Ability Enhancement Course:

This is an 8-credit course covering Modern Indian Languages (MIL) and English Usage (Communication). Each student needs to complete two papers of 4-credits each – one from English Usage and other from the group of MIL, especially designed for this purpose. Both these courses are further divided into two 2-credit courses each. The MIL course is to be completed during Semesters 1& 5 while the English Communication course is to be completed during Semesters 2 & 6.

Subject: Assamese Semester: First

Course Name: যোগাযোগমূলক অসমীয়া—১

Ability Enhancement Course

Course Level: 100-199

Unit No.	Unit Content	No. of Classes	Marks
>	ভাষাজ্ঞান : উচ্চাৰণ, আখৰ জোঁটনি, যতিচিহ্নৰ জ্ঞান,প্ৰত্যয়-বিভক্তিৰ ব্যৱহাৰ, কথন কৌশল	32	২০
2	কৰ্মক্ষেত্ৰৰ অসমীয়া : আবেদন, বিজ্ঞাপন, প্ৰতিবেদন লিখন, বাতৰি লেখন, নিবিদা লেখন দক্ষতা	52	২০

পঠন-সামগ্রীঃ

নিকা অসমীয়া ভাষা : মহেশ্বৰ নেওগ

অসমীয়া ব্যাকৰণ প্ৰৱেশ : গোলোকচন্দ্ৰ গোস্বামী অসমীয়া ৰচনা সংকলন : তুলতুল বৰুৱা (সম্পা.) ধ্বনিবিজ্ঞানৰ ভূমিকা : গোলোকচন্দ্ৰ গোস্বামী

যোগাযোগ কলা : নীৰাজনা মহন্ত বেজবৰা অসমীয়া আখৰ জোঁটনিৰ কথা : শিৱনাথ বৰ্মন

অসমীয়া আখৰ জোঁটনি আৰু লিপ্যন্তৰ পদ্ধতি : গুৱাহাটী বিশ্ববিদ্যালয়

অসমায়া আখৰ জোটান আৰু লেপ্যন্তৰ সন্ধাত : গুৱাহাটা বিশ্বাবদ্যালয় অসমীয়া ভাষা-সাহিত্য চৰ্চাকাৰীসকলৰ হাতপথি : ৰমেশ পাঠক

ব্যৱহাৰিক অসমীয়া ব্যাকৰণ : উপেন ৰাভা হাকাচাম বিজ্ঞানলেখকৰ হাতপুথি : দীনেশ চন্দ্ৰ গোস্বামী

Theory Credit: 1 Practical Credit: 1

No. of required classes: 24 No. of contact classes: 20 No. of non-contact classes: 4

AEC (Ability Enhancement Course)

Alternative English I (In lieu of MIL)

Semester 1

Credits 2

(30 External + 20 Internal = 50 Marks)

Course Outcome:

This paper would seek to acquaint students with the literary practices and trends. It presents a sampling of poems and stories so as to enable students to engage with possibilities of reading and approaching English literature.

Poetry: 30 Marks

W. B. Yeats: No Second Troy

Sarojini Naidu: The Palanquin Bearers

Sujata Bhatt: So Many Oaks

Margaret Atwood: This was a Photograph of Me

Stories: 20 Marks

Mahim Bora: Audition

Bryan MacMahon: The Ring

Value Added Courses (VAC)

The VAC courses will come from four sub groups — (i) Understanding India, (ii) Environmental Science, (iii) Digital and Technological Solutions, and (iv) Health & Wellness, Yoga Education, Sports, and Fitness. All together they will have a credit allocation of 6. Each student will have to take any three courses, each of 2-credit, from any three groups during Semesters 1, 2, & 4. Here one course from the Environmental Science group is compulsory except if the student takes a core course on Environmental Science.

Environmental Studies

Semester I

No. of Credits: 2 No. of Hours: 30

Unit 1: Introduction to Environmental Studies 5 lectures

- Multidisciplinary nature of environmental studies;
- Scope and importance;
- Basic concepts: Renewable resources, no renewable resources, Common Property
- resources, Tragedy of commons, Climate change, global warming
- Concept of sustainable development

Unit 2: Ecosystems 10 lectures

- What is an ecosystem? Difference between ecology and ecosystem. Structure and function of ecosystem: Energy flow in an ecosystem: food chains, food web and ecological succession.
- Case studies on any one of the following
 - (a) Forest ecosystem, (b) Grassland ecosystem
 - (c) Aquatic ecosystems (ponds, streams, lakes, rivers), (d) Mountain ecosystem

Unit 3: Environmental Pollution and laws 15 lectures

- Environmental pollution: types, causes, effects and controls; Air, water, soil and noise pollution
- Solid waste management: Control measures of urban and industrial waste.
- 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, policies and treaties

Suggested Readings:

- 1. Bharucha, Erach: Text book on Environmental Studies, UGC, New Delhi
- 2. Carson, R 2002. Silent Spring. Houghton Mifflin Harcourt.
- 3. De A.K.: Environmental Chemistry, Wiley Eastern Ltd.
- 4. Kaushik Anubha and C.P. Kaushik: Perspective in Environmental Studies, New Age International
- 5. Rajagopalan, R. (2018). Environmental Studies. (3rd Edition) Oxford University Press
- 6. S. C. Santra (2011): Environmental Science, New Central Book Agency

MULTI DISCIPLINARY COURSES (MDC)

Semester-1: MDC-1

Semester-2: MDC-2

Semester-3: MDC-3

Discipline wise Paper Names:

1. Natural and Physical Sciences

MDC-1: Introduction to Natural and Physical Sciences

MDC-2: Natural and Physical Sciences in Everyday Life

MDC-3: Applications and Prospects of Natural and Physical Sciences

2. Humanities and Social Sciences

MDC-1: Humanities & Social Sciences-I: Makers of Modern Assam

MDC-2: Humanities & Social Sciences- II: Democracy and Peoples' Rights

MDC-3: Humanities & Social Sciences- III: Understanding Globalization

3. Earth Sciences

MDC-1: Understanding Physical Formations of the Earth

MDC-2: Understanding the Changing Environment

MDC-3: Land and People of Assam

Natural and Physical Sciences

MDC-1: Introduction to Natural and Physical Sciences

Unit 1: Structure and Constituents of the Material World—atoms, molecules, and ions; Essential Elements; Structure and Bonding; Acids and Bases; Chemical Formula and Equations; Night Sky.

Unit 2: Laws of Nature— Gas laws; Kinds of Forces; Equilibrium, Kinetics, Osmosis; Heat and Thermodynamics; Electrical and Magnetic Behaviour of Nature, Friction, Waves & Oscillations.

Unit 3: Properties of Matter— States and Strength of Materials, Optical properties-Emissions and Absorptions, Interference, Diffraction, and Polarization; Nanomaterials; Smart Materials; Sounds and Musical Instruments.

MDC-2: Natural and Physical Sciences in Everyday Life

Unit 1: Carbohydrates, Proteins, and Amino Acids, Vitamins & Minerals, Foods and Beverages; Germicides, Pesticides; Human Health; Patterns and Variations in Nature.

Unit 2: Solutions and Colloids, Plastics, Cements, Glass, Soaps and Detergents; Pollutants and Contaminants; Heavy Metal Poisoning; Poisonous Gases; Green House Effect; Acid Rain, Corrosion.

Unit 3: Waste Water Treatment; Nuclear Energy; Conventional and Renewable Energy Sources; Battery Basics; Future Fuels.

MDC-3: Applications and Prospects of Natural and Physical Sciences

Unit 1: Solar Light and Radiations; Introduction to Microscopic and Spectroscopic Techniques; MRI and CT scan; Fluorescence.

Unit 2: Sensors & Detectors; Telescopes; Images and Information; Communications; Space and Atmosphere.

Unit 3: Measurements and Errors; Observation, Representation, and Interpretation—Testing and Analysis; Evaluation and Conclusion.

Humanities and Social Sciences

MDC-1: Humanities & Social Sciences-I: Makers of Modern Assam

Unit 1: Language, Literature & Culture

- a. Architects of modern Assamese language & literature

 Anandaram Dhekiyal Phukan, Lakshminath Bezbaruah & Banikanta Kakati
- b. Architects of modern Assamese music & culture *Jyoti Prasad Agarawala, Bisnhu Prasad Rabha &Dr. Bhupen Hazarika*

Readings:

Anandaram Dhekiyal Phukan:

- Amalendu Guha, *Impact of Bengal Renaissance on Assam 1825-1875*, The Indian Economic and Social History Review, 1972.
- Anandaram Dhekiyal Phukan, A Few Remarks on the Assamese Language and vernacular education in Assam
- Gunabhiram Barua, *Anundaram Dhekiyal Phukanar Jivan Charitra*: Publication Board Assam, 1971
- Hiren Gohain, Origins of the Assamese Middle Class, Social Scientist, 1973
- Maheswar Neog, *Anandaram Dhekiya lPhukan: Plea for Assam and Assamese*: Assam Sahitya Sabha, 1977
- Nanda Talukdar (ed), *Ananda Ram Dhekial Phukanar Rachana Sangrah* (9th Edition): published by Khagendra Narayan Dutta Barua, Lawyers Book Stall, 1999
- Prafulla Mahanta, *Asomiya Madhyabitta Shrenir Itihas*: Purbanchal Prakash, Guwahati, 2021.

Lakshminath Bezbarua:

- Hiren Gohain, Origin of the Assamese Middle class, Social Scientist, 1973
- Lakshminath Bezbaroa, Mur Jivon Sowaran: Lawyers Book Stall, 1999
- Madhumita Sengupta, *Becoming Assamese: Colonialism and New Subjectivities in Northeast India*, Routledge, 2016
- Maheswar Neog, Lakshminath Bezbaroa; The Sahityarathi of Assam: Gauhati University, 1972
- Maheswar Neog, Lakshminath Bezbarua: An Introduction, Assam Sahitya Sabha, 1968
- Prafulla Mahanta, *Asomiya Madhyabitta Shrenir Itihas*:, Purbanchal Prakash, Guwahati, 2021.
- Tilottama Misra, Literature and Society in Assam, Bhabani Books, Guwhati, 2019

Banikanta Kakati:

- Maheswar Neog, Banikanta Rachanvali (2nd Edition), Publication Board Assam, 2002
- Jagat Chandra Kalita (ed), *Assamese: Its Formation and Development (4th Edition)*: BanikantaKakati, LBS Publications

Jyoti Prasad Agarwala

- Akhil Ranjan Dutta, *Jyoti Prasad Agarwala: A Revolutionary Cultural Architect of Twentieth century Assam*, Social Change, 2012
- Arup Kumar Dutta, *Jyotiprasad: Prince of Beauty*: Anwesha, 2003
- Anil Roychowdhury, Axamiya Bhashar Darshan, Aank Baak, 2016.
- Dayananda Pathak, Jyotiprasad Agarwala: Man and Mission, Publication Board of Assam, 2007
- Hiren Gohain (ed), *Jyotiprasad Rachanavali* (6th edition), Publication Board Assam, 2003
- Surjya Kanta Hazarika, *Bhupen Hazarika Rachanavali* (Vol 1, 2, 3), S.H Educational Trust, 2008

Bishnu Rabha

- Anil Roychowdhury, *Axamiya Bhashar Darshan*, Aank Baak, 2016.
- Arupjyoti Siakia, A Century of Protests: Peasant Politics in Assam Since 1900, Routledge, New Delhi, 2014.
- Ismail Hussain, Bishnu Rabhar Jivon Aru Darshan (2nd Edition), Jyoti Prakashan, 2000
- Rava Rachanavali Prakasan Sangha, Bishnuprasad Rabha Rachana Samahar, 2008
- Surjya Hazarika (ed), *Bhinnajanar Dristit Bishnu Prasad Rabha*, S.H Educational Trust, 2008

Bhupen Hazarika:

- Akhil Ranjan Dutta, Forcing Prison Doors: Socio-Cultural Mission of Bhupen Hazarika, Social Change, 2012
- Tarun Kalita, Manik Chandra Nath (eds), *Dr. Bhupen Hazarika: A Multifaceted Personality*, TTN College Publication Board
- Surjya Kanta Hazarika, *Bhupen Hazarika Rachanvali* (Vol 1, 2, 3), S.H Educational Trust, 2008

Unit 2: Framers of the Political Foundations

- a. Initial foundation: Asom Chatra Sanmilan & Assam Association
- b. Consolidating the foundation: Tarun Ram Phukan & Gopinath Bardoloi
- c. Tribal consciousness and their rights: Kalicharan Brahma & Bhimbar Deori

Readings:

Asom Chatra Sanmilan and Assam Association:

- Devabrata Sharma, *Asomiya Jatigathan Prakriya Aru Jatiya Janagosthigata Anusthan Samuh*, Ekalavya Prakashan, 2022
- Manorama Sharma, Student Power and Nationalism: An Assessment of the Assam Chatra Sanmilan, 1916-1939, in Student power in Northeast India: Understanding Student Movements, Apurba K. Baruah (ed), Regency Publications, New Delhi, 2002.
- Prafulla Mahanta, *Asomiya Madhyabitta Shrenir Itihas*: Purbanchal Prakash, Guwahati, 2021.

• Shiela Bora, *Trends in the Rise of Student Power in Assam 1916-1947*, in Student power in Northeast India: Understanding Student Movements, Apurba K. Baruah (ed), Regency Publications, New Delhi, 2002.

Tarunram Phukan:

- Laxmi Nath Tamuly, Gopinath Bordoloi (2nd Edition), Publication Board Assam, 2003
- Tarunram Phukan Rachanyali: Axam Prakashan Parishad, 2015

Gopinath Bordoloi:

- Bordoloi Committee Report/ Sub-committee on the Northeast Frontier (Assam) Tribal and Excluded Areas.
- Laxmi Nath Tamuly, Gopinath Bordoloi (2nd Edition), Publication Board Assam, 2003
- Nirode K Barooah, *Gopinath Bordoloi*, *The Assam Problem and Nehru's Centre*, Bhabani Publications, 2010
- Nirode Kumar Barooah, Gopinath Bordoloi Aru Assam: Tetia Aru Etia, 2010
- UdayonMisra, Burden of History, Oxford University Press, 2018

Kalicharan Brahma:

- B. Narzary, M. Mitra, *Journey Towards Enlightenment: Gurudev and Bodo Society*, GBD Publishers, 2004
- Devendranath Sharma, Gurudev Kalicharan Brahma, Assam Sahitya Sabha, 1983
- Kumud Ranjan Basumatary, Gurudev Kalicharan Brahma: The Emergence of Bodo Ethnic Consciousness in early 20th century, International Journal of Humanities and Social Sciences, 2017
- M.K Brahma, Gurude vKalicharan Brahma: His Life and Deeds, N.L Publications, 2001
- Sujit Choudhury, *The Bodos: Emergence and Assertion of an Ethnic Minority:*

Bhimbar Deuri

- Dr. Ratneshwar Deuri, *Jononeta Bhimbar Deuri*, Publisher Anjanli Deuri, 2018
- Indibar Deori, Jonogosthiyo Samasya: Atit, Bartaman Aru Bhabishyat, Bandhab, 2015
- Madhabjyoti Deuri, Axomor Trankorta Bhimbar Deuri, Samannay Prakashan, 2009
- Munindra Das, *Axamar Nrigosthiya Uttaranar Itihash*: Samashya- Sangram- Praptil, Banalata, 2020

Unit 3: Women Education, Politics and Literature

- a. Baptist Missionaries & women education
- b. Chandraprabha Saikiani, Amal Prabha Das & Raja Bala Das
- c. Asom Lekhika Samaroh

Baptist Missionaries and Women Education:

- American Baptist work in Assam, India, 1926.
- Anupama Ghosh, Evangelism in Assam: Schools and Print Culture 1830s-1890s, Indian History Congress, 2014.
- Archana Chakravarty, History of Education in Assam 1826-1919, Mittal Publications, 1989
- Lakshahira Das, Development of Secondary Education in Assam, Omsons Publications, 1990

- Milton S Sangma, *History of American Baptist Mission in North-East India* (Vol 2), Mittal Publications, New Delhi, 1992
- Suryasikha Pathak, Missionary Wives in the Evangelical Project in Colonial Assam: Life and Times of Mrs P.H Moore, ICHR, Guwhati, 2008

Chandraprabha Saikiani

- Aparna Mahanta, *Chandraprabha Saikiani: Swadhinatapurba Asamor Stri-Siksha aru Nari Jagaran*, Anwesha Publications, 2014.
- Hiranya Borah, Chandraprabha: The Iron Lady of Assam, Bluerose publishers, 2021
- Madhurima Goswami (ed), Chandraprabha Saikiani: A Force in History, DVS Publishers, 2020
- Nandana Dutta (ed), Communities of Women in Assam: Being, Doing and Thinking Together, Routledge, London, 2016
- R Doley, N Choudhury, *Agnikanya Chandraprabha Saikiani: A Collection of Articles*, Tezpur University, 2014.

Amal Prabha Das

- *Smaranika*: A Souvenir of Amal Prabha Das Birth Centenary Celebration, Sarania Ashram, Guwatai, 2011
- Samiran Das, *Amalprabha Das: A Biographical Work*, Kasturba Gandhi National Memorial Trust, Guwahati, 2004/2011

Rajabala Das

- Rajabala Das, Three Score Years and Ten: One Life Many Memories (An autobiography of Rajabala Das translated by Aditi Choudhury), Handique Girls' College, Guwahati, 2017
- Pori Hiloidari, Assamese Women: The Pathbreakers, Handique Girls' College, Guwahati

Asom Lekhika Samaroh:

• Nandana Dutta, Communities of Women in Assam: Being, Doing and Thinking Together, Routledge, London, 2016

MDC-2: Humanities & Social Sciences – II: Democracy and Peoples' Rights

Unit 1: Debates on Democracy

- a. Is democracy only about elections & procedures?
- b. Peoples' rights and democracy
- c. Dissent in democracy

Reading list:

- Bhargava, Rajeev and Ashok Acharya. (2008). *Political theory: An Introduction*. New Delhi: Pearson.
- Heywood, Andrew. (2015). Political Theory. New York: Palgrave.
- Gauba, O. P. (2021). An Introduction to Political Theory. New Delhi: Macmillan.
- Ramaswamy, Sushila. (2014). *Political Theory: Ideas and Concepts*. New Delhi: Macmillan.
- Abbas, Hoveyda and R. Kumar. (2012). *Political Theory*. New Delhi: Pearson.
- Held, David. (1989). *Political Theory and the Modern State: Essays on State, Power and Democracy*, New Delhi: Maya Polity.
- Held, David. (1991). *Political Theory Today*. California: Stanford University Press.
- Dahl, Robert. (1989). *Democracy and its critics*. London: Yale University Press.
- Mckinnon, Catriona(ed). (2008). *Issues in Political Theory*. New York: Oxford University Press.
- Thapar, Ramila. (2020). Voices of Dissent: An Essay. New Delhi: Seagull Books.
- Merriam, Charles E. (1941). The Meaning of Democracy. *The Journal of Negro Education*. Vol. 10, No. 3.
- Saffon, M.P. and Nadia Urbinati. (2013). Procedural Democracy, the Bulwark of Equal Liberty. *Political Theory*. Vol. 41, No. 3
- Wegner, G. (2009). Substantive versus Procedural Liberalism: Exploring a Dilemma of Contemporary Liberal Thought. *Journal of Institutional and Theoretical Economics*. Vol. 165, No. 3
- Kampelman, Max M. (1970). Dissent, Disobedience, and Defense in a Democracy. *World Affairs*. Vol. 133, No. 2.
- Shiffrin, S. (2011). Dissent, Democratic Participation, and First Amendment Methodology. *Virginia Law Review*, Vol. 97, No. 3

Unit 2: Constitution, Citizenship & Federalism

- a. Constitution as a fundamental law
- b. What is all about citizenship under democracy?
- c. Why federalism matter in a plural society?

Reading list:

- Bhargava, Rajeev and Ashok Acharya. (2008). Political theory: An Introduction. New Delhi: Pearson.
- Rajeev Bhrgava, Rajeev. (2008). *Politics and Ethics of the Indian Constitution*. New Delhi: Oxford University Press.
- Heywood, Andrew. (2005). Political Theory. New York: Palgrave.
- Gauba, O. P. (2021). An Introduction to Political Theory. New Delhi: Macmillan.
- Kymlicka, Will. (2002). *Contemporary Political Philosophy: An Introduction*. New York: Oxford University Press.
- Heywood, A. (2002). *Politics*. New York: Palgrave.
- Levinson, B. (2005). Citizenship, Identity, Democracy: Engaging the Political in the Anthropology of Education. *Anthropology & Education Quarterly*. Vol. 36, No. 4.
- Young, Iris M. 1989. 'Polity and Group Difference: A Critique of the Ideal of Universal Citizenship' *Ethics*. Vol. 99, No.2.
- Watts. R. (2008). Comparing Federal Systems. Montreal: McGill Queen's Univ. Press.

Unit 3: Democracy and Peoples' Rights in India

- a. Right to livelihood: MGNREGA
- b. Right to Information & Education
- c. Right to Food

Reading List:

- Laxmikanth, M. (2021). Governance in India. New Delhi: McGraw Hill.
- Basu, R. (2015). *Public Administration in India Mandates: Performance and Future Perspectives*. New Delhi: Sterling Publishers
- Singh, R.K. (2017). MGNREGA: The History of an Idea. *Proceedings of the Indian History Congress*. Vol. 78, pp. 1070-1077
- Pole, Kantrao P. (2015). The Role of MGNREGA in Rural Development: A Study of Maharashtra. *The Indian Journal of Political Science*. Vol. 76, No. 3
- Khanwalker, V. (2011). The Right to Information Act in India: Its Connotations and Implementation. *The Indian Journal of Political Science*. Vol. 72, No. 2
- Srivastava, P. and Claire Noronha. (2014). Institutional Framing of the Right to Education Act: Contestation, Controversy and Concessions. *Economic and Political* Weekly. Vol. 49, No. 18
- Krishnan P. and Mangala Subramaniam. (2014). Understanding the State: Right to Food Campaign in India. *The Global South*. Vol. 8, No. 2.
- Ray, B. (2019). Rethinking Good Governance: Holding to Account India's Public Institutions. New Delgi: Rupa Publications.
- Chakrabarti R. and k. Sanyal. (2016). *Public Policy In India*. New Delhi: Oxford University Press.
- Sharan, A., Upadhyaya and Ashild Kolas and Ruchita Beri (2023). *Food Governance in India: Rights Security and Challenges in the Global Sphere*. New Delhi: Routledge.

MDC-3: Humanities & Social Sciences- III: Understanding Globalization

Unit 1: Globalization: The Context

- a. Disintegration of the Soviet Union & collapse of the socialist economy
- b. Washington Consensus
- c. Neoliberal approach to development

Reading List:

- Scheuermann, William. (2014). Globalisation. In Stanford *Encyclopedia* of Philosophy. Retrieved from http://www.bibme.org/citation-guide/apa/website/
- Steger, Manfred B. (2003). Globalisation A Very Short Introduction. Oxford: OUP.
- Ritzer, George. (2010). Globalisation: A Basic Text. Sussex: Wiley Blackwell
- Lockwood, David (2000). The Destruction of the Soviet Union: A Study in Globalization. Palgrave Macmillan
- Lechini, Gladys (2006). Globalization and the Washington Consensus: Its Influence on Democracy and Development in the South.
- Nedevereen Pieterse, Jan. (2017). Neoliberal Globalization and the Washington Consensus. 10.4324/9781315092577-5.

Unit 2: The Drivers of Globalization

- a. IMF & the World Bank
- b. Multinational Companies
- c. Structural Adjustment Policies of the National Governments

Reading List:

- Ritzer, George. (2010). Globalisation: A Basic Text. Sussex: Wiley Blackwell
- Stiglitz, Joseph (2002). Globalization and its Discontents. W. W. Norton & Company.
- Heywood, Andrew. (2011). Global Politics. Palgrave Macmillan
- Oatley, T. (2006). International Political Economy: Interests and Institutions in the Global Economy. New York: Pearson-Longman.
- Frieden, J. A. and D. A. Lake. 2000. International Political Economy: Perspectives on Global Wealth and Power. New York: Bedford/St. Martin's.

Unit 3: Emerging Concerns under globalization

- a. UN and SDGs
- b. Gender Equity
- c. Climate Crisis

Reading List:

- Ritzer, George. (2010). Globalisation: A Basic Text. Sussex: Wiley Blackwell
- Held, David & McGrew, Anthony. (2002). The Global Transformations Reader An Introduction to the Globalization Debate (Second Edition). Polity Press.
- Newell, Peter. (2013). Globalization and Environment: Capitalism Ecology and Power. Polity Press.
- Lee, Kelly. (2003). Globalization and Health: An Introduction. Palgrave and Macmillan.
- Lingard, Bob. (2021). Globalization and Education. Routledge Publications.
- Beneria, Lourdes, Berik, Gunseli, & Floro, Maria. (2016). Gender, development and Globalization: Economics as if all people mattered. Routledge Publications.

Further readings:

- Sandbrook, R. (2000). Globalization and the Limits of Neoliberal Development Doctrine [Review of *Development as Freedom*, by A. Sen]. *Third World Quarterly*, 21(6), 1071–1080. http://www.jstor.org/stable/3993558
- Beck, Ulrich. (1992). Risk Society: Towards a New Modernity. London: Sage.
- Giddens, Anthony. (1999). Runaway World: How Globalisation is Reshaping our Lives. London: Profile Books Ltd.
- Stiglitz, Joseph (2007). Making Globalization work. W.W. Norton & Company
- Fernandez, John S. (1994). Globalization: Processes of Integration and Disintegration. *International Journal of Politics, Culture, and Society*, Vol. 8, No. 2, pp. 203-223 (21 pages)
- World Bank: World Development Indicators (WDI) and poverty data: http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2 http://povertydata.worldbank.org/poverty/home
- IMF data: http://www.imf.org/external/data.htm
- OECD statistics: http://stats.oecd.org/
- WTO trade and tariffs statistics: http://www.wto.org/english/res_e/statis_e.htm
- Data on financial openness (Chinn & Ito Index) http://web.pdx.edu/~ito/Chinn-Ito_website.htm http://web.pdx.edu/~ito/trilemma_indexes.htm
- Economic sanctions episodes: http://www.piie.com/research/topics/sanctions/sanctions-timeline.cfm
- OECD: http://www.oecd.org/document/49/0,3746,en_2649_34447_46582641_1_1_1_1, 00.html
- World Bank's WDI: http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2
- UN peace operations: http://www.un.org/en/peacekeeping/

Earth Sciences

MDC-1: Understanding Physical Formations of the Earth

Unit	Contents	Lecture
Unit-I: Origin of the Earth	Views on origin and age of the earth; Components of the earth system and the characteristics of the Lithosphere from the perspective of geological formations; Geological time scale	7
Unit-II: Internal structure of the earth	General constitution of the earth; Layers of the earth and their composition and characteristics: Crust, mantle, outer core and inner core	7
Unit-III: Rocks and minerals	Definition of rock and mineral; Mineral: Properties and types; Rock: Classification and types	6
Unit-IV: Landform dynamics on the earth	Landform and its classification; Geomorphic forces, associated processes and landform development: Endogenic and exogenic; Folding and faulting; Erosion, mass wasting and landslide; Earthquake and volcanic eruption-Causes, consequences and distribution	14

Books Recommended:

- 1. Klein, C. and Philpotts, A. (2016). Earth Materials: Introduction to Mineralogy and Petrology, 2nd edition, Cambridge University Press, 616p.
- 2. Patwardhan, A. M. (2020). The Dynamic Earth System. 4th edition, PHI Learning Pvt. Ltd., 576p.
- 3. Plummer, C. C., Carlson, D., and Hammersley, L. (2015). Physical Geology., 15th edition, McGraw Hill, 672p.
- 4. Reynolds, S. and Johnson, J. (2021). Exploring Geology. 6th edition, McGraw Hill, 704p.
- 5. Singh, S. (2012). Geomorphology, Pravalika Prakashans, Allahabad, 652p.

MDC-2: Understanding the Changing Environment

Unit	Contents	Lecture
Unit-I Environment as s system	Meaning of environment; Components of earth's environment system and their characteristics and interrelationship: Lithosphere, Hydrosphere, Atmosphere and Biosphere; Ecosystem, its components and functioning; Concept of balanced environment	8
Unit II Changing man and environment relationship	Impact of natural environment on man and his activities (Agriculture, food, dress, house, power development, human adjustment in different environments); Population growth and environmental changes; Impact of man on natural environment (Deforestation, soil erosion, soil degradation, depletion of mineral resources, air and water pollution)	10
Unit-III Environmental changes and associated environmental problems	Global environmental changes: Global warming, Ozone layer depletion, Climate change Environmental problems: Sea level change; Extreme weather events; Land, air and water pollution; Desertification; Deforestation, biodiversity loss and man-animal conflicts	10
Unit-IV Environmental Management	Meaning of environmental management; Conservation of natural environment and its resources; Management of environmental problems; Concept of sustainable development	6

Recommended Books:

- 1. S. C. Santra (2011): Environmental Science, New Central Book Agency
- 2. Michael Allaby (2000): Basics of Environmental Science (2nd Ed.), Taylor & Francis
- 3. R. W. Jackson and J. M. Jackson (1998): Environmental Science The natural environment and human impact, Longman
- 4. D. D. Mishra (2019): Fundamental Concepts in Environmental Studies, S Chand Publication

MDC-3: Land and People of Assam

Unit	Contents	Lecture
Unit-I	Locational significance of Assam; Assam as an administrative division – Pre- and Post-Independence Changes; Present administrative divisions	8
Unit-II	Physical Characteristics (Relief, drainage, climate and vegetation) and associated problems (River-bank erosion, landslides and floods	10
Unit-III	Natural resources (Forests, wildlife and biodiversity, mineral resources)	8
Unit-IV	Population (Trend of growth, spatial variation in growth, density, ethno-religious and linguistic composition, age composition, urbanization, literacy)	8

Books Recommended:

- 1. Bhagabati, A.K., Bora, A.K. and Kar, B.K. (edited), 2022: *Geography of Assam*, Rajesh Publications, New Delhi (Revised & Enlarged Edition).
- 2. Bora, A.K. and Nath, M. (edited), 2022: An Illustrated Geography of Assam, EBH Publishers (India), Guwahati.
- 3. Dikshit, K.R. and Dikshit, J.K., 2013: *North-East India: Land, People and Economy*, Springer Science.
- 4. Taher, M. and Ahmed, P., 2007: *Geography of North-East India*, Mani Manil Prakash, Guwahati.

Syllabus for FYUGP, Skill Courses (SEC): 2023-24

B.A./B.Sc. First Semester

1. Byabaharik Asomiya

(Under Deptt. of Assamese)

Paper Name : ব্যৱহাৰিক অসমীয়া

<u>প্রথম গোট:</u>
আৰ্হি পাঠ : পদ্ধতি আৰু কৌশল
দ্বিতীয় গোট:
ছপা আৰু বৈদ্যুতিন মাধ্যমৰ বাবে বিজ্ঞাপন লেখন, ইংৰাজী হিন্দী বিজ্ঞাপনৰ অসমীয়া অনুবাদ।
তৃতীয় গোট :
অনুবাদ : সংবাদ , প্ৰবন্ধ , সাক্ষাৎকাৰ
<u>চতুর্থ গোট :</u>
চিত্ৰনাট্য নিৰ্মাণ: সাহিত্যৰ চিত্ৰায়ণ
<u>পঞ্চম গোট :</u>
বৈদ্যুতিন মাধ্যমৰ বিজ্ঞাপনৰ ভিডিঅ'গ্ৰাফী/ চিত্ৰনাট্য প্ৰদৰ্শন

2. Data Collection and Presentation

(Under Deptt. of Economics)

Course Outcomes:

This course helps students in understanding use of data, presentation of data using computer software like MS-Excel. Students will be involved practically to preparation of questionnaires/interview schedules, collection of both primary and secondary data and its presentation. Students will also be asked to prepare a report on collected data and will be evaluated accordingly.

Unit 1. Use of Data

Use of data in social sciences; types and sources of data; data collection methods. Population census versus sample surveys, Random sampling.

Unit 2. Questionnaires and Schedules

Meaning; how to prepare a questionnaire and interview schedule; use of questionnaire and interview schedule for data collection.

Unit 3. Presentation of Data

Data presentation in tabular formats; use of diagrams for data presentation; creating charts and diagrams in MS-Excel – bar, line, pie, scatter, radar, bubble diagrams, population pyramids.

Readings:

- 1. S P Gupta, Statistical Methods, S Chand.
- 2. Webtech Solutions Inc., Mastering Microsoft Excel Functions and Formulas

3. ELT Skill-1 Developing Soft Skills in English

(Under Deptt. of English)

Course Description

This course enables students to develop effective soft skills and behaviours that are critical for success in today's competitive job market. It equips students with the essential soft skills that they need to create a positive impression about themselves for both professional and personal success. The key skills introduced in this course include active listening, communicating effectively in groups and use of appropriate body language. It also familiarizes students with presentation skills, and creative and critical thinking skills.

Mode of delivery

Interactive lectures using class discussion, personalized topics, exercises and activities based on class texts and real-life language contexts, collaborative pair and group work, and sharing of feedback. Interactions and discussions can take place in blended mode, through face-to-face classroom teaching and online platforms such as Google Classroom.

Course Contents

Unit	Topics	Teaching Hours
1	Making a good impression	
	Good introduction	
	Active listening	4
	Positive body language	
	Good communication skills	
2	Active Listening skills	
	Techniques to listen actively	5
	 Interpreting verbal and non-verbal messages 	
	Delivering effective presentations	
	 Knowing your audience 	
3	Speaking confidently: tone, pace	10
3	Structuring your presentation	10
	• Dealing with Q & A	
	 Using props and visual images 	
4	Creative and critical thinking	6
	Identifying the problem	6

	• The problem-solving process: brainstorming,	
	analyzing, exploring, and choosing a solution	
	Group communication	
_	Negotiation skills	8
5	Team building skills	
	 Leadership skills 	
	Body language	
	Maintaining appropriate body posture in different	
6	communicative situations	3
6	 Using hand gestures effectively 	3
	Maintaining eye contact during communication	
	• Proxemics	

References:

- Freeman, T. (2022). Soft Skills I Learned the Hard Way: Lessons in Communication, Public
- 2. Speaking, Interviewing and Networking. Whack Publications
- 3. Raman, M., Upadhyay, S. (2017). Soft Skills: Key to Success in Workplace and Life. Cengage India Private Limited
- 4. Robbins. S.P. (2015). Training in Interpersonal Skills (6th Edition). Pearson
- 5. Walker, T. J. (2010). How to Give a Pretty Good Presentation: A Speaking Survival Guide for the Rest of Us. Wiley

4. Mental Health and Hygiene

(Under Deptt. of Education)

Course objectives:

After completion of the Course the learner will be able to understand the concept of mental health and development of mental health and the Characteristics of a mentally healthy persons. The relationship between mental health and hygiene will be cleared. They will be able to learn the factors, principles which promoted mental health and the role of school and society for providing proper mantel health. It will also help the learner to develop a positive attitude on life which is most important in today's society.

Unit-1: Concept of mental Health (Meaning, definitions and Scope of Mantal Health, Signs of mentally healthy person)

Unit-2: Concept of Mental Hygiene (Meaning, Nature, Aims and objectives and function of mental Hygiene)

Unit-3: Need and importance of mantel health and Hygiene:

Unit-4: Relationship between Education and Mantel Health(Role of School, home and Society, Mental Health of teachers)

Unit-5: Preservation of Mental Heaths and Hygiene (Contribution of the Educational psychology (Meaning, Nature and importance of educational psychology)

Unit-6: Various ways of stress Management (Role of Yoga, Steps to create a beautiful mind)

5. Gender Sensitization

(Under Deptt. of History)

Course objective:

This course will sensitize students to issues related to gender and its related concepts. It will provide them with the tools and skills to develop and integrate a gendered perspective in work and life.

Unit 1. Introducing Sex and Gender

- a. Concept of sex and gender
- b. Social construction of gender

Unit 2. Basic Concepts

- a. Gender Socialization
- b. Gender Role
- c. Gender Inequality

Unit 3. Gender in Social Institution

- a. Family
- b. Caste
- c. Class

Unit 4. Violence against Women and its Indian Constitutional Provisions

- a. Sexual Harassment
- b. Domestic Violence
- c. Right to Property in Indian Constitution

Reference Books:

- Abbott, et.al. 2005. Introduction to Sociology: A Feminist Perspective, Routledge: London
- Holmes, M.2007. What is Gender? Its Approaches, Sage Publication: New Delhi
- Philcher, J and Whelehan, I. 2004. Fifty Key Concepts in Gender Studies, Sage Publication: New Delhi
- Jones, E.A. and Olson G.A. 1991. The Gender Reader, Allyn and Bacon: USA
- Hirschon, R. 1984 "Introduction: Property, Power and Gender Relations" in R. Hirschon (ed.) Women and Property, Beckenham: Croom Helm.
- Jaggar, A. 1983. Feminist Politics and Human Nature, Brighton: The Harvester Press.
- Engels, F. 1972. The Origin of the Family, Private Property and the State, London.

6. Panchayati Raj and Practice

(Under Deptt. of Political Science)

Course Objective:

This course acquaints students with the Panchayati Raj Institutions and their actual working. It further encourages a study of Panchayati Raj Institutions in their mutual interaction and their interaction with the people.

Unit 1. Introduction of Panchayati Raj System

- a. Definition of Panchayati Raj System
- b. Evolution of Panchayati Raj in India and its importance
- c. Devolution

Unit 2. Provisions of Panchayati-Raj System in Indian Constitution

- a. Role of 73rd Amendment Act of Panchayati-Raj System in India
- b. Constitutional Provisions on Panchayat Finances
- c. Fiscal Decentralization and Audit System

Unit 3. Problems and Needs of Disadvantaged Groups and their Participation

- a. Women
- b. Scheduled Tribes, Scheduled Castes and Minorities
- c. Panchayat Extension to Scheduled Areas (PESA) Act
- Modalities for Practical Component: project Report/Field Study Report based on any activity i.e., visit to Panchayat / local self-bodies, local people's participation in the political system etc.

Reference Books:

- P. Dsouza, (2002) 'Decentralization and Local Government: The second Wind of Democracy in India', in Z. Hasan, E. Sridharan and R. Sudarshan (eds.) India's living Constitution: Ideas, Practices and Controversies, New Delhi: Permanent Black
- M. John, (2007) 'Women in Power? Gender, Caste and Politics of Local Urban Governance', in Economic and Political Weekly, Vol.42(39)
- Raghunandan, J.R (2012) Decentralization and local governments: The Indian Experience, Orient Black Swan, New Delhi
- Baviskar, B.S and George Mathew (eds) 2009 Inclusion and Exclusion in Local governance: Field Studies from rural India, New Delhi, Sage
- M. Venkatarangaiya and M. Pattabhiram- Local Government in India, Allied Publishers-1969 SR Maheswari, Local Government in India, Lakshmi Narain Agarwal, 2008.
- Bidyut Chakraborty and Rajendra Kumar Pandey, Modern Indian Political Thought-Text and Context, Sage, New Delhi, 2009

7. Basic Analytical Chemistry

(Under Deptt. of Chemistry)

Unit I: Introduction (6 Lectures)

Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results, from the point of view of significant figures.

Unit II: Basic principles of quantitative analysis (6 Lectures)

Estimation of metal ions from aqueous solution, geometrical isomer, keto-enol tautomer, determination of metal complex composition using Job's method of continuous variation and mole ratio method.

Unit III: Analysis of soil (8 Lectures)

Composition of soil, Concept of pH and pH measurement, Complexometric titrations, Chelation, Chelating agents, use of indicators

- a. Determination of pH of soil samples.
- b. Estimation of Calcium and Magnesium ions as Calcium carbonate by complexometric titration.

Unit IV: Analysis of water (8 Lectures)

Definition of pure water, sources responsible for contaminating water, water sampling methods, water purification methods.

- a. Determination of pH, acidity and alkalinity of a water sample.
- b. Determination of dissolved oxygen (DO) of a water sample.

Unit V: Analysis of food products (9 Lectures)

Nutritional value of foods, idea about food processing and food preservations and adulteration.

- a. Identification of adulterants in some common food items like coffee powder, asafoetida, chilli powder, turmeric powder, coriander powder and pulses, etc.
- b. Analysis of preservatives and colouring matter.

Unit VI: Chromatography (8 Lectures)

Definition, general introduction on principles of chromatography, paper chromatography, TLC etc.

- a. Paper chromatographic separation of mixture of metal ion (Fe3+and Al3+).
- b. To compare paint samples by TLC method.

Suggested Applications

a. To study the use of phenolphthalein in trap cases.

Suggested Instrumental demonstrations:

a. Estimation of macro nutrients: Potassium, Calcium, Magnesium in soil samples by flame photometry

Reference Books

- 1. Willard, H.H., Merritt, L.L., Dean, J. & Settoe, F.A. Instrumental Methods of Analysis, 7th Ed. Wadsworth Publishing Company Ltd., Belmont, California, USA,1988.
- 2. Skoog, D.A., Holler, F.J. & Crouch, S. Principles of Instrumental Analysis, Cengage Learning India Edition, 2007.
- 3. Skoog, D.A.; West, D.M. & Holler, F.J. Analytical Chemistry: An Introduction 6thEd., Saunders College Publishing, Fort Worth, Philadelphia (1994).
- 4. Harris, D. C. Quantitative Chemical Analysis, 9th ed. Macmillan Education, 2016.
- 5. Dean, J. A. Analytical Chemistry Handbook, McGraw Hill, 2004.
- 6. Day, R. A. & Underwood, A. L. Quantitative Analysis, Prentice Hall of India, 1992.
- 7. Freifelder, D.M. Physical Biochemistry 2nd Ed., W.H. Freeman & Co., N.Y. USA (1982).
- 8. Cooper, T.G. The Tools of Biochemistry, John Wiley & Sons, N.Y. USA. 16 (1977).
- 9. Vogel, A. I. Vogel's Qualitative Inorganic Analysis 7th Ed., Prentice Hall, 1996.
- 10. Mendham, J., A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Pearson, 2009.
- 11. Robinson, J.W. Undergraduate Instrumental Analysis 5th Ed., Marcel Dekker, Inc., New York (1995).
- 12. Christian, G.D. Analytical Chemistry, 6th Ed. John Wiley & Sons, New York, 2004.

Lab Work

- I. Any one Experiment to be Set in the Examination
 - a) Separation and identification of monosaccharides present in a given mixture (Glucose and Fructose) by paper chromatography. Report Rf Values.
 - b) Separation of organic compounds present in a given mixture by TLC method.
 - c) Estimate the Ni (ii) present in a given solution by gravimetric analysis.
 - d) Estimate the alkali present in a given antacids.
 - e) Determine the dissolve oxygen in water.
- II. Identification of different analytical instruments.
- II. Practical Note Book 3
- III. Viva-Voce

Reference Books

- 1) Vogel, Arthur I: A Test book of Quantitative Inorganic Analysis (Rev. by G. H. Jeffery and others) 5th Ed., The English Language Book Society of Longman.
- 2) Willard, Hobert H. et al.: Instrumental Methods of Analysis, 7th Ed., Wardsworth Publishing Company, Belmont, California, USA, 1988.
- 3) Khopkar, S.M. Basic Concepts of Analytical Chemistry. New Age, International Publisher, 2009.

8. Floriculture

(Under Deptt. of Botany)

Theory

Unit I: Introduction: Importance and Scope of Floriculture, Types of floriculture, Landscape gardening (landscaping highways and institutions). (2 Lectures)

Unit II: Principles of garden designs: English, Italian, French, Persian, Mughal and Japanese garden, Features of Garden (gate, walls, fencing, hedge, pergolas, edging, shrubbery, water garden). (6 Lectures)

Unit III: Nursery management and Routine Garden operations: Sexual and vegetative methods of propagation; soil sterilization, seed sowing, defoliation, manuring (3 Lectures)

Unit IV: Ornamental plants and their cultivation: Annual flowers, Perennial flowers, herbaceous plants, indoor plants, succulents and cactus, divine vines, palms and cycads, Bonsai (5 Lectures)

Unit V: Commercial floriculture: Cultivation of cut flowers (Chrysanthemum, marigold, dahlia, bougainvillea, rose, lilium, orchids), Production and packaging of cut flowers. (6 lectures)

Practical

- 1) Preparation of media for propagation (soil, sand, peat, Sphagnum, moss, vermiculite, soil moisture and nursery beds) (3 Lectures)
- 2) Insect pest and diseases control of plants (3 Lectures)
- 3) Demonstrate the preparation of Bonsai of horticulture plants. (5 Lectures)

Suggested Readings:

1. Randhawa, G.S. and Mukhopadhyay, A. 1986. Floriculture in India. Allied Publishers. 77

9. Ornamental Fish and Fisheries

(Under Deptt. of Zoology)

Course Contents:

- 1. Ornamental Fish Diversity of North East India
- 2. Aquarium plant diversity in the wetland of Assam
- 3. Construction and management of Home Aquarium
- 4. Natural feed of Ornamental Fish
- 5. Strategies for maintenance of natural colour of Ornamental Fish
- 6. Natural Breeding of Tricogaster species
- 7. Health management of Ornamental Fish
- 8. Feed formulation of Ornamental Fish
- 9. Development of Biological filtration in Aquarium
- 10. Pure culture of planktons

Practical

- 1. Identification of Ornamental Fish
- 2. Culture of Indigenous ornamental fish in Aquarium
- 3. Estimation of Physico-chemical characteristics of Aquarium water
- 4. Biological filter for removal of Ammonia from Aquarium
- 5. Culture of Planktons

10. Physics Workshop Skills

(Under Deptt. of Physics)

Unit I: Introduction (4 Lectures)

Measuring units. conversion to SI and CGS. Familiarization with meter scale, Vernier calliper, Screw gauge and their utility. Measure the dimension of a solid block, volume of cylindrical beaker/glass, diameter of a thin wire, thickness of metal sheet, etc. Use of Sextant to measure height of buildings, mountains, etc.

Unit II: Mechanical Skill (6 Lectures)

Concept of workshop practice. Overview of manufacturing methods: casting, foundry, machining, forming and welding. Types of welding joints and welding defects. Common materials used for manufacturing like steel, copper, iron, metal sheets, composites and alloy, wood. Concept of machine processing, introduction to common machine tools like lathe, shaper, drilling, milling and surface machines. Cutting tools, lubricating oils.

Unit III: Electrical and Electronic Skill (4 Lectures)

Use of Multimeter. Soldering of electrical circuits having discrete components (R, L, C, diode) and ICs on PCB. Operation of oscilloscope. Making regulated power supply. Timer circuit, electronic switch using transistor and relay.

Unit IV: Introduction to prime movers: (6 Lectures)

Mechanism, gear system, wheel, Fixing of gears with motor axel. Lever mechanism, Lifting of heavy weight using lever, use of pulley, braking systems, working principle of electrical power generation systems.

Lab:

- 1. To study the use of meter scale, vernier caliper, screw gauge.
- 2. To measure dimension of solid block, volume of cylindrical beaker/glass, diameter of thin wire, thickness of metal sheet.
- 3. To measure height of building, mountain using sextant
- 4. To study the use of digital multimeter and CRO.
- 5. To do soldering of electrical circuit having discrete components on PCB.
- 6. To construct a regulated power supply with capacitor filter.
- 7. Demonstration of lifting of heavy weight using lever

Reference Books:

- 1. A text book in Electrical Technology-B L Theraja S. Chand and Company.
- 2. Performance and design of AC machines M.G. Say, ELBS Edn.
- 3. Mechanical workshop practice, K.C. John, 2010, PHI Learning Pvt. Ltd.
- 4. Workshop Processes, Practices and Materials, Bruce J Black 2005, 3rd Edn., Editor Newnes [ISBN: 0750660732]
- 5. New Engineering Technology, Lawrence Smyth/Liam Hennessy, The Educational Company of Ireland [ISBN: 0861674480]

11. Quantitative Aptitude and Reasoning

(Under Deptt. of Mathematics)

Learning Objective (s):

The course is designed for all in view of assessing cognitive abilities of students in various competitive examinations. Therefore, it is desired that a Graduate must possess cognitive skill attributes to pursue further avenues in higher education and other sectors. This Skill Enhancement Course is expected to enhance employability of students pursuing FYUGP.

THEORY

Unit I - (4 hours): MENTAL ABILITY

Number System, Ages, Averages, Time and Calendar, Speed and Distance

Unit II - (6 hours): NUMERICAL APTITUDE

Ratios and Proportions, Profit and Loss, Simple and Compound Interest

Unit III - (7 hours): LOGICAL REASONING

Alphanumeric series, Blood relations, Directions, Seating Arrangement, Deductive-Inductive Reasoning, Coding-Decoding

Unit IV - (5 hours): DATA HANDLING

Data: meaning, types, sources; Data Representation using Diagrams and Charts; Data Interpretation, Data sufficiency

PRACTICAL

Problem-solving questions on,

- 1. Age 2. Speed and Distance 3. Averages 4. Family-tree 5. Ratios and Proportions
- 6. Coding-Decoding 7. Time and Calendar 8. Simple Interest 9. Compound Interest
- 10. Profit and Loss 11. Seating Arrangement 12. Inductive reasoning
- 13. Deductive reasoning 14. Directions 15. Alphanumeric series
- 16. Construction of various Diagrams and Charts
- 17. Interpretation of various Diagrams and Charts 18. Data sufficiency

Reference(s):

- 1. Aggarwal, R.S, "Quantitative Aptitude for Competitive Exams", S. Chand
- 2. Tyra, M., "Quicker Maths", BSC Publishing Co. Pvt. Ltd.
- 3. Trueman's Specific Series "UGC NET/SET"