



**Al Huda International School**  
**Secondary Section**  
**Guidelines for MOCK Exams - Grade X**

**2017 – 2018**

Dear parents,  
Kindly make note of guidelines with regards to upcoming MOCK Exams.

### **Biology**

<p><b>1. Characteristics and classification of living organisms</b></p> <p>1.1 Characteristics of living organisms</p> <p>1.2 Concept and use of a classification system</p> <p>1.3 Features of organisms</p> <p>1.4 Dichotomous keys</p> <p><b>2. Organisation of the organism</b></p> <p>2.1 Cell structure and organisation</p> <p>2.2 Levels of organisation</p> <p>2.3 Size of specimens</p> <p><b>3. Movement in and out of cells</b></p> <p>3.1 Diffusion</p> <p>3.2 Osmosis</p> <p>3.3 Active transport</p> <p><b>4. Biological molecules</b></p> <p><b>5. Enzymes</b></p> <p><b>6. Plant nutrition</b></p> <p>6.1 Photosynthesis</p> <p>6.2 Leaf structure</p> <p>6.3 Mineral requirements</p> <p><b>7. Human nutrition</b></p> <p>7.1 Diet</p> <p>7.2 Alimentary canal</p> <p>7.3 Mechanical digestion</p> <p>7.4 Chemical digestion</p> <p>7.5 Absorption</p> <p><b>8. Transport in plants</b></p> <p>8.1 Transport in plants</p> <p>8.2 Water uptake</p> <p>8.3 Transpiration</p> <p>8.4 Translocation</p>	<p><b>9. Transport in animals</b></p> <p>9.1 Transport in animals</p> <p>9.2 Heart</p> <p>9.3 Blood and lymphatic vessels</p> <p>9.4 Blood</p> <p><b>10. Diseases and immunity</b></p> <p><b>11. Gas exchange in humans</b></p> <p><b>12. Respiration</b></p> <p>12.1 Respiration</p> <p>12.2 Aerobic respiration</p> <p>12.3 Anaerobic respiration</p> <p><b>13. Excretion in humans</b></p> <p><b>14. Coordination and response</b></p> <p>14.1 Nervous control in humans</p> <p>14.2 Sense organs</p> <p>14.3 Hormones in humans</p> <p>14.4 Homeostasis</p> <p>14.5 Tropic responses</p> <p><b>15. Drugs</b></p> <p>15.1 Drugs</p> <p>15.2 Medicinal drugs</p> <p>15.3 Misused drugs</p> <p><b>16. Reproduction</b></p> <p>16.1 Asexual reproduction</p> <p>16.2 Sexual reproduction</p> <p>16.3 Sexual reproduction in plants</p> <p>16.4 Sexual reproduction in humans</p> <p>16.5 Sex hormones in humans</p> <p>16.6 Methods of birth control in humans</p> <p>16.7 Sexually transmitted infections (STIs)</p>
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### **Physics**

<p><b>1. General physics</b></p> <p>1.1 Length and time</p> <p>1.2 Motion</p> <p>1.3 Mass and weight</p> <p>1.4 Density</p> <p>1.5 Forces</p>	<p><b>4. Electricity and magnetism</b></p> <p>4.1 Simple phenomena of magnetism</p> <p>4.2 Electrical quantities</p> <p>4.3 Electric circuits</p> <p>4.4 Dangers of electricity</p> <p>4.5 Static Electricity</p>
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1.6 Momentum 1.7 Energy, work and power 1.8 Pressure <b>2. Thermal physics</b> 2.1 Simple kinetic molecular model of matter 2.2 Thermal properties and temperature 2.3 Thermal processes	<b>5. Atomic physics</b> 5.1 The nuclear atom 5.2 Radioactivity
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## Chemistry

<b>1. The Particulate nature of matter</b> <b>2. Experimental techniques</b> 2.1 Measurement 2.2.1 Criteria of purity 2.2.2 Methods of purification <b>3. Atoms, elements and compounds</b> 3.1 Atomic structure and the Periodic Table 3.2.1 Bonding: the structure of matter 3.2.2 Ions and ionic bonds 3.2.3 Molecules and covalent bonds 3.2.4 Macromolecules 3.2.5 Metallic bonding <b>4. Stoichiometry</b> 4.1 Stoichiometry 4.2 The mole concept <b>5. Electricity and chemistry</b> <b>6. Chemical energetics</b> 6.1 Energetics of a reaction 6.2 Energy transfer <b>7. Chemical reactions</b> 7.1 Physical and chemical changes 7.2 Rate (speed) of reaction 7.3 Reversible reactions 7.4 Redox	<b>8. Acids, bases and salts</b> 8.1 The characteristic properties of acids and bases 8.2 Types of oxides 8.3 Preparation of salts 8.4 Identification of ions and gases <b>9. The Periodic Table</b> 9.1 The Periodic Table 9.2 Periodic trends 9.3 Group properties 9.4 Transition elements 9.5 Noble gases <b>10. Metals</b> 10.1 Properties of metals 10.2 Reactivity series 10.3 Extraction of metals 10.4 Uses of metals <b>11. Air and water</b> 11.1 Water 11.2 Air 11.3 Nitrogen and fertilisers 11.4 Carbon dioxide and methane <b>12. Sulfur</b> <b>13. Carbonates</b>
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## Mathematics

1. Algebra 2. Fractions 3. Basic Mathematics 4. Probability 5. Quadratic Equations, Linear Equations, Linear Inequalities 6. Application of Mathematics (Percentages, Profit, Loss, Discount, Money conversion, Buying and selling) 7. Loci and Construction	8. Matrices 9. Statistics 10. Ratio, Rate, Proportion 11. Trigonometry & Bearing 12. Functions 13. Graphs 14. Kinematics 15. Linear & Quadratics Graphs 16. Angle Properties of circles
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## Information and Communication Technology (ICT)

<u>Paper 1 (Theory)</u>	<u>Paper 2 (Practical)</u>	<u>Paper 3 (Practical)</u>
Chapter 1: Types and components of a computer system Chapter 2: Input and output devices Chapter 3: Storage devices and media Chapter 4: Networks and	Chapter 17: Document production Chapter 18: Data manipulation Chapter 19: Presentations	Chapter 20: Data Analysis Chapter 21: Website authoring Recommended Websites: <ul style="list-style-type: none"> <li>• <a href="http://www.ictlounge.com">www.ictlounge.com</a></li> <li>• <a href="http://www.igcseict.info/theory">www.igcseict.info/theory</a></li> </ul>

effects of using them Chapter 5: The effects of using ICT Chapter 6: ICT Applications Chapter 7: System Life Cycle		
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### **Quran Translation and Tafseer**

Surah Ar Ra'ad: Ayah # 25 – 29 Surah Ibrahim: Ayah # 3, 24 – 27, 40 – 46 ,47 – 52 Surah Hizr: Ayah # 14 – 19, 42 – 48, 78 – 89, Surah Nahl: Ayah # 66 – 69
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**Note:** All work done in the Notebooks, Workbooks and worksheets for all the subjects will be included in exams.