

Directorate of Higher Secondary Education

Guidelines for Lab Work and Practical Evaluation

Accountancy with Computerised Accounting

A. Syllabus for Practical

Accountancy for Class XII Commerce consists Part III Optional Computerised Accounting System. The text book covers various aspects regarding the use and application of accounting packages and database applications in accounting realities. Learning of theoretical and practical aspects of these contents are equally important and can be ensured only through the lab work. Not only for the effective transaction of contents in the syllabus, but also for attaining the learning outcomes associated with the concepts/content, practical lab work is necessary.

Areas to be covered for the practical work.

Part III Optional Computerised Accounting System is divided in to six units, and the first unit is purely theoretical, for which no lab work is necessary. The second, third and fourth units deal with electronics spreadsheet and its diverse applications in business, while the fifth unit establishes the underlying features of accounting software (GNUKhata). The sixth and last unit deals with practical aspects of managing database for accounting. Accordingly the practical areas can be broadly grouped in to three as follows:

SI_No	Area	Unit	No.of Programs
1	Spreadsheet	II, III & IV	12
2	GNUKhata	V	4
3	DBMS	VI	4
		Total	20

Table 1

SLNO	Area	II	III	IV	V	VI	Total
		Spreadsheet	Use of Spreadsheet in Business application	Graphs and charts for business	Accounting software Package	DBMS for accounting	
1	Formulas & Functions	3					3
2	Data Entry, Text Management, Cell Formatting	2					2
3	One variable, two variable and Pivot Table	2					2
4	Pay Roll Accounting		1				1
5	Asset Accounting		1				1
6	Loan Repayment Schedule		1				1
7	Graph and Charts			2			2
8	Account Groups				1		1
9	Voucher Entry				1		1
10	BRS				1		1
11	T/B, P&LA/C, and Balance Sheet				1		1
12	Creating Table					1	1
13	Creating Forms					1	1
14	Creating Queries					1	1
15	Creating Reports					1	1
	Total	7	3	2	4	4	20

Table 2.

B. Lab Work

Lab work is considered essential in promoting students' learning of Accountancy with the use of accounting software and its familiarization. Student's class room observations and various concept and ideas acquired etc can be practically implemented in the lab which will strengthen conceptual clarity and operational skills and enhance overall academic success. More over lab work in computerised accounting enables students to cope with challenges in practical accounting situations in the industry, business and other professional areas.

Every student has to practice a minimum of 20 problems, from various units as mentioned above through the lab work. Sample questions from each area, are given in Appendix-1 of this document. While selecting the minimum required questions, care should be taken to include questions in satisfactory proportion as shown in Table 1 and Table II above from all the three broad groups. A list of sample questions from these areas, based on the previously mentioned criteria, are given as Appendix-1.

Practical Log Book

All the activities related to lab work are recorded in Practical Log Book (PLB). The Practical Log Book should contain a minimum of 20 works as specified in the practical syllabus. The format of recording in Practical Log Book may be as follows :

Practical Log Book	
Left Hand Side	Right Hand Side
Output Charts/ Graphs, Statements drawn (TB, B/S etc) Tables, (Print out of output/ results can also be pasted)	Problem Number Date of practical work Unit Name Area/Title Problem/ Question statement Process Statements/ steps in problem solving with formulas/functions or codes, if any

Table 3

The teacher should verify the correctness of each work and sign on the bottom of the page where output is noted along with date and remarks, if any.

Procedure

The lab work should be carried out strictly under the guidance and supervision of the teacher. During the whole process of lab work, a student has to go through three phases, and they are listed below:

- 1) **Preparatory Phase:** Every student is supposed to possess adequate knowledge regarding problem to be tried out in the lab and familiarise himself/herself the steps for doing the work. Basic knowledge of the software to be used, loading the software to work with etc are presupposed. Every student should personally possess Practical Log Book while attending the lab work and the Log book should as far as possible be prepared in tune with the directions and format as shown in Table 3 above
- 2) **Tryout:** It is in this phase that the problem is actually tried to test correctness in the lab. In the case of spreadsheet, various formulas and functions may be used in the preparation of charts, management of assets or payroll preparation, which are tested to get the desired results. During the actual execution, if there is any correction or change or modification in the functions and formula statements, then such changes are to be noted down in the Practical Log Book. In Accounting software and DBMS, which are more internally controlled software, there can be some variation in steps, paths, account types, entity and attribute names, data types etc, then such changes made are also to be noted in Practical Log Book.
- 3) **Reporting:** When the problem is successfully executed in the lab, it will produce definite output /results either in the form of figures or statements. The Practical Log Book has to be updated with the final results. Students can use print out or photocopy of output and paste it in the left hand side of the Practical Log Book. After the completion of each lab work, the Practical Log Book should be submitted to the concerned teacher and get the work duly signed, before the next lab period. All remarks should be noted in the teachers diary by the teacher which may serve useful for assessing the students as a part of CE.

Teachers are expected to ensure the minimum number of problems in the Practical Log Book covering all the areas suggested for practical evaluation. The prescribed proportion among the three groups should strictly be followed in the selection of questions.

C. Practical Evaluation (PE)

Practical Evaluation(PE) is designed to measure or assess problem solving skills, and the competency in using spreadsheets in solving business and accounting problems, competency and skill in using accounting software package and database management application for accounting.

Guidelines to be followed while conducting PE:

- 1) The PE questions should cover the prescribed syllabus
- 2) The maximum score for PE will be 40
- 3) PE test shall be of three hours duration
- 4) PE will be conducted in batches consisting of 15 students per batch
- 5) PE will be conducted in the Computer Lab of the school where exam center is allowed.
- 6) Every student should attend the PE with Practical Log Book duly certified by the teacher in charge
- 7) Practical Log Book should be verified and certified by the External Examiner and Internal Examiner at the time PE is done in the Lab.
- 8) Practical Log Book should contain not less than 20 problems in proportion to the weight of area.
- 9) PE should be conducted using necessary sets of questions finalized from the pool of questions approved by the DHSE or questions issued by the DHSE.
- 10) The PE question paper may contain four parts(Part A,B,C and D). The examiner, to ensure the fair conduct of examination, may adopt appropriate strategy.
- 11)
 - a. **THREE** sets of question papers has to be prepared and for a group of 15 students five copies of each set (5 X 3 =15) should be made available for selection at a random basis. In each question paper, part A consists of three questions from **SPREADSHEET**, and the student has to attempt any two. Similarly part B contains three questions from **USE OF SPREADSHEET IN BUSINESS APPLICATIONS** and **GRAPHS AND CHART FOR BUSINESS DATA** and the student has to attempt any two. Part C and Part D contain one question each, from **ACCOUNTING SOFTWARE PACKAGE** and **DATABASE MANAGEMENT SYSTEM FOR ACCOUNTING** respectively , for which no internal choice is allowed.
 - OR
 - b. A single question paper may be prepared, in which Part A contains 9 questions from **SPREADSHEET** and the student has to attempt any two. Similarly, Part B contains 9 questions from **USE OF SPREADSHEET IN BUSINESS APPLICATIONS** and **GRAPHS AND CHART FOR BUSINESS DATA** and the student has to attempt any two. Part C and Part D contain 3 questions each from **ACCOUNTING SOFTWARE PACKAGE** and **DATABASE MANAGEMENT SYSTEM FOR ACCOUNTING** respectively and students have to *attempt* only one from each section. *If only a single question paper is prepared for the practical evaluation, the external examiner should exercise the right to choose questions to be attempted,by putting tick mark in each part of the question paper.*
- 12) It should be ensured that the computer used by a candidate does not contain previously done lab works and that all lab works are deleted before another candidate is allotted the same system. The students are not allowed to use the **help** files of the software.
- 13) During the conduct of practical examination, each student has to attend a viva

voce, which the external examiner may use to assess how far the student has attained conceptual clarity with the practical aspects of computerised accounting. Viva voce should not create sense of fear among the students. It should not be formal in the form of an interview, but as far as possible it should be casual interaction.

14) The pattern, structure and split up score of questions are given as follows.

		No Of Questions with Choice	Split Up Score		Total Questions to be attended	TOTAL	Time (180 mts)
			Process	Output			
							Writing & Doing
PART A							
1	SPREADSHEET	1	4	2	2	12	35
2	SPREADSHEET	1	4	2			35
	SPREADSHEET	1	4	2			
PART B							
5	SPREADSHEET IN BUSINESS APPLICATION and GRAPHS AND CHARTS FOR BUSINESS	1	3	1	2	8	20
		1	3	1			20
6		1	3	1			
PART C (No Internal Choice)							
7	GNUKhata	1	4	2	1	6	35
PART D (No Internal Choice)							
8	DATABASE MANAGEMENT SYSTEM FOR ACCOUNTING	1	4	2	1	6	35
			22	10	6	32	
	Viva					4	
	Record(PLB)					4	
			Total			40	180

Question paper with 3 sets

Each set of question paper consist of:

Part A Total question THREE, attempt any TWO	2x 6 =	12
Part B Total question THREE, attempt any TWO	2x4 =	8
Part C Total questions ONE, attempt ONE	1x 6 =	6
Part D Total Question ONE, attempt ONE	1x 6 =	6
	Total	32

Maximum score for Practical Log Book 4

Maximum Score for Viva 4

Total Score for PE 40

OR

Single question paper

Part A Total question NINE, attempt any TWO	2x 6 =	12
Part B Total question NINE, attempt any TWO	2x4 =	8
Part C Total questions THREE, attempt ONE	1x 6 =	6
Part D Total Question THREE, attempt ONE	1x 6 =	6
	Total	32
Maximum score for Practical Log Book		4
Maximum Score for Viva		4
	Total Score for PE	40

(External should choose the required number of questions by putting tick mark in respective sections of question paper.)

15) The time allotted is three hours and the maximum score is 40.

16) The general instructions to be given in the top of question paper is given.

Instructions to the candidates

1. Write the procedures and show the output of each questions.
2. Questions should be circled or tick marked in each sections.
3. Viva voce will be conducted based on the given practical questions.
4. The mark division consist of :

Part A	12
Part B	8
Part C	6
Part D	6
Practical log book	4
Viva voce	4

Appendix I : Pool of questions under Part A,B,C and D (Practical Evaluation)

Part A

(Attempt any TWO questions, 2x6= 12)

QUESTION NO. 1

Given below is a table showing the Name, Designation and Monthly Salary paid for different employees in Royal Traders for March 2017

Employee Name	Designation	Monthly Salary ₹
Kumar	CEO	80000
Anil	AO	50000
Jithesh	FM	40000
Alex	FM	15000
Arshad	MM	45000
Angel	FM	30000

Find out the following:

- The total monthly salary by Naming the concerned range as **TOTAL_SALARY**.
- The total monthly salary paid to the Finance Manager (FM) in the firm.
- The Name of employee with monthly salary of ₹40,000 by using **LOOKUP** Function

QUESTION NO-2

Binu obtained the following Scores out of 100 in his Higher Secondary Examination, March 2017.

Subjects	Scores
ENGLISH	85
MALAYALAM	96
BUSINESS STUDIES	76
ACCOUNTANCY	67
ECONOMICS	29
COMPUTER APPLICATION	45

Convert the above Scores into Grades for each subject based on the following criteria, by using **IF** function.

Scores	Grades
90-100	A+
80-89	A
70-79	B+
60-69	B
50-59	C+
40-49	C
30-39	D+
20-29	D
Below 20	E

QUESTION NO.3

Consider the following table.

	A	B	C	D	E	F	G	H	I	J
1	390	651			856	765	STOCK	192	CASH	1032
2	342	9899	658	456	765	398	155T	DRS	CRS	INVESTMENT

Answer the following questions using appropriate functions:

- How many cells contain Numbers only.
- Count the Number of cells contain any value.
- Count the Number of cells containing the value exceeding 1000.

QUESTION NO.4

From the following information create a Pivot Table to give country wise sales of the products

Sl No	Products	Sales Volume ₹	Country
1	SQUID	25000	CHINA
2	PRAWN	20000	AMERICA
3	CLOVE	30000	ENGLAND
4	SQUID	50000	CHINA
5	PRAWN	40000	AMERICA
6	CLOVE	15000	ENGLAND

QUESTION NO.5

Following table gives the details of some products.

Sl No	Products Code	Name of Product	Name of Supplier	Quantity
1	E-234	PUMP SETS	ARON PVT LTD.	23
2	E-546	WATER HEATER	ALPHA TRADERS	16
3	E-678	AIR CONDITIONER	AIR COOL LINKS	25
4	E-789	VACUUM CLEANER	READY CLEAN CO.	17

Enter the details into a text file (Notepad/Text Editor) and import the same to a spreadsheet.

QUESTION NO.6

Ms. Sajeev intends to apply for Civil Service examination this year. But the upper age limit is 32 as on 01/08/2016. Determine whether he is eligible to apply or not. Based on the cut off age. His date of birth is 06/09/1982 using appropriate spreadsheet functions.

QUESTION NO.7

A) Following are the scores obtained by some students in a competitive examination. Find out the HIGHEST, LOWEST and AVERAGE scores using appropriate function in spreadsheet.

	A	B	C	D	E	F	G	H
1	Name	ARUN	BIBIN	CINI	DENNY	EBIN	FABIN	GEO
2	Scores	150	180	410	480	260	161	515

B) From the data given below Fill the Address in F2 using CONCATENATE Function.

	A	B	C	D	E
1	Name	House Name	Place	Post	PIN
2	JAYA	DEEPAM	NEWSTREET	KOZHICODE	680534

QUESTION NO.8

A) From the following Table, find out the **BASIC PAY** of Mr. Ajith using **VLOOKUP** Function using EMPCODE 1846

EMPCODE	NAME	BASIC PAY
1512	VINU	7000
3475	AKHIL	11500
1846	AJITH	8500
5432	SONU	6000

B) From the following details, Find out the actual profit for **QUARTER II** using **HLOOKUP** Function

	QUARTER I	QUARTER II	QUARTER III	QUARTER IV
TOTAL SALES	20,000	30,000	45000	50000
TOTAL COST	15,000	18000	43000	37000
PROFIT	5000	12000	2000	13000

QUESTION NO.9

The XYZ Company Ltd. Furnishes you the list of their employees and their taxable income.

NAME	SEX	TAXABLE INCOME	TAX
SHIBU	Male	239000	
SULAIMAN	Male	475000	
SASI	Male	525000	
AJITHA	Female	425000	
HUSAIN	Male	600000	

Compute tax based on the following criteria by using appropriate function in spreadsheet.

- If Taxable Income is below 250,000 Tax is NIL
- If Taxable income is 250,000 to 500,000 Tax rate is 10%
- If Taxable Income is above 500,000 Tax rate is 20%

QUESTION NO.10

Assume that your School have only Commerce and Science batches. You are required to enter the following list of students after creating the **data validation**.

Data validation Rules are

- Age** should be between 15 and 20.
- The **Batch** must limit to Commerce and Science.

Admission No	Name	Batch	Age
1231	AYYOOB	COMMERCE	16
1232	ARSHAD	SCIENCE	15
1233	DONA	COMMERCE	17
1234	FIDHA	COMMERCE	16
1235	FADWA	SCIENCE	15

QUESTION NO.11

List of Debtors and the amount dues from them are given below. Apply Conditional formatting to high light receivables with date that have expired on 31/01/2016. Also highlight the receivables more than ₹35000 with red colour.

Sl No	Name	Amount of receivables	31/01/2016
1	JIBY	25000	28/01/2016
2	JINU	30000	15/01/2016
3	GRACE	45000	15/01/2016
4	LUCY	37000	31/03/2016
5	BABU	32000	18/01/2016

QUESTION NO.12

A company proposes to invest 10,00,000 by installing a plant and machinery with expected cash inflow of ₹ 4,00,000, ₹ 3,50,000, ₹ 2,75,000 and ₹ 2,25,000 respectively for 4 years of its life. Find out the Net Present Value of the project using appropriate spreadsheet Function. The Normal rate of return of business is 20%.

QUESTION NO.13

Consider the following information

- Loan amount – ₹300,000
- No. of Payments – 48 months
- Annual Rate of interest – 10%
- Prepare a one variable table showing the repayment of the above loan in different number of payment such as 12 months, 24 months, 36 months, 48 months, 60 months and 72 months. Use PMT Function.

Question 14

Mr. ShyamLal took a loan of ₹200,000 from State Bank Of India, Cherukara and No. of Instalments is 84 months. Calculate the rate assuming payments ₹3300 per month using appropriate spreadsheet Function.

Part B

(Attempt any TWO questions, 2x4=8)

Question 15

The total commission earned by Mr.Vinod and Mr. Thomas for the year 2013 – 2017 are given below:

Year	Mr. Vinod	Mr. Thomas
2013	8910	6880
2014	14000	9800
2015	12000	14880
2016	15150	14300
2017	15950	13890

- Present the data in a column chart
- Change the chart type to line chart

Question 16

Draw a pie chart for the following data on vehicles registered in the motor vehicles department during 2016 – 2017 in a city.

Vehicle Type	Bus	Truck	Auto rickshaw	car	Two wheeler	Heavy Vehicle
Number of vehicles	575	5889	12345	9765	23456	65

Question 17

Draw a column chart for the following data and give a title **Marks Scored by Students**.

Marks	0-20	21-40	41-60	61-80	81-100	Total
No. of Students	113	180	350	232	125	1000

Question 18

Below are the details of various assets in a firm. Calculate depreciation under straight line method using spreadsheet software.

Asset	Cost of Purchase	Installation charges	Transportation charges	Pre-operating expenses	Salvage value	Life in years
Machinery	20000	2000	4600	1200	2000	10
Furniture	40000	3500	1500	500	3000	8

Question 19

ABC Ltd. purchased a machine on 01-01-2017 for Rs. 200000 and spend Rs. 10000 for the installation. The machinery was installed on 10-01-2017. The expected salvage value is Rs. 8000, at the end of its useful life of 10 years. Calculate annual depreciation under SLN method using spreadsheet.

Question 20

A machinery was purchased on 1st April 2013 for Rs. 200000. Its estimated life is 10 years with salvage value of Rs. 20000. Accounting year is 1st April to 31st March every year. Using built-in function (Spreadsheet) calculate depreciation under the Diminishing Balance Value method for 5 years.

Question 21

The following are the details of a plant and machinery under WDV method using spreadsheet.

Name of Asset	Plant & Machinery
Date of purchase	10/07/2010
Date of installation	20/07/2010
Cost of Plant & Machinery	300000
Installation Cost	50000
Pre-operating cost	10000
Salvage Value	30000
Expected Life of Asset	8 years
1 st year end date	31-03-2011
Period	1

Question 22

Prepare payroll of the following employees

Name	Basic Pay	PF Loan
Sindhu	39500	11100
Ashly	41500	11800
Unni	41500	11300
Ranjith	54000	0
Bindu	48000	11700
Ambily	48000	11850
James	41500	12000
Thara	62000	0
Arun	33500	12000
Rahim	38000	5500

Additional Information

1. DA – 36% of Basic Pay
2. HRA – Rs.1750 for employees Basic Pay greater than Rs. 52000, for others Rs.1500.
3. TA – 400 per Employee
4. PF subscription – 10% for Gross Pay.
5. TDS – 20% for Gross Pay greater than Rs. 60000, otherwise 10%

Question 23

Mr. Binu has taken a loan of Rs. 500000 from a bank, interest @ 10% per annum . The loan is repayable over a period of 10 years in monthly installments . Prepare a loan repayment schedule by showing outstanding balances for the first year (Hint: Use PMT function)

PART C**(Attempt ONE question, 1x6=6)****Question 24**

The various transactions relating to Zion Chemicals for the month of January 2016 is given below. Ascertain cash balance for the month using an accounting software.

Jan 1. Started business with cash Rs. 50000

Jan 1 : Purchased office furniture Rs. 4500

Jan 1 : Cash purchases Rs.25000

Jan 1 : Credit sales to Anand Rs 43000

Jan 2 : Salary to staff Rs. 12000

Jan 2 : Received from Anand Rs 17500

Question 25

Enter the following transactions using appropriate accounting vouchers and show the purchase and sales Ledgers of Karuna Traders Ernakulam.

01/01/2016 Started business with cash Rs. 150000

01/01/2016 Deposited in to SBI Rs 40000

01/01/2016 Purchased goods from Aruna Traders Rs. 25000

02/01/2016 Purchased goods Rs. 5000

02/01/2016 Sold goods Rs. 4000

02/01/2016 Purchased goods for Rs. 10000 and paid by cheque

02/01/2016 Sold goods on credit to Aneesh for Rs. 15000

Question 26

Enter the following transactions by using suitable accounting vouchers and display the profit and loss account and balance sheet.

01/06/2016 Commenced business with cash Rs. 17000

01/06/2016 Purchased machinery Rs. 10000

01/06/2016 Paid Rent of building Rs. 7500

01/06/2016 Cash deposited with Canara bank Rs. 20000

01/06/2016 Purchased goods for Rs. 8400

02/06/2016 Sold goods for cash Rs. 3260

02/06/2016 Sold goods on credit to Mr. Rajesh Rs. 2800

Question 27

Enter the following transactions in appropriate accounting vouchers and prepare the BRS as on 31/01/2017 for m/s Royal Stores

- 01/01/2017 Commenced business with cash Rs. 100000
 01/01/2017 Open the bank Account with pnb Rs. 50000
 02/01/2017 Purchased goods by check (No. 10051 Rs. 12000)
 02/01/2017 Received check (No. 20101 from Alvin traders Rs. 15000)
 02/01/2017 Issued a check (No. 10052 to bibin and Co. Rs. 4000)
 02/01/2017 Withdraw from bank for office use Rs. 16000

On comparison of cash book with the passbook the following details were obtained

- a) Check No. 10051 was cashed on 02/01/2017.
 b) Check No. 10052 was cashed on 02/02/2017.
 c) Check received from Alvin Traders (Check No. 20101 was collected on 02/02/2017)

Question 28

Create the following ledgers in an accounting software and display the balance sheet as on 01/04/2017.

Items	Amount
Capital	250000
Loose tools	50000
Crediters	50000
Bank Loan	75000
Land and Buildings	1000000
Plan and Machinery	1000000
Motor vehicle	75000
Debtors	50000
Outstanding salary	3000
Cash in hand	30000

Part D**(Attempt ONE question, 1x6=6)****Question 29**

Enter the following in a database table with the file name Emp_details.

EMP_ID	EMP_NAME	EMP_SEX	EMP_BASICPAY
100	ARUN	M	30000
101	NISHA	F	60000
102	ANIL	M	40000
103	ROOPA	F	80000

- a) Display the name of employees drawing BASICPAY greater than or equal to 60000.
- b) Display the name of employees begin with 'A'.

Question 30

A) Prepare a payroll of employees with the gross pay on the basis of the following database table.

EMP_ID	EMP_NAME	EMP_BASICPAY	DA	HRA
201	SUBHASH	40000		250
202	GEETHA	41500		250
203	SAJNA	48000		250
204	AKHIL	54000		250

(DA - 20% of BASICPAY)

- B) Display the salary details of the employees whose names ending with 'A'.

Question 31

Create a database table named TABLE_EMPLOYEE and enter the following details using a form.

EMP_ID	EMP_NAME	BP	HRA
1001	MAJEED	10000	1500
1002	ABHILASH	20000	1500
1003	SUNIL	30000	1500

Also create a query to display EMP_NAME and BP.

Question 32

From the following details calculate Total cost and profit/lost of each quarter for the year 2016-2017 by using appropriate query.

QUARTER	SALES	COST	ADM_EXP	SELLING_EXP	TOTAL_COST	PROFIT_LOSS
Q1	80000	45000	5000	2000		
Q2	60000	35000	5000	3000		
Q3	50000	30000	6000	4000		
Q4	40000	30000	7000	5000		

Question 33

Create database tables named EMPLOYEE and PAY_DETAILS with the following field names.

Table name	Fields
EMPLOYEE	EMP_ID, EMP_NAME, EMP_SEX
PAY_DETAILS	EMP_ID, BP, DA, HRA

Create relationship between these two tables.

Question 34

Create STUDENT table in database with the following fields.

Field name	Data type	Field width
STUD_NO	Text	5
STUD_NAME	Text	25
SEX	Text	1
PLACE	Text	20
CLASS	Text	10

(Hint: Classes are Science, Commerce and Humanities)

- Enter six records with imaginary details.
- Prepare of report of students from commerce class.