



Vinayak Vidnyan Mahavidyalaya, Nandgaon Kh.

Affiliated to Sant Gadge Baba Amravati University, Amravati

NAAC

Criterion-I

Curricular Aspects

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Nandgaon Khandeshwar, Amravati 

1.3 Curriculum Enrichment



1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the curriculum



Vinayak Vidnyan Mahavidyalaya Nandgaon Kh.

VINAYAK VIDNYAN MAHAVIDYALAYA

Nandgaon Khandeshwar, Dist. Amravati

(An Institute run by Pravin Khodke Memorial Trust, Amravati)

Sau. Sulbha Sanjay Khodke
(MLA, Amravati)
President, P.K.M Trust, Amt.

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Outward NO. PKMT/VVM/1123/3533

D. 10/11/2023

SELF DECLARATION

This is to certify that, the information, reports, true copies of the supporting documents, numerical data and web links furnished in this file are verified by I.Q.A.C. and head of the Institution and found correct.

Hence this certificate is issued.


Dr. Suchita Khodke
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Nandgaon Kh.


Dr. Alka A. Bhise
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Nandgaon Khan, Dist. Amravati.



1.3.1 Institution integrates cross cutting issues relevant to gender, Environment and Sustainability, Human Values and Professional Ethics

Issues	Name of the Program/Course	Name of the Course	In the form of
Gender			
Gender Equity	B. SC. I Sem I	Compulsory Marathi	References in prescribed textbook-Ishara
Gender Equity	B. SC. I Sem II	Compulsory Marathi	References in prescribed textbook-Ishara
Environment & Sustainability			
Environment And Sustainability	B. COM. II	Environmental Studies	Course
Environment And Sustainability	B. Sc. SEM-III	Environmental Studies	Course
Environment And Sustainability	B. Sc. SEM-IV	Environmental Studies	Course
Environment And Sustainability	B. SC. I Sem I	Compulsory Marathi	References in prescribed textbook-Ishara
Environment And Sustainability	B. SC. I Sem II	Compulsory Marathi	References in prescribed textbook-Ishara
Environment And Sustainability	BSc-II Sem. IV Physics	Unit-VI Renewable Energy Sources - Solar Energy, Wind Energy and Bio-Energy	Usefulness of Natural Resources
Environment And Sustainability	BSc-I Sem. I Zoology CBCS	Zoology	Unit-II
Environment And Sustainability	BSc-I Sem. II Zoology CBCS	Zoology	Unit-I,II,III, IV
Environment And Sustainability	BSc-II Sem. III Zoology	Zoology	Unit-I,II,III, IV,V,VI
Environment And Sustainability	BSc-II Sem. IV Zoology	Zoology	Unit-V, VI
Environment And Sustainability	BSc-III Sem V Zoology	Zoology	Unit-V(Agriculture Zoology) Unit-VI (Aquaculture)
Environment And Sustainability	BSc-III Sem V Botany	Botany	Unit-V Ecology and Environment
Environment and Sustainability	B. SC. I Sem I	1S Compulsory English	References in Prose Water-The Elixir of Life - C.V.Raman
Environment and Sustainability	B. Com. III Sem V	Compulsory English	References in Poetry The Garden - Andrew Marvell

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Environment and Sustainability	B. Com. III Sem VI	Compulsory English	References in Poetry The Duck and the Kangaroo- Edward Lear
Human Values			
Human Values	B. SC. I Sem II	2S Compulsory English	References in Prose- What is courage? - W. Slim, Kabuliwallah - R. Tagore, A Psalm of Life - H. W. Longfellow
Human Values	B. COM. I Sem I	Compulsory English	Prose lessons and poems in the textbook- Rays of Letters.
Human Values	B. COM. I Sem II	Compulsory English	Prose lessons and poems in the textbook- Rays of Letters.
Human Values	B. COM. I Sem I	Compulsory Marathi	References in prescribed textbook- Anubandha Part I
Human Values	B. COM. I Sem II	Compulsory Marathi	References in prescribed textbook- Anubandha Part I
Human Values	B. COM. III Sem. V and VI	Compulsory Marathi	References in prescribed textbook- Aashay Part III
Professional Ethics			
Professional Ethics	B. Com.I Sem I	Compulsory English	The Romance of a Busy Broker by O. Henry
Professional Ethics	B. Com. Sem II	Principles Of Business Economics	References in Unit 1, 2, 4 in prescribed syllabus
Professional Ethics	B. Com. Sem II	Principles Of Business Management	References in Unit 4, 5 in prescribed syllabus
Professional Ethics	B. COM. II	Monetary And Financial System	References in prescribed textbook
Professional Ethics	B. COM. III	Business Environment, Business Framework and company management law.	References in prescribed textbook


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non renewable energy sources, use of alternate energy sources. Case studies.

- Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
- Role of an individual in conservation of natural resources.
- Feasible use of resources for sustainable lifestyles (6 lecture hours)

5. Ecosystems

- Concept of an ecosystem.
- Structure and function of an ecosystem.
- Producers, consumers and decomposers.
- Energy flow in the ecosystem
- Ecological succession.
- Food chains, food webs and ecological dynamics
- Introduction, types, characteristic features, structure and function of the following ecosystem :-
- Forest ecosystem
- Grassland ecosystem
- Desert ecosystem
- Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) (6 lecture hours)

6. Biodiversity and its conservation

Introduction : Definition : genetic, species and ecosystem diversity.

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

7. Environmental Pollution

Definition

- Causes, effects and control measures of :-
- Air pollution
- Water pollution
- Soil pollution
- Marine pollution
- Noise pollution
- Thermal pollution

8. Field work

Visit to a local area to document environmental assets : (river / forest / grass land / hill / mountain)

Visit to a local polluted site : Urban / Rural / Industrial / Agricultural

Study of common plants, insects, birds.

Study of simple ecosystems : pond, river, hill slopes, etc. (5 lecture hours)

(Notes :

- Contents of the syllabus mentioned under paras 1 to 8 shall be for teaching for the examination based on Annual Pattern.
- Contents of the syllabus mentioned under paras 1 to 4 shall be for teaching to the Semester commencing first and
- Contents of the syllabus mentioned under paras 5 to 8 shall be for teaching to the Semester commencing later.

LIST OF REFERENCES :-

- Agarwal, K.C., 2001, Environmental Biology, Nish. Publ. Ltd., Bikaner.
- Bharudra Ench, The Biodiversity of India, Magna Publishing Pvt. Ltd., Ahmedabad - 380 013, India. Email : magn@bharudra.net (R)
- Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p.
- Clark R.S., Marine Pollution, Clarendon Press Oxford (TB)
- Cunningham, W.P Cooper, T.H Cornwell, E.A. Hepworth, M.T., 2001, Environmental Encyclopedia, Jacco Publ. House, Mumbai, 1195p.
- De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- Down to Earth, Centre for Science and Environment (R)

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- and T.Hoppe, Alphabet and Image Ltd., Sharnborne, Dorset, UK.
33. Insect pollination of crops (Second Edition) 1993, J.B.Free, Academic Press, London.
 34. Neurobiology and Behaviour of Honey, 1915, R.Menzel & A.Menzel, Springer-Verlag, Berlin, Germany.
 35. Phenomenon of Bee, 1987, J.B.Free, Chapman and Hall, London.
 36. The Social Behaviour of the Bees, A Comparative Study 1974, C.D.Matheson, Harvard University Press, Cambridge, England.

24. ENVIRONMENTAL STUDIES Total Marks : 100

PART-A SHORT ANSWER PATTERN 25 Marks

1. The Multidisciplinary nature of environmental studies
Definition, scope and importance.
Need for public awareness. (2 lecture hours)

2. Social Issues and the Environment

- From Unsustainable to Sustainable development
- Urban problems related to energy
- Water conservation, rain water harvesting, watershed management
- Forest/land and rehabilitation of people; its problems and concerns.

Case studies

- Environmental ethics : Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies
- Wasteland reclamation.
- Consumerism and waste products.
- Environment Protection Act.
- Air (Prevention and Control of Pollution) Act
- Water (Prevention and Control of Pollution) Act.
- Wildlife Protection Act.

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- Forest Conservation Act.
- Issues involved in environment of environmental legislation.
- Public awareness. (7 lecture hours)

3. Human Population and the Environment

- Population growth, variation among nations.
- Population explosion - Family Welfare Programme.
- Environment and human health.
- Human Rights
- Value Education
- HIV/AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and human health.
- Case Studies. (6 lecture hours)

PART-B ESSAY TYPE WITH INDELT CHOICE

50 Marks

4. Natural resources :

- Renewable and non-renewable resources :

- Natural resources and associated problems
- Forest resources : Use and over exploitation, deforestation, case studies. Timber extraction, mining dams and their effects on forests and tribal people
- Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water dams, benefits and problems
- Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer - pesticide problems, water logging, salinity, case studies.

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- Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources, Case studies.
- Land resources : Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
- Role of an individual in conservation of natural resources.
- Equitable use of resources for sustainable lifestyles. (8 lecture hours)

5. Ecosystem

- Concept of an ecosystem.
- Structure and function of an ecosystem.
- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Ecological succession.
- Food chains, food webs and ecological pyramids.
- Introduction, types, characteristic features, structure and function of the following ecosystem -
- Forest ecosystem
- Grassland ecosystem
- Desert ecosystem
- Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) (6 lecture hours)

6. Biodiversity and its conservation

- Introduction - Definition : genetic, species and ecosystem diversity.
- Biogeographical classification of India.
- Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values.
- Biodiversity at global, National and local levels
- India as a mega-diversity nation.
- Hot-spots of biodiversity.
- Threats to biodiversity : habitat loss, poaching of wildlife, man/wildlife conflicts.

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- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation (8 lecture hours)

7. Environmental Pollution

- Definition
- Causes, effects and control measures of -
- Air pollution
- Water pollution
- Soil pollution
- Marine pollution
- Noise pollution
- Thermal pollution
- Nuclear hazards
- Solid Waste Management : Causes, effects and control measures of
- Role of an individual in prevention of pollution.
- Pollution case studies.
- Disaster management : Floods, earthquake, cyclone and landslides (8 lecture hours)

PART-C

ESSAY ON FIELD WORK

25 Marks

8. Field work

- Visit to a local area to document environmental assets - river / forest / grass land / hill / mountain
- Visit to a local polluted site - Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems - pond, river, hill slopes, etc. (5 lecture hours)

(Notes : i) Contents of the syllabus mentioned under paras 1 to 8 shall be for teaching for the examination based on Annual Pattern.

Principals

Vinayak Vidnyan Mahavidyalaya,
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Text Books for Sem V & VI :

1. Billings, M.P. (1987) Structural Geology, Prentice-Hall of India Pvt. Ltd. New Delhi.
2. Park, R.G. (1989) Foundations of Structural Geology, Blackie New York.
3. Gokhale, N.W. (2001) Theory of Structural Geology, Blackie, New York.
4. Gokhale, N.W. (1991) A Manual of Problems of Structural Geology, CBS Publishers.
5. Lathi, T.J. (1987) Field Geology, CBS Publishers.
6. Gokhale, N.W. (2001) A Guide to Field Geology, CBS Publishers.
7. Chiplunkar G.W. Geological Maps, Dadar and Ranichaudra Publication, Pune.
8. Vaidya, K.S. (1987) Environmental Geology - Indian Context, Tata McGraw Hill.
9. McKimstry, F.E. (1972) Mining Geology, Prentice-Hall Inc.
10. Jongsomwang, R.N.P. (1995) Courses in Mining Geology, Oxford and IBHP Publishing Co., New Delhi.
11. Bagchi, T.C., Sen Gupta, D.K. and Rao, S.V.L.N. (1979) Elements of Prospecting and Exploration, Kalyani Publishers, New Delhi.
12. Dobson, M.B. (1952) Introduction to Geophysical Prospecting, McGraw-Hill.
13. Pandey, S.N. (1987) Principles and Applications of Photogeology, Wiley Eastern Limited.
14. Sabra, F.F. (2000) Remote Sensing Principles and Interpretations, W.H. Freeman and Company, USA.
15. Lillesand, T.M. and Kiefer, F.W. (2000) Remote Sensing and Image Interpretation, John Wiley and Sons Inc., New York.
16. Drury, S.A. (1997) Image Interpretation in Geology, Chapman and Hall, London.
17. Todd, D.K. (1980) Ground Water Hydrology, John Wiley and Sons Inc. New York.
18. Karanth, K.R. (1989) Hydrogeology, Tata McGraw Hill Pvt. Co. Ltd., New Delhi.
19. Nagabhushanab, H.S. (2001) Groundwater in Hydrosphere (Groundwater Hydrology) CBS Publisher, New Delhi.
20. Karanth K.R. Groundwater, Assessment, Development and Management, Tata McGraw Hill Pvt. Co. Ltd., New Delhi.
21. Raghunath; Ground Water Hydrology, New Age Publication, Pune

22. Dynamic Earth - Springer-Verlag - Pub. John. Wiley.
23. Text Book of Physical Geology - L.H. Mahapatra - Pub. C.B.S., New Delhi.
24. Dynamic Earth - Patwardhan A.M., I.T.I. Publications, New Delhi.
25. Physical Geology - A. Holmes, Oxford Longman Publications.
26. Concepts in Geology - Chakravarty, Kulkarni, Pub. Scientific Publications, Pune.
27. Dynamic Earth - Wiley, John Wiley and Sons, New York.
28. Radhakrishnan S. General Geology V.C.P. Pub. Nellore.
29. Text Book of Engineering Geology - Fakhri Singh, Kallan Publications, Ludhiana.

B.Sc. Final Year, Semester-V

75 : 30 TANY

The examination in Botany of IIIrd Semester shall comprise of one theory paper, internal assessment and practical examination. Theory paper will be of 3 hrs duration and carry 80 marks. The internal assessment will carry 20 marks. The practical examination will be of 4 hours duration and carry 50 marks.

The following syllabi is prescribed on the basis of its requirements and 6 practical periods per batch per week. Each theory paper has been divided into 6 units. There shall be one question in every unit with internal choice. For each of 12 marks & one compulsory question covering all the syllabus of Semester-V (8 marks).

55 - BOTANY

PLANT PHYSIOLOGY AND ECOLOGY

Unit - I: Plant Water Relations

- 1.1 Importance of water to plant life.
- 1.2 Imbibition, Diffusion Osmosis, Plasmolysis.
- 1.3 Active and passive Absorption of water.
- 1.4 Ascent of sap - Root Pressure and Transpiration Pull Theory.
- 1.5 Transpiration - Types of transpiration, Stomatal movement, Mechanism of transpiration, Sieve tubes, Xylem vessels, Significance: Anhydrosis, Guttation, Mineral uptake - Active uptake - Carrier Concept, Passive uptake - Ion Exchange.

Anoop
Head

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Prospectus No. 2015152
B.Com. Part-II

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	Any one of the languages :	
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Unit - II: Metabolism-

- 2.1 Photosynthesis - Introduction, Role of Light, Photosynthetic Apparatus and Pigments, Two Pigment Systems, Photo phosphorylation, C3 and C4 cycle, CAM Pathway.
- 2.2 Respiration - Introduction, Mitochondria as a Respiratory centre, Types of Respiration - Aerobic and Anaerobic, Mechanism of aerobic respiration- Glycolysis, Krebs cycle, Electron transport system and Chemiosmotic ATP generation, Respiratory Quotient.

Unit - III: Metabolism and growth

- 3.1 Nitrogen Metabolism- Sources of nitrogen, Synthesis-nitrogen fixation, Role of Nitrate reductase.
- 3.2 Growth - Phases of growth, Growth curve, Physiological role of growth hormones (Auxins, Gibberellins, Cytokinins, Abscissic acid, and Etilene)
- 3.3 Physiology of Senescence and Abscission

Unit - IV: Plant responses

- 4.1 Photoperiodism - Concept of Photoperiod, Role of Phytochrome.
- 4.2 Vernalization- Concept and Significance.
- 4.3 Plant movement- Tropism (Phototropism and Geotropism) and Nastic (Epinasty, Hyponasty and Seismonasty)
- 4.4 Stress physiology- Concept, Types of stress, Water and Salinity stress

Unit - V: Ecology and Environment

- 5.1 Concept of environment, Concept and scope of ecology.
- 5.2 Ecological factors- Climatic- Light, Temperature and Water.
- 5.3 Atmosphere and its composition.
- 5.4 Ecobiotic factors- Process of soil formation, soil profile, bioturbation and their role.
- 5.5 Ecobiotic Adaptations - Morphological and Anatomical adaptation in Hydrophytes and Xerophytes.

Unit - VI: Ecosystem:

- 6.1 Population Ecology- Natality and Mortality, Community characteristics - Frequency, Density and Abundance
- 6.2 Ecological Succession - Hydrosere and Xerosere.
- 6.3 Ecosystem - Definition, Structure and function.

Food chain, Food web, Energy flow (model & single channel model)

Types of Ecosystems: Pond ecosystem, Desert ecosystem.

LABORATORY EXERCISE

Plant Physiology: Major experiment (Any Seven)

1. To study the effect of temperature and organic solvents on permeability of plasma membrane.
2. To study osmotic pressure of cell sap by plasmolytic method.
3. To determine water potential of plant tissue.
4. To determine the path of water transport by Girdling experiment.
5. To determine rate of transpiration by Girdling experiment.
6. To determine rate of photosynthesis under varying quality and quantity of light and CO₂ concentration.
7. To study the rate of photosynthesis in terrestrial plants with the help of Ganong's Potometer.
8. Separation of chloroplast pigments by paper chromatography.
9. Solvent extraction method.
10. Separation of amino acids by paper chromatography method.
11. To determine BQ using different substrates.
12. To study antagonism of sacs.
13. To study pheromone of advection.
14. To study effect of IAA and GA on seed germination.
15. Test for 'acetoacetic' metabolites- Acetoacetic, Phenolics, Tannins, Flavonoids and L-glu.

16. To study Indole and Auxinogenesis by egg meristem microscope

Plant Physiology: Minor experiments (Any Three)

1. To demonstrate fermentation.
2. To demonstrate exo and endo osmosis.
3. To demonstrate transpiration by Bell jar.
4. To demonstrate light is necessary for photosynthesis.
5. To demonstrate anaerobic respiration & vigorous activity.
6. To demonstrate the evolution of CO₂ in respiration.
7. To demonstrate the demonstration of transpiration with help of *Mimosa pudica* or *Impatiens*.

Ecology: Major experiment (Any Three)

1. Study of morphological and anatomical adaptations in hydrophytes - *Hydrilla*, *Eichhornia*, *Lythra*, *Salvinia* and *Nymphaea* (any two)

Principals
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B.Com. Part-II
Examination 2015

Prospectus No. 201/5152

संत गाडगे बाबा अमरावती विद्यापीठ
SANT GADGE BABA AMRAVATI UNIVERSITY

वाणिज्य विद्याशाखा
(FACULTY OF COMMERCE)

अभ्यासक्रमिका
वाणिज्य स्नातक भाग-२, परीक्षा २०१५
(त्रिवर्षीय अभ्यासक्रम)

PROSPECTUS
of
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(Three Year Degree Course)



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Syllabus Prescribed for 2022-23 UG Programme

Programme : B.Sc-I : Zoology

There shall be the following paper and practical for B.Sc. Part-I and Semester II examination. The syllabus is based on 6 theory periods and six practical periods per week (Total 75-80 theory sessions and 25 practical sessions during the complete semester). There shall be one compulsory theory paper of 3 hours duration, as stated below and a practical examination extending for four hours. Every examinee shall offer the following paper of 100 marks (80 for written examination and 20 marks for internal assessment) and a practical examination of 50 marks. Candidates are required to pass separately in theory and practical examination.

Name of the programme: B.Sc. I

Class : Part II S

Semester : II ,DSC-2-02S

Subject Zoology

Name of the course (Paper): Life and diversity of Animals (Chordata) and concept of Evolution

Course Outcomes Code : COs-02

Max Marks : 80

About the course

The course is a walk for the Bachelor's entrant through the amazing diversity of living organism from simple to complex. The course makes a details comparison of the systematic study of different taxa of Non-chordate. It enlightens how each group of organisms arose and how did they establish themselves in the environment with their special characteristics. It also deals with the differences and similarities between organisms on the basis of their morphology and an anatomy which led to their grouping into taxa and clades.

COs:

Upon completion of this course successfully, students would be able to

1. know what the chordates are.
2. Learn about the different phylum of chordates.
3. confidently explain the general characters and classification of Protochordates upto class Mammalia.
4. understand the level of organization in chordate.
5. explain the origin and evolutionary relationship in different subphylums of chordates.
6. describe specific features of Protochordates upto class Mammalia.
7. recognize and differentiate life functions of Protochordates upto class Mammalia.
8. understand Migration in fishes and birds , parental care in Amphibians and Poisonous and non-poisonous snakes.
9. explain the adaptations in Birds and Mammals.

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Programme : B.Sc : I- Zoology

Name of the programme: B.Sc. I

Class : Part I S

Semester : I, DSC -1-01S

Subject Zoology

Name of the course (Paper): Life and diversity of Animals (Non-chordata)

Course Outcomes Code : COs-01

About the course

The course is a walk for the Bachelor's entrant through the amazing diversity of living organism from simple to complex. The course makes a detail comparison of the systematic study of different taxa of Non-chordate. It enlightens how each group of organisms arose and how did they establish themselves in the environment with their special characteristics. It also deals with the differences and similarities between organisms on the basis of their morphology and anatomy which led to their grouping into taxa and clades.

COs:

Upon completion of this course successfully, students would be able to

1. Develop a deeper sense with respect to phylum Protozoa to Echinodermata relation to taxonomy, classification, body organization and general characteristics this strengthens students' capability in basic zoology.
2. grasp various the Systematic positions from Protozoa to Echinodermata their pathogenicity and its epidemiology.
3. describe unique characters and recognize life functions of Protozoa, Porifera, Coelenterate, Helminthes, Arthropoda, Annelida, Mollusca and Echinodermata.
4. Improve ability and apply Knowledge of Non-chordates for its execution in Agriculture especially with the phylum Arthropoda.
5. Implement an extensive idea about economic and ecological significance of various non-chordates phylum's in human life.

Unit I

12 L

1. Introduction and Classification to Non-Chordata
2. Phylum Protozoa: General characters
3. Type Study: Plasmodium vivax: structure, Life cycle
4. Parasitic Protozoan and human diseases: Malaria, Amoebiasis

Unit- II

12 L

1. Phylum Porifera: General characters
2. Type study: Scypha: Habits, Habitat and Distribution, Cell types, Spicules and Structure and significance of canal system.
3. Phylum Coelenterates: General characters
4. Type study: Metridium: Habits and Habitat, External features, Gastrovascular cavity, Mesenteries, Corals and coral reefs.

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1. Evolutionary Processes: Natural selection: Darwinism and Lamarckism
2. Speciation- definition of speciation-Allopatric and Sympatric speciation.
3. Modern concept of organic evolution -Neo-Darwinism. Population Genetic: Hardy - Weinberg equilibrium, Gene pool, Gene frequency, Genetic drift, Convergent, Divergent and parallel evolution, Coevolution.

Unit VI:

12L

1. Evolution of Man-brief accounts of Parapithecus, Dryopithecus, Parapithecus, Australopithecus, Homoerectus, Neanderthal man, Cro-magnon man and modern man. Evolution of heart and aortic arches
2. Animal adaptation: Desert, Aquatic and Terrestrial.

Unit VII:

Skill Enhancement Module—(SEM)

20 M

Upon completion of this course successfully, students would be able to perform/demonstrate

1. Study on edible fishes from the local region.

- Select local spots.
- Find various water reservoirs from selected areas.
- Choke out a plan to visit.
- Observed edible fishes and their photographic records.
- Prepare the data in a scientific way and submit.

2. Case study of diversity in frogs from surrounding areas.

- Select a different location from the surrounding area.
- Search for varieties of frog by observing in the particular area.
- Take photographic records and classify accordingly.
- Comparative study of their occurrence in different locations.
- Prepare a scientific data and submit.

3. Survey of Photographic evidence of parental care in frogs in monsoon.

- Study is carried out during monsoon season only.
- Focus selective location where the possibility of frog nesting occurs.
- Multiple visits during June to September to get expected results.
- Prepare data with photographic evidence and submit.

4. Survey the diversity of snakes in the surrounding area.

- Visit a locally working snake rescue team.
- Involved in their rescue operation in the surrounding area.
- After a multiple visit, prepare data with snake photographs and classify accordingly.
- Prepare Survey report and submit it.

5. Survey of Migratory birds in the forest /Grassland/Field.

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Unit – I:

Phylum Chordata

12 L

1. Origin of Chordata
2. Protochordates: Type study: *Amphioxus*, Habits and habitat, External characters, Digestive system and feeding, Excretory organs, gonads, Affinities of *Amphioxus*. Affinities of Agnatha.
3. Series: Pisces: Type study: *Scoliodon sorrakowah* (Dog fish) Habits and habitat, External characters, Respiratory system, respiratory organ and mechanism of respiration, circulatory system, structure and working of heart, Lateral line receptors. Migration in fishes- types causes and significance.

Unit: II

12 L

1. **Class Amphibia:** Type study: *Rana tigrina*: Habits and habitat, Respiratory organ, Circulatory system, structure of heart, major arteries and vein, Urinogenital system. Parental care in Amphibia.
2. **Class Reptilia:** Type study: *Calotes versicolor*- Habits and habitat, Circulatory system, Structure of heart, major arteries and veins. Types of Snake venom and anti-venom.

Unit: III

12L

1. **Class Aves:** Type study: Pigeon -*Columba livia*, Habits and habitat, external characters, Respiratory system, Urinogenital system, flight adaptation, Migration in birds.
2. **Class: Mammalia:** Primitive mammals: Salient features of Prototheria and Metatheria, Aquatic mammals, Flying mammals. Adaptive radiation in Mammals.

Unit: IV

12L

1. **Evolution meaning and scope**
2. Indirect evidences of evolution: Evidences of organic evolution-morphological and anatomical, physiological and biochemical, embryological.
3. Direct evidences of evolution: Paleontological evidences: Fossil and fossilization: petrified fossils and preserved bodies and moulds, trails and foot prints, condition for fossilization. Radioactive carbon dating of fossils. Living fossil. Importance of fossil record. Evidences from connecting links – *Peripatus* and *Archaeopteryx*.

Unit: V

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B.Sc. Part-II (2014-15)
(Semester-III & IV)

Prospectus No. 2015122

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SANT GADGE BABA AMRAVATI UNIVERSITY

विज्ञान विद्याशाखा
(FACULTY OF SCIENCE)

अभ्यासक्रमिका

विज्ञान स्नातक भाग-२
सत्र-३ व ४, परीक्षा

PROSPECTUS
OF
B.Sc. Part-II
Semester-III Examination Winter-2014, and
Semester-IV Examination Summer-2015



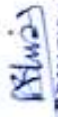
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Unit V : Evolutionary Processes: Natural selection; Darwinism, Lamarckism.

Speciation - definition of species - mode of speciation - Allopatric and Sympatric speciation.

Modern concept of organic evolution-Neo Darwinism. Population Genetic : Hardy - Weinberg equilibrium, Gene pool, Gene frequency, Genetic drift, Convergent, Divergent and Parallel evolution, Coevolution

Unit VI : Adaptive radiations in mammals.

Evolution of Man - brief accounts of Parapithecus, Dryopithecus, Ramapithecus, Australopithecus, Homo erectus Neanderthal man.

Cro-Magnon man and modern man.

Evolution of heart, aortic arches, and urinogenital systems of vertebrates

Animal Adaptation: Desert aquatic and terrestrial.

REFERENCE BOOKS:

1. Integrated Principles of Zoology, 7th Edition, Hickman, C.P. Jr., F.M. Hickman and L.S. Roberts, 1984. Times Mirror/Mosby College Publication. St. Louis. 1065 pp.
2. A life of Vertebrate - K.Z. Young. ELBS Oxford University Press.
3. A Text Book of Chordates - H.S. Bhamrah and Kavita Juneja.
4. Modern Text Book of Zoology Vertebrate - R.L. Kotpal, Rastogi Publication Meerut.
5. A Text Book of Chordates - A. Thangamani, S. Prasannakumar, L.M. Narayanan and
6. Arunugam Saras Publication, Nagercoil.
7. A Text Book of Chordate Zoology - R.C. Dalela - Jaiprakashnath Publication Meerut.
8. Chordate Zoology - E.L. Jordan and P.S. Verma, S. Chand and Company New Delhi.
9. A Text book of Practical Zoology Vertebrate - S.S. Lal, Rastogi Publication, Meerut
10. Manual of Zoology Vol II (Chordata). S. Viswanathan (Printers and Publishers) Pvt Ltd., Madras, 891 p.

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11. Chordate Zoology and Elements of Animal Physiology, Jordan, E.K. and P.S. Verma, 1995. 10th edition, S. Chand & Co Ltd., Ram Nagar, New Delhi. 1151 pp.
12. Zoology of Chordates, Nigam, H.C., 1983. Vishal Publications. Jaipur - 144 008, 942.
13. The Phylum Chordata, Newman, H.H., 1981. Saitish Book Enterprise, Agra - 232 003. 477 pp.
14. Text Book of Zoology, Vol. II (Chordata), Parker and Haswell, 1964. A.Z.T.B.S. Publishers and Distributors, New Delhi - 110 051, 952 pp.
15. Chordate Structure and Function, Waterman, A.B. et al., 1971. Mac Millan & Co., New York. 587 pp.
16. Simpson, G.C. 1967 - The meaning of Evolution: Revised Edition - New Haven, Yale University Press.
17. Colbert, E.H. 1969 - Evolution of Vertebrates, Wiley, New York.
18. Mayr, Ernst, 1973 - Animal Species and Evolution. The Belknap Press of Harvard University, Cambridge.
19. Dobzansky, T. 1976 - Genetics and the Origin of Species. Oxford and TBM Publishing Co. New Delhi.
20. Savage, J.M. 1976 - Evolution. Amerind Publishing Co. Pvt. Ltd. New Delhi.
21. Elic. Minkoff, 1983 - Evolutionary Biology. Addison Wesley.
22. Life, Origin, Evolution and Adaptation (2002) - Sanjib Chattopadhyay Books and Allied (p) Ltd.
23. P.S. Verma & V.K. Agrawal (2008) Cell Biology, Genetics, Molecular Biology, Evolution & Ecology - S. Chand Publications.
24. Dhabade D.S. I.A. Rain, R.A. Oulhane, A.P. Chargin, A.K. Palki, And P.S. Patel, A Text Book of Evolution: Sanjiv Publication. Washim
25. Zoology for Degree Students, Prof. Dr. V.K. Agrawal.

Practical:-

Two practical per week of 3 periods duration. Examination shall be of 5 Hrs duration and of 50 marks.

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5. A Handbook of Seed Inspectors : Central Seed Committee Ministry of Agriculture.
6. Indian Minimum Seed Certification Standards : N.S.Turwar, S.V.Singh.
7. Principles of Seed Certification and Testing : N.P.Nema.

BS.Sc.II Semester III 10. ZOOLOGY

There shall be the following paper and practical for B.Sc. Part-II Semester III examination. The syllabus is based on 6 theory periods and six practical periods per week (Total 75-80 theory sessions and 25 practical sessions during the complete semester). There shall be one compulsory theory paper of 3 hours duration, as stated below and a practical examination extending for four hours. Every examinee shall offer the following paper of 100 marks (80 for written examination and 20 marks for internal assessment) and a practical examination of 50 marks. Candidates are required to pass separately in theory and practical examination.

Semester III

Paper-I:	Marks Allotted
Life and diversity of Chordata and concepts of evolution	80
Written examination	20
Internal assessment	50
2) Practical:	
Total:	150 Marks

Paper -3 S-Zoology LIFE AND DIVERSITY OF CHORDATA AND CONCEPT OF EVOLUTION

Unit I : Phylum Chordata;

Origin of Chordata.

Protochordates:— Type study: Amphioxus: Habits and habitat, External Characters - Digestive system and feeding. Excretory organs, gonads- Affinities of Amphioxus.

Affinities of Agnatha:

Series Pisces:

Type study- *Scoliodon sarrakwalis* (Dogfish) - Habits and habitat, External Characters, Digestive system: alimentary canal and digestive glands, Respiratory system: respiratory organ and mechanism of respiration, circulatory system: Structure and working of Heart, major arteries and veins, Lateral line receptors, Migration in fishes-Types, causes and significance.

Unit II : Class Amphibia:

Type Study - *Rana tigrina*, Habits and habitat, external, characters. Respiratory organs- Circulatory system; Structure of Heart, major arteries and veins, urinogenital system. Parental care in amphibia.

Class Reptilia:

Type study- *Calotes versicolor*- Habits and habitat, External characters, circulatory system- Structure of Heart, major arteries and veins. Urinogenital system, snake venom and anti-venom.

Unit III : Class Aves:

Type study: Pigeon-*Columba livia* Habits and habitat, External characters, Respiratory system, urinogenital system. Flight adaptations, Migration in birds.

Class Mammalia:

Primitive mammals: salient features of Prototheria and Metatheria, Morphology of mammalian endocrine glands. Aquatic mammals.

Unit IV : Evolution: Meaning and scope.

Indirect Evidences of evolution: Evidences of organic evolution- morphological and anatomical, physiological and biochemical, embryological.

Direct evidences of evolution: Palaeontological evidences: Fossils and fossilization: petrified fossils dead and preserve bodies cast and moulds, trails and foot prints, condition for fossilizations - , Radioactive carbon dating of fossils - Living fossils. Importance of fossil record. Evidences from connecting links- *Peripatus* and *Archaeopteryx*.

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Semester IV

1) Paper-I:	Marks Allotted
Advanced Genetics and Animal Ecology:	
Written examination.....	80
Internal assessment	20
2) Practical:	50
Total:	150 Marks

ZOOLOGY Paper 4S ADVANCED GENETICS AND ANIMAL ECOLOGY

UNIT I : Concept of genes.

Mendel's laws of hereditary – Monohybrid – Laws of dominance, law of segregation. Dihybrid cross – Law of independent assortment. Interactions of genes : Supplementary factor, complementary factor, duplicates factor, inhibitory factors, and lethal factors – dominant and recessive.

UNIT II : Linkage - Types of linkage, linkage group, arrangement of linked genes, and significance of linkage.

Crossing over – Mitotic and meiotic crossing over, Mechanism of crossing over, theories of crossing over – Darlington's theory, breakage and exchange theory, and copy choice theory. Types of crossing over – Single, double and multiple crossing overs. Factors affecting crossing over, Significance of crossing over.

Multiple alleles. Multiple alleles in relation to eye color in *Drosophila*. Blood group in man, Erythroblastosis foetalis

UNIT III : Sex determination: Autosomes and sex chromosomes, Sex determination in animals, Chromosomal Theory. Genic Balance Theory. Environmentally and hormonally controlled sex determination, Gynaecomorphs.

Genetic disorders: Sickle cell anemia, Huntington's chorea, Diabetes mellitus, Non-disjunction: Turner's syndrome, Klinefelter's syndrome, Down's syndrome. Edward's

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Syndrome, Biochemical genetics: Cystic fibrosis, Phenylketonuria, Albinism, Alkaptonuria, Gout, cretinism. Sex linked genetic disorders and their inheritance in man; Hemophilia and color blindness.

UNIT IV : Genetic Screening and parental diagnosis: - Parental, Carrier, Predictive, CVS (Chorionic Villous Sampling), Amniocentesis, Gene probe and DNA analysis. Genes in Human Heredity: - Inheritance of eye color. Skin color. Recessive genes and consanguineous marriages. Genetic counseling: - Risk of marriages in affected family. Birth control measures (male and female).

Kinds of twins - Identical, Fraternal, Siamese twins. Significance of twins study

UNIT V : Ecology: concept and scope

Abiotic factors:

Water: Properties, water problem in terrestrial and aquatic habitat. Temperature: Temperature range, Temperature tolerance, Effects of temperature on animals. Homeotherms, poikilotherms. Dormancy, hibernation, aestivation & diapause. Light: Spectral

distribution, Biological effects of light on aquatic and terrestrial animals: Reproduction, Metamorphosis, pigmentation, vision, photo kinesis, phototropism, photoperiodism, migration.

Biotic factors:

Intra specific and interspecific associations, Predation, parasitism, Antagonism, commensalism, mutualism, competition, (Gause's Principle).

UNIT VI : Ecosystem: Relationship between habitat and ecological niche: - Autotrophic and heterotrophic producer, consumer - trophic level - energy flow in an ecosystem - food chain - food web - pyramids - Ecotypes. Homeostasis of ecosystem.

Terrestrial ecosystem: Classification and Biomes, Aquatic ecosystem: Fresh water ecosystem-Lentic and lotic ecosystem.

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and Trichogramma wasps.

Harmful Insects – Stored food grain pests, their injuries and control

Pests of: – Cotton, Sugarcane and Jowar. Damage and Control
Economic importance of Rodents, Snakes, Owls and Bats.

Apiculture – Sericulture –

Unit VI : Aquaculture

Aquaculture: definition, scope, importance and present status in India.

Fresh water fish culture: types of fish ponds, Nursery, rearing and stocking, design and construction of fish pond, fertilizers used for fish development.

Hatchling Hapkas, Chinese Circular Hatchery, CIFE, Mumbai, hatching model, Induced breeding and hypophysation, Modern drugs used in fish breeding.

Freshwater system: monoculture, polyculture, integrated aquaculture, cage culture, pen culture. Fish products and byproducts: Fish liver Oil, Fish body oil, Fish manure, Fish leather

Special Note : (Common for B.Sc.Sem-I & VI)

(i) Use of animals for practical purpose in this curriculum is subject to the conditions, under the Wild Life (Protection) Act 1972 and should abide by the prevention of cruelty to animals Act 1960. No any scheduled animal species should be used in the laboratory.

ii) The research based project on animals should strictly abide by the rule as mentioned in para-6 of U.G.C. Notification No.F.14-6/2014 (CPP-II), dated 1st August, 2014, which state that –

6.1 All institutions of Higher Education shall constitute "Dissection Monitoring Committees" (DMC) to ensure strict compliance of instructions relating to the use of animals for research purposes only;

6.2 The Head of the concerned department shall be the Convener and Chairperson of DMC. Two Senior faculty members of the concerned department, one faculty member

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of a related department from the same institution and one or two faculty members of the concerned department from the neighboring institution(s) shall be members of DMC.

6.3 The tenure of DMC shall be two years and on expiry of a term, the DMC should be reconstituted wherein only the Convener and Chairperson (The Head of the Department) may continue for two or more terms if he/she happens to continue to be the Head of the Department. A vacancy arising during the tenure of DMC shall be filled with a faculty belonging to the respective category. The quorum for the meeting shall be 3 out of 6, where in at least one member from the neighboring institution must be present. The DMC shall meet at least once each semester/half year and approve/review alternative experimentation of animals for laboratory exercises.

6.4 It shall be the responsibility of the DMC to ensure that animals that are permitted to be used for dissections / experiments in the instructions herein are procured from ethical sources, and not removed from the wild, transported to the laboratory without stress or strain to the animals, if live, and anaesthetized appropriately if they are to be used in dissections.

6.5 The DMC shall ensure that the institution maintains appropriate records of procurement of animals, their transport, number of animals used, use of anaesthesia/ euthanasia etc.

6.6 The DMC shall be different from the Institutional Animal Ethics Committee (IAEC), under the purview of Committee for purpose of care and supervision of experimental animals (CPCSEA), Department of Environment and Forest, Govt. of India. However, the DMC shall not have powers overriding the powers of IAEC. For animals covered by the IAEC, with standard operating procedures (SOPs) for LAECs prescribed by CPCSEA will apply.

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B.S.C. FINAL, SEMESTER-V 10 : ZOOLOGY

There shall be the following paper and practical for B.Sc. Part-III Semester V examination. The syllabus is based on 6 theory periods and six practical periods per week (Total 75-80 theory sessions and 25 practical sessions during the complete semester). There shall a compulsory theory paper of 3 hours duration, as stated below and a practical examination extending for five hours. Every examinee shall offer the following paper of 100 marks (80 for written examination and 20 marks for internal assessment) and a practical examination of 50 marks. Candidates are required to pass separately in theory and practical examination.

Theory-5S-ZOOLOGY: (ANIMAL PHYSIOLOGY AND ECONOMIC ZOOLOGY)

	Marks Allotted
1) Written examination.....	80
Internal assessment.....	20
2) Practical:	50
Total:	150 Marks

Paper 5S-ZOOLOGY (ANIMAL PHYSIOLOGY AND ECONOMIC ZOOLOGY) Max. Marks - 100 Total Period - 75

UNIT I : Respiration:

Structure of respiratory organs: Gills and Lungs

Mechanism of respiration: regulation of ventilation in lungs. Exchange of gases at respiratory surface, Respiratory pigments in animals: Haemoglobin, Haemocyanin, Haemerythrin, chlorocruorin. Transport of gases: O₂ and CO₂ transport, Neurophysiologic control of respiration.

Circulation:

Blood : Definition and its constituents, functions of blood. Heart: Structure of human heart, pace maker, Cardiac cycle. Blood coagulation factors, blood groups A, B, O system and Rh-factor.

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UNIT II: Muscle Physiology:

Types of Muscles: striated, non-striated and cardiac muscles
E.M. Structure and Chemical Composition of striated muscle, Neuromuscular junction.

Mechanism of muscle contraction by Sliding filament theory
Physical and Chemical changes during muscle contraction: muscle twitch, tetanus, isometric and isotonic contraction, summation of Stimuli, all or none law, fatigue, rigor mortis.

UNIT III : Nerve Physiology: Neuron: E.M. Structure of neuron and Types - Myelinated and non-Myelinated nerve fibres.

Conduction of Nerve impulses, Resting potential, initiation and propagation of action potential, Saltatory transmission, Neurotransmitters (Acetylcholine, dopamine, GABA, Serotonin, Epinephrine, Nor-Epinephrine), Synapse and synaptic transmission

Chemical co-ordination: Endocrine system: Hormones and their physiological roles of-

Pituitary, Thyroid, Parathyroid, Adrenal, Islets of Langerhans,
Hormonal disorders: Dwarfism, Gigantism, Acromegaly, Goiter, Myxoedema, Cretinism, Osteoporosis.

UNIT IV : Reproductive Physiology: Estrous and menstrual cycle, hormonal control of reproduction in males and female, Structure and physiology of mammalian Placenta.

Homeostasis and conservative regulation:
Osmoregulation and ionic regulation in aquatic animals, Osmoregulation in terrestrial animals Ammonotelism, ureotelism and uricotelism.

Thermoregulation in Poikilotherms and Homeotherms.

UNIT V : Agricultural Zoology: Economic Importance of Insects Beneficial insects - Spider, Mantids, Ladybugs, Damselfly, Ground Squirrel, Soldier beetle, Green lacewing, Nymphalid fly, Tachinid fly, Tabanid fly, Tabanid wasp

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21. To draw the BH curve of iron by using a Solenoid and to determine the energy loss due to Hysteresis.

Reference Books:-

1. Solid state Electronics Devices- B.G. Streetman (PHI)
2. Electronics Devices & Circuits - A. Motterbeed (PHI)
3. Integrated Electronics - J. Millman, C. Halkins (TMH)
4. Electronics Devices & Circuits - Sanjeev Gupta (Dhanpat Rai Publ.)
5. Electronics Devices & Circuits-I & II - Girdes & Basshi (Tech. Pub., Pune)
6. Solid State Devices & Electronics - Kamal Singh & S.P. Singh (S. Chand & Co.)
7. Electromagnetic theory and holography - Satya Parakash.
8. A text book of geology - G.B. Mahapatra
9. Engineering and general geology - Purbin Singh.
10. The atmosphere - Richard A. Anthes, Hans A. Panofsky, Jon J. Cahir, Albert Hango.
11. Relativity - Goyal and Gupta
12. Text book of Physics - V. K. Sewane
13. Elements of Special theory of relativity - S.P. Singh and M.K. Bagde
14. A course in Electromagnetic field by S.W. Anwarne, B.P.B. Publication, New Delhi.

4SPHY

Unit I : Geometrical optics and interference (12)

Cardinal points of an optical system, equivalent focal length and power of coaxial lens system, Interference in thin films due to reflected and transmitted light, interference in wedge shaped thin film, Newton's ring by reflected light, measurement of wavelength of monochromatic light by Newton's ring, determination of refractive index of liquid by Newton's rings.

Unit II : Diffraction (12)

Fresnel and Fraunhofer Diffraction, Fresnel half period zone, zone plate construction and theory, Double slit diffraction,

10)

Plane diffraction grating, construction and elementary theory, determination of wavelength of monochromatic light by using grating, Resolution of images, Rayleigh's criterion for resolution, R. P. of grating.

Unit III : Polarization (12)

Concept of polarization, optic axis, double refraction, polarization by double refraction, plane retardation plate, Quarter wave plate, half wave plate, Nicol prism, production and analysis of polarized light, Theory of production of elliptically and circularly polarized light, production and detection of elliptically and circularly polarized light, Half shade polarimeter, blue of the sky.

Unit IV : Laser (12)

Introduction to Laser, Absorption, spontaneous and stimulated emission, population inversion, pumping characteristics of laser beam, Main components of laser system, three level and four level laser system, Ruby laser, He-Ne laser, semiconductor laser, application of laser, Holography-principle.

Unit V : Fiber optics (12)

Introduction of fiber optics, total internal reflection, structure and classification of optical fiber, Propagation of light wave in an optical fiber, Acceptance angle and numerical aperture, dispersion, fiber losses, fiber optic communication, Advantages and Disadvantages of optical fibers, application of fiber optics.

Unit VI : Renewable Energy Sources (12)

Introduction to various renewable energy sources - Solar energy, Wind energy, ocean energy- Waves & tides, geothermal energy, Hybrid Systems, Hydrogen energy systems, Fuel cells.

Solar energy - Solar radiations on earth - variability and seasonal variations, Solar constant, Spectral distribution, Measurement of solar radiation and sun - shine.

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Solar Energy Storage :- Methods of storage, properties of storage materials, Principle of Solar Thermal Applications, Solar water heater, Solar concentrating collectors - Types & applications.

Solar Photovoltaic systems -- Operating principle, Photovoltaic cell concepts, power of a solar cell and solar PV panel : Applications.

Record : The distribution of marks for practical examination will be as follows:

Record Book	10 marks
Viva-voice	10 marks
Experiment	20 marks
Assignment	10 marks
Total	50 marks

A student will have to perform at least ten experiments per semester.

The semester examination will be of Four Hour duration and student will have to perform one experiment in the semester examination.

In assignment, every student should be asked to submit the detailed report on one of experiments he or she has performed. The detailed report should include the theoretical background of the experiment.

valuation of the student during the semester:

The teacher should explain, discuss and demonstrate one experiment per turn in the first twelve turns of the semester. At the same time in every turn, a teacher will have to conduct a test in the first period the turn, based on the experiment; he or she has explained in the previous turn. The test is to be carried out with interest to make the student aware of the basics of the experiments. This will enhance the viva voce competence of the student. A record of these tests is to be maintained in the department duly signed by the teacher in-charge and head of the department. The record is to be maintained in the following format. Each assignment should be of at least 15 marks. Find the average and assign it in the end Semester practical examination.

Record of Marks scored in the assignments during the semester:-

Date	Expt 1	Expt 2	Expt 3	Expt 4	Expt 5	Expt 6	Expt 7	Expt 8	Expt 9	Expt 10
No. of the student										
1. ABC										
2. DEF										
3. GHI										
4. JKL										
Signature of the teacher in-charge										

Once this part is over, actual experimental work should begin. The date-wise record is to be maintained in the following format.

Date-wise Record of the experiments performed

Date	Expt 1	Expt 2	Expt 3	Expt 4	Expt 5	Expt 6	Expt 7	Expt 8	Expt 9	Expt 10
No. of the student										
1. ABC										
2. DEF										
3. GHI										
4. JKL										
Signature of the teacher in-charge										

- Completion Certificate is must for practical record book.
- The semester examination will be of Four Hour duration and the student will have to perform one experiment in the semester examination.

Practicals :

- To determine the wavelength of monochromatic light by Newton's rings.
- To verify the Brewster's law.
- To determine the refractive indices for ordinary and extra-ordinary rays using double image prism.

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SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2019 - PART TWO - I

- W.W.Bigg : Cost Accounts
 9. L.N. Gupta : Cost Accounts
 10. R.R.Gupta : Cost Accounts
 11. M.G. Shukla : Cost Accounts
 12. Dr. Pramod Fating : Cost & Management Accounting : Sir Sahitya Kendra, Nagpur
 13. Cost Management Accounting: Dr.Pramod Fating, Dr. Milind Gullane, Dr. Abdul Bari, Dr. Raju Rathi, Dr. Vilas Chopade, Prof. Sanjay Kale: Sir Sahitya Kendra, Nagpur
- हिन्दी**
 १. आई.बी.स. सेना , लागत लेखा विधी
 २. एम.एम.शु. ला, लागत लेखा
 ३. एम.एल.अ. त्वाल, परिव्यय लेखांकन
 ४. गुप्त त्रिवेदी , लागत लेखा
- मराठी**
 १. प्रा.बी.एल. जिभकारे, परिव्यय आणि व्यवस्थापन लेखाकर्म, वि 1 पब्लीशर्स, नागपुर
 २. महाजन वाय.आर., परिव्यय आणि प्रबंधकीय लेखांकन, पपळापुरे अँड कं. पब्लिशर्स, नागपुर
 ३. पी किशोर मोहरील , परिव्यय आणि प्रबंधकीय लेखाकर्म, दासगणू प्रकाशन, नागपुर
 ४. सेठी, घुत , परिव्यय लेखांकन, वि 1 प्रकाशन, नागपुर

Appendix - I

B.Com Part

Semester V

Business Environment

Time : Three Hours

Marks 100

Course Outcome:- The contents herein intend to develop the ability to understand and interpret sector wise business environment of India.

Unit 1 Indian Business Environment

- 1.1 Concept, definition and Importance
- 1.2 Nature and scope of Business Environment
- 1.3 Components of Business Environment- Internal and External
- 1.4 Current trends in Business Environment:- Post Demonetization Business Environment

Unit 2 Indian Agricultural Environment

- 2.1 Role and Characteristics of Agriculture in India
- 2.2 Agricultural Marketing-APMC-Importance, Functioning and Problems
- 2.3 Need of credit for Indian Farmers- Structure and Importance of NABARD
- 2.4 Current Trends in Agriculture Environment-Crop Insurance Scheme, Kisan Credit Card, Minimum Support Price

Unit 3 Indian Industrial Environment

- 3.1 Industrialization: Role and Pattern
- 3.2 Definition and Role of Small Scale, Cottage and Micro Industries
- 3.3 Industrial Sickness: Concept, Definition, Causes and Remedies
- 3.4 Current Trends in Industrial Environment: Industrial Policy 2013

Unit 4 Indian Service Environment

- 4.1 Nature, Contribution, Scope and Coverage of Indian Service Sector
- 4.2 Growth and Present State of IT Services in India
- 4.3 Tourism And Hospitality Industry: Prospects and Problems
- 4.4 Current Trends in Service Environment: Right to Disconnect

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Appendix - Z

B.Com. III
Semester - VI
COMPANY LAW

Time : 3 Hours

Marks: 100 Theory

Unit I – Introduction

- 1.1 – Introduction; definition, salient features of companies, Act 2013
- 1.2 – Formation of company, stages of formation
- 1.3 – Promoters, Functions of promoters, Duties and liabilities of promoter,
- 1.4 – Types of company.

Unit II – Incorporation of company

- 2.1– Incorporation of company
- 2.2 – Prospectus of company
- 2.3– MOA of company
- 2.4– Article of company

Unit III – Share capital of company

- 3.1 – Share capital of company, Types of share and debenture
- 3.2 – Issue of shares, Allotment, calls and forfeiture share
- 3.3 – Transfer & transmission of share
- 3.4– Share certificate and share warrant

UNIT IV – SECURITIES MARKET:

- 4.1– Brief history of Stock Exchange, Study of functions of BSE and NSE
- 4.2– Stock Exchanges and its importance.
- 4.3 – Primary Market and Secondary Market: Components of Primary Markets
- 4.4 – D-Mat Account: Definition and Procedure.

UNIT – V – COMPANY SECRETARY AND COMPANY MEETINGS:

- 5.1 – Appointment, Duties and Responsibilities of Company secretary
- 5.2– Types of company meeting: Annual and General meeting of company, Statutory meeting of Company. – Extraordinary meeting
- 5.3– Notice of meeting & Agenda of meeting, proceedings of meeting.
- 5.4 – Voting methods of meeting and quorum. Minutes proceeding of meetings, its contents

Reference books:

1. Company Law (volume-I) Rakesh Bhargava; Taxmann's, New Delhi.
2. Company Act-2013: Ravi Puliani, Mahesh Puliani, Bharat Law House Pvt. LTD., New Delhi.
3. Principles of Company Law: M.C. Shukla, S.S. Gulshan, S Chand Company LTD., New Delhi.
4. ATax Book of Company Law: P.P. Gogna Chand & Company, New Delhi.
5. Company Law: Ashok K. Bagriyal, Vikas Publishing House Pvt. LTD, Bangalore
6. Indian Company Law: Awartar Singh, Sultan Chand & Sons, New Delhi
7. Guide to Company Law: Procedures, M.C. Bhandari, Wadhwa & Company, Nagpur
8. Company Law: H.K Saharaya, Universal Law Publishing Co., New Delhi
9. कंपनी कायदा: [करण चंद नेरकर, होते, वषाठाकरे आणि सी एस कांबळे, साई ए योत पब्लिकेशन, नागपूर]
10. कंपनी (वध: डॉ. आर. एल. नीलखा, नीलखा, रमेश बुक डिपो, जयपुर]
11. कंपनी अधिनियम व अकेरा ण: डॉ. डी.पी. जैन, डॉ. आर.एम.एस. मातक, धनपतराय पब्लिकेशन कंपनी, नईदहली]
12. कंपनी साधवाची कायपत: ए. एस. उखडकर.

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Appendix - Z

B.Com. III
Semester - VI
COMPANY LAW

Time : 3 Hours

Marks: [10] Theory

Unit I – Introduction

- 1.1 – Introduction; definition, salient features of companies, Act 2013
- 1.2 – Formation of company, stages of formation
- 1.3 – Promoters, Functions of promoters, Duties and liabilities of promoter,
- 1.4 – Types of company.

Unit II – Incorporation of company

- 2.1– Incorporation of company
- 2.2 – Prospectus of company
- 2.3– MOA of company
- 2.4– Article of company

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- 3.1 – Share capital of company, Types of share and debenture
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- 3.3 – Transfer & transmission of share
- 3.4–Share certificate and share warrant

UNIT IV – SECURITIES MARKET:

- 4.1- Brief history of Stock Exchange, Study of functions of BSE and NSE
- 4.2- Stock Exchanges and its importance.
- 4.3 – Primary Market and Secondary Market: Components of Primary Markets
- 4.4 – D-Mat Account: Definition and Procedure.

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- 5.1 – Appointment, Duties and Responsibilities of Company secretary
- 5.2– Types of company meeting: Annual and General meeting of company, Statutory meeting of Company, – Extraordinary meeting
- 5.3 – Notice of meeting & Agenda of meeting, proceedings of meeting.
- 5.4 – Voting methods of meeting and quorum: Minutes proceeding of meetings, its contents

Reference books:

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3. Principles of Company Law: M.C. Shukla, S.S. Gulshan, S Chand Company LTD., New Delhi.
4. ATax Book of Company Law: P.P. Gogna Chand & Company, New Delhi.
5. Company Law: Ashok K. Bagriyal, Vikas Publishing House Pvt. LTD. Bangalore
6. Indian Company Law: Awatar Singh, Sultan Chand & Sons, New Delhi
7. Guide to Company Law: Procedures, M.C. Bhandari, Wadhiwa & Company, Nagpur
8. Company Law: H.K Saharaya, Universal Law Publishing Co., New Delhi
9. कंपनी कायदा: [करण चंद नेरकर, होते, वषाठाकरे आणि सी एस कां बले, साई ए योत पब्लिकेशन, नागपूर]
10. कंपनी [वाध: डॉ. आर. एस. नीलखा, नीलखा, रमेश बुक डपो, जयपुर]
11. कंपनी अधिनियम व अकेण ण: डॉ. डी पी. जैन, डॉ. आर.एम.एस. मातक, धनपतराय पब्लिकेशन कंपनी, नईदहली
12. कंपनी साधवाची कायपात: ए. एस. उखडकर.

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Appendix- J

B.Com. Part - I
Semester - II
BUSINESS ECONOMICS

Marks : 80

Time : 3 Hours

Unit-I: BUSINESS AND MANAGERIAL ECONOMICS :

- 1.1 Meaning and characteristics of Business Economics.
- 1.2 Meaning, Definition and characteristics managerial Economics.
- 1.3 Nature and Scope of Managerial Economics.
- 1.4 Objectives and Importance of managerial Economics.
- 1.5 Relation of managerial Economics with Business Economics and Business Management.

Unit-II: MARKET STRUCTURE :

- 2.1 Meaning and classification of Markets.
- 2.2 Working of Price Mechanism.
- 2.3 Monopoly : Meaning and Characteristics.
- 2.4 Price determination under monopoly
- 2.5 Price discrimination under monopoly.

Unit-III: MARKET STRUCTURE :

- 3.1 Monopolistic competition : Meaning and Characteristics.
- 3.2 Price determination in monopolistic competition.
- 3.3 Oligopoly : Meaning and Characteristics.
- 3.4 Price determination under Oligopoly.
- 3.5 Perfect competition : Meaning, Characteristics and determination.

Unit-IV: FACTORS PRICING :

- 4.1 Nature of demand & supply of factors inputs.
- 4.2 Marginal productivity theory.
- 4.3 WAGES : Meaning & Types.
- 4.4 Determination of wages and Exploitation of Labour.
- 4.5 RENT : Concept, Ricardian and modern theories of Rent, Quasi Rent.

Unit-V: FACTORS PRICING :

- 5.1 INTEREST : Concept and time preference.
- 5.2 Loanable funds and Liquidity preference theory of Interest.
- 5.3 PROFIT : Meaning and Definition.
- 5.4 Dynamic & Risk bearing theory of Profit.
- 5.5 Innovation theory of Profit.

BOOKS RECOMMENDED :

1. Ahuja H.L. : Business Economics : S.Chand & Co.New Delhi.
2. Business Economics : Pimpalkar, Bapat, Joshi, Orient-Longmans.
3. Koustoyianni A Modern Micro Economics:Macmillan New Dethi.
4. अर्थशास्त्राचे सिध्दांत ! प्रा. जी.एन्. तामरे, पिंपळापुरे प्रकाशन.
5. व्यावसायिक अर्थशास्त्र ! डॉ.श.य.साहोरे,अंशुल पब्लीकेशन, नागपूर.
6. अर्थशास्त्राचे सिध्दांत ! जोशी, सिंग, गीवालप, जयपूर.
7. आधुनिक सूक्ष्मअर्थशास्त्र ! के.सी.एम्.सुंदरम्.
8. व्यावसायिक अर्थशास्त्र ! प्रा.एच.आर.विहारी, डॉ.के.के.पाटील, डॉ.सी.बी.तायवाडे आणि वाय.पी.सिंग -अद्वैत प्रकाशन, अकोला.
9. Business Economics : Dr.Sudhir Bodhankar, Dr. Medha Kanetkar, Shri Sai Baba Prakashan, Nagpur.
10. Business Economics : Dr. (Mrs.) Pushpa T H. ayade-Shree Mangesh

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SANT GADGE - BABA AMRAVATI UNIVERSITY GAZETTE - 2017 - PART TWO -346

- Unit New Enterprises**
 4.1 Decisions in Setting up Enterprises
 4.2 Opportunity and Idea Generation
 4.3 Role of Creativity And Innovation
 4.4 Feasibility Study and Business Plan
 4.5 Business Size and Location Decision
- Unit Trade In India**
 5.1 Whole Sale and Retail Trade
 5.2 Malls, Super Markets, Hypermarket
 5.3 Stores-Specialty, Convenience, Departmental and Discount
 5.4 Transport, Insurance, Communication and Other Services
 5.5 Import - Export Trade Procedure

Reference :

1. Organization: Text, Cases and Readings on the Management of Organizational Design and Change, J.P.Kotter, L.A. Schlesinger and V. Sathe.
2. Business Organization & Management, Mr.Mahesh Chaudhary.
3. Business Organization & Management, Kaul V (Pearson Education 2012).
4. Business Organization & Management, Tulsian P and Pandey V (Pearson Education 2011).
5. Business Environment, Cherunlam F. (Himalaya Publishing House 2010).
6. Business Sutra, Pattnaik D. (Aleph Book Company 2013).
7. Organizational Traps: Leadership, Culture, Organizational Design, Chris A (Oxford University Press 2010).
8. World Class in India, Piramal G and Ghoshal S (Penguin India 2002).
9. Business Maharajas, Piramal G (Penguin India 2011).
10. On Becoming a Leader, Warren B., (Perseus Books Group 2009)

Appendix- N

B.Com. Part - I Semester II

PRINCIPLES OF BUSINESS MANAGEMENT

- Unit 1 Management Concept**
 1.1 Management-Concept, Meaning, Definition and Importance
 1.2 Management Thought and Schools
 1.3 Contribution of Fredrik Taylor
 1.4 Contribution of Henry Fayol
 1.5 Contribution of Elton Mayo
- Unit 2 Planning**
 2.1 Planning : Concept, Meaning and Definition.
 2.2 Nature and Importance of Planning
 2.3 Objectives of Planning
 2.4 Forecasting and Planning
 2.5 Planning Process.
- Unit Organizing**
 3.1 Organization -Concept, Nature, Meaning and Importance
 3.2 Principles of Organization.
 3.3 Line Organization
 3.4 Staff Organization
 3.5 Departmentalization
- Unit Directing**
 4.1 Directing- Concept, Meaning, Definition and Importance.
 4.2 Nature of Direction
 4.3 Advantages and Disadvantages.
 4.4 Motivations - Concept, Meaning and Importance
 4.5 Coordination: - Meaning and Principle
- Unit Controlling**
 5.1 Controlling-Concept, Meaning, Definition and Importance.
 5.2 Advantages and Disadvantages
 5.3 Technique of Controlling
 5.4 Tool of Controlling
 5.5 Process of Controlling

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मराठी (आवश्यक) बी. कॉम. - भाग - १

पुस्तकाचे नाव : अनुबंध भाग ☐ १

संपादक : डॉ. अशोक नामदेव पळवेकर, डॉ. संजित गोवरा राठोड, डॉ. अनंत शिरसाट
प्रकाशकाचे नाव : राघव पब्लिशर्स अँड डिस्ट्रिब्यूटर्स, नागपूर

सत्र ☐ २

अनुक्रमणिका

घटक : अ - वैचारिक

१) स्वातंत्र्य : संकल्पना आणि व्यवहार

डॉ. आ. ह. रामकुंठे

२) प्रशासक नेता

प्रा. सुरेश खावशीवार

३) शारे युग वाट पाहते आहे

डॉ. प्रल्हाद लुलेकर

४) ती गोच आहे

मलाला

घटक : ब - ललित

५) गोघो

नामदेव कावळे

६) अवधूत

रमेश अंबारे

७) दिंडी गेली पु

किशोर सानप

८) महालूट

सदानंद देशमुख

९) जयचिंतन

अनंत मानोटी

१०) पीळ

ऐ. रम्य पाटेकर

घटक : क - कविता

११) माय

श. ग. पावपोळ

१२) सावज

नारायण फुलकण कवठेकर

१३) अद्याप

प्रभा गणोरकर

१४) जखम

उषाकिरण आत्राम

१५) देण

जयशम शेडेकर

१६) कवीर

लोकनाथ यशवंत

१७) ते आले, त्यानंतरची गोष्ट

प्रभू राजगडकर

१८) दरवेशी

अजीम नवाज राही

१९) यापु मा मी ल आई

सिद्धार्थ भगत

२०) अर्भग

वीरा राठोड

घटक : ड - उपयोजित लेखन

१) कार्यालयीन पत्रव्यवहार

डॉ. कल्याणी दिवेकर

स्वरूप वैशिष्ट्ये आणि प्रकार

२) आशयलेखन व भाषांतर

मराठी (आवश्यक)

बी. कॉम. प्रथम वर्ष

द्वितीय सत्र

वेळ : ३ तास

एकूण गुण : ८०

सूक्ष्म वाचनाकरिता पाठ्यपुस्तक : अनुबंध भाग ☐ १

प्रकाशकाचे नाव : राघव पब्लिशर्स अँड डिस्ट्रिब्यूटर्स, नागपूर, हे पुस्तक अभ्यासक्रमासाठी राहिल.

उपयोजित लेखन (कार्यालयीन पत्रव्यवहार : स्वरूप, वैशिष्ट्ये आणि प्रकार, तसेच आशयलेखन व भाषांतर)

प्रश्न विभागणी :

प्रश्न : १) वैचारिक विभाग : दीघातरी एक प्रश्न ☐ १० गुण

प्रश्न : २) वैचारिक विभाग : लघूतरी एक प्रश्न - ० गुण

प्रश्न : ३) ललित विभाग : दीघातरी एक प्रश्न ☐ १० गुण

प्रश्न : ४) ललित विभाग : लघूतरी एक प्रश्न ☐ ० गुण

प्रश्न : ५) कविता विभाग : दीघातरी एक प्रश्न ☐ १० गुण

प्रश्न : ६) कविता विभाग : लघूतरी एक प्रश्न - ० गुण

प्रश्न : ७) कार्यालयीन पत्रव्यवहार : दीघातरी एक प्रश्न ☐ १० गुण

(स्वरूप, वैशिष्ट्ये आणि प्रकार)

प्रश्न : ८) आशयलेखन व भाषांतर : लघूतरी एक प्रश्न ☐ ० गुण

(वरील सर्व प्रश्नांना अंतर्गत पर्याय राहतील.)

प्रश्न : ९) वस्तुनिष्ठ प्रश्न (प्रत्येकी एक गुण) - १ गुण

(पाठ्यपुस्तकातील विभाग अ, ब, क, ड यावर प्रत्येकी चार गुणांचे चार वस्तुनिष्ठ प्रश्न विचारले जातील.)

अंतर्गत मूल्यांकन :

१) वर्ग चाचणी (C T) : एक ☐ १० गुण

२) स्वाध्याय (S A) : एक ☐ १० गुण

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बी.कॉम. भाग २
विषय -- मराठी
सत्र तिसरे

लेखी परीक्षा ☐ ४० गुण ☐

अंतर्गत मूल्यमापन ☐ १० गुण

नेमलेले पाठ पुस्तक अनुबंध भाग-२ सत्र ३ रे

अनुक्रमणिका

विभाग अ : वचारिक

१)	या अवास्तव वाट सापडत नाही	रा.ग. जाधव	संघासमयीच्या गुजगोटी
२)	अदभुतरम्या आणि र... तदायक जीवन:	डॉ. वि. वि. कोलते	✓
३)	राष्ट्रसंत तुकडोजी : एक विचार	डॉ. अरविंद देशमुख	✓

विभाग ब : ललित

१)	एक पाटलेला तंत्र १	स्टीव्ह जॉव	
२)	डेवूचा गाडगेबाबा होतांना.....	डॉ. वि. ल. बांध	✓
३)	पारख	नरेंद्र इंगळे	✓

विभाग क : कविता

१)	सोहळा	मधुकर केधे	पुनवेचा थेंब
२)	मोडलेल्या माणसांचे...	ना.धों. महानोर	पान १३
३)	जगणे कठीण आहे	अशोक थोरत	
४)	वाटा	शशिकांत हिंगोणेकर	युद्ध सुरु आहे
५)	हमी भाव वाहून गेला	वि. ल. कुलट	

विभाग ड : उपयोजित मराठी

- १) स्वपरिचय पत्र व नोकरीसाठी अर्ज लेखन ☐ डॉ. भूषण केळकर
(संदर्भ ग्रंथ ☐ उपयोजित मराठी ☐ - संपादक ☐ केतकी मोडक व इतर)

बी.कॉम. भाग २

मराठी
सत्र तिसरे

एकूण गुण ५०
लेखी परीक्षा ☐ ४० गुण
अंतर्गत मूल्यमापन ☐ १० गुण
वेळ - २ तास

नेमलेले पाठ पुस्तक : अनुबंध भाग-२, सत्र ३ रे, राधव प्रकाशन, नागपुर
लेखी परीक्षा गुण विभागणी :

विभाग अ : वचारिक

०८ गुण

विभाग ब : ललित

०८ गुण

विभाग क : कविता

०८ गुण

विभाग ड : उपयोजित मराठी

०८ गुण

वरील सर्व विभागांवर आधारित वस्तुनिष्ठ बहुपर्यायी प्रश्न

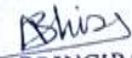
०८ गुण

एकूण

४० गुण

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SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2019 - PART TWO - I

MARKING SCHEME

UNIT I : Prose : Any THREE out of FOUR Questions (3 x 4 = 12 Marks)

UNIT II : Poetry : Any THREE out of FOUR Questions (3 x 4 = 12 Marks)

UNIT III : One Act Play :
Any TWO out of THREE Questions (2 x 4 = 8 Marks)
8 Multiple Choice Questions on Unit I & II (8 x 1 = 8 Marks)

INTERNAL ASSESSMENT :
Interview Skill : 5 Marks
Home Assignment : 5 Mark

Appendix - S

वी.वी.म.भाग-३
विषय :- मराठी
सत्र सहाय्ये

लेखी परीक्षा - ४० गुण
अंतर्गत मूल्यांकन - १० गुण

नेमलेले पाठ पुस्तक "आशय" भाग-३ (सत्र-५ व सत्र-६)
अनुक्रमणिका

विभाग अ : वैचारिक

१) सावित्रीबाई - ले आणि ताराबाई शिंदे - जो स्वतंत्र पोर
२) जो अखंडकरांची राजकीय भूमिका - जो भा.ल.भा.के
३) जो तया विनयास - पुरुषोत्तम अपारे

विभाग ब : ललित

१) रमशातील सौन - अण्णाभा साठे
२) अजलाशत्रु अटलजी - शरद पवार
३) ललाटेचा - मिल द जलप
४) ठकन - दिवाकर सादशिव

विभाग क : कविता

१) गाम्भारा - कुसुमा जल
२) बाई - सुखदेव जलके
३) निर्धार - अनंत खेळकर
४) घोडी घोडी पाणी दे - रवि महल्ले
५) माणसं - असीक इंगळे

विभाग ड : उपयोजित मराठी

१) जाहीर विवेदन -
२) अहवाल लेखन -

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वी.कॉम.भाग-३
विषय :- मराठी
सत्र पाचवे

लेखी परीक्षा - ४० गुण
अंतर्गत मूल्यांकन - १० गुण

नेमलेले पुढ पुस्तक "आशय" भाग-३

अनुक्रमणिका

विभाग अ : वैचारिक

- १) राजेश शहा महाराज यांचे शिक्षण विषयक कविता - पो.म.म. पाचवे ✓
- २) आगरकरांच्या राजकीय विचारांची व भुमी - डॉ.अशोक शिराडकर ✓
- ३) धर्मी आणि धर्मोपदेशाचे आधुनिकीकरण - वि.ली.प.पु. विजे ✓

विभाग ब : ललित

- १) महाराज जन्मदिवस पत्रांत - प्रा.अविनाश जोडरा ✓
- २) अनुभवानुसार शिकवलेले शासनपण - रामेंद्र दातार ✓
- ३) सुखदुःखाचा ताळेमेद - आशुतोष शेवाळकर ✓
- ४) आगरगात्रा - सतीश तराळ ✓

विभाग क : कविता

- १) सत्याग्रहा जाहीरनामा - तरुण मु. तेली ✓
- २) मा ही कविता - मागसाज मंजुळे
- ३) माली - शोभा रोकडे
- ४) दोन मुलुके - संजय घरडे
- ५) मा स आला - निजय खोले

विभाग ड : उपयोजित मराठी

- १) निविदारुतना लेखन -
- २) इतिवृत्त लेखन -

वी.कॉम.भाग-३
विषय :- मराठी
सत्र पाचवे

वेळ - २ तास

एकूण गुण - ५० गुण
लेखी परीक्षा - ४० गुण
अंतर्गत मूल्यांकन - १० गुण

नेमलेले पुढ पुस्तक : "आशय" भाग-३ (सत्र-५ व सत्र-६)

लेखी परीक्षा गुण विभागणी :

विभाग अ : वैचारिक

०८ गुण

विभाग ब : ललित

०८ गुण

विभाग क : कविता

०८ गुण

विभाग ड : उपयोजित मराठी

०८ गुण

बरेल सर्व विभागांवर आधारित वस्तुनिष्ठ बहुपर्यायी प्रश्न

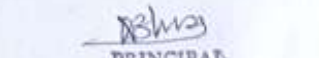
०८ गुण

एकूण

४० गुण


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SANT GADGE BABA AMRAVATI UNIVERSITY GAZETTE - 2019 - PART TWO - 13

Books Recommended

1. Agrawala Kamallesh N and Agrawal Deeksha :
Bride to Online Storefront, Macmillon India, New Delhi.
2. Agrawala Kamallesh N. and Agrawal Deeksha:
Business on the Net- Introduction to- Commerce; Macmillon India, New Delhi
3. Agrawala Kamallesh N. and Agrawal Deeksha:
Bulls, Bears and The Mouse-An Introduction to Online Stock Market Trading; Macmillon India,
New Delhi.
4. Tiwari Dr. Murlid Dr.:
Education and E-Governance; Macmillon India, New Delhi.
5. Aliah A. and Tucci C.:
Internet Business Models and Strategies; Mc Graw Hill, New York.

Internal Assessment Scheme

1. Theory paper will carry 60 marks and internal assessment 40 marks
2. 40 % Marks will be based on continue evaluation of the student assignment, class test, seminar and web-site visit /Industrial visit and project report.
3. Student will have to work under the guidance of the teacher and submit project report before fifteen days of the commencement of the theory examination.

Appendix - I

B.Com. III
Semester- VI
Compulsory English

Time: 2 Hours

Marks: 40

Prescribed Textbook : Horizons by Board of Editors Published by Orient Blackswan.

UNIT I: PROSE		
SR.NO	PROSE	AUTHOR
1	Sunder Pichai	
2	Mallika Srinivasan	
3	Muhammad Yunus	
4	Introduction to the Right to Information Act, 2005	Pralhad Kachare
UNIT II: POETRY		
1	All the World's A Stage	William Shakespeare
2	How Do I Love Thee?	Elizabeth Barrett Browning
3	The Duck and the Kangaroo	Edward Lear ✓
4	Ode To Autumn	John Keats
UNIT III: COMMUNICATION SKILLS		
Employability Skills		
✓ Leadership Skills		
✓ Teamwork Skills		
✓ Time Management		
✓ Stress Management		
Communication Skills		
Advertising (Types of Advertising & Advertising Media, Techniques of effective advertising)		

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Appendix-A

Compulsory English
B. Com. I
Semester - I

Theory - 80 Marks

Time :- Hours

Text Prescribed for study : - A'S OF LETTERS

(As per model curriculum of the U.G.C. for B.Com. Part-I and published by Raghav Publisher and Distributors, Mahal, Nagpur.)

Unit I : P. OSE

1. The Eyes are not Here
2. The Romance of a Busy Broker

3. Ruskin Bond ✓
4. O. Henry ✓

Unit II

P. OSE

3. Bores
4. The Lost Child

5. E. E. Cummings ✓
6. Mulk Raj Anand ✓

Unit III : POET

1. The World is too Much with us
2. Once Upon a Time
3. If

7. William Wordsworth ✓
8. Gabriel Okara ✓
9. Rudyard Kipling

Unit IV : G. AMMA (strictly based on the prescribed text)

- A. Change the Narration
- B. Articles
- C. Synonyms & Antonyms
- D. Tense Forms

Unit V : BUSINESS CORRESPONDENCE AND WRITING SKILLS

As given in the prescribed text.

- A. Letter Writing (Formal & Informal)
 - i. Formal
 - ii. Applications for Job/Complaint/Order
 - iii. Informal/Personal Letters
- B. Resume Writing

Distribution of Marks - 80 : 20

A. Theory 80 Marks

Textual Components :

- | | | |
|--|--|-------------|
| Que. 1. P. OSE | Any two long answer Questions to be attempted out of four each carrying eight marks. | 20/80 Marks |
| Que. 2. POET | Any Four short answer Questions to be attempted out of Six each carrying four marks. | 40/40 Marks |
| Que. 3. G. AMMA (TEXTUAL) | | |
| a. Change the narration | Two Questions carrying two marks each Articles | 2/20 Marks |
| b. Articles | Four Questions carrying one mark each | 4/10 Marks |
| c. Synonyms & Antonyms | Four Questions carrying one mark each | 4/10 Marks |
| d. Tense Forms | Four Questions carrying one mark each | 4/10 Marks |
| Que. 4. BUSINESS CORRESPONDENCE AND WRITING SKILLS | | |
| a. Letter Writing | | |
| i. Formal Letter | Application for Job/Complaint/Order | 5/10 Marks |
| ii. Informal Letters/Personal Letters | Any one out of two | 5/10 Marks |
| b. Resume Writing | | |
| B. Internal Assessment | | |
| Class Test | 10 Marks | |
| Home Assignment | 10 Marks | |

Marks
20 Marks

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**B.Com. I
Semester II
(Compulsory English)**

Time :- 3 Hours

Theory :- 80 Marks

Text Prescribed for study : RAYS OF LETTERS
(As per model curriculum of the U.G.C. for B.Com. Part- I and published by Raghav Publisher and Distributors, Mahal, Nagpur.)

Unit I : PROSE

1. Each is Great in His Own Place	Swami Vivekananda
2. The Postmaster	Rabindranath Tagore

Unit II : PROSE

3. How I Became a Public Speaker	George Bernard Shaw
4. Prospects of Democracy in India	Dr. B.R. Ambedkar

Unit III : POETRY

1. Success is Counted Sweetest	Emily Dickinson
2. Laugh and Be Merry	John Masefield
3. The Impossible Dream	Joe Darion

Unit IV : GRAMMAR (strictly based on the prescribed text)

- Change the Voice
- Idioms & Phrases
- One Word Substitute
- Prepositions

Unit V : BUSINESS CORRESPONDENCE AND WRITING SKILLS

- E-mail
- Newspaper Reports

Distribution of Marks : (80 : 20 Marks)

Textual Components :

Que. 1 - PROSE
Any two long answer questions to be attempted out of four.
each carrying eight marks. 2X8=16 Marks

Que. 2- POETRY
Any Four short answer questions to be attempted out of Six
each carrying four marks. 4X4=16 Marks

Que. 3 MULTIPLE CHOICE QUESTIONS
(10 questions from Prose and six questions from Poetry,
each carrying one mark. 16X1= 16 Marks

Que. 4 GRAMMAR (TEXTUAL)

a) Change the Voice Four questions carrying one marks each	4X1=4 Marks
b) Idioms & Phrases Four questions carrying one mark each	4X1 = 4 Marks
c) One Word Substitute Four questions carrying one mark each	4X1 = 4 Marks
d) Preposition Four questions carrying one mark each	4X1 = 4 Marks

Que. 5 - BUSINESS CORRESPONDENCE AND WRITING SKILLS

a) E-Mail (Any one out of two)	6X1 = 6 Marks
b) Newspaper Reports (Any one out of two)	10X1 = 10 Marks

Internal Assessment

a) Class Test	10 Marks.
b) Home Assignment	10 Marks.

20 Marks *(Bhis)*
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Our institute organized/ celebrated various programmes/ workshop/ activities related with Cross-cutting issues such as Gender, Environment and Sustainability, Human Values, Professional Ethics, Health and Hygiene during Academic year 2022-23

Sr. No.	Programme /Workshop/Activity
1.	Celebration of Ozone Day
2.	Celebration of Environment Conservation Day
3.	Celebration of Wetland Day
4.	Celebration of National Science Day
5.	Celebration of World Sparrow Day
6.	Celebration of Wildlife Week
7.	Celebration of Birds Week
8.	Celebration of Marathi Rajbhasha Din
9.	Celebration of Fungus Day
10.	Organized Competition and Exhibition of wild Flowers “Wild Glory”
11.	“Aranya Sakha” Award for young conservationist.
12.	Save Soil Campaign
13.	Blood Donation Camp
14.	Self Defense Workshop Girls Students
15.	Certificate course on “Lathi-Kathi” For Self Defense of Girls Students
16.	Celebration of Savitribai Fule birth anniversary
17.	Janivancha Jagar Abhiyan- Poster Competition on Gender Equality
18.	Flower arrangement competition
19.	Dish Decoration competition
20.	“My BAAPA” eco-friendly way to welcome Shri. Ganesh this festive season.