

**Dawood Public School**  
**Computer Studies**  
**Course Outline for 2017-2018**  
**Class VII**

**Course book- Right Byte 2**  
**Fourth edition (Oxford University Press)**

**Month wise Distribution of Course Work**

August	Data Processing and Information Processing Concepts
September	System Software Introduction to Web page with HTML5
October	Application Software HTML5
<b>November</b>	<b>Revision</b>
<b>December</b>	<b>Mid-Term Examination</b>
January	Binary Computing
February	Programming Languages HTML5
March	Algorithms and Flowcharts HTML5
<b>April</b>	<b>Revision</b> <b>Final Project [HTML5]</b>
<b>May</b>	<b>Final Examination</b>

Content	Learning Objectives
<p><b>The data-Processing Cycle</b>                      Steps of Data Processing Cycle</p> <ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Input</li> <li>• Process</li> <li>• Output</li> <li>• Storage</li> </ul> <p>The computer as a data processing system.                      Different types of processing.                      Advantages of computerized systems</p>	<p><b>Theory Objectives</b></p> <ul style="list-style-type: none"> <li>• Identify the methods of manual data collection in various scenarios</li> <li>• List the machines that capture data automatically</li> <li>• Differentiate between manual and automated ways of data collection</li> <li>• Identify the benefits of source documents in any organization</li> <li>• Differentiate between data encoding and decoding</li> <li>• Identify appropriate processing steps for given situations</li> <li>• Discuss computer as a data processing system</li> <li>• Compare and contrast manual and computerized data processing systems</li> </ul>
<p><b>Tricky Terminology:</b>                      automated data capture, POS, CCTV (closed circuit TV), OBR</p> <p><b>Types of Questions:</b></p> <ul style="list-style-type: none"> <li>➤ Matching the terms with their description</li> <li>➤ Multiple Choice</li> <li>➤ Structured Questions</li> <li>➤ Search Tasks</li> </ul> <p><b>Practical Task:</b>                      Page No. 13, Part F</p> <p><b>Search Task:</b>                      Search for application areas that use Manual ways of data collection and Automated data capture. Compare and contrast between manual and computerized system. Search on more uses of source documents in organizations.</p>	

Content	Learning Objectives
<p><b>System Software</b>                      Basic Input Output System (BIOS)                      The operating system</p> <ul style="list-style-type: none"> <li>• Types of Operating System</li> <li>• Categories of system software</li> <li>• Functions of Operating System</li> <li>• Utility programs and language translators</li> </ul>	<p><b>Theory Objectives</b></p> <ul style="list-style-type: none"> <li>• Explain the purpose of Boot Sequence and Boot Loader</li> <li>• List the steps for the booting up process</li> <li>• Explain the role of ROM BIOS</li> <li>• Describe the function of an Operating system</li> <li>• List the types of operating systems.</li> <li>• Differentiate between the types of Operating system</li> <li>• List utility programs</li> <li>• Describe the function of each utility program</li> <li>• Explain the purpose of language translators</li> <li>• List the function of device drivers</li> </ul>

**Tricky Terminology:**

source code, object code, device manager, boot sequence, boot loader

**Type of Questions:**

- Compare and Contrast
- Multiple Choice
- Structured Questions

**Search Task:**

Find out the difference between Command Line, Menu Drive and GUI based OS.  
Prepare a complete search report (hard copy print) on your findings.

**I.T Links:**

[www.webopedia.com](http://www.webopedia.com)

October:

**Chapter 4: Application Software**

Practical in HTML

Pages 39-47

Content	Learning Objectives
<p>Application software</p> <p>Types of application software</p> <ul style="list-style-type: none"> <li>• Generic and Bespoke</li> </ul> <p>Categories of application software</p> <ul style="list-style-type: none"> <li>• Design software</li> <li>• Educational software</li> <li>• Word processing</li> <li>• Spreadsheet</li> <li>• Presentation</li> <li>• Graphics</li> <li>• Entertainment</li> <li>• Desktop Publishing(DTP)</li> <li>• Database management software</li> <li>• Web authoring software</li> </ul>	<p><b>Theory Objectives</b></p> <ul style="list-style-type: none"> <li>• Differentiate between system software and application software</li> <li>• Identify the use, application and benefits of each type of software</li> <li>• Differentiate between Custom Design and off-the-shelf Software</li> </ul>
<p><b>Tricky Terminology:</b> generic off-the-shelf, custom designed, tailor made, CAD/CAM</p> <p><b>Type of Questions:</b></p> <ul style="list-style-type: none"> <li>➤ Compare and contrast</li> <li>➤ Multiple Choice</li> <li>➤ Structured Questions</li> </ul> <p><b>Search Task:</b> Find out how Database Management Software is used at School Prepare a list of the different software; identifying main features.</p> <p><b>I.T Links:</b> <a href="http://www.webopedia.com">www.webopedia.com</a></p>	

**October/November:  
Chapter 4: Practical in HTML 5**

Content	Learning Objectives
<p><b>HTML5</b> and its tags</p> <p>What is an HTML editor and how to use it?</p> <p>The structure of HTML program</p> <p>Creating a simple Web Page using Document Head and Body tags</p> <p>Attributes of Body tag</p> <p>Formatting, Line breaks</p>	<p><b>Practical Objectives</b></p> <ul style="list-style-type: none"> <li>• Use note pad as HTML editor</li> <li>• Write and save the HTML program</li> <li>• Apply Document Head and Body tags</li> <li>• Apply the color, text and backgrounds attributes of &lt;body&gt; tag</li> <li>• Apply formatting options</li> <li>• Apply horizontal ruler with its attributes</li> </ul>
<p><b>Tricky Terminology:</b> hypertext markup language (HTML), text editor</p> <p><b>Type of Questions:</b></p> <ul style="list-style-type: none"> <li>➤ Fill in the blanks</li> <li>➤ Multiple Choice</li> <li>➤ Practical based tasks</li> </ul> <p><b>Practical Task:</b> Write the HTML tags and create a webpage on any topic of your choice</p> <p><b>I.T Links:</b> <a href="http://www.w3schools.com">www.w3schools.com</a></p>	

**November 2017  
Revision for Mid Term Examination**

**December 2017  
Mid Term Examination**

**January:  
Chapter 2: Binary Computing**

**Pages 15-23**

Content	Learning Objectives
<p><b>Binary Computing</b></p> <p>Various forms of data</p> <p>Number system and types of number systems</p> <p>Binary coding schemes</p> <p>Conversion of number system</p> <p>Binary addition and subtraction</p>	<p><b>Theory Objectives</b></p> <ul style="list-style-type: none"> <li>• Identify the type of data used in given examples</li> <li>• Explain why and how the computer understands information in binary form</li> <li>• Perform conversions using appropriate methods <ul style="list-style-type: none"> <li>➤ Conversion of decimal into binary</li> <li>➤ Conversion of binary into decimal</li> </ul> </li> <li>• Perform addition and subtraction on binary numbers</li> <li>• Explain how data is stored in computers' memory in terms of bits and bytes</li> </ul>

**Tricky Terminology:**

ASCII codes (American Standard Code for Information Interchange)

EBCDIC codes (Extended Binary Coded Decimal Interchange Code)

**Type of Questions:**

- Binary Conversions
- Binary addition and subtraction
- Multiple Choice

**Activity:**

Find out about the storage capacities of different storage devices available.

Decode the following ASCII message:

**10100111010100101010110001001011001**

**01000001001000100000110100101000100**

**I.T Links:**

[www.bbc.co.uk](http://www.bbc.co.uk)

**February:****Chapter 8: Introduction to programming languages****Practical in HTML**

**Pages 87-95**

Content	Learning Objectives
<p><b>Programming Languages</b>            Step by step instructions            Programs and programming Languages</p> <ul style="list-style-type: none"> <li>➤ Low level languages</li> <li>➤ High level languages</li> </ul> <p>Role of translators</p>	<p><b>Theory Objectives</b></p> <ul style="list-style-type: none"> <li>• Define the term program</li> <li>• Explain the nature of different programming languages</li> <li>• Compare low level and assembly language</li> <li>• Compare low level and high level language</li> <li>• Explain the functions of               <ul style="list-style-type: none"> <li>➤ assembler</li> <li>➤ compiler</li> <li>➤ interpreter</li> </ul> </li> </ul> <p><b>Practical Objectives</b></p> <ul style="list-style-type: none"> <li>• Use step-by-step approach to create useful program</li> </ul>
<p><b>Practical in HTML</b>            Use of List tags and their attributes            Inserting images and using its attributes</p>	<p><b>Practical Objectives</b></p> <ul style="list-style-type: none"> <li>• Create numbered and bulleted lists</li> <li>• Insert images with its attributes</li> </ul>
<p><b>Tricky Terminology:</b>            artificial intelligence, compiler, LISP</p> <p><b>Type of Questions:</b></p> <ul style="list-style-type: none"> <li>➤ Multiple Choice</li> <li>➤ Structured Questions</li> </ul> <p><b>Practical Task:</b>            Page 95 Part G</p>	

Content	Learning Objectives
<p><b>Algorithm and Flow chart</b>                      Programming                      The Algorithm                      The flowchart                      Selection</p> <ul style="list-style-type: none"> <li>➤ IF ----- Then statements</li> <li>➤ If---- Then ----- Else statements</li> </ul>	<p><b>Theory Objectives:</b></p> <ul style="list-style-type: none"> <li>• List the stages involved in problem solving</li> <li>• Explain the necessity of creating algorithms to solve problems</li> <li>• Identify different flow chart symbols</li> <li>• Explain the function of different flow chart symbols</li> <li>• Create algorithm and flow charts to solve given mathematical problems</li> <li>• Explain the selection problem with the help of examples from real life</li> <li>• Explain the role played by conditional statements in solving selection problems</li> <li>• Compare If ---- then and If Then ---Else statements</li> <li>• Create algorithms and flowcharts to solve problems using conditional statement</li> </ul> <p><b>Practical Objectives</b></p> <ul style="list-style-type: none"> <li>• Develop a flowchart to depict the steps for:                             <ul style="list-style-type: none"> <li>➤ Steps taken by a Bank to grant someone a loan</li> </ul> </li> </ul>
<p><b>Practical in HTML</b>                      Bookmarks and hyperlinks in page</p>	<p><b>Practical Objectives</b></p> <ul style="list-style-type: none"> <li>• Create internal and external links</li> </ul>
<p><b>Tricky Terminology:</b>                      flowchart, flowchart symbols</p> <p><b>Type of Questions:</b></p> <ul style="list-style-type: none"> <li>➤ Fill in the blanks</li> <li>➤ Algorithm design</li> <li>➤ Structured Questions</li> </ul> <p><b>Lab Practical Task</b></p> <ul style="list-style-type: none"> <li>➤ Final project in HTML</li> </ul>	

**April 2018**  
 Revision for Final Term Examination

**May 2018**  
 Final Term Examination