Computer Science

Grade 8

**1. Fundamental Knowledge and Skill of Computer**

• History of computer Development

• Generation of Computer

• Types of computer

• Introduction of software and applications

• Different types of Operating System

• Advance features of Word Processor

• Advance features of Spread Sheet

• Advance features of presentation

**2. ICT, Ethics and Cyber Laws**

• Concept ICT technology

• Computer Ethics and cyber law

• Computer virus

• Introduction of Web design

• Introduction of data communication and Network

• Search educational materials through Web

**3. Number System**

• Decimal to Binary and Vice versa

• Binary calculation

**4. Computer Graphics**

• Introduction of Computer Graphics

• Create multimedia document

• Usages of Computer Graphics in various field

**5. Concept of Computer Programming**

• Basic concept of computer programming

• Simple programs based on pseudo code

Course Contents

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| --- | --- | --- |
| **Area** | **Topics** | **Wt.** |
| **Fundamental Knowledge**  **and Skill of**  **Computer** | • **History of computer Development**  **• Generation of Computer**  **• Types of computer**  􀂙 Analog, Digital and Hybrid  􀂙 Classification of Digital computer  Super, Mainframe, Mini and Micro  **• Types of software and applications**  **• Types of Operating System**  􀂙 Based on Mode of user (Single user and Multi user OS)  􀂙 Based on user interface (CUI and GUI)  **• Advance features of Word Processor**  􀂙 Creating, editing and formatting text  􀂙 Develop graphs and charts using Excel data  **• Advance features of Spread Sheet**  􀂙 Editing and formatting text in Spread Sheet  􀂙 Develop graphs and charts  􀂙 Basic calculation  function of Spread Sheet(Sum(+), Min(-), Max(), Average(a)  ,IF)  􀂙 Develop graphs and charts in Spread Sheet  • **Advance features of presentation**  􀂙 Layout design of Slides  −Fonts, Page layout, Effect Insert text and graphics or charts  􀂙 Insert new slide, delete | 60 |
| **ICT, Ethics**  **and Cyber**  **Laws** | **Concept of ICT**  • **Computer Ethics and cyber law**  • **Computer virus, remedy and protection**  • **Introduction of Web design**  􀂙 Introduction of web page, browser and hyperlinks  􀂙 Introduction of HTML  􀂙 Create Simple Web page using HTML (use basic tags and  following tags:  <P>,<B>,<U>,<I>,<SUP>,<SUB>,<HR>,<BR>,<FONT>,<H  1…H6> ,<A> ,<MARQUEE> ,<IMG>  • **Introduction of data communication and Network**  􀂙 Introduction of data communication  􀂙 Introduction of computer network and its advantages  􀂙 LAN, MAN and WAN  • **Types of Network**  • **Search educational materials through Web** | 35 |
| **Number**  **System** | **Decimal to Binary and Vice versa**  • **Binary calculation**  􀂙 Addition and multiplication | 7 |
| **Computer**  **Graphics** | **Introduction of Computer Graphics**  • **Create multimedia document**  • **Usages of Computer Graphics in various fields**  􀂙 Introduction of Photo Editing  􀂙 General concept of photo editing tools and usages  􀂙 Introduction and importance of Page Layout  􀂙 General concept of Page layout  􀂙 Common software for Page Layout | 15 |
| **Concept of**  **Computer**  **Programming** | **Basic concept of computer** programming  􀂙 Computer program and programming  􀂙 Program design tools (Algorithm, Flowchart and Pseudo code)  􀂙 Simple program using Qbasic(concept of variable and constant and program in sequence structure only: CLS, LET, PRINT, INPUT, END,REM) | 33 |
|  |  | 175 |

**Specification Grid**

**Computer Education Class 8**

**Full Mark : 50 Time : 2 Hours Pass Mark : 17.5**

**Theory Part**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SN | Area | Topics | No. of Questions | Types of Questions | | | |
| **knowledge Base** | **Skill** | **Low Ability** | **High Ability** |
| 1 | Fundamental  Knowledge & Skill  Computer | Introduction of computer  • Introduction of Hardware  • Introduction of Software  • Input and output devices  • Storage Devices  • Introduction of word Processing  • Introduction of Spread sheet  • Introduction of Presentation package | 4 | 1 | 1 | 1 | 1 |
| 2 | ICT, Ethics and  Cyber Laws | Concept ICT technology  • Computer Ethics and cyber law  Computer virus, remedy and protection  • Introduction data communication and Network  • Introduction of Web design  • Use of Website, Internet and Email | 2 | 1 |  | 1 |  |
| 3 | Number system | Decimal to Binary and Vice versa  • Binary calculation: addition & Multiplication | 1 |  | 1 |  |  |
| 4 | Computer Graphics | Introduction of Computer Graphics  • Usages of Computer Graphics in various field | 2 | 1 | 1 |  |  |
| 5 | Concept of  Computer Programming | Basic concept of computer programming | 1 |  |  |  | 1 |
| Total | | | 10 | 3 | 3 | 2 | 2 |

**For Practical Exam**

**Full Marks: 50 Time: 1.00 hrs. Pass Marks: 17.5**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SN | Area | Topics | No. of  questions | Marks |
| 1 | Fundamental knowledge and Skill of  Computer | Creating document by following instructions  • Create four different types of data and show in chart  • Insert given data according to instruction  • To create four Power Point slides and presentation | 1 | 25 |
| 2 | Computer Graphics | Develop simple Web page using HTML Tags  • Develop four colour Book Design | 1 | 25 |

Course Title: Computer Science (Grade 8) Full Marks: 50 + 50

Nature of the Course: Theory + Practical Pass Marks: 17.5 + 17.5

**FIRST TERMINAL EXAMINATION**

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| --- | --- |
| **Computer Fundamentals** | * Introduction/History/Generation of Computer |
| * Basic Concept Of Number System |
| **Operating System Concept** | * Introduction * Functions of Operating System * Types Of Operating System |
| **Advance Features of Word Processor** | * Introduction * Creating, editing and formatting text * Develop graphs and charts using Excel data |
| **Concept of Computer Programming** | * Computer program and programming * Program design tools (Algorithm, Flowchart and Pseudo code) |

**Half Yearly EXAMINATION**

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| --- | --- |
| **Computer Fundamentals** | * Types of Computer |
| **Advance Features of Spread Sheet** | * Introduction * Editing and formatting text in Spread Sheet * function of Spread Sheet(Sum(+), Min(-), Max(), Average(a) ,(IF) * Develop graphs and charts in Spread Sheet |
| **ICT, Ethics and**  **Cyber Laws** | * Concept of ICT * Computer Ethics and cyber law * Computer virus, remedy and protection |
| **Concept of Computer Programming** | * Simple program using Qbasic(concept of variable and constant and program in sequence structure only: CLS, LET, * PRINT, INPUT, END,REM) |

**Second TERMINAL EXAMINATION**

|  |  |
| --- | --- |
| **Computer Fundamentals** | * Software and Application |
| **Advance Features of Presentation** | * Introduction * Layout design of Slides   −Fonts, Page layout, Effect Insert text and graphics or charts   * Insert new slide, delete |
| **Web Designing &**  **Network** | * Introduction of web page, browser and hyperlinks * Introduction of HTML * Create Simple Web page using HTML (use basic tags and following tags:   <P>,<B>,<U>,<I>,<SUP>,<SUB>,<HR>,  <BR>,<FONT>,<H1…H6> ,<A> ,<MARQUEE> ,<IMG>   * Introduction of data communication * Introduction of computer network and its advantages * Typesof Network |

**Final Examination**

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| --- | --- |
| **Computer Graphics** | * Introduction of Photo Editing * General concept of photo editing tools and usages * Introduction and importance of Page Layout * General concept of Page layout * Common software for Page Layout |
| **Concept of Computer Programming** | * Revision Tour |