MONTHLY SYLLABUS

SESSION-2017-18

CLASS-XII

SUBJECT : INFORMATICS PRACTICES (065)

LANGUAGE – JAVA, MYSQL

MONTH	CONTENT
April 2017	**Computer Networking**: Networking: a brief overview; Communication Media: Wired Technologies - Co-Axial, Ethernet Cable, Optical Fiber; Wireless Technologies - Blue Tooth, Infrared, Microwave, Radio Link, Satellite Link; Network Devices: Hub, Switch, Repeater, Gateway - and their functions; Types of network: LAN, MAN, WAN, PAN; Network Topologies: Star, Bus, Tree; Network Protocols: HTTP, TCP/IP, PPP; Identifying computers and users over a network: Basic domain name. MAC (Media Access Control), and IP Address, domain name resolution; Network security: denial of service, intrusion problems, snooping. Internet Applications: SMS, Voice Mail, Electronic Mail, Chat, Video CoWireless /Mobile Communication: GSM, CDMA, WLL, 3G, 4G; Net Concepts: Cyber Law, Firewall, Cookies, Hackers and Crackers. ,
May 2017	**Open Source Concepts:** Open Source Software (OSS), common FOSS/FLOSS examples (e.g., GNU/Linux, Firefox, Open Office, Java, Net beans, MySQL), common open standards (WWW, HTML, XML, ODF, TCP, IP). Indian Language Computing: character encoding, UNICODE, different fonts (open type vs true type, static vs dynamic), Entering Indian Language phonetic and key map based. **UNIT TEST**

July 2017	**Review of class XI JAVA(Net Beans)** Basic concept of Access specifier for class members (data members and methods). Basic concept of Inheritance. **Practical's to the related topics:** Commonly used libraries: - String class and methods: toString(), concat(), length(), toLowerCase(), toUpperCase(), trim(), substring() Math class methods: pow(), round()
August 2017	Accessing MySQL database using ODBC/JDBC to connect with database Web application development: URL, Web Server, Communicating with the web server, concept of Client and Server Side. HTML based web pages covering basic tags - HTML, TITLE, BODY, H1..H6, Paragraph (P), Line Break (BR), Section Separator (HR), FONT, TABLE, LIST (UL, OL), FORM. Creating and accessing static pages using HTML. Introduction to XML XML concept.
September 2017	**Revision for SA - I Examination**
	Summative Assessment SA-I **First Term Examination(2017-18)**
SECOND TERM – OCTOBER 2017 TO MARCH 2018	
October 2017	**Discussion of question paper of SA-I** Relational Database Management System

	Review of RDBMS from class XI Database Fundamentals- Concept of Database Transaction, Committing and revoking a Transaction using COMMIT and ROLLBACK Grouping Records: GROUP BY, Group functions- MAX(), MIN(), AVG(), SUMO, COUNT(); using COUNT(*), DISTINCT clause with COUNT; Group Functions and Null Values. Displaying Data From Multiple Tables: Cartesian product, Union, concept of Foreign Key, Join, Equi-Join etc. Creating a Table with PRIMARY KEY and NOT NULL constraints, Viewing Constraints, Viewing the Columns Associated with Constraints using DESC command. ALTER TABLE for - deleting column(s), modifying data type(s) of column(s) Adding a constraint. enabling constraints, dropping constraints. DROP Table for deleting a table
November 2017	IT Application, Front-end Interface: Introduction; content and features; identifying an appropriate component (Text Box, Radio Button, Checkbox, List, etc., a Unit 2 (Programming)) for data entry, validation and display. Back-end Database: Introduction and its purpose, exploring the requirement of t its essential attributes. Front-End and Database Connectivity: Introduction requirement and benefits. Demonstration and development of appropriate Front-end interface and Back-end Database for e-Governance, e-Business Learning applications. Impact of ICT on society: Social and Economic benefits. *Impact of ICT on society: Social, Environmental and Economic benefits.* In each of the above domains, identify at least two real-life problems, list the expected outputs and the input(s) required for

	the output and describe the problem solving approach and develop relevant front-end interface and back-end database.
December 2017	Revision and Practice from Sample papers for Mock Test. **MOCK TEST** *Mock Test paper discussion.* *Practice from CBSE sample papers.* *Remedial classes*
January To February 2018	**Common Pre-Board School Examination** Revision and Board Practical Examination
March 2018	**Board Examination 2017-18**

Practical File:
Must have minimum 20 programs (Java, html, xml)
15 SQL commands along with the output based on any table / relation
Project Work:
The project has to be developed in (Java + Mysql) with Object Oriented Technology
(The project is required to be developed in a group of 2-3 students). Project report (Listing, Sample, Outputs, Documentation)