

**CBCS CURRICULUM OF
YOGIC SCIENCE HONOURS PROGRAMME
SUBJECT CODE = 12**

FOR UNDER GRADUATE COURSES UNDER RANCHI UNIVERSITY



Implemented from
Academic Session 2019-2022

Members of Board of Studies of CBCS Under- Graduate Syllabus of “B.Sc. in YOGIC SCIENCE” as per Guidelines of the Ranchi University, Ranchi.

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4 Invited Member:-

Dr Niraj
University Department of Chemistry
Ranchi University, Ranchi

Niraj
04/08/2020

T. Sarkar
Chairman 04/08/2020

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IMPORTANT INFORMATIONS FOR YOGIC SCIENCE 'H' PROGRAMME

Admission Criteria : Admission on the Basis of Merit/ Examination
Eligibility : Intermediate/ (10+2)/ equivalent course
Recognised by rules in any stream

*Preference will be given to students having
Certificate in Yoga*

No. of Seats

B.sc in Yogic Science : 55 + 2 BPL + 6 EWS

Tuition Fees

B.sc in Yogic Science : 12000 Rs. Gen/OBC Per semester
11000 Rs. SC/ ST per semester
Free Tuition Fees only for BPL

Security Money : 1000/- (Refundable)

Examination Fee

B.sc in Yogic Science : Examination Fee according to Ranchi University
Guideline for Practical subject.

Dress code

Girl & Boys : Track Suit with T-shirt

Girls : White Salwar Suit with sunshine yellow Dupatta

Boys : White Kurta Pyjama

**Medium of Teaching
& Examination**

: Hindi & English

COURSE STRUCTURE FOR UNDERGRADUATE 'HONOURS' PROGRAMME

Table AI-1: Distribution of Credits [*wherever there is a Practical there will be no tutorial and vice –versa.]

Course	Papers	Credits	
		Theory + Practical	Theory + Tutorial
I. Core Course	(CC 1 to 14)		
Theory	14 Papers	14X4=56	14X5=70
Practical/Tutorial*	14 Papers	14X2=28	14X1=14
II. Elective Course (EC)			
A. Discipline Specific Elective	(DSE 1 to 4)		
Theory	4 Papers	4X4=16	4X5=20
Practical/ Tutorial*	4 Papers	4X2=8	4X1=4
B. Generic Elective/ Interdisciplinary	(GE 1 to 4)		
Theory	4 Papers	4X4=16	4X5=20
Practical/ Tutorial*	4 papers	4X2=8	4X1=4
III. Ability Enhancement Compulsory Courses (AECC)			
1. English/ Hindi Communication	1 Paper	1X2=2	1X2=2
2. Environmental Science	1 Paper	1x2=2	1x2=2
3. Skill Enhancement Course of the Core Course opted	(SEC 1 & 2) 2 Papers	2X2=4	2X2=4
		Total Credit = 140 + 24 =164	140 + 24 = 164

Note:

In the Academic Council Meeting of Ranchi University, Ranchi, held on 29.06.2019, it is resolved that Students will be offered **Two Generic Elective Subjects** (GE-A & GE-B) in C.B.C.S. U.G. Honours Courses of all streams, so that their 'Eligibility for Admission' in P.G., Vocational & Technical Courses in various Institutions is not hampered.

Table AI-1.1: Course structure for B.Sc./ B.A./ B.Com./B.Voc. (Hons. Programme)

Semester	Honours (Core Courses) 14 Papers	Allied (Elective Courses) 8 Papers	Ability Enhancement (Compulsory Courses) 4 Papers	Total Credits
Sem-I	C-1, C-2 (6+6=12 Credits)	GE-1A, GE-1B (6+6=12 Credits)	English Comm. Hindi Comm. (02 Credits)	26 Credits
Sem-II	C-3, C-4 (6+6=12 Credits)	GE-2A, GE-2B (6+6=12 Credits)	EVS (02 Credits)	26 Credits
Sem-III	C-5, C-6, C-7 (6+6+6=18 Credits)	GE-3A, GE-3B (6+6=12 Credits)	SEC-1 (02 Credits)	32 Credits
Sem-IV	C-8, C-9, C-10 (6+6+6=18 Credits)	GE-4A, GE-4B (6+6=12 Credits)	SEC-2 (02 Credits)	32 Credits
Sem-V	C-11, C-12 (6+6=12 Credits)	DSE-1, DSE-2 (6+6=12 Credits)		24 Credits
Sem-VI	C-13, C-14 (6+6=12 Credits)	DSE-3, DSE-4 (6+6=12 Credits)		24Credits

Total = 164 Credits

COURSES OF STUDY FOR UNDERGRADUATE 'YOGIC SC. HONS' PROGRAMME

Table AI-2 Subject Combinations allowed for Yogic Sc. Hons. Programme (164 Credits)

Honours/Core Subject CC 14 Papers	Discipline Specific Elective Subject DSE 4 Papers	Skill Enhancement Course SEC 2 Papers	Compulsory Course AECC 1+1=2 Papers
Yogic Science	Yogic Science Specific	SEC in Yogic Science	Language Communication + EVS

Table AI-2.1 Semester wise Examination Structure for Mid Sem & End Sem Examinations:

Sem	Core Honours, Allied DSE, Compulsory AECC Courses		Examination Structure			
	Code	Papers	Credits	Mid Semester Theory (F.M.)	End Semester Theory (F.M.)	End Semester Practical/ Viva (F.M.)
I	C1	Foundations of Yoga	4	25	75	---
	C1-Pr	Yoga Practicum-I	2	---	---	100
	C2	Introduction to Hath Yoga and it's texts	4	25	75	---
	C2-Pr	Yoga Practicum-II	2	---	---	100
	GE1A	Fundamentals of Biochemistry +Practicum	4+2	---	75	25
	GE1B	Application of Yoga	6	---	100	---
	AECC	Language Communication	2	---	100	---
II	C3	Essence of Principal Upanishads	4	25	75	---
	C3-Pr	Yoga Practicum-III	2	---	---	100
	C4	Patanjala Yoga Darshana	4	25	75	---
	C4-Pr	Spoken Sanskrit	2	---	---	100
	GE2A	Human Anatomy and Physiology-I +Practicum	4+2	---	75	25
	GE2B	Introduction to Yoga and Common Ailments	6	---	100	---
	AECC	EVS	2	---	100	---
III	C5	Essence of Bhagavad Gita for Personality Development	4	25	75	---
	C5-Pr	Yoga Practicum-IV	2	---	---	100
	C6	Yoga and Holistic Health	4	25	75	---
	C6-Pr	Yoga Practicum-V (Teaching practice)	2	---	---	100

	C7	Human Anatomy and Physiology-II	4	25	75	---
	C7-Pr	Human Anatomy and Physiology Practicum-II	2	---	---	100
	GE3A	Basis of Indian Culture + Case Study	4+2	---	75	25
	GE3B	Yoga Psychology	6	---	100	---
	SEC 1	Elementary Computer Application Software	2	---	100	---
IV	C8	Four Streams of Yoga	4	25	75	---
	C8-Pr	Yoga Practicum-VII	2	---	---	100
	C9	Basis of Yoga Therapy	4	25	75	---
	C9-Pr	Yoga Practicum-VIII	2	---	---	100
	C10	Methods of Teaching Yoga	4	25	75	---
	C10-Pr	Field Work	2	---	---	100
	GE4A	Yoga and Human Values + Case Study Reports	4+2	---	75	25
	GE4B	Introduction to AYUSH	4+2	---	100	---
	SEC 2	Sanskrit	2	---	100	---
V	C11	Yoga and Human Consciousness	4	25	75	---
	C11-Pr	Psychology Practicum	2	---	---	100
	C12	Yogic Management of Lifestyle related disorders	4	25	75	---
	C12-Pr	Study Tour	2	---	---	100
	DSE 1	Fundamentals of Naturopathy	6	25	75	---
	DSE 2	Introduction to Ayurveda	6	25	75	---
VI	C13	Applied Yoga	4	25	75	---
	C13-Pr	Practical Statistics	2	---	---	100
	C14	Research Methodology & Statistics	4	25	75	---
	C14-Pr	Research Project	2	---	---	100
	DSE 3	Yoga and Mental Health	6	25	75	---
	DSE 4	Yogic Diet and Nutrition	6	25	75	---

Total Credits = 164**Total Marks = 4400**

SEMESTER I

8 Papers**Total 100 x 8 = 800 Marks****I. ABILITY ENHANCEMENT COMPULSORY COURSE (AECC)**

(Credits: Theory-02)

A. ENGLISH COMMUNICATION**Theory: 30 Lectures****Marks : 100 (ESE 3Hrs) =100****Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be **two** group of questions. **Group A is compulsory** and will contain three questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of 20 marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

OBJECTIVE: To equip students effectively to acquire skills in reading, writing, comprehension and communication, as also to use electronic media for English Communication.

Unit I: Communication – Definition, stages, barriers, types: verbal and non-verbal, Listening- Meaning, Nature and importance, Principles of Good Listening.

Unit II: Class-presentation (Oral for five minutes) on any of the above-mentioned topics: Descriptive writing, expansion of an idea.

Unit III: Writing skills –, notice writing, advertisement writing, précis writing, essay writing, letter writing (applications), Business letter formats (letters of enquiry, replies and complaints), resume writing, covering letter

Unit IV: Vocabulary building: One-word substitution, synonyms and antonyms, idioms and phrases

Suggested Reading:

- Technical Communication*, M.H. Rizvi, Tata McGrawhill
- Effective Business Communication*, Asha Kaul
- Developing Communication Skills*, Krishnamohan
- Functional Grammar and Spoken and Written Communication in English*, Bikram K. Das, Orient Blackswan
- Precis, Paraphrase and Summary*, P.N. Gopalkrishnan, Authors Press
- Communication Skills*, Sanjay Kumar and Pushplata, Oxford Publication

Note: Latest edition of text books may be used.

OR

B. HINDI COMMUNICATION**Theory: 30 Lectures****Marks : 100 (ESE 3Hrs) =100****Pass Marks Th ESE = 40****प्रश्न पत्र के लिए निर्देश****छमाही परीक्षा :**

प्रश्नों के दो समूह होंगे। खण्ड 'A' अनिवार्य है जिसमें तीन प्रश्न होंगे। प्रश्न संख्या 1 में दस अत्यंत लघु उत्तरीय 1 अंक के प्रश्न होंगे। प्रश्न संख्या 2 व 3 लघु उत्तरीय 5 अंक का प्रश्न होगा। खण्ड 'B' में छः में से किन्हीं चार 20 अंको के विषयनिष्ठ/वर्णनात्मक प्रश्नों के उत्तर देने होंगे।

नोट : थ्योरी परीक्षा में पूछे गए प्रत्येक प्रश्न में उप-विभाजन हो सकते हैं।

हिन्दी व्याकरण एवं संप्रेषण**सैद्धान्तिक: 30 व्याख्यान**

- इकाई-1** हिन्दी व्याकरण और रचना,
संज्ञा, सर्वनाम, विशेषण, क्रिया, अव्यय, कारक, वचन, संधि, उपसर्ग, प्रत्यय तथा समास, लिंग निर्णय, पर्यायवाची शब्द, विलोम शब्द, अनेक शब्दों के लिए एक शब्द, शब्द शुद्धि, वाक्य शुद्धि, मुहावरे और लोकोक्तियाँ, पल्लवन एवं संक्षेपण।
- इकाई -2** निबंध कला तथा समसामयिक एवं राष्ट्रीय विषयों पर निबंध लेखन
- इकाई -3** संप्रेषण (संचार)
—संप्रेषण की अवधारण और महत्व, संप्रेषण के लिए आवश्यक शर्तें, संप्रेषण के प्रकार, संप्रेषण का माध्यम, संप्रेषण कला, संप्रेषण की तकनीक, वाचन कला, समाचार वाचन, साक्षात्कार कला, रचनात्मक लेखन का लक्ष्य, रचनात्मक लेखन का आधार, भाव और विचारों की प्रस्तुति, वाक् कला की उपयोगिता।

अनुशंसित पुस्तकें :-

- | | |
|--|-----------------------------------|
| <input type="checkbox"/> वृहत् व्याकरण भास्कर | : डॉ० वचनदेव कुमार |
| <input type="checkbox"/> वृहत् निबंध भास्कर | : डॉ० वचनदेव कुमार |
| <input type="checkbox"/> आधुनिक हिन्दी व्याकरण और रचना | : डॉ० वासुदेव नन्दन प्रसाद |
| <input type="checkbox"/> रचना मानस | : प्रो० रामेश्वर नाथ तिवारी |
| <input type="checkbox"/> व्यवहारिक हिन्दी | : डॉ० जंग बहादुर पाण्डेय |
| <input type="checkbox"/> रचनात्मक लेखन | : डॉ० रमेश गौतम |
| <input type="checkbox"/> राजहंस हिन्दी निबंध | : प्रो० आर० एन० गौड़ |
| <input type="checkbox"/> सफल हिन्दी निबंध | : रत्नेश्वर |
| <input type="checkbox"/> निबंध सहचर | : डॉ० लक्ष्मण प्रसाद |
| <input type="checkbox"/> उपकार मुहावरे और लोकोक्तियाँ | : प्रो० राजेश्वर प्रसाद चतुर्वेदी |
| <input type="checkbox"/> कहानियों कहावतों की | : प्रताप अनम |
| <input type="checkbox"/> सम्प्रेषणपरक हिन्दी भाषा शिक्षण | : डॉ० वैशना नारंग |
| <input type="checkbox"/> शैली विज्ञान | : डॉ० सुरेश कुमार |
| <input type="checkbox"/> शैली विज्ञान प्रतिमान और विश्लेषण | : डॉ० पांडेय शशिभूषण 'शीतांशु' |
| <input type="checkbox"/> शैली विज्ञान का इतिहास | : डॉ० पांडेय शशिभूषण 'शीतांशु' |

II. CORE COURSE –C 1:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

FOUNDATIONS OF YOGA**Theory: 60 Lectures****Course Description**

The subject entitled 'Foundation of Yoga' has the following objectives

- Students of the UG course will have an understanding about origin, history and development of Yoga.
- They will have an idea about the insights of Indian philosophy and Astika & Nastika darshanas.
- Introduction about Yoga according to various yogic texts.

Course outline**Unit-1: General introduction to yoga****[15Hrs.]**

Brief about origin of Yoga: Psychological aspects and Mythological concepts; History and Development of Yoga: prior to the Vedic period, Vedic period, Medieval period, modern era; Etymology and Definitions of Yoga, Aim and Objectives of Yoga, Misconceptions of Yoga; Brief about Streams of Yoga; Principles of Yoga, Importance of Yoga

Unit - 2: General introduction to Indian philosophy**[15Hrs.]**

Philosophy: meaning, definitions and scope; Indian Philosophy: Salient features, Branches (Astika and Nastika Darshanas), Distinction from Religion and Science, Brief introduction to Prasthanatrayee and Purushartha Chatushtaya; Relationship between Yoga and Indian Philosophy

Unit - 3: Brief about Yoga in texts – I**[15Hrs.]**

Brief to Upanishads and Yoga in Principal Upanishads, Yoga in Yogopanishad; Yogic perspective of Epics: Ramayana, Adhyatma Ramayana and Mahabharata; Yogic perspective: Bhagavad Gita, Yoga Vasishtha, Narada Bhakti Sutras

Unit-4: Brief about Yoga in texts – II**[15 Hrs.]**

Yogic perspective: Smritis, Puranas with emphasis to Bhagavat Purana; Yogic perspective to Shad-darshanas; Brief: Agamas, Tantras, Shaiva Siddhanta

Text Books:

- Lal Basant Kumar: Contemporary Indian Philosophy, Motilal Banarsidas Publishers Pvt. Ltd, Delhi, 2013
- Dasgupta S. N: History of Indian Philosophy, Motilal Banarsidas, Delhi, 2012
- Singh S. P: History of Yoga, PHISPC, Centre for Studies in Civilization Ist, 2010
- Singh S. P & Yogi Mukesh: Foundation of Yoga, Standard Publication, New Delhi, 2010

Books for Reference:

- Agarwal M M: Six systems of Indian Philosophy, Chowkhambha Vidya Bhawan, Varanai, 2010
 - Swami Bhuteshananda: Nararad Bhakti Sutra, Advaita Ashrama Publication-Dept. Kolkata, II Edition, 2009
 - Hiriyanna M: Outlines of Indian Philosophy, Motilal Banarsidas, Delhi, 2009
 - Hiriyanna M: Essentials of Indian Philosophy, Motilal Banarsidas, Delhi, 2008
 - Radhakrishnan S: Indian Philosophy, Oxford University, UK (Vol. I & II) II Edition, 2008
 - Max Muller K. M: The six system of Indian Philosophy, Chukhambha, Sanskrit series, Varanasi, 6th Edition, 2008
-

III. YOGIC SCIENCE PRACTICAL–C 1-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

YOGA PRACTICUM-I**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- *Make the students recite the Vedic hymns skillfully.*
- *Understand the concept and principles of Shatkarmas.*
- *Know and understand about breathing practice.*

Unit-1: Recitation of hymns & hasta mudra**[30 Hrs.]**

Recitation of Pratah-smaran and Shanti Mantras; Recitation of Pranava Japa and Soham Japa; Recitation of Hymns from Upanishad & Yoga Texts; Hasta Mudra: Chin, Jnana, Hridaya, Bhairav, Yoni

Unit-2: Shatkarmas**[30 Hrs.]**

Dhauti (Kunjali, Vamana Dhauti, Vastra Dhauti); Neti (Jalneti, Sutrneti); Kapalbhathi and its variants; Agnisara

Unit-3: Breathing practices**[30 Hrs.]**

Breathing practices: Hands in and out, Hands stretch, Ankle stretch, Rabbit, Dog, Tiger, Straight leg raising breathing; Breath Awareness: Shwas-prashwas samyama; Abdomen, Thoracic & Clavicular Breathing, Abdomen+Thoracic Breathing, Abdomen + Thoracic + Clavicular Breathing; Yogic Breathing: Pause Breathing (Viloma Pranayama), Spinal Passage Breathing (Sushumna Breathing); Practice of Puraka, Rechaka & Kumbhaka (Antar & Bahya Kumbhaka)

Unit-4: Continuous evaluation by the Teachers**Text Books:**

- Sri Ananda: The Complete book of Yoga, Orient Course Backs, Delhi, 2003.
- Basavaraddi, I.V. & others: SHATKARMA: A Comprehensive description about Cleansing Process, MDNIY New Delhi, 2009
- Joshi, K.S.: Yogic Pranayama, Oriental Paperback, New Delhi, 2009
- Dr. Nagendra H R: Pranayama, The Art & Science, Swami Vivekananda Yoga Prakashan, Bangalore, 2005

Books for Reference:

- Basavaraddi, I.V. & others: SHATKARMA: A Comprehensive description about Cleansing Process, MDNIY New Delhi, 2009
- Joshi, K.S. : Yogic Pranayama, Oriental Paperback, New Delhi, 2009
- Swami Kuvalyananda: Pranayama, Kaivalyadhama, Lonavla, 2010
- Swami Rama: Science of Breath, A Practical Guide, The Himalayan International Institute, Pennsylvania, 1998
- Swami Niranjananand Saraswati: Prana, Pranayama & Pranvidya, Yoga Publications Trust, Munger, Bihar, 2005.

IV. CORE COURSE- C 2:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100

Pass Marks: Th (MSE +ESE) = 40

Instruction to Question Setter for***Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

INTRODUCTION TO HATHA YOGA AND IT'S TEXTS**Theory: 60 Lectures****Course Description**

By introducing hatha Yoga & its texts, students shall be able to

- Have an understanding about pre-requisites, principles about Hatha yoga.
- Understand the relationship between Patanjala and Raja yoga.
- Have an understanding about the concept of yoga in other yogic texts.

Unit - 1: General introduction to Hatha yoga**[15 Hrs.]**

Hatha Yoga: Origin, Meaning, Definition, Aim, Objectives and Misconceptions, Philosophy and Foundations; Hatha Yoga Parampara; Ghatashudhi: its importance and relevance in Hatha Yoga sadhana; Inter-relation of Hatha Yoga and Raja Yoga

Unit - 2: Pre-requisites**[20 Hrs.]**

Badhaka Tattva (Obstacles) and Sadhaka Tattva (Facilitatory factors) in Hatha Yoga; Concepts of Matha, Concept of Mitahara, Pathya (conducive) and Apathya (non-conducive), Types of aspirants; Dasha Yama and Niyama and its relevance in Hatha Yoga Sadhana; Swara, Importance of Svarodaya-jnana in Hatha Yoga Sadhana; Hatha Siddhi Lakshanam

Unit - 3: Relationship between Patanjala Yoga and Hatha Yoga**[15 Hrs.]**

Patanjala Yoga: Philosophical Foundations of Patanjala Yoga, Ashtanga Yoga of Patanjali, Relevance of Patanjala Yoga in day-to-day life; Hatha Yoga: Philosophical Foundations of Hatha Yoga, Hatha Yoga Sadhana, Chaduranga Yoga and Saptanga Yoga, Relevance of Hatha Yoga in day-to-day life; Inter Relationship between Patanjala Yoga and Hatha Yoga and their inter-dependance.

Text Books:

- Swami Muktibodhananda Saraswati Sahay G.S.: Hatha Yoga Pradeepika, Bihar school of yoga publications, Munger, 2000
- HathaYoga Pradeepika of Svatmarama, MDNIY Publication, 2013
- Sharma BR: Jotsna (Comentory of HathaYoga Pradeepika) Kaivalyadhama, Lonavala, 2013

Books for Reference:

- Gharote, M.M. & others: Therapeutic references in Traditional Yoga Texts, the Lonavla Institute, Lonavla, 2010.
 - Gharote ML: Hatharatnavali, The Lonavala Yoha Institute, Lonavala, Pune, IInd Edition, 2009
 - Briggs GW: Gorakhnatha and the Kanphata Yogis, 8th Edition, 2009
 - Swami Kuvalyananda & Shukla, S.A.: Gorakshasatkam, Kaivalyadhama, Lonavla, 2006
 - Gharote M.L. & Pai, G.K. (Edi): Siddhasidhantpaddhati, Kaivalyadhama, Lonavla, 2005.
 - Burley, Mikel: Hatha Yoga, Its Context Theory and Practice, M.L.B.D. Delhi, 2000.
 - Swami Digambarji & Gharote M.L.: Gheranda Samhita, Kaivalyadhama, Lonavla, 1978.
 - Swatmaramaji: Hathapradipika (Jyotsana- tika), Adyar Library, Madras.
 - Bharati, Swami Veda Reddy Venkata: Philosophy of Hatha Yoga (English), Himalayan, Pennsylvania, Hatha Ratnavali
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V. YOGIC SCIENCE PRACTICAL–C 2-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

YOGA PRACTICUM-II**60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- *Understand the concept and principles of Sukshma and Sthula vyayama.*
- *Explain and demonstrate the above mentioned practices skillfully.*
- *Have a indepth understanding about Surya namskara and Yogasanas*

Unit-1: Yogic suksma and sthula vyayama**[20 Hrs.]****1.1 Yogic suksma vyayama**

Uccharana-sthala tatha Vishudha-chakra-shuddhi (for throat and voice);

Prarthana (Prayer) Buddhi-tatha-dhriti shakti-vikasaka (for developing will power);

Smarana shakti- vikasaka (for improving the memory);

Medha shakti-vikasaka (for improving the intellect and memory);

Netra shakti-vikasaka (for the eyes);

Kapola shakti-varadhaka (for the cheeks);

Karna shakti-varadhaka (for the ears);

Griva shakti-vikasaka (for the Neck) (i), (ii) and (iii),

Skandha-tatha-bahu-mula shakti-vikasaka (for the shoulders),

Bhuja-bandha shakti-vikasaka, Kohini shakti-vikasaka, Bhuja-valli shakti-vikasaka, Purna-bhuja shakti- vikasaka (for the arms),

Mani-bandha shakti-vikasaka, Kara-prstha shakti-vikasaka, Kara- tala shakti-vikasaka, Anguli-mula shakti-vikasaka (for the fingers),

Anguli- shakti-vikasaka (for the fingers),

Vaksa-sthala shakti-vikasaka (for the chest)

(1), Vaksa-sthala shakti- vikasaka (for the chest)

(2), Udara shakti-vikasaka (for the abdomen) (i) to (x);

Kati shakti- vikasaka (for the waist) (i) to (v), Muladhara-chakra-suddhi (for the rectum),

Upastha tatha-svadhithana-chakra-suddhi (for the genital organs),

Kundalini shakti-vikasaka (for the kundalini),

Jangha shakti-vikasaka (for the thighs) (i) & (ii),

Jangha shakti-vikasaka (for the thighs) (ii) ,

Janu shakti-vikasaka (for the knees),
 Pindali shakti-vikasaka (for the calves),
 Pada-mula shakti-vikasaka, Gulpha-pada-pristha-pada-tala-shakti-vikasaka (for the ankles and the feet),
 Padanguli shakti-vikasaka (for the toes)

1.2 Yogic sthula vyayama **[10 Hrs.]**

Rekha-gati (Walking in a Straight line),
 Hrid-gati (Injanadaur – the Locomotive Exercise),
 Utkurdana (Jumping Exercise),
 Urdhva-gati (Upward Movement),
 Sarvanga-pusti (Developing the Entire body)

Unit- 2: Surya namaskara **[10 Hrs.]**

Unit-3: Yogasana (Standing Postures and body alignment) **[15 Hrs.]**

Unit-4: Continuous evaluation by the Teachers

Tadasana, Vrikshasana, Urdhva-Hastottanasana, Kati Chakrasana, Ardha Chakrasana, Paada Hastasana, Trikonasana, Parshva Konasana, Veerabhadrasana and its variations

Text Books:

- Swami Dharendra Bhramhachari: Yogic Sukshma Vyayama, Dharendra Yoga Publications, New Delhi, 1980
- Swami Dharendra Bhramhachari: Yogasana Vijnana, Dharendra Yoga Publications, New Delhi, 1966

Books for Reference:

- Swami Kuvalyananda: Asana, Kaivalyadhama, Lonavla, 1993
 - Swami Satyananda Saraswati: Asana, Pranayama, Bandha, Mudra, Bihar School of Yoga, Munger, 2006
 - Basavaraddi, I.V. & others: YOGASANA: A Comprehensive description about Yogasana, MDNIY, New Delhi, 2011.
 - Basavaraddi, I.V. & others: Yogic Sukshma Evam Sthula Vyayama, MDNIY, New Delhi, 2011
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VI. GENERIC ELECTIVE (GE 1A):

(Credits: Theory-04, Practicals-02)

Marks : 75 (ESE 3Hrs) =75**Pass Marks (Th + Pr ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

FUNDAMENTALS OF BIOCHEMISTRY**Theory: 60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand the biomolecules and their role in our body.
- Have an understanding about the protein, carbohydrate, lipid metabolism.
- Understand the role of Biochemistry and its test as the indicators to know about the progress of a disease.

Unit - 1: Introduction to Bio-chemistry

Introduction to Bio-chemistry; chief intracellular components; Introduction to chemical receptors/co-receptors, cell to cell communication, channels & transportation; Definition and classification of Vitamins and their Clinical importance; Biological Oxidation, General Concept of oxidation, features of cellular Oxidations-respiratory chain oxidative phosphorylations

Unit – 2: Metabolism of carbohydrates

Carbohydrates: Definition, classification with examples and general functions; Basics of Carbohydrate Metabolism (I) - Glycolysis; Aerobic and Anerobic, metabolism of glycogens; glycogenesis, glycogenolysis, glyconeogenesis, Regulation of glycogen metabolism; Basics of Carbohydrate Metabolism (II) - Kreb's Cycle (T.C.A).

Unit-3: Metabolism of lipids and proteins

Lipids: definition, classifications and general functions; Intoduction to essential fatty acids, cholesterol, Blood lipids, brief review of lipoproteins; Basics of Lipid Metabolism - Oxidation of fatty acids, cholesterol synthesis and fatty liver; Proteins: definition, classification and Bio- medical Importance, Plasma Proteins and functions; Definition, classification and nomenclature of Enzymes, basic introduction to Enzymology and regulation of Enzymatic activity

Unit- 4: Functional Bio-chemistry

Introduction to hormones, molecular basis of hormonal action; Introduction to common metabolic disorders; Basic techniques for estimation of different Bio-chemical markers i.e., diffusion, Osmosis.

Text Books:

- Pankaja Naik: Bio-chemistry, Jaypee Brothers Medical Publishers Ltd, Delhi, 2010
- Jacob Anthikad: Bio-chemistry for Nurses, Jaypee Brothers Medical Publishers Ltd, Delhi, 2008
- K. Malhotra: Bio-chemistry for Students, Jaypee Brothers Medical Publishers Ltd, Delhi, 2012
- N. Haridas: Bio-chemistry made easy: A Problem (Solving) based approach, Jaypee Brothers Medical Publishers Ltd, Delhi, 2012
- Arvind S Yadav: Comprehensive practical and Viva in Bio-chemistry, Jaypee Brothers Medical Publishers Ltd, Delhi, 2004

Books for Reference:

- Robert K Murray & others: Harper's Illustrated Bio-chemistry, 26th Edition, 2003, McGraw Hill, US Shankara, Shivaraja,
 - M. K. Ganesh: Practicum Manual of Practical Biochemistry, Jaypee Brothers Medical Publishers Ltd, Delhi, 2008
 - K. Sawhney & Randhir Singh: Introductory Practical Biochemistry, 2nd edition, Alpha Science International Ltd. 2005
 - Chawala Ranjana: Clinical Biochemistry (Methods & Interpretations), 3rd edition, Jaypee Brothers medical Publishers ltd. 2006
 - Rajesh Karajgaonkar: Clinical Biochemistry, Jaypee, 2008
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VII. GENERIC ELECTIVE PRACTICAL (GE 1A-Pr):

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =25

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

BIOCHEMISTRY PRACTICUM**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand the principle and procedure of each experiment.*
- Demonstrate each experiment skillfully.*
- Interpret the result during experiment.*

Unit-1: Demonstration

Identification and Analysis of Constituents in Normal Urine –Urea-Uric acid – creatinine – Calcium and Phosphorous – Sulphate Ammonia – Chloride; Identification and Analysis of glucose, fructose, lactose, maltose, sucrose; Identification and Analysis of Albumin, Casein, gelatin; Identification and Analysis of Blood glucose; Identification and Analysis of Blood Urea; Identification and Analysis of Urinary creatinine; Identification and Analysis of Gastric juice.

Unit-2: Writing of Procedure and repetition of all the above mentioned biochemical tests**Unit-3: Teacher's continuous evaluation****Text Books:**

- Keith Wilson & John Walker: Principles & Techniques of Practical Biochemistry, 5th edition
- V.K. Malhotra: Practical Biochemistry for students, 4th edition, 2008, 12th edition 2012, Jaypee Brothers medical Publishers Ltd.

Books for Reference:

- Shruti Mohanty & Aparna B. Varma: Practical Clinical Biochemistry, Jaypee Brothers medical Publishers Ltd. 2013
 - D.M. Vasudewan & Subir Kumar Das: Practical Textbook of Biochemistry for medical students, Jaypee Brothers medical Publishers Ltd. 2013
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VIII. GENERIC ELECTIVE (GE 1B):

(Credits: 06)

Marks : 100 (ESE 3Hrs) =100**Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be two group of questions. Group A is compulsory and will contain three questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2& 3 will be short answer type of 5 marks. Group B will contain descriptive type six questions of 20 marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

APPLICATION OF YOGA**Theory: 60 Lectures****Unit-1: Yoga in School****[15 Hrs.]**

General Introduction to School Health, components of school health; Parent-Teacher-Student relationship in a School Health; Role of social interaction in a School Health; Role of Yoga in establishment of values in School going children; Personality; Development: New Dimensions of Personality through Yoga

Unit-2: Yoga for Sports**[15 Hrs.]**

General introduction to Physical Education and Sports; Difference between Physical; Education & Sports; Relevance of Integration of Yoga in Physical Education & Sports; Yoga for Physical, Mental Stamina and other faculties / skills in a sports Personnel; Application of Yogic lifestyle in improving efficacy in sports personnels; Relationship between Yoga and sports activities

Unit-3: Yoga for Stress**[15 Hrs.]**

Introduction to stress, its causes; Role of Yoga in prevention of stress

Unit-4: Yoga for Elderly Population**[15 Hrs.]**

General introduction to Geriatrics; Application of Yoga in promotion of general wellbeing of Geriatric population.

Text Books:

- Basavaraddi I V : Yoga in School Health, MDNIY New Delhi, 2009
- Iyenger B K S : Astadala Yogamala 1 to 7 volumes, Allied Publishers Pvt. Ltd, 2009
- Jayadev H J : Growing with Yoga, The Yoga Institute, Santacruz, Mumbai, 2004
- Liz Lark : Yoga for Kids, Carlton Books Ltd., London, 2003
- Swati & Rajiv Chanchani : Yoga for Children: A complete illustrated guide to Yoga, UBS Publishes Distributors Pvt. Ltd, 2008

Books for Reference:

- Iyenger B K S : The Path to Holistic Health, A Dorling Kindersley Book, Great Britain, 2001
- Dr. Goel Aruna : Yoga Education: Philosophy and Practice, Deep & Deep Publications Pvt. Ltd, 2007
- Dr. H Kumar Kaul : Yoga and Healthy Ageing, BR Publishing Corporation, Delhi, 2006

SEMESTER II

8 Papers**Total 100 x 8 = 800 Marks****I. ABILITY ENHANCEMENT COMPULSORY COURSE (AECC)**

(Credits: Theory-02)

Marks : 100 (ESE: 3Hrs) =100	Pass Marks Th ESE = 40
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*Instruction to Question Setter for**End Semester Examination (ESE):**There will be **objective type test** consisting of hundred questions of 1 mark each. Examinees are required to mark their answer on **OMR Sheet** provided by the University.***AECC – ENVIRONMENT STUDIES****Theory: 30 Lectures****Unit 1 : Introduction to environmental studies**

Multidisciplinary nature of environmental studies;
 Scope and importance; Concept of sustainability and sustainable development.

(2 lectures)**Unit 2 : Ecosystems**

What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :

Forest ecosystem

Grassland ecosystem

Desert ecosystem

Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(2 lectures)**Unit 3 : Natural Resources : Renewable and Non--renewable Resources**

Land resources and landuse change; Land degradation, soil erosion and desertification.

Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.

Water : Use and over--exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter--state).

Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

(5 lectures)**Unit 4 : Biodiversity and Conservation**

Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots

India as a mega--biodiversity nation; Endangered and endemic species of India

Threats to biodiversity : Habitat loss, poaching of wildlife, man--wildlife conflicts, biological invasions; Conservation of biodiversity : In--situ and Ex--situ conservation of biodiversity.

Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(5 lectures)

Unit 5 : Environmental Pollution

Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution

Nuclear hazards and human health risks

Solid waste management : Control measures of urban and industrial waste.

Pollution case studies.

(5 lectures)

Unit 6 : Environmental Policies & Practices

Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture

Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).

Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(4 lectures)

Unit 7 : Human Communities and the Environment

Human population growth: Impacts on environment, human health and welfare.

Resettlement and rehabilitation of project affected persons; case studies.

Disaster management : floods, earthquake, cyclones and landslides.

Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.

Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.

Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(3 lectures)

Unit 8 : Field work

Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.

Visit to a local polluted site--Urban/Rural/Industrial/Agricultural.

Study of common plants, insects, birds and basic principles of identification.

Study of simple ecosystems--pond, river, Delhi Ridge, etc.

(Equal to 4 lectures)

Books for Reference:

- Raziuddin, M., Mishra P.K. 2014, *A Handbook of Environmental Studies*, Akanaksha Publications, Ranchi.
 - Mukherjee, B. 2011: *Fundamentals of Environmental Biology*. Silverline Publications, Allahabad.
 - Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
 - Gadgil, M., & Guha, R. 1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
 - Gleeson, B. and Low, N. (eds.) 1999. *Global Ethics and Environment*, London, Routledge.
 - Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
 - Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll. *Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
 - Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.
 - McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.
 - McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
 - Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
 - Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
 - Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
 - Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
 - Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
 - Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
 - Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
 - Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
 - Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
 - Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
 - Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
 - World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University
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II. CORE COURSE –C 3:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

ESSENCE OF PRINCIPAL UPANISHADS**Theory: 60 Lectures****Course Description**

Following the completion of this course, student will be able to

- Have an idea about the major principal Upanishads
- Understand the essence of each Upanishad and how to put them into practice.
- Understand each Upanishad and the role of it in our day to day life.

Unit-1: Introduction essence of Isha and Kenopanishad**[15 Hrs.]**

An Introduction to Upanishadic Philosophies; Antiquity of Upanishads; Prasthanatraya; **Ishavasyopanishad:** JnanaNishtha (Ish.1), Karma Nishtha (Ish.2), All compassion Brahman (Ish.5), Nature of Sage (Ish.6, 7), Prayer of dying Man (Ish.15); **Kenopanishad:** The inscrutable being (Kena-I.2, 3 ,4,6) (Kena II.2,3), Greatness of self Knowledge (KenaII.5)

Unit-2: Essence of Katho and Prashnapanishad**[15 Hrs.]**

Kathopanishad: Futility of earthly pleasure (Katha I.i.26, 27); Glory of wisdom of self (Katha I.ii.1, 5, 6, 7, 12); Atman is immortal (Katha I.ii.18); Conditions of knowing that (Katha I.ii.23,24); Prashnapanishad: Sun, the life of creatures, The all inclusiveness of Brahman, The state of becoming the soul

Unit-3: Essence of Mundaka, Mandukya and Taittiriya**[15 Hrs.]**

Mundaka: The greatness of Brahmailydia, The worthlessness of Selfish-karma, Tapas and Gurubhakti, Mandukyopanishad: All this is Brahman, The fourth state of being, Introduction of Taittiriya Upanishad.

Unit- 4: Essence of Aitareya, Chandogya and Brihadaranyaka**[15 Hrs.]**

Aitareya: Everything is only that Atman, All this is Brahman only; Chandogya: The meditation on udgithaomkara, Sandilyavidya, The necessity for a guru, The supreme instruction, Need for understanding, Bhumavidya, Know the Atman; Brihadaranyakam: A prayer of the devotee, The self is the dearest, the self is the absolute, The death of the jnana, How to know the secret Atman, The ocean of the absolute.

Books for Reference:

- Karl E. Case and Ray C. Fair, Principles of Economics, Pearson Education Inc., 8th Edition, 2007
- N. Gregory Mankiw, Economics: Principles and Applications, Indian edition by South western, a part of Cengage learning, Cengage Learning India Private Limited, 4th edition, 2007

- Joseph E. Stiglitz and Carl E. Walsh, Economics, W.W. Norton & Company, Inc., New York, international Student Edition, 4th Edition, 2007.

III. YOGIC SCIENCE PRACTICAL–C 3-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100

Pass Marks: Pr (ESE) = 40

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 60 marks</i>
<i>Practical record notebook</i>	<i>= 20 marks</i>
<i>Viva-voce</i>	<i>= 20 marks</i>

YOGA PRACTICUM-III

60 Lectures

Course Description

Following the completion of this course, student will be able to

- Have an idea about the major principal Upanishads
- Understand the essence of each Upanishad and how to put them into practice.

Unit-1: Shatkarma

[15 Hrs.]

Dhauti, Neti, Nauli Madhyama, Vama, Dakshina and Nauli Chalana, Trataka (Jatru and Jyoti)

Unit-2: Pranayama

[15 Hrs.]

Nadi Shodhana (Technique 1: Same Nostril Breathing), Nadi Shodhana (Technique 2: Alternate Nostril Breathing), Nadi Shodhana (Technique 3: Alternate Nostril Breathing + Antar kumbhak); Nadi Shodhana (Puraka + Antar Kumbhak + Rechaka + Bahya Kumbhak) (1:4:2:2); Bhramari Pranayama

Unit-3: Practices leading to meditation

[15 Hrs.]

Pranav and Soham Japa; Yoga Nidra (1,2,3); Antarmauna; Ajapa Dharana (Stage 1, 2, 3); Mind sound resonance technique (MSRT)

Unit- 4: Continuous evaluation by the Teachers

[15 Hrs.]

Text Books:

- Swami Niranjanananda Saraswati: Asana Pranayama Mudra Bandha; Bihar school of yoga publications; Munger, 2001
- Swami Niranjanananda Saraswati: Dharana Darshan; ; Bihar school of yoga publications; Munger, 2001

Books for Reference:

- Basavaraddi I. V. & Others: Teachers Manual for School Teachers, MDNIY, New Delhi, 2010
- Joshi, K.S.: Yogic Pranayama, Oriental Paperback, New Delhi.
- Swami Kuvalyananda: Pranayama, Kaivalyadhama, Lonavla, 2009
- Iyengar, B.K.S.: Light on Pranayama, Harper Collins, Swami Vivekanand Yoga Prakashan, 2012
- Nagendra, H.R: The Art and Science of Pranayama, Swami Vivekanand Yoga Prakashan, 2005, Bangoore.
- Nagendra, H.R: Mind sound resonance technique, Swami Vivekanand Yoga Prakashan, 2002, Bangoore.

IV. CORE COURSE- C 4:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100

Pass Marks: Th (MSE +ESE) = 40

Instruction to Question Setter for***Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

PATANJALA YOGA DARSHANA**Theory: 60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand various modification of mind and the means of inhibiting them.
- Have an understanding about the essence of Samadhi and Sadhana Pada.
- Undertand the essence of Vibhuti and Kaivalya pada.

Unit - 1: Introduction to Yoga darshana of Patanjali and concept of Citta, citta bhoomis**Citta vrittis and Citta vritti nirodhopaya****[15 Hrs.]**

Brief Introduction to Maharshi Patanjali and Patanjala Yoga Sutra (P.Y.S.), Brief Introduction to traditional commentators and commentaries of Patanjala Yoga Sutra (Vyasa Bhasya, Tatvavaisharadi, Bhoja Vritti and Yoga-vartika); Concept of Mana, Buddhi, Ahankar and Chitta; Concept of Citta Bhoomis (Kshipta, Mood, Vikshipta, Ekagra, Nirudha); Concept of Citta-Vrittis and their classification, Citta-Vritti Nirodhopaya (Abhyasa and Vairagya); Concept of Ishwar and Ishwar Pranidhana, Qualities of Ishwar, Concept of Samprajnata; Citta-Vikshepas (Antarayas), Concept of Citta-prasadanam, Relevance of Citta-prasadanam in Yoga Sadhana.

Unit - 2: Samadhi pada**[15 Hrs.]**

Concept of Yoganushasanam, Yoga Lakshanam and its results; Types of Samadhi (Samprajnatah and Asamprajnatah Samadhi); Types of Samprajnatah Samadhi (Vitarka, Vichara, Anand and Ashmita); Concept of Samapatti and kinds of Samapatti (Savitraka and Nirvitarka, Savichara and Nirvichara); Types of Asamprajnatah Samadhi (Bhavapratyaya and Upayapratyaya).

Unit-3: Sadhana pada**[15 Hrs.]**

Concept of Kriya Yoga of Patanjali, theory of Kleshes (Avidya, Ashmita, Raga, Dewesh, Abhinevesh); Concept of Dukhavada (Heya, Hetu, Hana, Hanopaya) Drishta and Drishanirupanam (Prakriti), Drastunirupanama (Purusha), PrakritiPurushaSamYoga; Brief

Introduction to Ashtanga Yoga; Concept of Asana and Pranayama and their Siddhis;
Concept of Pratyahara and its Siddhis.

Unit - 4: Vibhuti and Kaivalya Pada

[15 Hrs.]

Introduction of Dharana, Dhyana and Samadhi, Samyama and its Siddhis; Three types of Chitta Parinamah; Bhoota jaya, Indriya jaya and their Siddhis.

Text Books:

- Swami Digambara Ji and others: Glossary of the Samkhakarika, Kaivalyadhama, Lonavala, 2012
- Swami Virupaksananda: Samkhyakarika of I svarakrisna (with tattva Kamudia of Vachapati Mishra), Sri Ram Krishana Matha Madras, 1995
- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004

Books for Reference:

- V.V. Sovani: A critical study of the Sankhya System, Chukhambha Sanskrit Pratisthan, New Delhi, 2005
 - M.R. Yardi: The Yoga of Patanjali, Bhandarkar Oriental Research Institute, Poona, India, 1970
 - K.D. Prithvipaul: The Yogasurta of Patanjali M.L.B.D. New Delhi
 - Gaspar M. Koelmenn, S.J: Patanjali Yoga, Papal Athenaeum, Poona, 1970
 - Swami Ved Bharti: Yogasutra of Patanjali (with the Exposition of Vyasa) M.L.B.D. New Delhi, 2004, Vol I & II
-

V. YOGIC SCIENCE PRACTICAL–C 4-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40****Instruction to Question Setter for
End Semester Examination (ESE):**

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment	= 60 marks
Practical record notebook	= 20 marks
Viva-voce	= 20 marks

SPOKEN SANSKRIT**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Read and understand the colloquial words of Sanskrit.
- Communicate and comprehend Sanskrit to the best of their ability.
- Write in Sanskrit and have some idea about grammar.

Unit-1: संस्कृतभाषा परिचय ।

संस्कृतभाषा परिचय, योगशास्त्र के अध्ययन में संस्कृत का महत्व और योग एवं संस्कृत का अन्तःसम्बन्ध । माहेश्वरसूत्र । संस्कृतवर्णमाला, स्वर, व्यंजन वर्गज्ञान सहित (रोमन लिपि में लेखन एवं पठन); वर्णों के उच्चारणस्थान और प्रयत्न ज्ञान । प्रत्याहार निर्माण विधि एवं प्रत्याहार ज्ञान । कारक, विभक्ति (सुप् और तिङ्.), लिङ्ग, वचन पुरुष, लकार एवं वाक्याङ्ग परिचय । संस्कृत संख्याएं (एक से सौ तक)

Unit-2: शब्दरूप ।

अजनतशब्दरूप—राम, बालिका, पुस्तक, मुनि, रूचि, वारि शब्दों के रूप में अर्थज्ञान सहित । अजन्तशब्दरूप—नदी, भानु, धेनु, मधु, पितृ, मातृ, शब्दों के रूप अर्थज्ञान सहित । सर्वनाम शब्दरूप—अस्मद्, युष्मद्, तत् (तीनो लिङ्गों में), एतद् (तीनो लिङ्गों में), किम् (तीनो लिङ्गों में); 4 सर्व (तीनो लिङ्गों में), भवत् (तीनो लिङ्गों में), शब्दों के रूप अर्थज्ञान सहित । हलन्तशब्दरूप— भगवत्, आत्मन्, नामन्, जगत् शब्दों के रूप अर्थज्ञान सहित ।

Unit-3: धातुरूप ।

भू, अस्, पठ्, मुद्, कृ, लिख्, नम्, दृष् धातुओं के पांच लकारों (लट्, लृट्, लङ्., लोट्, लिङ्.) में रूपज्ञान एवं वाक्य निर्माण अर्थज्ञान सहित । वद्, गम्, स्था, पा (पिब) दा, षक्, आप्, प्रच्छ् धातुओं के पांच लकारों (लट्, लृट्, लङ्., लोट्, लिङ्.) में रूपज्ञान एवं वाक्य निर्माण अर्थज्ञान सहित । ज्ञा, कथ्, चिन्त्, ब्रू, श्रु, नी, याच्, खाद्, षीङ्. धातुओं के पांच लकारों (लट्, लृट्, लङ्., लोट्, लिङ्.) में रूपज्ञान एवं वाक्य निर्माण अर्थज्ञान सहित । प्रथमदीक्षा के प्रथम एवं द्वितीय अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास ।

Unit-4: वाक्यनिर्माण ।

प्रथमदीक्षा के तृतीया अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास । प्रथमदीक्षा के चतुर्थ अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास । प्रथमदीक्षा के पंचम अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास । प्रथमदीक्षा के षष्ठ अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास ।

Text Books:

- Moorty CLN : First Book of Sanskrita, Chaukhabha Sanskrit Series, Varanasi, 2010
- Max Muller : A Sanskrit Grammar Parimal Publication, Delhi, 2012
- Goldmom P R : Devavanopraivesika : An introduction to the Sansrit languages, MLBD, New Delhi , 2011

Books for Reference:

- Perry E D : A Sanskrit Primer, MLBD, New Delhi, 2004
 - Kala MR : A Higher Sasnkrit Grammer for college students, MLBD, New Delhi, 2011
 - द्विवेदी कपिल देव : प्रारिम्भक रचनानुवाद कौमुदी ;विश्वविद्यालय प्रकाशन वाराणसी, 2011
 - द्विवेदी कपिल देव: रचनानुवादकौमुदी; विश्वविद्यालय प्रकाशन वाराणसी, 2011
 - द्विवेदी कपिल देव: रचनानुवादकौमुदी; विश्वविद्यालय प्रकाशन वाराणसी, 2007
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VI. GENERIC ELECTIVE (GE 2A):

(Credits: Theory-04, Practicals-02)

Marks : 75 (ESE 3Hrs) =75**Pass Marks (Th + Pr ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

HUMAN ANATOMY AND PHYSIOLOGY-I**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able:

- To know about the structure of the body
- To know about the necessary functions of the body
- To give brief idea about the diseases related to each system
- To throw light on anatomy so that student can experience the involvement of their body parts while practicing various postures of yoga

Unit-1: Cell, Tissue and Muscular – Skeletal system [15Hrs]

Cell structure –Plasma membrane and protoplasm; Cell organelles –Mitochondria, Golgi body, Endoplasmic reticulum, Lysosome, Peroxisome, Centrosome, Nucleus-Nuclear membrane, chromosome, nucleolus; Homeostasis; Structure and function of epithelial - simple and compound; Connective -connective tissue proper, skeletal and vascular; Muscular - Skeletal, involuntary and cardiac; Nervous tissues-Myelinated neuron and Non myelinated neuron; Anatomy of the Skeleton: Classification of bones-Axial bones and appendicular bones; Types of joint –Synovial joints and Fibrous joint; Structure of synovial joints ; Types of synovial joints; Types of Muscle in the body(striated, Smooth muscle, Cardiac muscle); Mechanism of muscle contraction

Unit-2: Biomolecules, Digestive and Respiratory system [15 Hrs]

Carbohydrates; Fats; Proteins; Minerals; Vitamins (fat soluble and water soluble); Dietary fibres Balanced diet; **Digestive system:** Digestive system of human-Mouth, buccal cavity, Pharynx, oesophagus, stomach, large intestine, small intestine, anus, associated glands-Liver, Pancreas, salivary glands, physiology of digestion and absorption; Malnutrition and under nutrition; Respiratory system of human-Nose, nasal cavity, pharynx, Trachea, Larynx, bronchiole, lungs; Mechanism of breathing (Expiration and inspiration); Transport of respiratory; gases (transport of oxygen and transport of carbon dioxide); Common respiratory disorder.

Unit-3: Cardiovascular system [15 Hrs]

Composition and function of blood –Plasma, RBC, WBC and Platelet; Blood groups and their importance; Blood clotting; Structure and working mechanism of heart; Organisation of systemic and pulmonary circulation; Cardiac output and cardiac cycle; Functional anatomy of blood; vessels; Blood pressure and regulation of blood pressure

Text Books:

- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004
- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004

Books for Reference:

- V.V. Sovani: A critical study of the Sankhya System, Chukhambha Sanskrit Pratisthan, New Delhi, 2005
- M.R. Yardi: The Yoga of Patanjali, Bhandarkar Oriental Research Institute, Poona, India, 1970

VII. GENERIC ELECTIVE PRACTICAL (GE 2A-Pr):

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =25

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 15 marks</i>
<i>Practical record notebook</i>	<i>= 05 marks</i>
<i>Viva-voce</i>	<i>= 05 marks</i>

HUMAN ANATOMY AND PHYSIOLOGY PRACTICUM-I**60 Lectures****Course Description**

The objectives behind teaching Anatomy and Physiology is to

- Make students familiar with the systems of the body.
- Give a hand on experience about the human body using models, charts and pictures.
- Make students understand the organization of the body with respect to structural components.

Unit-1: Demonstration of Osteology & Myology	[15 Hrs.]
Unit-2: Demonstration of Organs and Viscera	[15 Hrs.]
Unit-3: Demonstration of Bones, Joints	[15 Hrs.]
Unit-4: Demonstration of Human Skeleton	[15 Hrs.]

VIII. GENERIC ELECTIVE (GE 2B):

(Credits: 06)

Marks : 100 (ESE 3Hrs) =100**Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be two group of questions. Group A is compulsory and will contain three questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2& 3 will be short answer type of 5 marks. Group B will contain descriptive type six questions of 20 marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

INTRODUCTION TO YOGA AND COMMON AILMENTS**Theory: 60 Lectures****Unit-1: CARDIORESPIRATORY DISORDERS****[15 Hrs.]**

Modern Medical and Yoga therapy principles and practices for diseases related to: Yogic management of Cardio-Vascular Disorders: Ischemic heart disease; Hypertension; Peripheral vascular disease Respiratory Disorders: Bronchial asthma; Chronic Obstructive; Pulmonary Disorder (COPD); Allergic rhinitis; Pulmonary; tuberculosis; Sleep apnea; Snoring

Unit-2: NEURO MUSCULAR DISORDERS**[15 Hrs.]**

Yogic management of Muscle and Bone Disorders: Pain in the limbs; and back; Rheumatoid arthritis; Osteoarthritis; Connective tissue disorders; Muscular dystrophy ; Neurological Disorders: Migraine & Tension headache; Cerebro-vascular accidents; Epilepsy; Pain; Autonomic dysfunctions; Idiopathic Parkinson's disease; Multiple sclerosis; Refractory errors of vision; Psychological Medicine: Neurotic disorders; mood disorders; Schizophrenia; Chemical abuse; Eating disorders; Phobias; Mental retardation; Obsessive compulsive disorder.

Unit-3: DIGESTIVE, ENDOCRINE & METABOLIC DISORDERS**[15 Hrs.]**

Yogic management for Digestive Disorders: Acid peptic disease; Irritable bowel syndrome; Hepatitis; Endocrine & Metabolic Disorders: Diabetes mellitus; Thyroid dysfunction; Disorders of adrenal cortex; Obesity

Unit-4: OBSTETRICS & GYNECOLOGICAL DISORDERS**[15 Hrs.]**

Yogic management for Pregnancy induced hypertension; Pre-eclampsia; Intra-Uterine Growth Retardation (IUGR); menstrual disorders (e.g., dysmenorrheal, pre-menstrual syndrome); Infertility; Menopause

Text Books:

- Dr R Nagarathna, Dr H R Nagendra and Dr Shamanthakamni, Yoga for common ailments and IAYT for different diseases, Swami Vivekananda Yoga Prakashana, Bangalore, 2002.

SEMESTER III

10 Papers**Total 100 x 10 = 1000 Marks****I. SKILL ENHANCEMENT COURSE SEC 1:**

(Credits: Theory-02)

Marks : 100 (ESE: 3Hrs) =100**Pass Marks Th ESE = 40***Instruction to Question Setter for**End Semester Examination (ESE):**There will be **objective type test** consisting of hundred questions of 1 mark each. Students are required to mark their answer on **OMR Sheet** provided by the University.***ELEMENTARY COMPUTER APPLICATION SOFTWARES:**

A Common Syllbus Prescribed by Ranchi University

Theory: 30 Lectures**Objective of the Course***The objective of the course is to generate qualified manpower in the area of Information Technology (IT) and Graphic designing which will enable such person to work seamlessly at any Offices, whether Govt. or Private or for future entrepreneurs in the field of IT.***A. INTRODUCTION TO COMPUTER SYSTEM****Basic Computer Concept**Computer Appreciation - Characteristics of Computers, Input, Output, Storage units, CPU, Computer System. **(1 Lecture)****Input and Output Devices**

Input Devices - Keyboard, Mouse, joystick, Scanner, web cam,

Output Devices- Soft copy devices, monitors, projectors, speakers, Hard copy devices, Printers – Dot matrix, inkjet, laser, Plotters. **(4 lectures)****Computer Memory and Processors**

Memory hierarchy, Processor registers, Cache memory, Primary memory- RAM, ROM, Secondary storage devices, Magnetic tapes, Floppy disks, hard disks, Optical Drives- CD-ROM, DVD-ROM, CD-R, CD-RW, USB Flash drive, Mass storage devices: USB thumb drive. Managing disk Partitions, File System. Basic Processor Architecture, Processor speed, Types of processor.

(5 lectures)**Numbers Systems and Logic Gates**

Decimal number system, Binary number system, Octal number system, Hexadecimal number system, Inter-conversion between the number systems. Basic Logic gates-AND, OR, NOT, Universal logic gates- NAND, NOR

(3 lectures)**Computer Software**

Computer Software- Relationship between Hardware and Software, System Software, Application Software, Compiler, Names of some high level languages, Free domain software.

(2 Lectures)

Session 2019-22 onwards

Internet & its uses

History of Internet, WWW and Web Browsers: Web Browsing software, Surfing the Internet, Chatting on Internet, Basic of electronic mail, Using Emails, Document handling, Network definition, Common terminologies: LAN, WAN, MAN, Node, Host, Workstation, Bandwidth, Network Components: Servers, Clients, Communication Media. Wireless network

(3 Lectures)**Operating system-Windows**

Operating system and basics of Windows, The User Interface, Using Mouse and Moving Icons on the screen, The My Computer Icon, The Recycle Bin, Status Bar, Start and Menu & Menu-selection, Running an Application, Windows Explorer Viewing of File, Folders and Directories, Creating and Renaming of files and folders, Opening and closing of different Windows, Windows Setting, Control Panels, Wall paper and Screen Savers, Setting the date and Sound, Concept of menu Using Help, Advanced Windows, Using right Button of the Mouse, Creating Short cuts, Basics of Window Setup, Notepad, Window Accessories

(2 Lectures)**B. MICROSOFT OFFICE 2007 AND LATEST VERSIONS****Word Processing**

Word processing concepts: saving, closing, Opening an existing document, Selecting text, Editing text, Finding and replacing text, printing documents, Creating and Printing Merged Documents, Character and Paragraph Formatting, Page Design and Layout. Editing and Checking. Correcting spellings. Handling Graphics, Creating Tables and Charts, Document Templates and Wizards, Mail merge and Macros.

(3 Lectures)**Microsoft Excel (Spreadsheet)**

Spreadsheet Concepts, Creating, Saving and Editing a Workbook, Inserting, Deleting Work Sheets, entering data in a cell / formula Copying and Moving from selected cells, handling operators in Formulae, Functions: Mathematical, Logical, statistical, text, financial, Date and Time functions, Using Function Wizard. Formatting a Worksheet: Formatting Cells changing data alignment, changing date, number, character or currency format, changing font, adding borders and colors, Printing worksheets, Charts and Graphs – Creating, Previewing, Modifying Charts. Integrating word processor, spread sheets, web pages. Pivot table, goal seek, Data filter and scenario manager

(4 Lectures)**Microsoft Power Point (Presentation Package)**

Creating, Opening and Saving Presentations, Creating the Look of Your Presentation, working in Different Views, working with Slides, Adding and Formatting Text, Formatting Paragraphs, Drawing and Working with Objects, Adding Clip Art and other pictures, Designing Slide Shows, Running and Controlling a Slide Show, Printing Presentations. Creating photo album, Rehearse timing and record narration. Master slides.

(3 Lectures)**Reference Books**

- Nishit Mathur, Fundamentals of Computer , Aph publishing corporation(2010)
- Misty E. Vermaat, Microsoft word 2013 1st Edition (2013).
- Satish Jain, M.Geeta, MS- Office 2010 Training Guide, BPB publication (2010)
- Joan Preppernau, Microsoft PowerPoint 2016 step by step, Microsoft press(2015)
- Douglas E Corner, The Internet Book 4th Edition, prentice –Hall(2009)
- Faithe wempen, word 2016 in depth 1st edition, que publishing(2015)
- Steven welkler, Office 2016 for beginners, Create Space Independent publishing Platform (2016)

SKILL ENHANCEMENT PRACTICUM- SEC 1 PRACTICUM**A. MS-WORD PRACTICUM ASSIGNMENT**

1. Write down the following Paragraph OR any one provided by your teacher;

Without a doubt, the Internet is one of the most important inventions of modern times. The Internet is a global interconnected computer networks which allow each connected computer to share and exchange information with each other. The origins of the Internet can be traced to the creation of Advanced Research Projects Agency Network (ARPANET) as a network of computers under the auspices of the U.S. Department of Defense in 1969.

Apply following effects on The paragraph:

- i. Paragraph **font-size** and **font-type** must be 12 Verdana.
- ii. Paragraph **alignment** must be justified and double line spacing.
- iii. **Highlight** the “(ARPANET)” with green color.
- iv. Make the “Internet” keywords **Bold and Italic**.
- v. Insert any “**WordArt**” and a **symbol** to your document.
- vi. Insert a **clipart** to your document.
- vii. Add following lines to your document:
Internet, Intranet, Extranet, URL, WWW, Networking, Protocols, HTTP, TCP/IP

2. Create a Table of following fields:

Name, Surname, Age, Gender, Job and apply the following effects

- i. Insert 10 records
- ii. Font size should be 12
- iii. Title size should be 14
- iv. Font type should be Times new Roman
- v. Title color should be blue
- vi. Text color should be black
- vii. Table border should be 2

3. Write a letter on ‘Road Safety’ and send to ‘Multiple Recipients’ using mail merge.

4. Type the paragraph given below:

Today, the Internet is a public, cooperative and self-sustaining facility accessible to hundreds of millions of people worldwide. Physically, the Internet uses a portion of the total resources of the currently existing public telecommunication networks. Technically, what distinguishes the Internet is its use of a set of protocols called TCP/IP (for Transmission Control Protocol/Internet Protocol). Two recent adaptations of Internet technology, the intranet and the extranet, also make use of the TCP/IP protocol. Today, the Internet is a public, cooperative and self-sustaining facility accessible to hundreds of millions of people worldwide. Physically, the Internet uses a portion of the total resources of the currently existing public telecommunication networks. Technically, what distinguishes the Internet is its use of a set of protocols called TCP/IP (for Transmission Control Protocol/ Internet Protocol). Two recent adaptations of Internet technology, the intranet and the extranet, also make use of the TCP/IP protocol.

Apply the following:

- i. Change Internet into Internets at a time
- ii. Highlight TCP/IP in red color
- iii. Replace protocol into protocols
- iv. Find the word "Public"

B. MICROSOFT EXCEL PRACTICUM ASSIGNMENT

Basic Formatting and Spreadsheet Manipulation

1. Add rows and columns to an existing spreadsheet
2. Reformat data (center, comma and currency styles, bold, text color)
3. Work with a simple formula (product) and function (sum)

Assignment

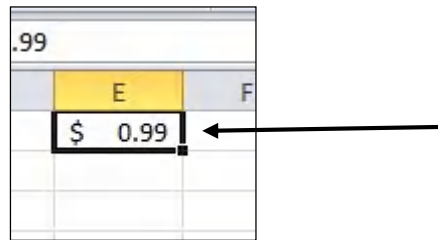
1. Create a workbook as shown below.
2. To enter new rows or columns, simply click on the row or column header to select the whole row or column. Then right click with the mouse and choose insert.
3. Add the new row for S Spade with the data that's shown below (between the original rows 7 and 8).
4. Add a column for gender and the data as shown below (between the original columns A and B). Enter the appropriate gender for yourself in the last row.

A	B	C	D
Name	Male/Female	Genre	Number of Songs
J Smith	F	Blues	50
B Doe	M	Country	110
S Spade	F	Country	200
F Zappa	M	Blues	1400
F Zappa	M	Alternative	2300
J Smith	F	Alternative	150
S Spade	F	Blues	1000
B Doe	M	Blues	75
yourname	M	Blues	800

5. Center the data in columns B and C. Do this by selecting the whole column and click the center icon on the ribbon.
6. Bold the data in row 1, the column headings (ensure that the data all remains visible within the column boundaries).
7. Change the font color for row 1 to Blue.
8. Change the format of the data in column D to comma style (no decimal places showing). There is an icon on the home tab that sets it to comma style easily.
9. Add two new column Practicumels to the right of the current columns; **Unit Price** and **Total Cost**. (They will be in columns E and F.) These two columns of data should be currency type so that the dollar sign is shown. There is an icon to quickly format the selected column as currency type.
10. All tunes are \$.99, so enter that value for all rows in Column E. You can copy quickly by using the **Auto Fill** handle and drag that amount down. When you over your mouse over the tiny square in

Session 2019-22 onwards

the bottom right hand corner of the active cell, your mouse shape will become a skinny plus sign, and you can click and drag that cell to make a copy.



11. Calculate Total Cost (column F) as *column D times Column E*. You will type in a formula like this into cell F2: **=D2*E2** (Be sure to begin the formula with an equal sign)
12. Use the AutoFill (skinny plus sign) again to copy the formula down column F; down to F10. Double check the picture below to make sure yours has the correct values
13. Add a border to all of the cells (A1-f10) using the Borders tool in the Fonts group on the Home Tab.
14. Change the page layout to landscape. Do this by clicking the Page Layout tab on the ribbon and then to Orientation to Landscape.
15. Save the file.
16. Click in cell F11 and Use the sum function or the shortcut icon that looks like Σ to get the total of the Total Cost column.
17. Ensure that the data is all visible within the column boundaries. Make the columns wider if needed.
18. Save the workbook. Your final spreadsheet should look like the following when printed.

Name	Male/Female	Genre	Number of Songs	Unit Price	Total Cost
J Smith	F	Blues	50	\$ 0.99	\$ 49.50
B Doe	M	Country	110	\$ 0.99	\$ 108.90
S Spade	F	Country	200	\$ 0.99	\$ 198.00
F Zappa	M	Blues	1,400	\$ 0.99	\$ 1,386.00
F Zappa	M	Alternative	2,300	\$ 0.99	\$ 2,277.00
S Spade	F	Blues	1,000	\$ 0.99	\$ 990.00
J Smith	F	Alternative	150	\$ 0.99	\$ 148.50
B Doe	M	Blues	75	\$ 0.99	\$ 74.25
yourname	M	Blues	800	\$ 0.99	\$ 792.00

\$ 6,024.15

Create a sample table given below in Excel

- Using formula find Total
- Find the maximum value using MAX function from the **Units** column
- Find minimum value from **Total** column

Order Date	Region	Rep	Item	Units	Unit Cost	Total
1/6/2016	East	Jones	Pencil	95	1.99	189.05
1/23/2016	Central	Kivell	Binder	50	19.99	999.50
2/9/2016	Central	Jardine	Pencil	36	4.99	179.64
2/26/2016	Central	Gill	Pen	27	19.99	539.73
3/15/2016	West	Sorvino	Pencil	56	2.99	167.44
4/1/2016	East	Jones	Binder	60	4.99	299.40
4/18/2016	Central	Andrews	Pencil	75	1.99	149.25
5/5/2016	Central	Jardine	Pencil	90	4.99	449.10
5/22/2016	West	Thompson	Pencil	32	1.99	63.68
6/8/2016	East	Jones	Binder	60	8.99	539.40
6/25/2016	Central	Morgan	Pencil	90	4.99	449.10
7/12/2016	East	Howard	Binder	29	1.99	57.71
7/29/2016	East	Parent	Binder	81	19.99	1,619.19
8/15/2016	East	Jones	Pencil	35	4.99	174.65
9/1/2016	Central	Smith	Desk	2	125.00	250.00
9/18/2016	East	Jones	Pen Set	16	15.99	255.84
10/5/2016	Central	Morgan	Binder	28	8.99	251.72
10/22/2016	East	Jones	Pen	64	8.99	575.36
11/8/2016	East	Parent	Pen	15	19.99	299.85
11/25/2016	Central	Kivell	Pen Set	96	4.99	479.04
12/12/2016	Central	Smith	Pencil	67	1.29	86.43
12/29/2016	East	Parent	Pen Set	74	15.99	1,183.26

C. MS-POWERPOINT PRACTICUM ASSIGNMENT

Activity 1 : Using Text & Background/Themes

- i. Create one new slide and insert any text.
- ii. To make your slide more attractive, use the themes or background.
- iii. Make sure it apply for every slide not only one slide.

Activity 2 : Apply Custom Animation On Text

- i. Use the custom animation to add effects on your text. Set the text move after you click the mouse.
- ii. If you have more than one text, add effects for each of text.

Activity 3 : Insert Image & WordArt

- i. Insert one new blank slide.
- ii. Choose one pictures or clip art from any source and insert in your new slide.
- iii. Using the WordArt, make a note or title on your picture.
- iv. Use the custom animation again to add effects on your picture and WordArt.

Activity 4 : Insert Text Box

- i. Insert one new blank slide.
- ii. Use the text box to insert one paragraph of text and adjust your text.

Activity 5 : Insert Smart Art

- i. Insert one new blank slide.
- ii. Insert the Smart Art and put your text on the Smart Art.

Activity 6 : Insert Audio

- i. Back to your first slide and insert one audio on that slide. The audio must play automatically when you show your slide.
- ii. Make sure the speaker also not appear when you show your slide. (the icon).
- iii. The audio must play when you show alls your slide, not only one slide.

Activity 7 : inserting Video

- i. Insert one new slide and insert one short video

Activity 8 : Save File

- i. Save your file

Activity 9 : Create Photo Album & Hyperlink

- i. Insert one new slide and put a text ex: "My Photo Album"
- ii. Create one photo album and adjust your text and your photos
- iii. Save your photo album with a new file
- iv. Make a hyperlink to your photo using the text "My Photo Album"

Reference Books:

- Faithe wempen, word 2016 in depth 1st edition, que publishing(2015)
 - steven welkler, Office 2016 for bignners, Create Space Independent publishing plateform(2016)
 - Elaine Marmel, office 2016 simplified, 1st Edition, John wiley and sons Inc(2016)
 - Patrice-Anne Rutledge, Easy office 2016 1st edition, Que publishing(2016)
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II. CORE COURSE –C 5:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

ESSENCE OF BHAGAVAD GITA FOR PERSONALITY DEVELOPMENT**Theory: 60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand the significance of Bhagavad gita and its essence.
- Understand the concept of Atman, Paramatman, Sthitaprajna.
- Have a deep understanding between the qualities of a Karma and Bhakti yogi.
- Understand the concept of Ahara its role in healthy living.

Unit – 1: Significance of Bhagavadgita as synthesis of yoga**[15 Hrs.]**

Introduction to Bhagavadgita; Bhagavadgita and traditional commentaries; Bhagavadgita: a synthesis of Yoga; Definitions of Yoga in Bhagavadgita and their relevance; Bhagavadgita and their relevance in Yoga Sadhana

Unit-2: Concept of Atman, Parmatman and**Characteristic of Sthita prajna in Bhagavdgita****[15 Hrs.]**

Concept of Samkhya Yoga in Bhagavadgita; Concept of Sthita Prajna, stages and characteristic of it; Concept of Atman (Purusha), Jivatman; Concept of Paramatman (Parmeshwar or Purushottam) their characteristic in Bhagavadgita; Concept of Jnana and Jnana Yoga, origin of the world as described in Bhagavadgita

Unit-3: Karma yoga and Bhakti yoga in Bhagavadgita**[15 Hrs.]**

Concept of karma Yoga in Bhagavadgita; Concept of Bhakti, concept of Shraddha and its relevance as described in Bhagavad Gita Yoga of Bhakti and Bhakta as described in hagavadgita; Dhyana Yoga together with devotion as described in Bhagavadgita and Nature of Dhyana in Bhagavadgita

Unit – 4: Concept of ahara and role of Bhagavadgita in healthy living**[15 Hrs.]**

Role of Bhagavadgita in day to day life; Concept and classification of Ahara as described in Bhagavadgita; Ahara and its role in Adhyatma Sadhana; Concept of Triguna in the context of Bhagavadgita; Theory of Adjustment in healthy living as described in Bhagavadgita

Text Books:

- Swami Gambhiranand; Bhagavadgita (with Gudharth Dipika) Sri Ramkrishna Matha Madras
- Swami Gambhiranand; Bhagvatgita with the commentary of Sankaracharya, Advita Ashrama, Kolkata, 2003
- Swami Ramsukhadas; Srimad Bhagavadgita (Sadhaka Sanjivani) Gita Press Gorakhpur
- Swami Ranganathananda; Bagavadgita, Advaita Ashrama Sub- Dept-5 Deli Entally Road Kolkata

Books for Reference:

- Swami Shrikantananda; Gita Darshana, Indian Institute of Human Excellence Hyderabad
 - Swami Tapasyananda; Srimadbhgavadgita Sri Ramkrishna Matha Madras
 - Swami Abhidananda Bhagvatgita, the divine message, Ramakrishna Vedanta Matha, Kolkata, 1990
 - Swami Raghvendrananda; Universal message of the Bhagvatgita, Advita Ashrama, Kolkata, 2000
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III. YOGIC SCIENCE PRACTICAL–C 5-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for
End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 60 marks</i>
<i>Practical record notebook</i>	<i>= 20 marks</i>
<i>Viva-voce</i>	<i>= 20 marks</i>

YOGA PRACTICUM-IV**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- *Understand the principle and practice of each practice.*
- *Demonstrate each practice skillfully.*
- *Explain the procedure, precaution, benefits and limitations of each practice.*

Unit-1: Yogasana (Sitting Postures)

Dandasana, Swastikasana, Padmasana, Vajrasana, Supta Vajrasana; Kagasana, Utkatasana, Gomukhasana, Ushtrasana, Shashankasana; Janusirasana, Paschimottanasana, Mandukasana, Utthana Mandukasana; Vakrasana, Ardha Matsyendrasana, Marichayasana, Simhasana

Unit-2: Yogasana (Supine lying Postures)

Pavanamuktasana; Utthana-padasana, Ardha Halasana, Halasana, Setubandhasana, Sarvangasana, Matsyasana, Chakrasana, Shavasana

Unit-3: Yogasana (Prone line Postures)

Makarasana, Bhujangasana, ShaPracticumhasana, Dhanurasana, Kapotasana, Raja Kapotasana

Unit-4: Continuous evaluation by the Teachers**Text Books:**

- Swami Dharendra Bhrahmachari: Yogasana Vijnana, Dharendra Yoga Publications, New Delhi.
- Swami Kuvalyananda: Asana Kaivalyadhama, Lonavla
- Swami Satyananda Saraswati: Asana, Pranayama, Bandha, Mudra Bihar School of Yoga, Munger

Books for Reference:

- Basavaraddi, I.V. & others: Yogasana: A Comprehensive description about Yogasana, MDNIY, New Delhi, 2011.
- Iyengar, B.K.S.: Light on Yoga, Harper Collins Publishers.
- Tiwari, O.P.: Asana Why and How? Kaivalyadhama, Lonavla.
- Jayadev, Yogendra: Cyclopaedia Yoga (Vol. I-IV), The Yoga Institute, Santacruz, Mumbai.
- Saraswati, Swami Satyanand: Asana, Pranayama, Bandha, Mudra Bihar School of Yoga, Munger.

IV. CORE COURSE- C 6:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

YOGA AND HOLISTIC HEALTH**Theory: 60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand the concept of health and disease.
- Have understanding about yogic concepts of health and healing.
- Yogic principle and practices for healthy living.
- Understand the concept of Ahara its role in healthy living.

Unit - 1: Concept of Body, Health and Disease**[15 Hrs.]**

Definition & Importance of Health According to WHO; Dimensions of Health: Physical, Mental, Social and Spiritual; Concept of Body, Health and Disease in Yoga – Yogic concept of Body from Taittiriya Upanishad, Yogic Concept of Health and Disease: Meaning and definitions, Concept of Adhi and Vyadhi according Yoga Vasistha and remedial measures; Holistic health care through Yoga. Concepts of Trigunas, Panchamahabhutas, Pancha- prana and their role in Health and Healing; Concept of Panchakoshas & Shat-chakra and their role in Health and Healing

Unit - 2: Causes of ill Health and Remedial Measures According to Patanjali**[15 Hrs.]**

Potential causes of Ill-health: Mental and Emotional Ill Health: Styana, Samshaya, Pramada, Avirati, Duhkha, Daurmanasya, Bhranti-darsana, APracticummdha-bhumikatva and Anavasthitatva; Shuddhi Prakriyas in Yoga: Role of Shuddhi Prakriyas in preventive and curative Health, Karma Shuddhi (Yama, Niyama), Ghata Shuddhi (Shat-karma), Snayu Shuddhi (Asana), Prana Shuddhi (Pranayama), Indriya and Mano Shuddhi (Pratyahara), Mana, Buddhi, Ahamkar and Chitta Shuddhi (Dharana, Dhyana and Samadhi)

Unit - 3: Yogic Principles and Practices of Healthy Living - I**[15 Hrs.]**

Dietary regulation according to Hatha yoga and Bhagavadgitha; shatkriyas and tatva shuddhi; Asana for mind body and spirit; Practice for pranamaya kosha – pranayama; Definition of Mental Health & Mental Hygiene & Total Health; Indian approach to personality and personality integration Psycho-Social Implications of yoga; Adjustment Personal and interpersonal adjustment through yogic methods Niyamas & Yamas

Unit - 4: Yogic Principles and Practices of Healthy Living - II**[15 Hrs.]**

Attitude change towards yoga through individualized counselling, Psychological & yogic method Tackling ill effects of conflict and Frustration; Yogic methods Yoga Psychology for Adjustment: Psychological, philosophical and yogic counselling; the remedial measures; Action in relaxation-the secret of Karma Yoga; Unattached action, not to the fruits of action, equanimity in success and failure.

Text Books:

- Ghosh, Shyam: The Original Yoga Munshiram Manoharlal, New Delhi, 1999)
- Jnanananda Bharati: Essence of Yoga Vasishta Pub: Sanata Books, Chennai
- Hatha Ratnavali: Tirumala Tirupathi Devasthanam, Andhra Pradesh.

Books for Reference:

- Gheranda Samhita: Shri Sadguru Publication, New Delhi.
 - Dr R Nagarathna and Dr H R Nagendra: Yoga and Health, Swami Vivekananda Yoga Prakashana, 2002
 - Dr R Nagarathna and Dr H R Nagendra: Yoga for Promotion of Positive Health Published by SVYP, Bangalore
 - Dr Nagendra H R : The Secret of Action - Karma Yoga, Published by SVYP, Bangalore, 2003
-

V. YOGIC SCIENCE PRACTICAL–C 6-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

YOGA PRACTICUM-V**60 Lectures****(TEACHING PRACTICE)****Course Description**

Following the completion of this course, students shall be able to

- *Understand the principle and practice of each practice.*
- *Demonstrate each practice skillfully.*
- *Explain the procedure, precaution, benefits and limitations of each practice.*

Unit-1: Bandha

Jivha Bandha, Jalandhara Bandha, Uddiyana Bandha, Mula Bandha, Maha Bandha, Tri Bandha

Unit-2: Pranayama (with Antar & Bahya Kumbhaka)

Surya-bheda and Chandra-bheda Pranayama, Ujjayi Pranayama, Sheetal Pranayama, Shitkari Pranayama, Bhastrika Pranayama

Unit-3: Practices leading to Meditation

Ajapa Dharana (Stage 4,5,6), Yoga Nidra (4,5), Practices leading to Breath Meditation, Practices leading to Om Meditation, Practices leading to Vipassana Meditation, Practices leading to Preksha Meditation

Unit-4: Continuous evaluation by the Teachers**Text Books:**

- Basavaraddi, I.V. & others: Pranayama; MDNIY New Delhi, 2012
- Saraswati, Swami Satyanand: Asana, Pranayama, Bandha, Mudra, Bihar School of Yoga, Munger, 2009
- Joshi, K.S.: Yogic Pranayama, Oriental Paperback, New Delhi, 2009

Books for Reference:

- Swami Kuvalyananda: Pranayama, Kaivalyadhama, Lonavla, 2005
- Nagendra, H.R.: The art and Science of Pranayama, Swami Vivekananda Yoga Prakashan, 2005, Bangalore
- Lajpat, Dr. R.: Discovering Human Potential Energy, Abhinav Rai Publication, Gurgaon, 1996
- Lajpat, Rai & others: Meditation, Anbhava Rai Publications, Gurgaon
- Saraswati, Swami Satya Nand: Meditation from Tantras, Yoga Publication Trust, Munger, 2004
- Saraswati, Swami Niranjananand: Dharana Darshan, Yoga Publication Trust, Munger, 2003
- Krishnamacharya, T.: Dhyanamalika, KYM, Chennai, 2005
- Swami Satyananda: Yoganidra, Yoga Publication Trust, Munger, 1998

VI. CORE COURSE- C 7:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

HUMAN ANATOMY AND PHYSIOLOGY-II**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able:

- To know about the structure of the body
- To know about the necessary functions of the body
- To give brief idea about the diseases related to each system
- To throw light on anatomy so that student can experience the involvement of their body parts while practicing various postures of yoga

Unit -1: Nervous system and special senses**[15Hours]**

Structure and function of human brain. -Fore brain, mid brain, hind brain, Structure and function of spinal cord, Cranial nerve and spinal nerve, Autonomic nervous system- Sympathetic and para sympathetic nervous system, Reflex action, Mechanism of nerve conduction, Synapse and synaptic transmission, Structure and function of eye, ear, nose, tongue and skin

Unit -2: Endocrine system**[15Hours]**

Structure and function of important of endocrine gland (Pituitary, Adrenal, Thyroid, Parathyroid, Pancreas, gonads), Function of GI tract hormones, Mechanism of hormone action

Unit -3: Reproductive and Excretory system system**[15Hours]**

Male reproductive system of human. -Testis, penis, epididymis, prostate gland; Female reproductive system of human-ovary, uterus, vagina, cervix, fallopian tube; Menstrual cycle Gametogenesis- Spermatogenesis and oogenesis; Fertilization; Implantation and embryonic development; Pregnancy; Excretory system of Human-Kidney, ureter, urinary bladder, urethra; Mechanism of urine Formation- Ultrafiltration, selective reabsorption, tubular secretion; Role of kidney in osmoregulation

Unit -4: Lymphatic system and immune system**[15Hrs]**

Lymphoid Organ-Bone marrow, Thymus, spleen, Lymph node, Composition and function of lymph, Immunity, Types of Immunity-Innate immunity and acquired immunity, Antigen and antibody, Hypersensitivity, Autoimmunity

Text Books:

- Tortora and Bryan: Anatomy and Physiology
- Khurana: Anatomy and Physiology

Books for Reference:

- Bijlani R. L.: Understanding of Human Physiology, Jaypee Brothers Medical Publishers Pvt. Ltd, New Delhi, 2011
- Arthur C Gyton & Hall: Medical Physiology, Reed Elsevier India Pvt. Ltd, New Delhi, 2006
- Chatterji C. C: Human Physiology Vol. I & II, Medical Allied Agency, Kolkata, 2004
- Sharma J. P: A-Z Illustrated Encyclopaedia of Human Anatomy & Physiology, KhelSahiyta Kendra, Delhi, 2005
- Pal G. K & others: Textbook for practical Physiology, Orient Longman Pvt. Ltd, Hyderabad, 2007

VII. YOGIC SCIENCE PRACTICAL–C 7-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 60 marks</i>
<i>Practical record notebook</i>	<i>= 20 marks</i>
<i>Viva-voce</i>	<i>= 20 marks</i>

HUMAN ANATOMY AND PHYSIOLOGY PRACTICUM-II**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- *Understand the principles and procedure of every experiment.*
- *Demonstrate an experiment with the interpretation of the results.*
- *Explain the procedure of each step of an experiment skillfully.*

Unit-1: Hematology and physical examination**[30 Hrs.]**

Anthropometry measurements; Method of Collection of Blood, Haemoglobinometry; Total White Blood Cell Count, Differential WBC count; E.S.R., Bleeding Time, Clotting Time; Blood Groups; Pulse, Determination of Arterial Blood Pressure in Humans; Effect of posture, exercise and cold stress on blood pressure; Stethography, Spirometry; BMI Calculation; Reflexes, Recording of Body Temperature.

Unit-2: Viva voce**[15 Hrs.]****Unit-3: Continuous evaluation by the Teachers****15 Hrs.]****Text Books:**

- Parvati Mahapatra: Practical physiology, Jaypee publishers, 2nd edition, 2004

VIII. GENERIC ELECTIVE (GE 3A):

(Credits: Theory-04, Practicals-02)

Marks : 75 (ESE 3Hrs) =75**Pass Marks (Th + Pr ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be two group of questions. Group A is compulsory and will contain two questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2 will be short answer type of 5 marks. Group B will contain descriptive type six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

BASIS OF INDIAN CULTURE**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- *Understand meaning and process of culture with respect to the settlement of human in India.*
- *Have an understanding about the religious movements and cultural configuration in India.*
- *Understand the development and progress of India during Guptas and their legacies.*
- *Understand the Indoislamic architecture and change in the trend during that time.*

Unit- 1 : Meaning & process of culture and early human settlements in India [12 Hrs.]

Meaning and process of culture; Sources – Archaeology, Literature, Foreign accounts; Pre and Proto historic cultures; Indus Civilization – Origin extent, date, art, architecture, religion, society, economy; Changes in the later Vedic period.

Unit - 2: Religious moveemnts and cultural configurations in India [12 Hrs.]

Religious movements in the sixth and fifth centuries BC with special reference to Buddhism and Jainism; Social and economic changes; Impact of Persian and Greek invasions; Role of Mauryan empire in Indian cultural unification; Asoka – his edicts and Dhamma; Mauryan art, polity and economy; Dharmashastra, Natyashastra, Kamasutra, Panchatantra, Ayurveda; Religious sects and schools – Hindu, Buddhist and Jain.

Unit - 3: Developments during the Gupta and legacies [12 Hrs.]

Developments during the Gupta – Vakataka – Pallava age – Literature; Education, science, religion, society, polity, economy, architecture, sculpture, painting; Cultural contacts with outside world; Legacies of classical ideas and patterns and development of new trends in Indian society and thought during the early medieval times.

Unit-4: Indo-Islamic architecture and new cultural trends in Mughal India [12 Hrs.]

Indo-Islamic architecture during the Sultanate period; regional styles; Islamic influences on Indian society and culture; Foundation of Sikhism to the institution of Khalsa. Arrival and spread of Christianity.

Unit – 5: Western ideas relationship with ancillary disciplines [12 Hrs.]

Indian reformers – Raja Ram Mohan Roy, Ishwar Chandra Vidyasagar, Keshav Chandra Sen, Mahagovinda Ranade, Jyotiba Phule, Dayanand Saraswati, Vivekananda. Indian Classics, Indian culture studies, Objectivity and bias; Relationship with ancillary disciplines; Heritage of India.

Text Books:

- Ramshankar Tripathy; History ancient India, Motilal Banarsidass, Motilal Banarsidass Publication, Tenth ed, 1987

Books for Reference:

- R.S. Sharma; India's ancient past, Oxford publication, 2006

IX. GENERIC ELECTIVE PRACTICAL (GE 3A-Pr):

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =25

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

YOGA PRACTICUM VI – CASE STUDY**60 Lectures****Course Description**

Objective of this course is to make the students to record the data everyday in a clinical set up and analyze the same for the presentation of the cases.

Unit-1: Case taking-I

Students shall be permitted to take four cases and supervise the practice for fifteen days and common parameters will be recorded everyday.

Unit-2: Case taking-II

Students shall be permitted to take remaining four cases and parameters will be recorded.

Unit-3: Preparation of the cases

Candidate shall write a report of a most improved and least improved case.

Unit-4: Presentation

Following the presentation, candidate will present the case to the examiners and the same will be examined.

X. GENERIC ELECTIVE (GE 3B):

(Credits: 06)

Marks : 100 (ESE 3Hrs) =100**Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be two group of questions. Group A is compulsory and will contain three questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2& 3 will be short answer type of 5 marks. Group B will contain descriptive type six questions of 20 marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

YOGA PSYCHOLOGY**Theory: 60 Lectures****Unit-1: Human Psyche****[15 Hrs.]**

The nature of Psychology and its' definition, Scope and utility of Psychology. Psychology as a study of human behavior; Counseling; Personality development; Counseling; Methods of counseling; Skills of counseling; Issues and challenges; Life's skills for happy life; Code of ethics for lay counselors

Unit-2: Psychic Forces, Conflicts and Frustrations**[15 Hrs.]**

Psychic forces and human behavior, behavior and Consciousness, States of Consciousness, Psychological basis of behavior; Causes and Consequences of Conflicts and Frustrations; Disorders; Common mental disorders; Depressive disorders; Anxiety disorders; Serious mental disorders; Mental retardation; Alcohol and drug abuse; Suicide, attempted suicide and suicide prevention

Unit- 3: Mental Processes, Motivation, Emotions and Intelligence**[15 Hrs.]**

Sensation, Perception, Attention, Memory, Learning, Feeling etc.; Their definitions and types, Intelligence and its' measurements; Emotional Intelligence and Social Intelligence.

Unit-4: Yoga Psychology**[15 Hrs.]**

States of consciousness according to yogic scriptures (Jagrata, Svapna, Susupti and Turiyā) and their applicability; Learning and Remembering in the context of Jnana Yoga (Shravana, Manana and Nididhyasana); Types of personality in the context of different yogic scriptures (Mudha, Kshipta, Vikshipta, Chanchala etc.); Cause of emotions in the mind according to Yoga texts

Text Books:

- Abhedananda: The Yoga Psychology, Ramakrishna Vedanta Math, Calcutta, 1973.
- Sachdev, I.P.: Yoga and Depth Psychology (Motilal Banarsidass, Delhi, 1978)

Books for Reference:

- Taimini, I.K: Glimpses into the Psychology of Yoga (Adyar: Theosophical Publishing House, 1973)
- Aatreya, Shanti Parkash: Yoga Manovijnana (Indian Psychology) (International Standard Publication, Varanasi; 1965)

SEMESTER IV**10 Papers****Total 100 x 10 = 1000 Marks****I. SKILL ENHANCEMENT COURSE SEC 2:**

(Credits: Theory-02)

Marks : 100 (ESE 3Hrs) =100**Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be **two** group of questions. **Group A is compulsory** and will contain three questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 & 3 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of 20 marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

SANSKRIT**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Read and understand the colloquial words of Sanskrit.
- Communicate and comprehend Sanskrit to the best of their ability.
- Write in Sanskrit and have some idea about grammar.

Unit-1: कर्मवाच्य एवं भाववाच्य ।**[15 Hrs.]**

पठ् एवं कृ धातु का कर्मवाच्यरूप ज्ञान पांच लकारी (लट्, लृट्, लङ्., लोट्, लिङ्.) में एवं वाक्य निर्माण अर्थज्ञान सहित। अस् एवं भू धातु का भाववाच्यरूप ज्ञान पांच लकारों (लट्, लृट्, लङ्., लोट्, लिङ्.) में एवं वाक्य निर्माण। अर्थज्ञान सहित। कर्तृवाच्य एवं भाववाच्य का परिचय वाक्यरचना, वाक्यरूपान्तरण एवं अनुवाद।

Unit-2: कृदन्त ।**[15 Hrs.]**

शतृ एवं शानच् प्रत्ययों से शब्दनिर्माण, वाक्यरचना और अनुवाद। क्त्वा, ल्यप्. तुमुन् प्रत्ययों से शब्दनिर्माण, वाक्यरचना और अनुवाद। क्त एवं क्तवतु प्रत्ययों से शब्दनिर्माण, वाक्यरचना और अनुवाद। तव्यत्, अनीयर्, एवं यत् प्रत्ययों से शब्दनिर्माण, वाक्यरचना और अनुवाद।

Unit-3: सन्धि एवं भाषाभ्यास ।**[15 Hrs.]**

अच् हल् एवं विसर्ग सन्धियों का ज्ञान एवं सन्धि विच्छेद का अभ्यास। भगवद् गीता के द्वितीय अध्याय के प्रथम 20 श्लोकों में कारक एवं क्रियापदों का अनुसन्धान एवं सस्वर श्लोकपाठ। संस्कृत सं हिन्दी/अंग्रेजी में अनुवाद। संस्कृत में परस्पर वार्तालाप एवं मौखिक व्याख्यान का अभ्यास।

Unit-4: भाषादक्षता ।**[15 Hrs.]**

द्वितीयदीक्षा के प्रथम एवं द्वितीय अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास। द्वितीयदीक्षा के तृतीय अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास। द्वितीयदीक्षा के चतुर्थ अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास। द्वितीयदीक्षा के पंचम एवं षष्ठ अध्याय से वाक्यनिर्माण एवं अर्थज्ञान का अभ्यास।

Text Books:

- Devavanipravesika- : Robert P. Goldman: MLBD-New Delhi.
- प्रारम्भिक रचनानुवाद कौमुदी: कपिलदेव द्विवेदी विश्वविद्यालय प्रकाशन वाराणसी।
- रचनानुवादकौमुदी: कपिलदेव द्विवेदी विश्वविद्यालय प्रकाशन वाराणसी।

Books for Reference:

- प्रौढ-रचनानुवादकौमुदी: कपिलदेव द्विवेदी विश्वविद्यालय प्रकाशन वाराणसी।
 - प्रथमदीक्षा राष्ट्रीय संस्कृत संस्थान नई दिल्ली।
 - द्वितीयदीक्षा राष्ट्रीय संस्कृत संस्थान नई दिल्ली।
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II. CORE COURSE –C 8:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

FOUR STREAMS OF YOGA**Theory: 60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand the four paths/streams of yoga with indepth understanding.
- Have an indepth understanding about their similarities and dsimillarities.
- Understand the principle and conceptualize each stream

Unit-1: JnanaYoga**[15 Hrs.]**

Sadhana Chatustaya, Stages of JnanaYoga practice (shravan, manana, Nidhidhyasana), States of consciousness, the concepts of ida, pingla and thesushumna the central channel of energy running along the spine.

Unit-2: Bhakti Yoga**[15 Hrs.]**

Navavidha Bhakti, Qualities of a bhakta, the pronunciation, chanting, knowledge, benefits of Sanskrit chants, hymns, bhajans, Satsang and the uplifting meaning of the chants helping to thin the activities of the mind, Mantra chanting, and their effect on the nadi and the chakras, demonstrated ability to create a bhakti bhava during the chanting and singing

Unit-3: Karma Yoga**[15 Hrs.]**

The concept and meaning of karma Yoga, Concept of Nishkama Karma, Prerequisites for a sthitaprajna, Sthitaprajnalakshana, The law of karma

Unit-4: Raja Yoga**[15 Hrs.]**

Concepts and principles of PatanjalaYoga; Karma Shuddhi (Yama, Niyama); Snayu Shuddhi (Asana); Prana Shuddhi (Pranayama); Indriya and Mano Shuddhi (Pratyahara); Mana, Buddhi, Ahamkar and Chitta Shuddhi (Dharana, Dhyana and Samadhi)

Text Books:

- Swami Bhuteshananda: Nararad Bhakti Sutra, Advaita Ashrama Publication-Dept. Kolkata, II Edition, 2009
- Swami Vivekananda: J nana Yoga, Bhakti Yoga, Karma Yoga, Raja Yoga. Advaita Ashrama, Calcutta, 2000

III. YOGIC SCIENCE PRACTICAL–C 8-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 60 marks</i>
<i>Practical record notebook</i>	<i>= 20 marks</i>
<i>Viva-voce</i>	<i>= 20 marks</i>

YOGA PRACTICUM-VII**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand the principle and practice of each practice.*
- Demonstrate each practice skillfully.*
- Explain the procedure, precaution, benefits and limitations of each practice.*

Unit-1: Shatkarmas**[10 Hrs.]**

Vastra Dhauti, Sutra Neti, Kapalbhati, Nauli Chalana, Jyoti Trataka, Agnisara

Unit-2: Yogasanas -I**[20 Hrs.]**

Tadasana, Vrikshasana, Urdhva-Hastottanasana, Kati Chakrasana ; Ardha Chakrasana, Paada Hastasana; Trikonasana, Parshva Konasana; Veerabhadrasana; Bhunamanasana, Hanumanasana; Dandasana, Swastikasana, Sidhasana, Bhadrasana, Padmasana, Vajrasana; Kagasana, Utkatasana, Gomukhasana, Ushtrasana, Shashankasana, Kurmasana, Navasana, Baddha Padmasana, Uttitha Padmasana; Janusirasana, Paschimottanasana, Supta Vajrasana; Mandukasana, Utthana Mandukasana; Vakrasana, Ardha Matsyendrasana , Marichayasana, Simhasana

Unit-3: Yogasanas -I**[20 Hrs.]**

Pavanamuktasana, Utthana-padasana, Ardha Halasana, Setubandhasana, Halasana, Karna Peedasana, Sarvangasana, Matsyasana, Chakrasana, Shavasana, Makarasana, Bhujangasana, ShaPracticumhasana, Dhanurasana, Kapotasana, Raja Kapotasana, Bakasana, Kukkutasana, Garbhasana, Matsyendrasana, Marjariasana, Padangusthasana, Hastapadangusthasana, Garudasana, Vatayanasana, Natarajasana, Mayurasana, Sirshasana; Ekapada and Dwipada Kandarasana

Unit-4: Teacher's evaluation**[10 Hrs.]**

Teacher must ensure that all practices are being done efficiently and skillfully. Minimum duration of the practice should be at least 1 minute and maximum can be 5 minutes.

Text Books:

- Swami Dharendra Bhramhachari: Yogic Sukshma Vyayama, Dharendra Yoga Publications, New Delhi, 1980
- Swami Dharendra Bhramhachari: Yogasana Vijnana, Dharendra Yoga Publications, New Delhi, 1966
- Swami Kuvalyananda: Asana, Kaivalyadhama, Lonavla, 1983
- Swami Satyananda Saraswati: Asana, Pranayama, Bandha, Mudra, Bihar School of Yoga, Munger, 2005-06

Books for Reference:

- Basavaraddi, I.V. & others: Yogasana: A Comprehensive description about Yogasana, MDNIY, New Delhi, 2011.
 - Basavaraddi, I.V. & others: Yogic Sukshma Evam Sthula Vyayama, mDNIY, New Delhi, 2011.
 - Iyengar, B.K.S.: Light on Yoga, Harper Collins Publishers, 2009
 - Sen Gupta Ranjana: B.K.S. Iyengar Yoga, A Dorling Kindersley Limited, 2001
 - Saraswati, Swami Satyananda: Surya Namaskar, Yoga Publication Trust, Munger, 2004
 - Tiwari, O.P.: Asana Why and How? Kaivalyadhama, Lonavla, 2011
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IV. CORE COURSE- C 9:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100

Pass Marks: Th (MSE +ESE) = 40

Instruction to Question Setter for***Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

BASIS OF YOGA THERAPY**Theory: 60 Lectures****Course Description**

Following the completion of this course, students shall be able to Understand

- Basics of Yoga Therapy

Unit-I: Introduction

- Meaning & nature of Yoga and Holistic Health.
- Relevance of statistics in Yoga and Holistic Health.
- Levels of measurement.

Unit-II: Graphical representation of frequency distributions

- Histogram.
- Frequency Polygon.

Unit-III: Measures of central tendency

- Uses and limitations of Mean, Median and Mode.
- Calculation of Mean, Median and Mode.

Unit-IV: Measurement of variability

- Properties and calculation of Range, Quartile Deviation (Q.D), Average Deviation (A.D.) and Standard Deviation (S.D.).

Text Books:

- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004
- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004

Books for Reference:

- V.V. Sovani: A critical study of the Sankhya System, Chukhambha Sanskrit Pratisthan, New Delhi, 2005
- M.R. Yardi: The Yoga of Patanjali, Bhandarkar Oriental Research Institute, Poona, India, 1970

V. YOGIC SCIENCE PRACTICAL–C 9-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

YOGA PRACTICUM-VIII**60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- *Understand the principle and practice of each practice.*
- *Demonstrate each practice skillfully.*
- *Explain the procedure, precaution, benefits and limitations of each practice.*

Unit-1: Bandha and Mudras

Jivha Bandha, Jalandhara Bandha, Uddiyana Bandha, Mula Bandha, Maha Bandha, Tri Bandha Yoga Mudra, Maha Mudra, Shanmukhi Mudra, Shambhavi Mudra, Kaki Mudra, Tadagi Mudra, Vipareet Karni Mudra, Simha Mudra

Unit-2: Pranayama

Nadi Shodhana pranayama, Bhramari Pranayama, Suryabhedana and Chandrabhedana Pranayama, Ujjayi Pranayama, Sheetali Pranayama, Shitkari Pranayama, Bhastrika Pranayama,

Unit-3: Practice leading to meditation

Pranava and Soham Japa, Antar mouna, Dharana, Practice of Dhyana, Breath Meditation, Om Meditation Vipassana Meditation, Preksha Meditation

Unit-4: Continuous evaluation by the Teachers**Text Books:**

- Swami Kuvalyananda: Asana, Kaivalyadhama, Lonavla, 1983
- Swami Satyananda Saraswati: Asana, Pranayama, Bandha, Mudra, Bihar School of Yoga, Munger, 2005-06

Books for Reference:

- Iyengar, B.K.S: Light on Yoga, Harper Collins Publishers, 2009
- Sen Gupta Ranjana: B.K.S. Iyengar Yoga, A Dorling Kindersley Limited, 2001
- Saraswati, Swami Satyananda: Surya Namaskar, Yoga Publication Trust, Munger, 2004
- Tiwari, O.P.: Asana Why and How? Kaivalyadhama, Lonavla, 2011

VI. CORE COURSE- C 10:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for
Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

METHODS OF TEACHING YOGA**Theory: 60 Lectures****Course Description**

Following the completion of this course, students shall be able to

- Understand the principles and practices of teaching methods of Yoga.
- Have an indepth understanding about session and lesson planning and class room arrangements.
- Have an idea about the different tools used in Yoga teaching.

Unit-1: Principles and methods of teaching yoga**[15 Hrs.]**

Teaching and Learning: Concepts and Relationship between the two; Principles of Teaching: Levels and Phases of Teaching, Quality of perfect Yoga Guru; Yogic levels of learning, Vidyarthi, Shishya, Mumuksha; Meaning and scope of Teaching methods, and factors influencing them; Sources of Teaching methods; Role of Yoga Teachers and Teacher training

Unit-2: Basics of yoga class management**[15 Hrs.]**

Practice of Yoga at different levels (Beginners, Advanced, School Children, Youth, Women and Special attention group); Techniques of mass instructions; Techniques of Individualised teaching; Techniques of group teaching; Organisation of teaching (Time Management, Discipline etc.)

Unit-3: Lesson planning in yoga**[15 hrs.]**

Essentials of Good Lesson Plan: concepts, needs, planning of teaching Yoga (Shatkriya, Asana, Mudra, Pranayama & Meditation); Models of Lesson Plan; Action Research of Yoga: Meaning, Roles, Steps in action research in Yoga Teaching; Effective use of Library and other resources; Lesson Plan and its Practical applications

Unit-4: Educational tools of yoga teaching**[15 hrs.]**

Yoga classroom: Essential features, Area, sitting arrangement in Yoga class etc; Class room problems: Types and Solutions, Characteristics and essentials of good Yoga teaching; Time table: Need, Types, Principles of Time table construction; Time Table for Yoga teaching; Meaning, Importance and Types of Educational technology; Role of Educational Technology in Yoga

Text Books:

- Dr. Shri Krishna: Notes on basic principles & methods of teaching as applied to yogic practices and a ready reckoner of yogic practices, Kaivalyadhama, Lonavala, 2009

Books for Reference:

- Dr. Gharote M L: Teaching methods for Yogic practices, Kaivalyadhama, Lonavala, 2007
- Dr. Raj Kumar: Principles & methods of Teaching, Printo graphics, Delhi,
- Saket Raman Tiwari & others: Teaching of Yoga, DPH Publishing Corporation, Delhi, 2007

VII. YOGIC SCIENCE PRACTICAL–C 10-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

FIELD WORK

During this period student shall get an opportunity of teaching yoga to villagers, weekly four hours. The academic institution where the student is undergoing his/her training takes the responsibility of organizing the classes in the near by villages.

VIII. GENERIC ELECTIVE (GE 4A):

(Credits: Theory-04, Practicals-02)

Marks : 75 (ESE 3Hrs) =75**Pass Marks (Th + Pr ESE) = 40*****Instruction to Question Setter for
End Semester Examination (ESE):***

There will be two group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

YOGA AND HUMAN VALUES**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- Understand the concept of harmony in human being, family and society.
- Understand the concept of human values.
- Have an understanding about our social responsibility.

Unit-1: Harmony in Human Being and in Myself**[15 Hrs.]**

Concept of Human Being as 'I' & Body; Characteristics & activities of 'I' & Harmony in 'I'; Understanding the Harmony of 'I' with the Body: Sanyam and Swasthya, correct appraisal of body needs and meaning of prosperity in detail; Role of Yoga in developing Harmony within the self; Understanding the body as an instrument of 'I'

Unit -2: Harmony in Family and Society - Harmony in Human – Human relationship**[15 Hrs.]**

Values in Family, Harmony in family; the basic unit of human interaction; Values in Human; Human relationship, Yogic concept of Human relationship – Maitri, Karuna, Mudita and Upeksha; Harmony in the Society – Concept of Vasudaiva Kutumbakam; Concept of Universal Harmonious order in society;

Unit -3: Concept of Human values: Moral Education**[15 Hrs.]**

Definition and types of moral education, meaning and scope of morality; Role of Yoga in development of ethics and ethical decision making; Relevance of ethics and values in Yoga, Qualities of teacher and students; Ethics in Professional Practices, methods of teaching human values, Student – teacher relationship

Unit -4: Social Responsibility and Yoga**[15 Hrs.]**

Moral Principles of SR; overview of SR; SR & health maintenance of employees through Yoga; Efficient use of Yoga in them.

Text Books:

- Singh M S : Value Education, Adhyayan Publishers & Distributors, New Delhi, 2007
- Chand Jagdish: Value Education, Anshah Publishing House, Delhi, 2007
- Gawande E N: Value Oriented Education: Vision for better living, Sarup & Sons Publ., N. Delhi, 2008
- Panda Sanjay Kumar: Corporate Social Responsibility in India: Past, Present & Future, The ICFAI University press, Hyderabad, 2008

Books for Reference:

- Kesari Vedanta: Values: The Key to a meaningful life; Sri Ramakrishna Math, Chennai, 2005
- Prasad Rajendra: Varnadharma, Niskhana Karma & Practical Morality: A Critical essay on applied ethics, DK Print World Pvt. Ltd, Delhi, 1999
- Radhakrishnan S: Indian Philosophy, Vol. 2, Oxford University, Delhi, 2008
- Swami Ranganathananda: The Message of Upanishad, Bhartiya Vidya Bhawan, Delhi, 2001

VIII. GENERIC ELECTIVE PRACTICAL (GE 4A-Pr):

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =25

Instruction to Question Setter for***End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

YOGA PRACTICUM IX – CASE STUDY REPORTS**60 Lectures****Unit-1: Case taking-I****[30 Hrs.]**

Students shall be permitted to take four cases and supervise the practice for fifteen days and common parameters will be recorded everyday.

Unit-2: Case taking-II**[30 Hrs.]**

Students shall be permitted to take remaining four cases and parameters will be recorded.

Unit-3: Preparation of the cases**[30 Hrs.]**

Candidate shall write a report of a most improved and least improved case.

Unit-4: Presentation**[30 Hrs.]**

Following the presentation, candidate will present the case to the examiners and the same will be examined.

IX. GENERIC ELECTIVE (GE 4B):

(Credits: 04)

Marks : 100 (ESE 3Hrs) =100**Pass Marks Th ESE = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be two group of questions. Group A is compulsory and will contain three questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2& 3 will be short answer type of 5 marks. Group B will contain descriptive type six questions of 20 marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

INTRODUCTION TO AYUSH**Theory: 60 Lectures****Unit-1: Yoga and Health and Integrated Approach of Yoga Therapy [15 Hrs.]**

Concept of body, Health and disease; Concept of Yoga Adhi and Vyadhi; Principle of Yoga Therapy in relation to Yoga Vasistha; Practices at Pancha Kosa level Annamaya, Pranamaya, Manomaya, Vijnanamaya and Anandamaya kosa; Principle of Yoga Therapy in relation to Hatha Ratnavali and Gheranda Samhita

Unit-2: Introduction to Basic Concepts of Naturopathy [15 Hrs.]

History of Naturopathy; Principles of Naturopathy; Concept of five elements and its applications

Unit- 3: Introduction to Basic Concepts of Ayurveda [15 Hrs.]

The four aspects of life (Soul, Mind, Senses and Body); Panchamahabhutas (the five element theory), Ahara, Vihara and Aunadhi (three pillars of Ayurveda); Concept, role and importance of – Doña, Dhatu, Mala; Updhatu, Srotas, Indriya, Agni, Prāëa, Prāëäyatna, Prakrti, Deha Prakrti, Manasa Prakrti; Role of Dosa, Dhatu and Mala in health and diseases.

Unit- 4: Introduction to Basic concepts of Unani, Siddha and Homeopathy [15 Hrs.]

History of Unani & Siddha; Concept of Unäné & Siddha; Introduction to Basic concepts of Homeopathy; History of Homeopathy; Concept of homeopathy; Principles of Homeopathy.

Text Books:

- Dr R Nagaratha and: Yoga and Health
- Dr H R Nagendra (Swami Vivekananda Yoga Prakashana, 2000)
- Dash, V.B.: Ayurvedic Treatment for Common Diseases Delhi Diary, 1974.

SEMESTER V

6 Papers**Total 100 x 6 = 600 Marks**

(Credits: Theory-04, Practicals-02)

I. CORE COURSE –C 11:

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100	Pass Marks: Th (MSE +ESE) = 40
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Instruction to Question Setter for***Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

YOGA AND HUMAN CONSCIOUSNESS**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- Understand the necessity and significance of psychology.
- Have an understanding about utility of psychology in the society.
- Understand human behavior with regard to therapy.

Unit- I: Psychology: a science of behaviour**[12 Hrs.]**

Psychology: Definition of Psychology; Psychology as a Science of Behaviour; Definition of Behaviour and its Cognitive, Cognitive and Affective Aspects; Scope and Utility of Psychology; Concept of Human Psyche; Human Psyche and Consciousness; Sigmund Freud's Model of Human Psyche.

Unit- 2: Domains and dynamics of behaviour – I**[12 Hrs.]**

Attention: Nature, Determinants of Attention, Division and Span of Attention; Sensation: Nature and Attributes of Sensation; Perception: Nature; Gestalt theory of Perception; Motivation: Nature; Types of Motives: Biological Motives, Social and Psychological Motives; Maslow's Theory of Motivation

Unit- 3: Domains and dynamics of behaviour – II**[12 Hrs.]**

Intelligence: Nature; Measurement of Intelligence: Concepts of Mental Age and Intelligence Quotient, Verbal and Non-verbal Intelligence Tests; Emotion: Nature; Physiological Basis of Emotion; Theories: James-Lange Theory, Cannon-Bard Theory; Emotional Intelligence (EI): Nature, Goleman's Model of EI; Spiritual Intelligence: Nature; Memory: Meaning; Systems of Memory: Sensory Register, Short-Term Memory and Long-Term Memory; Thinking: Meaning and Definition; Distorted Thinking (Delusion), Thinking and Reasoning.

Unit- 4: Personality and its development**[12 Hrs.]**

Personality: Nature and Types of Personality; Determinants of Personality: Heredity and Environment; Facets and Stages of Personality Development; Personality Theories of Sigmund Freud, Alfred Adler

and C.G. Jung, Carl Rogers; Assessment of Personality: Personality Inventories, Projective Techniques, Case History Method; Yoga and Personality: Yogic View of Personality; Personality Development with special emphasis on Panchakosha and Ashtanga Yoga

Unit-5: Yoga for mental health

[12 Hrs.]

Psychotherapy: Nature and Process of Psychotherapy, Ethics in Psychotherapy; Approaches to Psychotherapy -I: psychodynamic Therapy, Behaviour Therapy: Aversive Conditioning, Systematic Desensitization, Token Economy, Yogic Concepts and Techniques in *Patanjala Yoga Sutra* and *Bhagwadgita* for Promoting Mental Health; Need of Spiritual Growth for Mental Health; Specific Yogic Practices for Promotion of Mental Health.

Text Books:

- Bhatia, Hans Raj: General Psychology. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd, 2005
- Ciccarelli, S. K., Meyer, G. E. & Misra, G.: Psychology: South Asian Edition. New Delhi: Pearson Education, 2010
- Hilgard, Ernest R., Atkinson, Richard C. & Atkinson, R.L.: Introduction to Psychology. New Delhi: Oxford and IBH Publishing Co. Pvt. Ltd.

Books for Reference:

- Basavaraddi, I.V.: Yoga Teacher's Manual for School Teachers. New Delhi: Morarji Desai National Institute of Yoga, 2010
 - Morgan, C. T., King, R.A., Weisz J. R. & Schopler J.: Introduction to Psychology. New Delhi: Tata McGraw Hill Publishing Co. Ltd, 2006
 - Passer, M.W. & Smith, R.E.: Psychology: The Science of Mind and Behaviour. New Delhi: Tata McGraw-Hill, 2010
 - Singh, A. K.: Saral Samanya Manovijnana. Delhi: Motilal Banarasidas Publications, 2007
 - Srivastava, D.N.: General Psychology. Agra: Vinod Pustak Mandir, 2007
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II. YOGIC SCIENCE PRACTICAL–C 11-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

PSYCHOLOGY PRACTICUM**60 Lectures****Course Description**

Objectives of this course is to make the students familiar about the tests and the scales and the procedure of administering them.

Practical & Practicum

Division of Attention; Emotional Intelligence/Emotional Maturity; Spiritual Intelligence/Study of Values/Spiritual Belief; Self concept; Asakti/Anasakti Scale; Anxiety Scale; Aggression Scale Fear of Death; Depression; Frustration; Personality Inventory; Adjustment/Mental Health General Well-being; Case study

Note: Each student will collect data of 10 respondents. Using any two of the tests mentioned above they have to give necessary statistical treatment and they should be presented at the time of Examination. Practical involves understanding of means of Central Tendency, involving means, median, mode & Standard Deviation.

III. CORE COURSE- C 12:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100

Pass Marks: Th (MSE +ESE) = 40

Instruction to Question Setter for***Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

YOGIC MANAGEMENT OF LIFESTYLE RELATED DISORDERS**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- Understand the principle of yoga therapy for each disease
- Write standard yoga therapy protocol for each disease.
- Understand the causes of disease and the role of yoga for its healing.

Unit -1: Introduction to common ailments and Respiratory disorders [8 Hrs.]

Introduction to stress and stress related disorders; Introduction to Yoga therapy– AdhijaVyadhi concept, IAYT; Respiratory Disorders: Introduction to Respiratory disorders, Brief classification – Obstructive / Restrictive, infectious, Bronchial Asthma: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic Management; Allergic Rhinitis & Sinusitis: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic Management; COPD: Chronic Bronchitis, Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic Management; Emphysema: Definition, Classification, Clinical Features, Medical and Yogic Management; Infectious Disorders; Tuberculosis: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic Management

Unit -2: Cardiovascular disorder [8 Hrs.]

Introduction to Cardiovascular disorders, Hypertension: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management, Atherosclerosis / Coronary artery disease: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management; Ischemic Heart disease – Angina pectoris / Myocardial Infarction/ Post CABG rehabilitation: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management, Congestive Cardiac failure, Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management, Cardiac asthma: Definition, Etiopathogenesis, classification, Clinical Features, Medical and Yogic management

Unit- 3: Endocrinal and Metabolic Disorder [8 Hrs.]

Diabetes Mellitus (I&II): Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management; Hypo and Hyper- thyroidism: Definition, Etiopathogenesis, Classification, Clinical

Features, Medical and Yogic management; Obesity: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management; Metabolic Syndrome: Definition, Etiopathogenesis, Classification, Clinical Features; Medical and Yogic management

Unit -4: Obstetrics and Gynecological Disorders [8 Hrs.]

Menstrual disorders: Dysmenorrhea, Oligomenorrhea, Menorrhagia: Definitions, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management; Premenstrual Syndrome: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management; Menopause and peri-menopausal syndrome: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management; Yoga for Pregnancy and Childbirth: Introduction to pregnancy, Complicated pregnancies: PIH, Gestational DM, Ante-natal care, Post-natal care; PCOS: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management

Unit-5: Cancer and gastrointestinal disorders [7 Hrs.]

Cancer: causes, types, clinical features, Side effects of Chemotherapy, radiotherapy; Medical and Yogic management; Gastro Intestinal Disorders: APD: Introduction to APD: Gastritis – Acute & Chronic, Dyspepsia, Peptic Ulcers, Clinical Features, Medical and Yogic management; Constipation and Diarrhoea: Definition, Etiopathogenesis, Clinical Features, Medical and Yogic management; Irritable Bowel Syndrome: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management; Inflammatory Bowel Disease, Ulcerative colitis: Definition, Etiopathogenesis, Classification, Clinical Features, Medical and Yogic management

Unit-6: Musculo-Skeletal Disorders [7 Hrs.]

Back Pain; Classification of back pain: organic and functional: Lumbar Spondylosis, Intervertebral disc prolapse (IVDP), Spondylolisthesis, Spondylitis, Psychogenic- Lumbago, Medical and Yogic management; Neck pain: Classification, Cervical Spondylosis, radiculopathy, Functional neck pain; Medical and Yogic management, All forms of Arthritis: Rheumatoid Arthritis, Osteoarthritis, Medical and Yogic management

Unit-7: Neurological Disorders [7 Hrs.]

Headaches: Migraine: Causes, Classification, clinical features, Medical and Yogic management, Tension headache: Causes and its symptoms and Medical and Yogic management; Cerebro vascular accidents: Causes, clinical features, Medical and Yogic management, Epilepsy; pain; Autonomic dysfunctions: Causes, clinical features, Medical and Yogic management; Parkinson's disease: Causes, clinical features, Medical and Yogic management

Unit- 8: Psychiatric disorders [7 Hrs.]

Introduction to psychiatric disorders, classification – Neurosis, Psychosis: Neurosis: Anxiety disorders: Generalised anxiety disorder, Panic Anxiety, Obsessive Compulsive Disorder, Phobias: Medical and Yogic management; Depression: Dysthymia, Major depression, Medical and Yogic management; Psychosis: Schizophrenia, Bipolar affective disorder, Medical and Yogic management

Text Books:

- Ramesh Bijlan: Back to Health Through Yoga, Rupa Publications India Pvt. Ltd, 2011
- MDNIY publications: 10 Booklets, Yoga Therapy Series, MDNIY Publications, New Delhi, 2009
- Reddy M Venkata & others: Yogic Therapy, Sri M.S.R. Memorial Yoga series, Arthamuru A.P., 2005
- Rai, Lajpat: Discovering Human Potential energy: A Physiological Approach to Yoga, Anubhava Rai Publications, 1998

Books for Reference:

- Swami Satyananda Saraswati: Yoga and Cardio Vascular Management, Yoga Publication Trust, Munger, 2005
- Heriza, N., Ornish, D. Merz, C.N.B.: Dr. Yoga: A Complete Guide to the Medical Benefits of and Yoga (Yoga for Health) by (Paperback - Sep 9, 2004) Sparrowe, L., Walden, P. and Lasater, J.H: The Woman's Book of Yoga and Health: A Lifelong Guide to Wellness (Paperback - Dec 3, 2002) - Dec 23, 2003)
- Clennell, B and Iyengar, G.S.: The Woman's Yoga Book: Asana and Pranayama for All Phases of the Menstrual Cycle, Menstrual Disorders (The Experience of Illness) (Paperback - Dec 3, 1992)
- agarathna R and Nagendra H R: Yoga for Arthritis, Back pain, Diabetes, Pregnancy, Breathing Practices, Swami Vivekananda Yoga Prakasana, Bangalore, 2000
- Robin Monoro, Nagarathna R and Nagendra, H.R.: Yoga for Common Ailments, Guia Publication, U.K., 1990

IV. YOGIC SCIENCE PRACTICAL–C 12-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

<i>Experiment</i>	<i>= 60 marks</i>
<i>Practical record notebook</i>	<i>= 20 marks</i>
<i>Viva-voce</i>	<i>= 20 marks</i>

STUDY TOUR**60 Lectures****Unit-1: Study tour**

The study tour is to give exposure to the students on the activities being conducted by reputed Yoga Institutes/ Colleges/ Universities/ Yoga Centers/ Yogic Hospitals. The students may be taken to any one or more than one Yoga Institutes /Yoga Centers etc. of repute in India. The Study Tour shall be arranged the Institute and the expenses shall be borne by the concerned students only. Each student has to submit a Study Tour observation report that will be evaluated by the teacher who is in-charge of the study tour and also counter signed by the Course Coordinator.

The Study Tour will carry marks as mentioned in the Scheme of examination

Unit-2: Presentation

Presentations of Study Tour Report, its Utility and the exposure got to enhance their learning

Unit-3: Continuous evaluation by the Teachers**Text Books:**

- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004
- James R. Ballantyne: The Sankhya Aphorisms of Kapila, Parimal Publications, New Delhi, 2004

Books for Reference:

- V.V. Sovani: A critical study of the Sankhya System, Chukhambha Sanskrit Pratisthan, New Delhi, 2005
- M.R. Yardi: The Yoga of Patanjali, Bhandarkar Oriental Research Institute, Poona, India, 1970

V. YOGIC SCIENCE SPECIFIC (DSE 1):

(Credits: Theory-05, Tutorials-01)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100

Pass Marks: Th (MSE +ESE) = 40

Instruction to Question Setter for***Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** three questions of five marks each, out of which any two are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

FUNDAMENTALS OF NATUROPATHY**Theory: 60 Lectures****Unit-1: Introduction to Naturopathy****[15 Hrs.]**

General introduction to Naturopathy; Naturopathy – its definition, meaning, scope and limitations; History of Naturopathy – Indian and Western; Comparative study of the Naturopathy with other systems of Medicine; Catechism of Nature cure

Unit-2: Principles and Concepts of Naturopathy**[15 Hrs.]**

Composition of the human body according to Naturopathy, Laws of Nature: Pancha- Mahabhootas, Shareera Dharmas – Ahara, Nidra, Bhaya, Maithuna; Fundamental principles of Naturopathy; Natural rejuvenation and vitality, how to acquire natural immunity; importance of Physical & Mental Hygeine and prevention of diseases;

Unit-3: Naturopathy**[15 Hrs.]**

Hydrotherapy: Introduction, definition, scope, history, principles; role of hydrotherapy in prevention of diseases; Upavasa (Fasting): Introduction, definition, scope, history, principles and types; its role in disease prevention, health promotion; concept of de-toxification. Diet: Introduction, definition, scope, types and its principles; role of Naturopathy diet in disease prevention and, health promotion; Massage: Introduction, definition, scope, history, its principles and manipulative techniques; Different types of Massages and their role in in disease prevention, and health promotion

Text Books:

- S. D. Dwivedi: Naturopathy for perfect health, Kalpaz Publication Delhi, 2002
- Pravesh Handa: Naturopathy and Yoga, Kalpaz Publication Delhi, 2006
- S.J. Singh.: My Nature Cure or Practical Naturopathy
- M.K. Gandhi: The story of my experiment with truth

Books for Reference:

- R.K. Garde: Ayurvedic for Health and Long life Harry Benjamin.: Everybody's Guide to Nature Cure
- M.K. Gandhi.: My Nature Cure

VI. YOGIC SCIENCE SPECIFIC (DSE 2):

(Credits: Theory-05, Tutorials-01)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be two group of questions. Group A is compulsory and will contain five questions of very short answer type consisting of 1 mark each. Group B will contain descriptive type three questions of five marks each, out of which any two are to answer.

End Semester Examination (ESE):

There will be two group of questions. Group A is compulsory and will contain two questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

INTRODUCTION TO AYURVEDA**Theory: 60 Lectures****Unit-1: General Introduction To Ayurveda****[15 Hrs.]**

General introduction to Ayurveda; Definition, aim of Ayurveda, its origin, history and propagation; Basic introduction to main Ayurvedic texts like Charaka Samhita, Sushruta Samhita and Ashtanga Samghra; Ashtanga Ayurveda and its significance; Concept of Health according to Ayurveda and its utility in health promotion and prevention

Unit-2: Swasthavritta, Dinacharya, Ritucharya, Ratricharya, Sadvritta & Achararasayana [15 Hrs.]

Basic principles of Ayurveda – Tridosha, Saptadhatu, Trimala, Pancha Mahabhuta, Prakruti & Manas; Concept and importance of Swasthavritta, Dinacharya, Ritucharya; Concept of Sadvritta and Achara Rasayana; Concept of Agni, Srotas and Ama, Concept of Dharniya and Adharniya Vega in Ayurveda; Introduction to Dravya, Guna, Karma, Virya, Vipaka and Prabhava

Unit-3: Upasthambas with Special Emphasis On Ahara**[15 Hrs.]**

Concept of Upasthambha; Concept of Ahara, Ahara pachana, Pathya & Apathya in Ayurveda; Introduction to Shariraposhana (nourishment); Concept of Oja in Ayurveda; Role of Ayurvedic diet in health and prevention

Unit-4: Introduction to Panchakarma**[15 Hrs.]**

Role of Poorva and Paschat Karma in Panchakarma; Significance of Panchakarma in Ayurveda and Shatkarma in Yoga; Approach of Ayurveda and Yoga as whole in relation to total health

Text Books:

- Dr. Priyavrata Sharma: Charak samhita, Chaukhambha Orientalia, Varanasi, Edition of 2008
- Dr. Ravi dutta Tripathi Dr. Brahmanand Tripathi: Ashtanga Samgraha, Chaukhambha Sanskrit
- Pratishthan, Delhi, Reprint edition of 2003
- Dr. K. H. Krishnamurthy: The wealth of Susruta, International Institute of Ayurveda, Coimbatore, 1999

Books for Reference:

- Dr. P. H. Kulkarni: Ayurvedic Philosophy, Academia Publishers, 2011
- Dr. V. B. Athavale: Basic Principles of Ayurveda, Chaukhambha Sanskrit Prathisthan, Delhi, 2004
- Dr. L. P. Gupta: Essentials of Ayurveda, Chaukhambha Sanskrit Prathisthan, Delhi, 2006
- Dr. G. Srinivas Acharya: Panchakarma illustrated, Chaukhambha Sanskrit Prathisthan, Delhi, 2009

SEMESTER VI

6 Papers**Total 100 x 6 = 600 Marks**

(Credits: Theory-04, Practicals-02)

I. CORE COURSE –C 13:**Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100****Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

APPLIED YOGA**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- Understand the applied value of yoga in different domain.
- Have an idea about the role of yoga for school, sports, technostress and geriatric care.

Unit -1: Yogic Health for school**[15 Hrs.]**

General Introduction to School Health, components of school health; Parent-Teacher-Student relationship in a School Health; Role of social interaction in a School Health; Brief introduction to developmental process of children; Psycho-Physiological changes and development of cognitive functions in School going children; Role of Yoga in establishment of values in School going children; Personality Development: New Dimensions of Personality through Yoga

Unit -2: Yoga in Physical Education, Sports Sciences**[15 Hrs.]**

General introduction to Physical Education and Sports; Difference between Physical Education & Sports; Relevance of Integration of Yoga in Physical Education & Sports; Yoga for Physical, Mental Stamina and other faculties / skills in a sports Personnel; Nature of different sports injuries, its prevention and management through Yoga; Yoga modules for different sports – track events, field events, single participation, group participation; Application of Yogic lifestyle in improving efficacy in sports personnels; Relationship between Yoga and sports activities; Research reviews on Yoga and Sports

Unit -3: Yoga for technostress**[15 Hrs.]**

Introduction to Technostress, its cause, symptoms and complications; Health Hazards in computer professionals; Role of Yoga in the promotion of skills; Application of Yoga for management of Technostress; Research reviews on effect of Yoga on Technostress

Unit -4: Yoga for geriatric care**[15 Hrs.]**

General introduction to Geriatric Care; Ageing: Causes and features, Premature ageing; Common Geriatric problems; Application of Yoga in common Geriatric problems and their prevention & management; Research reviews on Yoga & Geriatric care

Text Books:

- Jayadev H J : Growing with Yoga, The Yoga Institute, Santacruz, Mumbai, 2004
- Liz Lark: Yoga for Kids, Carlton Books Ltd., London, 2003
- Swati & Rajiv Chanchani: Yoga for Children: A complete illustrated guide to Yoga, UBS Publishes Distributors Pvt. Ltd, 2008
- Iyenger B K S : The Path to Holistic Health, A Dorling Kindersley Book, Great Britain, 2001
- Dr. Goel Aruna: Yoga Education: Philosophy and Practice, Deep & Deep Publications Pvt. Ltd, 2007

Books for Reference:

- Basavaraddi I V: Yoga: Teachers manual for school children, MDNIY New Delhi, 2010
 - Basavaraddi I V: Yoga in School Health, MDNIY New Delhi, 2009 Iyenger B K S: Astadala Yogamala 1 to 7 volumes, Allied Publishers Pvt. Ltd, 2009
 - Basavaraddi I V: Yoga for Technostress, MDNIY, New Delhi, 2010
 - Dr. H Kumar Kaul: Yoga and Healthy Ageing, BR Publishing Corporation, Delhi, 2006
 - Basavaraddi I V: Yogic Management of Geriatric Disorders, MDNIY, New Delhi, 2009
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II. YOGIC SCIENCE PRACTICAL–C 13-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

PRACTICAL STATISTICS**60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- *Understand the concept of research and its methodology for carrying minor and major research.*
- *Understand the tricks of analyzing the data efficiently.*
- *Have an idea about various statistical tests and their application.*

List of Practicals:

1. Introduce about MS-Word and write down the steps for performing various general operations in it (like open, saving, cut, copy, paste, printing a document etc.).
2. Create a simple MS –Word document about introducing yourself and preparing your Bio-data (using various formatting options in MS-Word).
3. Learning and performing various options/operations in MS-Word.
 - a. Creating a table, Entering text and contents in a table.
 - b. Toolbars in word, Using various toolbars options.
 - c. Watermarks and Water-marking a document.
 - d. Inserting clip arts/picture, Hyper-linking a text.
 - e. Header/Footers.
4. Introduce about MS-Excel and write down the steps for performing various general operations in it (like open, saving, cut, copy, paste, printing a document etc.).
5. Learning and performing various options/operations in MS-Excel. Like:
 - a. Creating and Saving a new Workbook.
 - b. Deleting and Renaming a Worksheet.
 - c. Creating Formulas, Using Formulas.
 - d. Using Functions.
6. Introduce about MS Power-point explaining its various features and steps for performing various general operations in it.
7. Prepare a power-point presentation explaining the facilities /infrastructure available in your College/ Institution.
8. Net Surfing
9. Creation and Usage of E-mail Account

III. CORE COURSE- C 14:

(Credits: Theory-04, Practicals-02)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100

Pass Marks: Th (MSE +ESE) = 40

Instruction to Question Setter for***Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** six questions of five marks each, out of which any four are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** six questions of fifteen marks each, out of which any four are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

RESEARCH METHODOLOGY & STATISTICS**Theory: 60 Lectures****Course Description**

Following the completion of the course, students shall be able to

- Understand the concept of research and its methodology for carrying minor and major research.
- Feed and analyze the data.
- Organize the data and represent the data.

Unit- 1: Introduction to research methodology**[15 Hrs.]**

Definition of research; Importance of Studying Research Methods: Evaluating Research Reports; Conducting Research, Thinking Critically About Research; Types of research Applied Research & Basic Research; Goals of Research: description, explanation, prediction, and control of behavior; Ethics of research: Informed consent, Anonymity, Confidentiality, Plagiarism

Unit- 2: Introduction to Research Process**[15 Hrs.]**

Research questions; Literature review; Different Sources of Information: Primary, Secondary, Tertiary source; Electronic Databases: Google Scholar, Pubmed & Psyc INFO; Hypothesis Operational definition; Sampling and Generalization - Population and Sample; Probability Sampling: Simple Random Sampling, Systematic Sampling, Stratified Sampling, Cluster Sampling; Sampling Bias and Nonprobability Sampling: snowball sampling, convenience; Types of Biological data (Scales of measurement) – nominal, ordinal, interval, ratio; Types of variables – Independent, dependent, confounding variable; Reliability & Validity

Unit-3: Introduction to Research Design**[15 Hrs.]**

Cross-sectional studies and its advantages and disadvantages; Cohort studies and its advantages and disadvantages; Randomized controlled trials and its advantages and disadvantages; Factors need to be considered when designing a study: Availability of data, Sampling methods, Data collection, Cost of the design, time implications and loss to follow- up, Controls, Ethical issues, Issues of bias and confounding

Unit-4: Statistics**[10 Hrs.]**

Normal distribution – Skewness and kurtosis; Frequency distribution; Measures of central tendency – mean, median, mode; Measures of dispersion – range, variance and standard deviation; Graphical presentation of data – Bar graphs, Pie chart, line diagram, scatter plot; Paired samples t test; Percentage change

Unit-5: Reporting Research**[5Hrs.]**

Parts and Order of Dissertation, Title Page, Abstract, Introduction, Method Section, Results Section, Discussion Section, Reference Section

Text Books:

- R. L. Bijlani. (2008). Medical Research: All You Wanted to Know But Did Not Know Who to Ask. Jaypee Brothers Medical Publishers Pvt. Ltd. New Delhi

Books for Reference:

- C R Kothari. (2009). Research Methodology: Methods and Techniques. New Age International (P) Ltd. New delhi.
- Zar, J. H., & Zar. (1999). Biostatistical Analysis. Pearson Education. New Delhi

IV. YOGIC SCIENCE PRACTICAL–C 14-Pr:

(Credits: Practical-02)

Marks : Pr (ESE: 3Hrs) =100**Pass Marks: Pr (ESE) = 40*****Instruction to Question Setter for******End Semester Examination (ESE):***

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 60 marks

Practical record notebook = 20 marks

Viva-voce = 20 marks

RESEARCH PROJECT**60 Lectures**

A pilot research shall be carried out by each student under the supervision of a Lecturer /Assistant Professor of the Department. As part of the research project, students will record the effect of any intervention of his/her choice for a common variable in a particular group of sample.

V. YOGIC SCIENCE SPECIFIC (DSE 3):

(Credits: Theory-06)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for
Mid Semester Examination (MSE):***

There will be **two** group of questions. **Group A is compulsory** and will contain five questions of **very short answer type** consisting of 1 mark each. **Group B will contain descriptive type** three questions of five marks each, out of which any two are to answer.

End Semester Examination (ESE):

There will be **two** group of questions. **Group A is compulsory** and will contain two questions. **Question No.1 will be very short answer type** consisting of ten questions of 1 mark each. **Question No.2 will be short answer type** of 5 marks. **Group B will contain descriptive type** five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

YOGA AND MENTAL HEALTH**Theory: 60 Lectures****Unit-1: Mental Health****[15 Hrs.]**

Mental Health: Meaning and Importance; Yogic Perspective of Mental Health; Yoga nidra, Kuntha, samayojan, stress, emotions, feelings, adjustments

Unit-2: Basic Understanding about Psychiatric Disorders**[15 Hrs.]**

Sign and symptoms of Delirium, Dementia, and Amnesic Disorders; Substance-Related Disorders; Schizophrenia and Other Psychotic Disorders; Mood Disorders; Eating Disorders; Personality Disorders

Unit-3: Basic Understanding about Personality Disorders**[15 Hrs.]**

Sign and symptoms of Personality Disorders: Borderline, Antisocial, Histrionic, Paranoid, Narcissistic, Obsessive-Compulsive, and Dependent and Eating Disorders.

Unit- 4: Yoga for Mental Health**[15 Hrs.]**

Yogic Concepts and Techniques in Patanjala Yoga Sutra and Bhagwadgita for Promoting Mental Health; Need of Spiritual Growth for Mental Health; Specific Yogic Practices for Promotion of Mental Health: Memory, Intelligence, Breath; Awareness, Shavasana, Yoganidra, Pranayama and Meditation; Yogic Life-style

Text Books:

- Singh, A. K.: Saral Samanya Manovijnana. Delhi: Motilal Banarasidas Publications, 2007 Tilak, B. G.: Srimad Bhagwadgita Rahasya. Poona: Tilak Mandir.
- Udupa, K.N.: Stress and Its Management by Yoga. Delhi: Motilal Banarasidas, 2007 Vivekananda, Swami: Raja Yoga. Nagpur: Ramakrishna Math

VI. YOGIC SCIENCE SPECIFIC (DSE 4):

(Credits: Theory-06)

Marks : 25 (MSE: 1Hr) + 75 (ESE: 3Hrs) =100**Pass Marks: Th (MSE +ESE) = 40*****Instruction to Question Setter for******Mid Semester Examination (MSE):***

There will be two group of questions. Group A is compulsory and will contain five questions of very short answer type consisting of 1 mark each. Group B will contain descriptive type three questions of five marks each, out of which any two are to answer.

End Semester Examination (ESE):

There will be two group of questions. Group A is compulsory and will contain two questions. Question No.1 will be very short answer type consisting of ten questions of 1 mark each. Question No.2 will be short answer type of 5 marks. Group B will contain descriptive type five questions of fifteen marks each, out of which any three are to answer.

Note: There may be subdivisions in each question asked in Theory Examinations.

YOGIC DIET AND NUTRITION**Theory: 60 Lectures****Unit – 1: Yogic Concept of Diet & Nutrition****[15 Hrs.]**

General Introduction of Ahara (Diet), concept of Mitahara; Definition and Classification in Yogic diet according to traditional Yoga texts; Concepts of Diet according to Gheranda Samhita, Hatha Pradeepika and Bhagavadgeeta; Pathya and Apathya in diet according to Yogic texts; Guna and Ahara; Importance of Yogic Diet in Yog Sadhana; Yogic Diet and its role in healthy living

Unit –2: Dietetics in Yoga**[15 Hrs.]**

Classification according to triguna- vegetarian vs non-vegetarian, panchabhuta; relationships, rasa virya, Guna, Vipaka of shali, Yava, Godhuma, Mugda, Masha, Chanaka, patola; Surana, Mana, Kakkola, Shukashuka, Karkat, rambha, Balaramba, Mulak, Vartaki, Ridhi; Kalashaka, Vatraka, Himocika; Navanita, Ghrta, Kshira, Sita, Aikshwam, Gudum, Pakvaramba; Varikellalm, Draksham, Lawali, Dhatri, Ela, Jati, Lavanga, Panasa; Jambu, Haritaki, Khajura, Madhu, Shunthi.

Unit-3: Biomolecules**[15 Hrs.]**

Significance of Carbohydrate, Proteins, Lipids, Vitamins, Minerals and water in the body

Unit-3: Nutrition-Basics**[15 Hrs.]**

Nutrients, proximate principles of diet, balanced diet concept; Carbohydrates, proteins, fats – sources, nutritive values, importance; Minerals-calcium, iron , phosphorus etc. Vitamins – sources, roles, requirements

Text Books:

- Ramesh Bijlani: Eating Wisely and Well, Rupa Publication India Pvt. Ltd, 2012
- Stanley Davidson & others: Human Nutrition & Dietetics, The English Language Book Society & Churchill Livings, Revised Edition
- Dennis Thompson: The Ayurvedic Diet, New age books, New Delhi, 2001
- Randolph Stone: A Purifying Diet, Lilawati Bhargav Charitable Trust, Delhi, Revised Edition

Books for Reference:

- Swami Digamber Ji & Others: Gheranda Samhita, Lonavala Institute, 1978
- Gharote M L & others: Hatha Pradipika, The Lonavala Yoga Institute, Lonavala, 2006
- Swami Mangalteertham: Synthetic approach to Diet & Nutrition, Deogarh Nutan Publication, Deogarh, 2005
- Swami Gambhirananda : Bhagvatgita, Shri Ramkrishna Math, Madras Swami Maheshananda & Others: Vasishta Samhita

SAMPLE CALCULATION FOR SGPA & CGPA FOR UNDERGRADUATE ‘Yogic Sc. Honours’
PROGRAMME

Distribution of Credits Semester wise for Undergraduate Honours Courses

Table B-1: UG (Yogic Sc. Hons. Programme)

Semester wise distribution of 156 Credits

	CC	AECC	GE-A	GE-B	SEC	DSE	Total credits
Semester I	12	02	06	06			26
Semester II	12	02	06	06			26
Semester III	18		06	06	02		32
Semester IV	18		06	06	02		32
Semester V	12					12	24
Semester VI	12					12	24
	84	04	24	24	04	24	164

CC=Core Course; AECC=Ability Enhancement Compulsory Course; GE=Generic Elective; SEC=Skill Enhancement Course; DSE=Discipline Specific Elective

Table B-3: Sample calculation for SGPA for Yogic Sc. Honours Programme

Course	Credit	Grade Letter	Grade Point	Credit Point	SGPA
				(Credit X Grade)	(Credit Point/Credit)
Semester I					
AECC-1	2	B	6	12	
C-1 Th	4	A	8	32	
C-1 Pr	2	B	6	12	
C-2 Th	4	B+	7	28	
C-2 Pr	2	B	6	12	
GE-1A	4	B	6	24	
GE-1A Pr	2	A+	9	18	
GE-1B	6	B+	7	42	
Total	26			180	6.92 (180 / 26)
Semester II					
AECC-1	2	B	6	12	
C-3 Th	4	B	6	24	
C-3 Pr	2	A+	9	18	
C-4 Th	4	C	5	20	
C-4 Pr	2	B+	7	14	
GE-2A	4	A+	9	36	
GE-2A Pr	2	B+	7	14	
GE-2B	6	B+	7	42	
Total	26			180	6.92 (180 / 26)
Semester III					
SEC-1	2	A	8	16	
C-5 Th	4	A+	9	36	
C-5 Pr	2	B+	7	14	
C-6 Th	4	O	10	40	
C-6 Pr	2	B+	7	14	
C-7 Th	4	A	8	32	
C-7 Pr	2	A+	9	18	
GE-3A	4	O	10	40	
GE-3A Pr	2	A	8	16	
GE-3B	6	B+	7	42	
Total	32			268	8.375 (268 / 32)

Semester IV					
SEC-2	2	A+	9	18	
C-8 Th	4	B	6	24	
C-8 Pr	2	A+	9	18	
C-9 Th	4	A+	9	36	
C-9 Pr	2	B+	7	14	
C-10 Th	4	B	6	24	
C-10 Pr	2	B+	7	14	
GE-4A	4	A	8	32	
GE-4A Pr	2	A+	9	18	
GE-4B	6	B+	7	42	
Total	32			240	7.5 (240 / 32)
Semester V					
C-11 Th	4	B	6	24	
C-11 Pr	2	B+	7	14	
C-12 Th	4	B+	7	28	
C-12 Pr	2	A	8	16	
DSE-1	6	0	10	60	
DSE-2	6	A	8	48	
Total	24			190	7.92 (190 / 24)
Semester VI					
C-13 Th	4	A+	9	36	
C-13 Pr	2	A	8	16	
C-14 Th	4	A	8	32	
C-14 Pr	2	A	8	16	
DSE-3	6	B+	7	42	
DSE-4	6	A	8	48	
Total	24			190	7.92 (190 / 24)
CGPA					
Grand Total	164			1248	7.609 (1248 / 164)

Table B-4: Sample calculation for CGPA for Yogic Sc. Honours Programme

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI
Credit:26; SGPA:6.92	Credit:26; SGPA: 6.92	Credit:32; SGPA: 8.375	Credit:32; SGPA: 7.5	Credit:24; SGPA: 7.92	Credit:24; SGPA: 7.92

Thus CGPA= (26x6.92+26x6.92+32x8.375+32x7.5+24x7.92+24x7.92)/164=7.609

Session 2019-22 onwards

MARKS DISTRIBUTION FOR EXAMINATIONS AND FORMAT OF QUESTION PAPERS

Marks Distribution of Mid Semester Theory Examinations:**Table No. C1:** Marks distribution of Theory Examinations of Mid Semester

Topic	Code	Full Marks	Pass Marks	Time	Group-A (Very short answer type Compulsory Questions) No. of Questions x Marks = F.M.	Group-B (Descriptive Questions with Choices) No. of Questions x Marks = F.M.	Total No. of Questions to Set	
							Group A	Group B
Mid Sem*	T15	15	---	1 Hr	5 x1 =5	2 (out of 3) x5 =10	5	3
	T25	25	---	1 Hr	5 x1 =5	4 (out of 6) x5 =20	5	6

Marks Distribution of End Semester Theory Examinations:**Table No. C2:** Marks distribution of Theory Examinations of End Semester

Topic	Code	Full Marks	Pass Marks including Mid Sem	Time	Group-A# (Very short answer type Compulsory Questions) No. of Questions x Marks = F.M.	Group-B (Descriptive Questions with Choices) No. of Questions x Marks = F.M.	Total No. of Questions to Set	
							Group A#	Group B
End Sem	T60	60	30	3 Hrs	Q.No.1 (10x1) + 1x5 =15	3 (out of 5) x15 =45	2	5
	T75	75	40	3 Hrs	Q.No.1 (10x1) + 1x5 =15	4 (out of 6) x15 =60	2	6
	T100	100	40	3 Hrs	Q.No.1 (10x1) + 2x5 =20	4 (out of 6) x20 =80	3	6
	T50 +T50	50X2=100	20	3 Hrs	2 x5 =10	2 (out of 3) x20 =40	2	3

Question No.1 in Group-A carries 10 very short answer type 1 Mark Questions.

Marks Distribution of Mid/End Semester Practical Examinations:**Table No. C3:** Marks distribution of Practical Examinations of End Semester

Topic	Code	Full Marks	Pass Marks	Time	Distribution of Marks			Total No. of Questions to Set
					Experiment	Record	Viva	
End Sem	P25	25	10	3 Hrs	15	5	5	
	P50	50	20	3 Hrs	30	10	10	Pr. with components of both papers
	P75	75	30	3 Hrs	45	15	15	Pr. with components of all three papers
	P100	100	40	3 Hrs	60	20	20	Pr. with components of all four papers

Abbreviations : T= Theory Examination, P= Practical Examination.

Mid Sem* : There will be 15 Marks Theory Examination in Practical Subjects and 25 Marks Theory Examination in Non-Practical Subjects/ Papers. 25 Marks Theory Examination may include 10 Marks questions from Assignment/ Project/ Tutorial where ever applicable.

Note : There may be subdivisions in each question asked in Theory Examinations.

FORMAT OF QUESTION PAPER FOR MID SEM EXAMINATION

OF

SUBJECTS WITH PRACTICAL



Ranchi University, Ranchi

Mid Sem No.Exam Year

Subject/ Code

F.M. =15**Time**=1Hr.**General Instructions:**

समान्य निर्देश :

- i. **Group A** carries very short answer type compulsory questions.
(खंड 'A' में अत्यंत लघु उत्तरीय अनिवार्य प्रश्न हैं।)
- ii. **Answer 2 out of 3** subjective/ descriptive questions given in **Group B**.
(खंड 'B' के तीन में से किन्हीं दो विषयनिष्ठ/ वर्णनात्मक प्रश्नों के उत्तर दें।)
- iii. Answer in your own words as far as practicable.
(यथासंभव अपने शब्दों में उत्तर दें।)
- iv. Answer all sub parts of a question at one place.
(एक प्रश्न के सभी भागों के उत्तर एक साथ लिखें।)
- v. Numbers in right indicate full marks of the question.
(पूर्णांक दायीं ओर लिखे गये हैं।)

Group A

- | | | |
|----|-------|---------|
| 1. | ..... | [5x1=5] |
| 2. | ..... |  |
| 3. | ..... |  |
| 4. | ..... |  |
| 5. | ..... |  |

Group B

- | | | |
|----|-------|-----|
| 6. | ..... | [5] |
| 7. | ..... | [5] |
| 8. | ..... | [5] |

Note: There may be subdivisions in each question asked in Theory Examination.

FORMAT OF QUESTION PAPER FOR MID SEM EXAMINATION

OF

SUBJECTS WITHOUT PRACTICAL



Ranchi University, Ranchi

Mid Sem No.Exam Year

Subject/ Code

F.M. =25**Time**=1Hr.

General Instructions:

समान्य निर्देश :

- i. **Group A** carries very short answer type compulsory questions.
(खंड 'A' में अत्यंत लघु उत्तरीय अनिवार्य प्रश्न हैं।)
- ii. **Answer 4 out of 6** subjective/ descriptive questions given in **Group B**.
(खंड 'B' के छः में से किन्हीं चार विषयनिष्ठ/ वर्णनात्मक प्रश्नों के उत्तर दें।)
- iii. Answer in your own words as far as practicable.
(यथासंभव अपने शब्दों में उत्तर दें।)
- iv. Answer all sub parts of a question at one place.
(एक प्रश्न के सभी भागों के उत्तर एक साथ लिखें।)
- v. Numbers in right indicate full marks of the question.
(पूर्णांक दायीं ओर लिखे गये हैं।)

Group A

- | | |
|---------|---------|
| 1. | [5x1=5] |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

Group B

- | | |
|----------|-----|
| 6. | [5] |
| 7. | [5] |
| 8. | [5] |
| 9. | [5] |
| 10. | [5] |
| 11. | [5] |

Note: There may be subdivisions in each question asked in Theory Examination.

FORMAT OF QUESTION PAPER FOR END SEM EXAMINATION

OF

AECC NH + MB COMMUNICATION



Ranchi University, Ranchi

End Sem No.Exam Year

Subject/ Code

F.M. =50**P.M.**=20**Time**=1.5Hrs.

General Instructions:

- i. **Group A** carries short answer type **compulsory** questions.
(खंड 'A' में लघु उत्तरीय अनिवार्य प्रश्न हैं।)
- ii. **Answer 2 out of 3** subjective/ descriptive questions given in **Group B**.
(खंड 'B' के तीन में से किन्हीं दो विषयनिष्ठ/ वर्णनात्मक प्रश्नों के उत्तर दें।)
- iii. Answer in your own words as far as practicable.
(यथासंभव अपने शब्दों में उत्तर दें।)
- iv. Answer all sub parts of a question at one place.
(एक प्रश्न के सभी भागों के उत्तर एक साथ लिखें।)
- v. Numbers in right indicate full marks of the question.
(पूर्णांक दायीं ओर लिखे गये हैं।)

Group A

1. [5]
2. [5]

Group B

3. [20]
4. [20]
5. [20]

Note: There may be subdivisions in each question asked in Theory Examination.

FORMAT OF QUESTION PAPER FOR END SEM EXAMINATION

OF

SUBJECTS WITH PRACTICAL



Ranchi University, Ranchi

End Sem No.Exam Year

Subject/ Code

F.M. =60**P.M.**=30 (Including Mid Sem)**Time**=3Hrs.**General Instructions:**

- i. **Group A** carries very short answer type **compulsory** questions.
- ii. **Answer 3 out of 5** subjective/ descriptive questions given in **Group B**.
(खंड 'B' के पाँच में से किन्हीं तीन विषयनिष्ठ/ वर्णनात्मक प्रश्नों के उत्तर दें।)
- iii. Answer in your own words as far as practicable.
(यथासंभव अपने शब्दों में उत्तर दें।)
- iv. Answer all sub parts of a question at one place.
(एक प्रश्न के सभी भागों के उत्तर एक साथ लिखें।)
- v. Numbers in right indicate full marks of the question.
(पूर्णांक दायीं ओर लिखे गये हैं।)

Group A

- | | | |
|----|------------|-----------|
| 1. | | [10x1=10] |
| | i. | [10x1=10] |
| | ii. | |
| | iii. | |
| | iv. | |
| | v. | |
| | vi. | |
| | vii. | |
| | viii. | |
| | ix. | |
| | x. | |
| 2. | ..... | [5] |

Group B

- | | | |
|----|-------|------|
| 3. | ..... | [15] |
| 4. | ..... | [15] |
| 5. | ..... | [15] |
| 6. | ..... | [15] |
| 7. | ..... | [15] |

Note: There may be subdivisions in each question asked in Theory Examination.

FORMAT OF QUESTION PAPER FOR END SEM EXAMINATION

OF

SUBJECTS WITHOUT PRACTICAL



Ranchi University, Ranchi

End Sem No.Exam Year

Subject/ Code

F.M. =75**P.M.** =40 (Including Mid Sem)**Time**=3Hrs.**General Instructions:**

- i. **Group A** carries very short answer type **compulsory** questions.
- ii. **Answer 4 out of 6** subjective/ descriptive questions given in **Group B**.
(खंड 'B' के छः में से किन्हीं चार विषयनिष्ठ/ वर्णनात्मक प्रश्नों के उत्तर दें।)
- iii. Answer in your own words as far as practicable.
(यथासंभव अपने शब्दों में उत्तर दें।)
- iv. Answer all sub parts of a question at one place.
(एक प्रश्न के सभी भागों के उत्तर एक साथ लिखें।)
- v. Numbers in right indicate full marks of the question.
(पूर्णांक दायीं ओर लिखे गये हैं।)

Group A

1. [10x1=10]
- i.
 - ii.
 - iii.
 - iv.
 - v.
 - vi.
 - vii.
 - viii.
 - ix.
 - x.

2. [5]

Group B

3. [15]
4. [15]
5. [15]
6. [15]
7. [15]
8. [15]

Note: There may be subdivisions in each question asked in Theory Examination.

FORMAT OF QUESTION PAPER FOR END SEM EXAMINATION

OF

GE, SEC, GENERAL & AECC HINDI/ ENGLISH COMMUNICATION



Ranchi University, Ranchi

End Sem No.Exam Year

Subject/ Code

F.M. =100**P.M.** =40**Time**=3Hrs.

General Instructions:

- i. **Group A** carries very short answer type **compulsory** questions.
- ii. **Answer 4 out of 6** subjective/ descriptive questions given in **Group B**.
(खंड 'B' के छः में से किन्हीं चार विषयनिष्ठ/ वर्णनात्मक प्रश्नों के उत्तर दें।)
- iii. Answer in your own words as far as practicable.
(यथासंभव अपने शब्दों में उत्तर दें।)
- iv. Answer all sub parts of a question at one place.
(एक प्रश्न के सभी भागों के उत्तर एक साथ लिखें।)
- v. Numbers in right indicate full marks of the question.
(पूर्णांक दायीं ओर लिखे गये हैं।)

Group A

- | | | |
|----|------------|-----------|
| 1. | | [10x1=10] |
| | i. | |
| | ii. | |
| | iii. | |
| | iv. | |
| | v. | |
| | vi. | |
| | vii. | |
| | viii. | |
| | ix. | |
| | x. | |
| 2. | ..... | [5] |
| 3. | ..... | [5] |

Group B

- | | | |
|----|-------|------|
| 4. | ..... | [20] |
| 5. | ..... | [20] |
| 6. | ..... | [20] |
| 7. | ..... | [20] |
| 8. | ..... | [20] |
| 9. | ..... | [20] |

Note: There may be subdivisions in each question asked in Theory Examination.