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

|  |  |  |
| --- | --- | --- |
| **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 computerSuper, 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 andfollowing tags:<P>,<B>,<U>,<I>,<SUP>,<SUB>,<HR>,<BR>,<FONT>,<H1…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 | FundamentalKnowledge & SkillComputer | 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 andCyber Laws | Concept ICT technology• Computer Ethics and cyber lawComputer 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 ofComputer 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. ofquestions | Marks |
| 1 | Fundamental knowledge and Skill ofComputer | 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**

|  |  |
| --- | --- |
| **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**

|  |  |
| --- | --- |
| **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**

|  |  |
| --- | --- |
| **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
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