each). **(2×3=6)**

Part two will have one question (with internal choice) requiring students to explain a stanza with reference to context carrying four marks (word limit 200 words). The stanzas for explanation will be taken from the prescribed textbook, *Moments in Time* from Unit IV in the syllabus.**(1×4=4)**

Unit I

English Grammar in Use, 4th Edition by Raymond Murphy, CUP (Units 121-145)

Unit II

Essay Writing and *The Students' Companion*by Wilfred D. Best (Section 1: Single words for phrases and sentences: Words pertaining to Government, words pertaining to Marriage, Opposites and Negatives)

Unit III

Making Connections by Kenneth J. Pakenham, 2nd Edn. CUP: Unit-IV

Unit IV

Moments in Time: Poems at Sr. No. 7-12

BACHELOR OF ARTS / BACHELOR OF SCIENCE (MEDICAL)/ BACHELOR OF SCIENCE (NON MEDICAL)/ BACHELOR OF SCIENCE (COMPUTER SCIENCE)/ BACHELOR OF SCIENCE (ECONOMICS)/ BACHELOR OF COMMERCE/ BACHELOR OF BUSINESS ADMINISTRATIONSemester IV

Session2019-20

ENGLISH (COMPULSORY)

Course Code: BARL/BSML/BSNL/BCSL/BECL/BCRL/ BBRL-4212

Texts Prescribed:

1. *English Grammar in Use* (Fourth Edition) by Raymond Murphy, CUP
2. *The Students' Companion* by Wilfred D. Best
3. *Making Connections* by Kenneth J. Pakenham, 2nd Edn. CUP
4. *Moments in Time: An Anthology of Poems*, GNDU, Amritsar

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)
Semester–IV
Session: 2019-20
Course Title: Mathematics (Statics and Vector Calculus)
Course Code: BARM/BECM/ BCSM/BSNM-4333(I)

Course Outcomes

After passing this course, the students will be able :

CO 1: To apply parallelogram law of forces, triangle law of forces, Lami's theorem to real life problems.

CO 2: To understand that how one can resolve number of coplanar forces, parallel forces and concurrent forces acting at a body.

CO 3: To find the moments of number of coplanar forces acting at a particle

CO 4: To find the resultant of a force and couple acting on a body.

CO 5: To find the applications of CG of a rod, triangular lamina, solid hemisphere, hollow hemisphere, solid cone and hollow cone.

CO 6: To find the values of gradient, divergence and curl operator of given vectors.

CO7: To find the application of Gauss theorem, Green's theorem and Stokes's theorem in real life problems.

B.A./B.sc. Semester–IV
Session: 2019-20
Course Title: Mathematics (Statics and Vector Calculus)
Course Code: BARM/BECM/ BCSM/BSNM-4333(I)

Examination Time: 3 Hours

Max.Marks:5
0Theory
:40
CA:10

Instructions for the Paper Setter: Eight questions of equal marks(8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

Unit-I

Composition and resolution of forces(parallelogram law, triangle law, polygon law,Lami's Theorem,(ג-μ) theorem).Resultant of a number of coplanar forces, parallel forces. Moments ,Varignon's Theorem of moments, Couples , Resultant of two Coplanar Couples, Equilibrium of two coplanar couples, Resultant of a force and a couple, Equilibrium of coplanar forces.

Unit-II

Friction, Laws of friction, Equilibrium of a particle on a rough plane. Centre of Gravity: Centre of gravity of a rod, triangular lamina, solid hemisphere, hollow hemisphere, solid cone and hollow cone.

Unit-III

Vector differentiation, Gradient, divergence and curl operators, line integrals, Vector identity, and Vector integration.

Unit-IV

Theorems of Gauss, Green, Stokes and problems based on these.

Books Recommended:

1. S.L. Loney: Statics, Macmillan and Company, London.
2. R.S. Verma: A Text Book on Statics, Optical Pvt. Ltd., Allahabad.
3. Spiegal,M.R.: Introduction to Vector Calculus and Tensor
4. Spiegal,M.R.: Vector Analysis

Bachelor of Arts/ Bachelor of Science (Economics, Non-Medical, Computer Science)
Semester–IV
Session: 2019-20
Course Title: Mathematics (Solid Geometry)
Course Code: BARM/BECM/ BCSM/BSNM-4333(II)

Course Outcomes After passing this course, the students will

be able to:

CO 1: Demonstrate the concept of cone, classification of cone, intersection of line and cone, reciprocal cone.

CO 2: Understand the concept of cylinder, enveloping cylinder and its limiting form.

CO 3: Describe the concept of conicoids or quadratic surface, its classification, trace different types of conicoids.

CO 4: Manage to find surface of revolution and concept of tangent and normal to the conicoid

CO 5: Identify the conicoids and representing it in the form of hyperboloid, ellipsoid, paraboloid.

B.A./B.Sc. Semester–IV
Session: 2019-20
Course Title: Mathematics (Solid Geometry)
Course Code: BARM/BECM/ BCSM/BSNM-4333(II)

Examination Time: 3 Hours

Max.Marks:50
Theory :40
CA:10

Instructions for the Paper Setter: Eight questions of equal marks(8 marks each) are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

Unit-I

Cylinder as surface generated by a line moving parallel to a fixed line and through fixed curve.
Different kinds of cylinders such as right circular, elliptic, hyperbolic and parabolic in standard forms

Unit-II

Cone with a vertex at the origin as the graph of homogeneous equation of second degree in x, y, z . Cone as a surface generated by a line passing through a fixed curve and fixed point outside the plane of the curve. Right circular and elliptic cones.

Unit-III

Equation of surface of revolution obtained by rotating the curve f(x,y)=0 about the z-axis in the form of $f(x^2+y^2, z) = 0$.Equation of ellipsoid, hyperboloid and Paraboloid in standard forms.

Unit-IV

Surfaces represented by general equation of 2nd degree S = 0. Tangent lines, tangent planes and Normal Plane.

Bokks Recommended:

1. Narayan, S &P.K.Mittal : Analytical Solid Geometry, Sultan Chand & Sons(2005)
2. Kreyszig, E : Advanced Engineering Mathematics

Bachelor of Arts / Bachelor of Science (Economics)
SEMESTER–IV
(Session 2019-20)
COURSE CODE: BARM-4134 / BECM-4134
DATA STRUCTURES & PROGRAMMING LANGUAGE USING C++
(THEORY)

Course Outcomes:

After passing this course the student will be able to:

CO1: Get familiarize with basic data structures and Analyze algorithms to determine their efficiency.

CO2: Handle operations on various data structures.

CO3: Choose appropriate data structures according to real world problems.

CO4: Learn basics of Object oriented Programming Paradigm.

Bachelor of Arts / Bachelor of Science (Economics) - SEMESTER–IV
(Session 2019-20)
COURSE CODE: BARM-4134 / BECM-4134
DATA STRUCTURES & PROGRAMMING LANGUAGE USING C++
(THEORY)

Time: 3+3 Hrs

Max Marks : 100
Theory : 50
Practical : 30
CA : 20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

Data Structure: Introduction to elementary Data Organization, Common Operation on Data Structures, Algorithm Complexity, Big O Notation, Time-Space Trade off between Algorithm.
Arrays: Array Defined, Representing Arrays in memory, various operations on linear arrays, Multi Dimensional arrays.
Linked Lists: Types of Linked Lists, representing linked list in memory, advantages of using linked lists over arrays, various operations of linked lists.

UNIT–II

Stacks: Description of STACK structure, Implementation of stack, using arrays and linked lists, application of stack-converting Arithmetic expression from infix notational to polish and their subsequent evaluation, quicksort technique to sort an array.
Queues: Description of queue structure, Implementation of queue using arrays and linked lists, description or priorities of queues, deques. Sorting and Searching: Sorting Algorithms, bubble sort, selection sort, insertion sort, quick sort, merge sort, heap sort, searching Algorithms, linear search and binary search.

UNIT–III

Object Oriented Programming: Objects & Classes, Constructor & Destructor, Operator
Overloading, Overloading unary operators, Overloading binary operators, Data conversion, Pitfalls of operator overloading and conversion.

UNIT-IV

Inheritance, Derived class and base class, Derived class constructor. Overloading member functions, Inheritance in the English distance class, class hierarchies, Public & Private inheritance, Level of inheritance, Polymorphism, problems with single inheritance, multiple inheritance

References:

1. Seymour Lischutz, Theory and Problems of Data Structures.
2. Schaum's Outline Series, McGraw Hill Company.
3. Tanenbaum, Data Structure Using C++

Bachelor of Arts / Bachelor of Science (Economics) - SEMESTER–IV
(Session 2019-20)
COURSE CODE: BARM-4134 / BECM-4134
DATA STRUCTURES & PROGRAMMING LANGUAGE USING C++
LAB

(PRACTICAL)

Practical based on Data Structures & Programming Language Using C++

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL)- SEMESTER–IV
(Session 2019-20)
COURSE CODE: BARM-4124/ BECM - 4124
RELATIONAL DATA BASE MANAGEMENT SYSTEMS & ORACLE
(THEORY)

Course Outcomes:

After passing this course the student will be able to:

CO1: Know about 3GL and 4GL languages, CODD's rules, concept of Database models, Normalization, database languages.

CO2: Understand and use data manipulation and data control language to query, update and manage a database.

CO3: Understand the functionality of SQL plus.

CO4: Gain knowledge about PL/SQL.

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL) - SEMESTER–IV
(Session 2019-20)
COURSE CODE: BARM-4124 / BECM - 4124
RELATIONAL DATABASE MANAGEMENT SYSTEMS & ORACLE
(THEORY)

Time: 3+3 Hrs **Max Marks : 100**
Theory : 50
Practical : 30
CA : 20

Instructions for Paper Setter -
Eight questions of equal marks are to set, two in each of the four sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be divided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section.

UNIT–I

Relational Data Base Management System & ORACLE
1 Definition of 3 GL and 4 GL languages.
2 Definition of CODD's Rules.
3 Introduction to RDBMS and Oracle-Advantages and Limitations over DBMS.
a) Normalization of Data: First, Second and Third Normal form
b) Database Models - Hierarchical, Network, Relational
c) Features of SQL Compatibility, Portability
d) Important components (Database Manager, DDL, DML, DCL, query processor. (Data Dictionary);
e) Introduction to SQL Plus - Definition.
4. SQL Operators =I=<><><>=<= [NOT] BETWEEN.....AND..... [NOT] IN [Text] NOT] like, IS [NOT] NULL, NOT, AND, OR
5. Data Types: Char, numbers, date long, raw, long raw
6. DDL Commands of SQL
- Create Tables
- Alter Table, view
- Drop Table
- Create View-As selected from, where
- Rename
- Create Index

UNIT–II

Data Manipulation Language
1. Select - Select distinct - Select from where
- Select from where order by
- Select group by clause
- Select Group by having clause
2. Insert Into
3. Update Statement
4. Delete Statement
2. Data Control Language

- Roll back
- Revoke
- Grant

3. Sub Query Definition with 2 Levels
4. Aggregate Functions

Sum, Avg, max, min, count, stddev, variance

5. Character Functions

Lower, Upper, Length, Substr, RPAD, LPAD

6. Arithmetic Functions

Round, Trunc, Sqrt, Mod, Abs, Sine

7. Date and Time Functions and Other Miscellaneous Functions

(Add-months, Month-between, NVL, Translate, field concatenation, decode)

8. Conversion Functions (to-char, to-number, to-date)
9. Substitution Variables (&, &&)

UNIT–III

Reporting Using SQL Plus

1. Specifying column heading
2. Formatting columns
3. Char formats
4. Break
5. Inserting spaces when the break value changes
6. Inserting spaces after every row.
7. Break on multiple columns with different spacing
8. Compute
9. T Title
10. B Title
11. Page size line size, pause.

UNIT-IV

Introduction to PL/SQL

1. Relationship between SQL & PL/SQL
2. Advantages of PL/SQL
3. PL/SQL block structure
4. Valuable and Constant declaration
5. Declaration using attributes %type attribute If elsif ends if statement

References

1. Introduction to Data Base System by C.J. Date.
2. Data Base Management System by B.C. Desai.
3. Data Base Concept by Korth.
4. Simplified Approach to by DBMS Kalyani Publications.
5. Oracle :- Developer 2000 by Ivan Bayross.
6. Data base System Concepts & Oracle (SQL/PIS Q) - AP Publications.

Bachelor of Arts / Bachelor of Science (Economics)
COMPUTER APPLICATION (VOCATIONAL) - SEMESTER–IV
(Session 2019-20)
COURSE CODE: BARM-4124 / BECM - 4124
RELATIONAL DATABASE MANAGEMENT SYSTEMS & ORACLE
(PRACTICAL)

Practical based on Relational Data Base Management System & ORACLE

B. Sc. (Eco.) (Semester –IV)
Session 2019-20
Course Code: BECL-4453
QUANTITATIVE TECHNIQUES–IV

Course Outcomes:

After passing this course students will be able to:

CO1: understand the axiomatic formulation of modern probability theory and think of random variables as intrinsic need for analysis of random phenomena.

CO2: recognise common probability distribution for discrete and continuous variables.

CO3: understand the basic principles underlying survey design and estimation.

CO4: to analyse statistical data collected from sample surveys.

B. Sc. (Eco.) (Semester –IV)
Session 2019-20
Course Code: BECL-4453
QUANTITATIVE TECHNIQUES–IV

Time: 3 Hours **Max. Marks: 100**
Theory: 80
Internal Assessment: 20

Note: Instructions for the Paper–Setters/Examiners:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT–I

Multiple Linear Regression: Concepts, Estimation and Applications (without derivations) of: Partial and Multiple Correlation. Non-Linear Regression: Quadratic and Exponential; Estimation of Fitting of Various Growth Curves (Modified Exponential, Gempertz and Logistic).

UNIT–II

Probability: Definition, Additive & Multiplicative Laws and their Applications, Bayes Theorem, Concept of Random Variable, Probability Mass Function & Density Function, Mathematical Expectation (meaning and properties), Moments, Moment Generating Function and Characteristic Function.

UNIT–III

Theoretical Probability Distributions: Derivations of the properties of Binomial, Poisson, Normal, Beta and Gamma Distributions.

UNIT–IV

Sampling: Various concepts – Population, Sampling Units, Complete Enumeration sample Surveys, Concept of an Estimator and The Standard Error, Standard Error of Estimates. Features of a Good Sample, Random and Subjective Sampling, Simple Random Sampling (with and without replacement), Stratified Random Sampling(applications only).

Books Recommended:

1. Gupta S.C., Fundamentals of Statistic, Himalaya Publishing House, 7th Edition,Delhi
2. Gupta S.P., Statistical Methods, Sultan Chand & Sons, 43rd Edition, Delhi
3. Levin, Richard and David S. Rubin, Statistics for Management, 7th Edition, PrenticeHall of India, New Delhi.
4. Gupta C. B. & Gupta V., An Introduction to Statistical Methods, 23rd Edition, VikasPublications.
5.Spiegel, Andrew F, Practical Business Statistics, International Edition, 5th Edition,McGraw Hill Irwin.

B.Sc. (Eco.) (Semester –IV)
Session 2019-20
Course Code: BECL-4175
INTERNATIONAL ECONOMICS AND PUBLIC FINANCE

Course Outcomes:
After passing this course students will be able to:
CO1: analyze economic relationship between countries, covering trade.
CO2: understand international trade theory and policies.
CO3:understand balance of payment account and mechanism of adjustment in BOP.
CO4:understand the concept of exchange rate determination.
CO5:analyze the functioning of modern public finance.
CO6:argue the theoretical basis of public expenditures and revenue and analyze their types andeconomic effects.

B. Sc. (Eco.) (Semester –IV)
Session 2019-20
Course Code: BECL-4175
INTERNATIONAL ECONOMICS AND PUBLIC FINANCE

Time: 3 Hours **Max. Marks: 100**
Theory: 80
CA: 20

Note: Instructions for the Paper–Setters/Examiners:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT–I

International Trade: Internal and External Trade. Classical and Heckscher-Ohlin Theories,Gains from Trade, Terms of Trade (gross, net and income terms of trade) and Factors affecting Terms of Trade, Trade and economicdevelopment.
Commercial Policy: Free trade vs. protection, rationale of a protectionist policy in lessdeveloped area. GATT & WTO (Introductory).

UNIT–II

Balance of Payments: Meaning and components of balance of payments, Methods forCorrecting adverse balance of payments, devaluation and direct control.
Rate of Exchange: Meaning and determination (PPP and BOP Theory), Fixed and flexible exchange rates.

UNIT–III

Public Finance: Nature, scope importance. Public Expenditure: Meaning, principles, importance, effect of public expenditure on production and distribution.

UNIT–IV

Taxes: Meaning, classification, features of a good taxation system, canons of taxation, incidence and impact of taxation. Public Debt: Meaning, objectives, importance, its burden.

Recommended Texts:

1. Sodersten B.O., International Economics, Macmillan, London.
2. Salvatore B., International Economics, Macmillan Publishing Company, New York.
3. Rana K.C. and K.N. Verma, International Economics, Vishal Publishing Co.
4. Aggarwal M.R., International Institutions and Development in Developing Countries, Deep & Deep Publications, New Delhi.
5. Musgrave, R.A., Theory of Public Finance.
6. Buchanan, J.M., The Public Finance.

BACHELOR OF SCIENCE (Economics)

SEMESTER IV

SOCIAL OUTREACH PROGRAMME

AUDIT COURSE (Value Based)

Course Title: Social Outreach Programme

Course Duration: 30 hours

Course intended for: Semester IV students of undergraduate degree programmes of all streams.

Course Credits: 2

Course Code: SECS- 4522

Course Description:-

The Social outreach programme proposes to equip the students for community upliftment work. It will strive to prepare citizens who will make a marked difference in the society. The students will be provided with numerous opportunities to build their knowledge and skills on the fundamental values of social fairness and compassion.

The programme will focus on integrating academic work with community services. It will equip the students to learn to connect knowledge gained in classroom with real life situation by getting hands on experience through community services. It will also foster the development of civic responsibility. The students will get an opportunity to

- Engage in social service.
- Reflect upon larger issues that affect communities through readings and discussions.
- Integrate academic learning and community engagement through practical field work.
- Develop awareness, knowledge and skills for working with diverse groups in the society.

Expectations:-

The students are expected to be actively engaged in working on any of the projects listed below as volunteers. Evaluation will be based on consistency, commitment and results achieved in areas taken up.

List of Projects under Social Outreach Programmes :

- Working as Motivators under the Swatch Bharat Campaign of the Government,
- Literacy drive : (i). Teaching in the Charitable School Adopted by the College
  (ii). Work in projects undertaken by Rotary Club of Jalandhar for inducting students in child labour Schools.
- Enroll as NSS Volunteers for various projects (Cleanliness, Women health awareness)
- Counseling camps in villages
- Tree plantation (i) Maintaining the trees in the park adopted by the college . in Vikas Puri, Jalandhar
  (ii)Enroll for projects undertaken by JCI Jalandhar City
- Enroll in the Gandhian Studies Centre as student Volunteer for surveys in villages.
- Women Empowerment Programmes in collaboration with JCI Jalandhar Grace
- Generating awareness on voting among the youth.
- Drug Abuse (Generate awareness among the school children)
- Environment Awareness(Reduce Pollution)
- Old Age Homes/Orphanages
- Operating the Empathy Corner outside the college gate.
- Disaster Management/Relief Work

Evaluation /Assessment:

In the beginning of the semester the students after enrolling for one of the Projects offered will be given deadlines for the project.

- Students will be responsible for getting their hours of service recorded with the faculty and also map the progress of their subjects (children, old people, saplings etc.) .
- The respective departments will monitor the involvement of their students
- The students will submit a report of the project taken up by them.
- There will be no written examination, The students will be given grade on the basis of evaluation of the projects by an evaluation committee, comprising of the Dean of the respective streams, Head and two teachers of the concerned department.
- **Total Marks: 25**

Project :20

Internal Assesment:05