



ACADEMIA

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Syllabus for Half Yearly Examination

(Session: July 2016 to June 2017)

Class: IX

ENGLISH (Time: 3.00 hrs.)

Full marks: 40+60=100

Objectives: Developing a thorough understanding of the language; providing students with materials to respond to clearly and comprehensively, using given information to write succinctly, clearly, following instructions and specific format and developing the creative writing skill.

Prescribed Text: (1) O Level English Practice: Millington Ward, (2) GCE English Language: Alan Etherton (3) Latest Question Paper (20 yrs).

Study plan: (i) Selected comprehension passages from both texts (ii) Guided Writing: Article, formal and informal letters, Leaflet and Report writing (iii) Creative writing: Descriptive, narrative, argumentative and reflective.

Comprehension (30 marks): Unseen Passage with questions to test clear understanding of the passage.

Directed writing (35 marks): A piece of writing to test summarizing and specialized presentation skill.

Composition (35 marks): To select 1 from a choice of 3 compositions.

BENGALI (Time: 3.00 hrs.)

Full marks: 40+60=100

1. Essays, 2. Letters, 3. Translation (English to Bangla & Bangla to English). Followed by 'O' level question papers

4. Topics: Life in the town and rural life, customs and religion, future plans, types of home, current affairs and social issues.

Bangla Academy Dictionary (English to Bangla & Bangla to English).

MATH-B Time: P-1 (1:30 hrs.) P-2 (2:30 hrs.)

Full marks: (40+60=100)

Book Recommended:

1. **EXTENDED MATHEMATICS FOR IGCSE** BY DAVID RAYNER

2. **EDEXCEL INTERNATIONAL GCSE MATHEMATICS B** by

David Turner, B.V. Hony, I. A. Potts, W. R. J. Waite

Full Marks: 40+60=100 (Paper 1: 20, Paper 2: 40)

Chapter 8 (Sets, Vectors, Functions)

Sets, Logical problems, Vectors, Column vectors, Vector geometry, Functions, Revision Exercise 8A & 8B.

Chapter 9 (Matrices and Transformations)

Matrix operations, The inverse of a matrix, Simple transformations, Combined transformations, Transformations using matrices, Revision Exercise 9A & 9B.

- **Differentiation**

Differentiation of integer powers of x , Determination of gradients, Rate of change, Maxima, minima and stationary points.

Review of Class VIII Whole Syllabus

PURE MATH Time: P-1 (2.00 hrs.) P-2 (2.00 hrs.)

Full marks: (40 + 60 = 100)

Chapter 1: Logarithmic functions and indices: (1.6) The functions $y=a^x$ and $y=\log_b^x$

Chapter 9: Calculus **Chapter 10:** Trigonometry

Revision from class VIII Syllabi: **Chapter 1:** Logarithm Functions and indices, **Chapter 2:** The Quadratic functions.

PHYSICS: (Time: 2.00 hrs.)

Full marks: 40+60=100

Chapter 13 : Light Wave **Chapter 14 :** Sound Wave **Chapter 15 :** Energy Transfers

Chapter 16 : Thermal Energy **Chapter 17 :** Work and Power **Chapter 18 :** Energy Resources and Electricity

CHEMISTRY: (Time: 2.00 hrs.)

Full marks: 40+60=100

Chapter 6. Rates of Reaction, **Chapter 14.** Energy changes in Reactions, **Chapter 15.** Introducing Reversible Reaction, **Organic Chemistry : Chapter 18 :** Introducing organic chemistry **Chapter 19 :** Alkanes, Alkenes and Alcohols **Chapter 20 :** Useful products from crude oil **Chapter 21 :** Polymers. **Chapter 24.** Electrolysis calculations: Faraday; How to interpret electrode equations; calculation of quantity of substances deposited on electrodes by passing different amount of electricity

BIOLOGY: (TIME: 2.00 HRS.)

FULL MARKS: 40+60=100

1.Chap 3 : Breathing and Gas Exchange **2.Chap.8:** Excretion **3.Chap7:** Chemical Coordination **4.Chap6:** Coordination **5.Chap 12:** Plant co-ordination. **6. Chap15** Human influences on the Environment **7.Chap14:** Ecosystems

HUMAN BIOLOGY: (TIME: 2.00 HR.)

FULL MARKS: 40+60=100

Chap.1 Life processes: Cells and tissues: (a) Animal cell structures and their functions (b) Tissue & types—epithelial tissue, muscle tissue, nervous tissue, connective tissue (bones & blood) (c) Organisation of cells into organs. **Chap.10 Chromosomes, Genes and DNA:** (a) Structure of DNA and chromosomes (b) Meaning of the terms: Genes, dominant, recessive, homozygous, heterozygous, phenotype, genotype, co-dominance, diploid & haploid. **Chap.11 Cell division:** (a) cell division, its type, difference between mitosis and meiosis (b) Description of the four stages of mitosis & its significance. **Chap.7 Form and movement:** (a) Human skeleton, main parts of skeleton (axial & appendicular) with their functions (b) structure of a long bone, Dietary factors for muscle & bone development. (c) structure of a synovial joint (d) Joints, types of joints, functions of joints (e.g. freely movable joints, partially movable joints, immovable joints) (e) Muscles, Movement, relationship between voluntary muscles & bones to bring about movement. (f) Bending the spine, (g) Muscle contraction and exercise **Chap.5 Co-ordination:** (a) The ear: structure & function of the ear, hearing and balance (b) The eye: structure & function of eye, eye focusing & control of light intensity, stereoscopic vision (c) CNS consist of the brain, spinal cord, their structure & functions, a simple reflex arc by withdrawal of a finger. **Chap.6 Chemical Coordination:** (a) Glands and hormones, the differences between nervous endocrine control, (b) The positions of the endocrine glands, the thyroid and control of metabolic rate, (c) Negative feedback **Chap.2 Breathing and Gas Exchange:** Full Chapter **Chap.8 Homeostasis and Excretion:** structure and function of urinary system and a nephron, osmoregulation of kidney, formation of urine, role of ADH. Functions of Liver, Kidney transplants and kidney dialysis machines.

ICT (Time: 2.00 hrs.)

Full marks: 40+60=100

Book: Edexcel IGCSE ICT (Roger Crowford)

Chapter 1: Hardware, Chapter 2: Backing storage and memory, Chapter 3: Software, Chapter 4: Word processing and desktop publishing, Chapter 5: Spreadsheets and modeling, Chapter 6: Databases

Practical:i) MS Paint ii) MS Excel iii) MS Access iv) Picasa

ACCOUNTING: (Time: 2.30 hrs.)

Full marks: 40+60=100

Chapter 10: Accounting concepts and assumption **Chapter 17:** The journal **Chapter 24:** Capital expenditure and revenue expenditure **Chapter 28:** Accruals and prepayments and other adjustments for financial statements **Chapter 30:** Bank reconciliation statements **Chapter 31:** Control accounts **Chapter 32:** Errors not affecting the balancing of the trial balance **Chapter 33:** Suspends accounts & errors **Chapter 34:** Introduction to accounting ratio. **Chapter 37:** Manufacturing Accounts.

ECONOMICS: (Time: 2.00 hrs.)

Chapter-7,8,9,10 Revision on demand, supply and equilibrium,

Price elasticity of demand and supply, income elasticity of demand and application of elasticity.

Chapter-30 Macroeconomic objectives: Five macroeconomic objectives : Economic growth, inflation, unemployment, Balance of payments on current account and Protection of the environment.

Chapter-31 Economic growth: Factors determining a nation's income and output, circular flow of income & expenditure (closed and open economy), Gross Domestic Product (GDP) as the measurement of economic growth : Total growth and rate of growth. Limitation of GDP as measure of growth, advantages and disadvantages of economic growth The economic cycle : Recovery, boom, recession and slump.

Chapter-32-33 Inflation: Measurement of inflation : Retail Price Index (RPI) or Consumer Price Index (CPI), Causes : Demand- pull inflation, Cost-push inflation and Money supply inflation, Consequences : Effects on prices, savings, wages, balance of payments and Unemployment. Inflation and the functions of money.

Chapter-34 Unemployment : International Labour Organisation (ILO) measurement of unemployment. Types : Cyclical, structural, frictional, seasonal and voluntary The effects of unemployment on to : The individual, the economy, the business and the local community.

Chapter-35 Balance of payments on current account : Trade in goods (visibles) and trade in services (invisibles), Effects of deficits and surpluses.

Chapter-36 Protection of the environment: Use of regulation and taxation to influence business and consumer behaviour.

Chapter-37,38,39,40 Policies: To deal with economic growth, inflation, unemployment, the balance of payments on current account and the protection of the environment.

Policy instruments: Demand side:

Fiscal Policy: Government revenue and expenditure, Revenue: direct and indirect taxation, Main areas of public sector spending. Taxation, regulation and incentives aimed at the protection of the environment, economic growth, inflation, unemployment and Balance of payments on current account.

Monetary Policy: Interest rates and money supply, Effects of interest rates on consumers' and firms' decisions. Money supply: relationship with interest rates and inflation.

Supply side Policy : Supply side policies: Privatization, deregulation, education and training and productivity of the workforce.

Chapter-41 Relationship between objectives and policies: The different effects that macro-economic measures may have on the five macroeconomic objectives.

These effects will be both positive and negative, and may involve trade-offs between objectives and issues of equity.

COMMERCE: (Time: 2.00 hrs.)

Full marks: 40+60=100

Book: Text book of commerce 5th Edition by Lynda Fitzmaurice

1. Transport: (a) **Importance:** define transport, Show understanding of the importance of transportation on the chain of distribution. (b) **Types:** state and show knowledge of the different forms of transportation available to commerce: road, rail, sea and air, evaluate benefits to a business of having in own transport, evaluate the efficiency of the various forms of transport in relation to cost, speed, reliability and safety, situations, convenience, distance. (c) **Containerization:** identify the main features of containers, explain why containers are used, advantages and disadvantages. (d) **Trends:** describe modern trends in the distribution of goods, eg growth of air freight, couriers. **2. Banking:** (a) **Money:** outline the functions of money and the role of money in a developed economy, including the concept of legal tender, identify and explain reasons for the use of the different types of money: notes and coins, bank deposits, credit, function of a central bank. (b) **Types of Bank:** describe the main features and evaluate the use of the following services provided for businesses and consumers by the commercial banks and other organisations such as post offices: (i) accepting deposits: current, fixed deposit and savings accounts, night safes. (c) **Payment methods:** cheques, standing orders, bank giro, direct debits, bank draft, debit cards, electronic transfers, postal orders, special delivery, cash on delivery. (d) **Other important services:** e.g. financial, investment and taxation advice, insurance service, provision and exchange of foreign currencies, ATMs, credit cards, outline the main functions of a central bank (e) **Trends in banking:** describe recent developments, e.g. telephone banking, internet banking, mobile banking and analyse their likely implications. **3. Communication:** Importance, Methods, Internal and External communications, Analysis of given situations in the choice of the communication, Equipment used in communication and main documents used in business communication. **4. Production and commercial activity:** (a) Production (b) organisation of production (c) commercial activity (d) Specialization.

BUSINESS STUDIES: (Time: 2.00 hrs.)

Full marks: 40+60=100

Chapter 2: Human resources: (i) Internal organisation (ii) Communication **Chapter 3:**

Accounting and finance: (i) External and Internal sources of finance (ii) Budgets and cash

flow forecasts (iii) Cost and Break-even analysis **Chapter 5: Production:** (i) Economics and

diseconomies of scale (ii) Methods of production