

COMPETENCY BASED CURRICULUM

DIPLOMA IN OFFICE MANAGEMENT AND COMPUTER APPLICATION

(Duration 3 Years)
NSQF Level – 5



Under
Haryana State Board of Technical Education



Developed By

Curriculum Development Center
National Institute of Technical Teachers Training & Research

(Ministry of Education, Government of India)
Sector - 26, Chandigarh, UT, India.

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1. PREFACE

Learning and learning experience are the foundation of any education system. Appropriateness of education and its useful implications stand on the platform of knowledge and skill. But the knowledge and skill cannot be quantified qualitatively without ensuring learning experience. Curriculum is the pathway to select and organise learning experience. It helps the teachers to provide tangible resources, goals and objectives to learners. Curriculum acts as a catalyst to stimulate creativity, innovation, ethics, values, responsibility and many human factors. Curriculum embodies rigour and high standards and creates coherence to empower learner to meet the industrial and societal needs. Curriculum is a central guide for a teacher to plan a standard based sequence for the instructional delivery.

The industrial revolution 4.0 has forced the technical education system to reinvent the curriculum to meet the human resource requirement of the industry. The data driven systems relying on the subjects like machine-learning, Artificial Intelligence, Data Science etc are literally forcing the technical education system to offer different subjects differently to address the emerging challenges. The non-linear way of learning now facilitates students to choose path of knowledge to skill or vice-versa. The bi-directional process requires innovative curriculum design and revision. Diploma programme is now more challenging than ever. The level of skill and knowledge demanded by industry from diploma holders are highly interdisciplinary at the same time address special need. Hence, there is a need to align the curriculum to National Skill Qualification Framework (NSQF).

National Education Policy, NEP-2020 has now opened up diversities for the education system to explore and exploit to make the education relevant. The policy emphasises to inculcate value, ethics, respect to culture and society etc along with industry ready knowledge and skill among the students. The interdisciplinary nature of curriculum, academic bank of credits and integration of technology in teaching-learning envisaged in NEP-2020 make it more challenging for curriculum development. NITTTR, Chandigarh has developed the art of curriculum development over 54 years of its existence. The expertise and experience available in the institute follow time-tested and acclaimed scientific methods to design/revise curriculum. The experienced faculty members entrusted with the curriculum development or revision activities are well-versed with NSQF, NEP and Outcome based education. I am happy to note that **Haryana State Board of Technical Education, Panchkula, Haryana** reposed their confidence on this expertise to develop **AICTE/NSQF/NEP 2020** aligned curriculum for the state. This documented curriculum is an outcome of meticulous planning and discussions among renowned experts of the subject through series of workshops. The effective implementation of this curriculum supported with quality instructional resources will go a long way in infusing the learning experience among learners to make them industry ready.

Prof. (Dr.) S. S. Pattnaik

Director

National Institute of Technical Teachers Training & Research, Chandigarh

2. ACKNOWLEDGEMENT

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- i) Principal Secretary Technical Education-cum-Chairman, Haryana State Board of Technical Education, Panchkula, Haryana for initiating this project on designing of AICTE/NSQF/NEP 2020 aligned curriculum.
- ii) Director General, Technical Education, Haryana for taking keen interest in the design of this AICTE/NSQF/NEP 2020 aligned curriculum.
- iii) Secretary, Haryana State Board of Technical Education, Panchkula, Haryana for his untiring assistance and support in the design of this AICTE/NSQF/NEP 2020 aligned curriculum.
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- vii) Head, Faculty and staff of Curriculum Development Centre, NITTTR, Chandigarh for their dedicated contribution and support in design of NSQF aligned curriculum.
- viii) Faculty from different departments of NITTTR, Chandigarh for their valuable inputs in design of NSQF aligned curriculum.

Prof. (Dr.) Rajesh Mehra
Project Coordinator & Head Curriculum Development Center
National Institute of Technical Teachers Training & Research, Chandigarh

3. SALIENT FEATURES

1. Name : **Diploma in Office Management and Computer Application**
2. Duration : **03 Years**
3. Hours per week : **35 - 40**
4. Entry Qualification : **10th Pass**
5. Student Intake : **As per sanctioned strength**
6. Pattern : **Semester**
7. Scheme : **Multipoint Entry and Exit**
8. NSQF Level : **5**
9. Theory Practical Ratio : **30 : 70**
10. Project Work : **Minor and Major Project**
11. In-house/Industrial Internship : **Mandatory after First and Second Year**
12. Professional Training : **Six Month internship**

4. NSQF COMPLIANCE

National Skill Qualification Framework has defined total Ten Levels. Each level of the NSQF is associated with a set of descriptors made up of five outcome statements, which describe in general terms, the minimum knowledge, skills and attributes that a learner needs to acquire in order to be certified for that level.



Fig.1: NSQF Domains

NSQF LEVEL - 3 COMPLIANCE

The NSQF level - 3 descriptor is as follows:

Process	<ul style="list-style-type: none"> Person may carry out a job which may require limited range of activities routine and predictable.
Professional Knowledge	<ul style="list-style-type: none"> Basic facts, process and principle applied in trade of employment.
Professional Skill	<ul style="list-style-type: none"> Recall and demonstrate practical skill, routine and repetitive in narrow range of application.
Core Skill	<ul style="list-style-type: none"> Communication written and oral, with minimum required clarity, skill of basic arithmetic and algebraic principles, personal banking, basic understanding of social and natural environment.
Responsibility	<ul style="list-style-type: none"> Under close supervision. Some responsibility for own work within defined limit.

Fig 2: NSQF Level – 3 Descriptor

Work requiring knowledge, skills and aptitudes at level 3 will be routine and predictable. Job holders will be responsible for carrying out a limited range of jobs under close supervision. Their work may require the completion of a number of related tasks. People carrying out these job roles may be described as “Semi skilled workers”. Individuals in jobs which require level 3 qualifications will normally be expected to be able to communicate clearly in speech and writing and may be required to use arithmetic and algebraic processes. They will be expected to have previous knowledge and skills in the occupation and should know the basic facts, processes and principles applied in the trade for which they are qualified and be able to apply the basic skills of the trade to a limited range of straightforward jobs in the occupation.

They will be expected to understand what constitutes quality in their job role and more widely in the sector or sub-sector and to distinguish between good and bad quality in the context of the jobs they are given. Job holders at this level will be expected to carry out the jobs they are given safely and securely. They will work hygienically and in ways which show an understanding of environmental issues. This means that they will be expected to take responsibility for their own health and safety and that of fellow workers and, where appropriate, customers and/or clients. In working with others, they will be expected to conduct themselves in ways which show a basic understanding of the social environment. They should be able to make a good contribution to team work.

NSQF LEVEL - 4 COMPLIANCE

The NSQF level-4 descriptor is given below:

Process	• Work in familiar, predictable, routine, situation of clear choice
Professional Knowledge	• Factual knowledge of field of knowledge or study.
Professional Skill	• Recall and demonstrate practical skill, routine and repetitive in narrow range of application, using appropriate rule and tool, using quality concepts.
Core Skill	• Communication written and oral, with required clarity, skill of basic arithmetic and algebraic principles, personal banking, basic understanding of social and natural environment.
Responsibility	• Responsibility for own work and learning.

Fig 3: NSQF Level – 4 Descriptor

Work requiring knowledge, skills and aptitudes at level 4 will be carried out in familiar, predictable and routine situations. Job holders will be responsible for carrying out a range of jobs, some of which will require them to make choices about the approaches they adopt. They will be expected to learn and improve their practice on the job. People carrying out these jobs may be described as “skilled workers”. Individuals in jobs which require level 4 qualifications should be able to communicate clearly in speech and writing and may be required to use arithmetic and algebraic processes. They will be expected to have previous knowledge and skills in the occupation in which they are employed, to appreciate the nature of the occupation and to understand and apply the rules which govern good practice. They will be able to make choices about the best way to carry out routine jobs where the choices are clear.

They will be expected to understand what constitutes quality in the occupation and will distinguish between good and bad quality in the context of their job roles. Job holders at this level will be expected to carry out their work safely and securely and take full account of the health and safety on colleagues and customers. They will work hygienically and in ways which show an understanding of environmental issues. In working with others, they will be expected to conduct themselves in ways which show a basic understanding of the social and political environment. They should be able to guide or lead teams on work within their capability.

NSQF LEVEL - 5 COMPLIANCE

The NSQF level-5 description is given below:

Process	<ul style="list-style-type: none"> • Job that requires well developed skill, with clear choice of procedures in familiar context.
Professional Knowledge	<ul style="list-style-type: none"> • Knowledge of facts, principles, processes and general concepts, in a field of work or study.
Professional Skill	<ul style="list-style-type: none"> • A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information.
Core Skill	<ul style="list-style-type: none"> • Desired mathematical skill; understanding of social, political; and some skill of collecting and organising information, communication.
Responsibility	<ul style="list-style-type: none"> • Responsibility for own work and learning and some responsibility for others' works and learning

Fig 4: NSQF Level – 5 Descriptor

Work requiring knowledge, skills and aptitudes at level 5 will also be carried out in familiar situations, but also ones where problems may arise. Job holders will be able to make choices about the best procedures to adopt to address problems where the choices are clear. Individuals in jobs which require level 5 qualifications will normally be responsible for the completion of their own work and expected to learn and improve their performance on the job. They will require well developed practical and cognitive skills to complete their work. They may also have some responsibility for others' work and learning. People carrying out these jobs may be described as "fully skilled workers" or "supervisors".

Individuals employed to carry out these jobs will be expected to be able to communicate clearly in speech and writing and may be required to apply mathematical processes. They should also be able to collect and organise information to communicate about the work. They will solve problems by selecting and applying methods, tools, materials and information. They will be expected to have previous knowledge and skills in the occupation, and to know and apply facts, principles, processes and general concepts in the occupation. They will be expected to understand what constitutes quality in the occupation and will distinguish between good and bad quality in the context of their work. They will be expected to operate hygienically and in ways which show an understanding of environmental issues. They will take account of health and safety issues as they affect the work they carry out or supervise.

In working with others, they will be expected to conduct themselves in ways which show an understanding of the social and political environment.

5. NATIONAL EDUCATION POLICY (NEP) - 2020

NEP 2020 aims at a comprehensive holistic education to develop all capacities of human beings - intellectual, aesthetic, social, physical, emotional, and moral - in an integrated manner. A holistic arts education will help develop well-rounded individuals that possess: critical 21st century capacities in fields across the arts, humanities, languages, sciences, social sciences, and professional, technical, and vocational fields; an ethic of social engagement; soft skills, such as communication, discussion and debate; and rigorous specialization in a chosen field or fields. Such a holistic education shall be, in the long term, the approach of all undergraduate programmes, including those in professional, technical, and vocational disciplines.

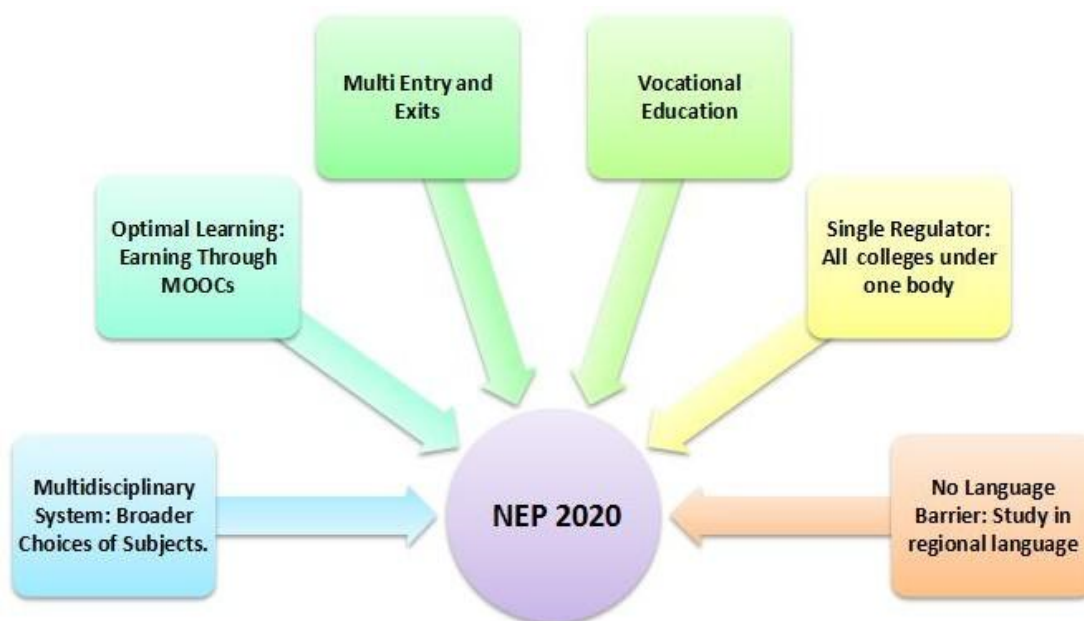


Fig 5: NEP 2020

Flexibility in curriculum and novel and engaging course options will be on offer to students, in addition to rigorous specialisation in a subject or subjects. Pedagogy for courses will strive for significantly less rote learning and an increased emphasis on communication, discussion, debate, research, and opportunities for cross-disciplinary and interdisciplinary thinking. The flexible and innovative curriculum shall emphasize on offering credit-based courses and projects in the areas of community engagement and service, environmental education and value-based education. as part of a holistic education, students will be provided with opportunities for internships with local industry, businesses, artists, crafts persons, villages and local communities, etc., as well as

research internships with faculty and researchers at their own or other HEIs or research institutions, so that students may actively engage with the practical side of their learning and, as a by-product, further improve their employability.

Effective learning requires relevant curriculum, engaging pedagogy, continuous formative assessment and adequate student support. The curriculum must be updated regularly aligning with the latest knowledge requirements and shall meet specified learning outcomes. High-quality pedagogy is then necessary to successfully impart the curricular material to students; pedagogical practices determine the learning experiences that are provided to students - thus directly influencing learning outcomes. The assessment methods have to be scientific and test the application of knowledge. Higher Education Institutes should move to a criterion-based grading system that assesses student achievement based on the learning goals for each programme, making the system fairer and outcomes more comparable. HEIs should also move away from high-stakes examinations towards more continuous and comprehensive evaluation.

6. DIPLOMA PROGRAM OUTCOMES

The program outcomes are derived from five domains of NSQF Level namely Process, Professional Knowledge, Professional Skill, Core Skill, Responsibility. After completing this programme, the student will be able to:

- PO1: Acquire knowledge of concepts and principles of management, office methods and practices to manage the office effectively and efficiently.
- PO2: Development of competencies in information processing and multiple skills in handling office matters.
- PO3: Development of knowledge and skills in handling modern automated equipment and gadgets and information which are used in modern offices.
- PO4: Demonstrate skill in oral and written communication and organizing information along with knowledge of social, political and natural environment for handling business and office related correspondence.
- PO5: Take the responsibility for ongoing professional development to enhance work performance in office.
- PO6: Engage in multidisciplinary fields for independent and life-long learning activities.

7. DIPLOMA PROGRAMME STUDY AND EVALUATION SCHEME FIRST YEAR

FIRST SEMESTER:

Sr. No.	SUBJECTS	STUDY SCHEME Periods/Week		Credits (C) L+P = C	MARKS IN EVALUATION SCHEME						Total Marks of Internal & External
		L	P		INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT			
					Th	Pr	Tot	Th	Pr	Tot	
1.1	* English & Communication Skills-I	2	2	2+1=3	40	40	80	60	60	120	200
1.2	* Principles of Management	4	2	4+1=5	40	40	80	60	60	120	200
1.3	Typing Practice-I	-	8	0+4=4	-	40	40	-	60	60	100
1.4	Office Management	4	-	4+0=4	40	-	40	60	-	60	100
1.5	* Fundamentals of IT	2	4	2+2=4	40	40	80	60	60	120	200
1.6	* Environmental Studies and Disaster Management	2	-	2+0=2	40	-	40	60	-	60	100
#Student Centred Activities (SCA)		-	5	-	-	-	-	-	-	-	-
Total		14	21	22	200	160	360	300	240	540	900

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures on Constitution of India, etc, Games, Yoga, Human Values & Ethics, Knowledge of Indian System, Hobby Clubs e.g. Photography etc., Seminars, Declamation Contests, Educational Field Visits, NCC, NSS, Cultural Activities and Self-study etc.

SECOND SEMESTER:

Sr. No.	SUBJECTS	STUDY SCHEME		Credits (C) L+P = C	MARKS IN EVALUATION SCHEME						Total Marks of Internal & External
		Periods/Week			INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT			
		L	P		Th	Pr	Tot	Th	Pr	Tot	
2.1	Office Methods and Practices	4	2	4+1=5	40	40	80	60	60	120	200
2.2	Stenography-I	2	6	2+3=5	40	40	80	60	60	120	200
2.3	Typing Practice-II	-	6	0+3=3	-	40	40	-	60	60	100
2.4	*Computers for Office Management	2	4	2+2=4	40	40	80	60	60	120	200
2.5	Office Correspondence	3	2	3+1=4	40	40	80	60	60	120	200
#Student Centred Activities (SCA)		-	4	-	-	-	-	-	-	-	-
Total		11	24	21	160	200	360	240	300	540	900

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures on Constitution of India, etc, Games, Yoga, Human Values & Ethics, Knowledge of Indian System, Hobby Clubs e.g. Photography etc., Seminars, Declamation Contests, Educational Field Visits, NCC, NSS, Cultural Activities and Self-study etc.

Summer Industrial/In-house Training : After 2nd semester, students shall undergo Summer Training of 4 Weeks.

THIRD SEMESTER:

FOURTH SEMESTER:

FIFTH SEMESTER:

SIXTH SEMESTER:

LIST OF ELECTIVES

8. DIPLOMA PROGRAMME HORIZONTAL AND VERTICAL ORGANIZATION OF SUBJECTS

Sr. No.	Subjects	Hours Per Week	
		First Semester	Second Semester
1.	English and Communication Skills - I	4	-
2.	Principles of Management	6	-
3.	Typing Practice-I	8	-
4.	Office Management	4	-
5.	Fundamentals of IT	6	-
6.	Environmental Studies & Disaster Management	2	
7.	Student Centered Activities	5	
8.	Office Methods and Practices	-	6
9.	Stenography-I	-	8
10.	Typing Practice-II	-	6
11.	Computer for Office Management	-	6
12.	Office Correspondence		5
13.	Student Centered Activities	-	4
	Total	35	35

9. DERIVING CURRICULUM SUBJECT AREAS FROM DIPLOMA PROGRAMME OUTCOMES

The following curriculum subject areas have been derived from Programme outcomes:

Sr. No.	Programme Outcomes	Curriculum Subject Areas
1.	PO1: Acquire knowledge of concepts and principles of management, office methods and practices to manage the office effectively and efficiently.	<ul style="list-style-type: none"> ● Principles of Management ● Office Management ● Office Methods and Practices ● Typing Practice-II ● Computer for Office Management
2.	PO2: Development of competencies in information processing and multiple skills in handling office matters.	<ul style="list-style-type: none"> ● Typing Practice-I ● Fundamentals of IT ● Office Methods and Practices ● Stenography-I ● Typing Practice-II ● Computer for Office Management ● Office Correspondence
3.	PO3: Development of knowledge and skills in handling modern automated equipment and gadgets and information which are used in modern offices.	<ul style="list-style-type: none"> ● Principles of Management ● English & Communication Skills-I ● Typing Practice-I ● Stenography-I ● Typing Practice-II ● Office Correspondence
4.	PO4: Demonstrate skill in oral and written communication and organizing information along with knowledge of social, political and natural environment for handling business and office related correspondence.	<ul style="list-style-type: none"> ● English & Communication Skills-I ● Fundamentals of IT ● Environmental Studies and Disaster Management

5.	PO5: Take the responsibility for ongoing professional development to enhance work performance in office.	<ul style="list-style-type: none"> ● Office Management ● Office Methods and Practices ● Typing Practice-II ● Computer for Office Management ● Office Correspondence
6.	PO6: Engage in multidisciplinary fields for independent and life-long learning activities.	<ul style="list-style-type: none"> ● Multidisciplinary Elective ● Open Elective

FIRST YEAR

NSQF LEVEL - 3

10. COMPETENCY PROFILE AND EMPLOYMENT OPPORTUNITIES

Computer in Office Management refers to the manipulation of documents and data in files on a computer. Specifically, one may create a new file or edit an existing file and save it; open or load a pre-existing file into memory; or close a file without saving it. Additionally, one may group related files in directories.

The NSQF Level – 3 pass out students are expected to recall and demonstrate practical routine and repetitive skills, in narrow range of Office Executive. “Semi Skilled office executive or computer operator” are required to carry out a limited range of predictable tasks under close supervision. They are normally expected to communicate clearly in speech. The course content should be taught and implemented with the aim to develop different types of skills so that students are able to acquire following competency

Office Executive’ is one of the job profiles to which one can get recruited after diploma in Office Management and Computer Applications. Such opportunities arise in most of the public and private sector enterprises. Office Supervisor, Office Assistant, Office Manager, etc are other common job profiles one can find in Commercial establishments, Hospitals, or Printing Presses. They can also work in the role of Telecom Operator, Fax Operator, Computer Operator, etc in the following organisations:

Banks

Insurance Companies

Hotels

Educational Institutions

News Agencies

Travel Agents

Data Entry Enterprises

Embassies & High Commissions

Banks usually recruits diploma holders in Office Management and Computer Applications to the role of Agency Executive, Receptionist, etc. They can work as Personal Assistant in BPO / Call Centers and as Word Process Operators in Business Enterprises. <http://entrance-exam.net/diploma-in-office-management-and-computer-applications-course/>

The course is job-oriented and has vast potentialities for employment as:

1. Assistant Accountant
2. Receptionist
3. Steno- Typist
4. Assistant in Business
5. Houses/Organisation
6. Banking Services
7. Maintenance of Accounts with the help of computer
8. Instructor in ITI

11. PROGRAMME OUTCOMES

The programme outcomes are derived from five domains of NSQF Level – 3 namely Process, Professional Knowledge, Professional Skill, Core Skill, Responsibility. After completing this programme, the student will be able to:

- PO1:** Familiarize themselves with concepts and principles of office methods and procedures.
- PO2:** Acquire skills in performing office operations and well conversant with services provided by a modern office.
- PO3:** Demonstrate the ability of writing Short Forms, Punctuation Signs, and Phraseography and understanding of consonants and vowels used in Pitman Shorthand.
- PO4:** Communicate accurately and appropriately and demonstrate professional behavior and basic understanding of social and natural environment.
- PO5:** Demonstrate responsibility to perform office management and secretarial task under close supervision with some responsibility within defined limit.

12. STUDY AND EVALUATION SCHEME (FIRST YEAR)

FIRST SEMESTER:

Sr. No.	SUBJECTS	STUDY SCHEME		Credits (C) L+P = C	MARKS IN EVALUATION SCHEME						Total Marks of Internal & External
		Periods/Week			INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT			
		L	P		Th	Pr	Tot	Th	Pr	Tot	
1.1	* English & Communication Skills-I	2	2	2+1=3	40	40	80	60	60	120	200
1.2	* Principles of Management	4	2	4+1=5	40	40	80	60	60	120	200
1.3	Typing Practice-I	-	8	0+4=4	-	40	40	-	60	60	100
1.4	Office Management	4	-	4+0=4	40	-	40	60	-	60	100
1.5	* Fundamentals of IT	2	4	2+2=4	40	40	80	60	60	120	200
1.6	* Environmental Studies and Disaster Management	2	-	2+0=2	40	-	40	60	-	60	100
#Student Centred Activities (SCA)		-	5	-	-	-	-	-	-	-	-
Total		14	21	22	200	160	360	300	240	540	900

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures on Constitution of India, etc, Games, Yoga, Human Values & Ethics, Knowledge of Indian System, Hobby Clubs e.g. Photography etc., Seminars, Declamation Contests, Educational Field Visits, NCC, NSS, Cultural Activities and Self-study etc.

SECOND SEMESTER:

Sr. No.	SUBJECTS	STUDY SCHEME		Credits (C) L+P = C	MARKS IN EVALUATION SCHEME						Total Marks of Internal & External
		Periods/Week			INTERNAL ASSESSMENT			EXTERNAL ASSESSMENT			
		L	P		Th	Pr	Tot	Th	Pr	Tot	
2.1	Office Methods and Practices	4	2	4+1=5	40	40	80	60	60	120	200
2.2	Stenography-I	2	6	2+3=5	40	40	80	60	60	120	200
2.3	Typing Practice-II	-	6	0+3=3	-	40	40	-	60	60	100
2.4	*Computers for Office Management	2	4	2+2=4	40	40	80	60	60	120	200
2.5	Office Correspondence	3	2	3+1=4	40	40	80	60	60	120	200
#Student Centred Activities (SCA)		-	4	-	-	-	-	-	-	-	-
Total		11	24	21	160	200	360	240	300	540	900

* Common with other diploma programmes

Student Centred Activities will comprise of co-curricular activities like extension lectures on Constitution of India, etc, Games, Yoga, Human Values & Ethics, Knowledge of Indian System, Hobby Clubs e.g. Photography etc., Seminars, Declamation Contests, Educational Field Visits, NCC, NSS, Cultural Activities and Self-study etc.

Summer Industrial/In-house Training : After 2nd semester, students shall undergo Summer Training of **4 Weeks**.

13. HORIZONTAL AND VERTICAL ORGANISATION OF SUBJECTS

Sr. No.	Subjects	Hours Per Week	
		First Semester	Second Semester
1.	English and Communication Skills - I	4	-
2.	Principles of Management	6	-
3.	Typing Practice-I	8	-
4.	Office Management	4	-
5.	Fundamentals of IT	6	-
6.	Environmental Studies & Disaster Management	2	
7.	Student Centered Activities	5	
8.	Office Methods and Practices	-	6
9.	Stenography-I	-	8
10.	Typing Practice-II	-	6
11.	Computer for Office Management	-	6
12.	Office Correspondence		5
13.	Student Centered Activities	-	4
	Total	35	35

14. ASSESSMENT OF PROGRAMME AND COURSE OUTCOMES

Programme Outcomes to be Assessed	Assessment Criteria for the Course Outcomes
<p>PO1: Familiarize themselves with concepts and principles of office methods and procedures.</p>	<ul style="list-style-type: none"> • Identify the concepts related to office & its functions. • Identify skills and competencies of an office manager. • Comprehend the utilization & importance of Office Accommodation and layout. • Illustrate the concept of office methods and Best Practices. • Comprehend the utilization and importance of forms, indexing. • Detail the office organization and its structure. • Utilize the correct practices of the strategies of Effective Business writing. • Select appropriate formats used in Government correspondence.
<p>PO2 Acquire skills in performing office operations and well conversant with services provided by a modern office.</p>	<ul style="list-style-type: none"> • Integrate management principles into management practice. • Assess Managerial practice and choices relating to management principles. • Specify how the managerial task of planning, organizing and controlling can be executed in a variety of circumstances. • Determine the most effective action to take in specific situation. • Learn typewriting skills. • Comprehend the finger position in the Keyboard. • Familiarize the rows of Keyboard of computer system. • Acquire speed of 15 wpm typing.

	<ul style="list-style-type: none"> • Identify the concepts related to office & its functions. • Identify skills and competencies of an office manager. • Illustrate the significance of external surrounding and internal environment on office work. • Illustrate the concept of office methods and Best Practices. • Comprehend the utilization and importance of forms, indexing. • Detail the office organization and its structure. • Comprehend the finger position in the Keyboard. • Familiarize the rows of Keyboard of computer system. • Achieve accuracy in typing. • Acquire speed of 35-40 wpm in typing.
<p>PO3 Demonstrate the ability of writing Short Forms, Punctuation Signs, and Phraseography and understanding of consonants and vowels used in Pitman Shorthand</p>	<ul style="list-style-type: none"> • Identify the importance of typewriting. • Learn typewriting skills. • Comprehend the finger position in the Keyboard. • Familiarize the rows of Keyboard of computer system. • Identify the meaning and importance of shorthand. • Comprehend the concepts of types of consonants, vowels sign and places of vowels • Practice circle, loops, hooks and phraseography. • Take dictation of any subject using shorthand symbols at very fast. • Transcribe any meeting and dictated letters. • Achieve accuracy in typing.

	<ul style="list-style-type: none"> • Acquire speed of 35-40 wpm in typing.
<p>PO4: Communicate accurately and appropriately and demonstrate professional behavior and basic understanding of social and natural environment.</p>	<ul style="list-style-type: none"> • Identify the nuances of Communication, both Oral and Written. • Acquire knowledge of the meaning of communication, communication process and speaking skills. • Acquire enhanced vocabulary and in-depth understanding of Grammatical Structures and their usage in the communication. • Communicate effectively with an increased confidence to read, write and speak in English language fluently. • Explain the basic components of Computers, Internet and issues of abuses/ attacks on information and computers • Handle the computer/laptop/mobiles/Internet Utilities and Install/Configure OS • Comprehend the importance of sustainable ecosystem. • Clarify interdisciplinary nature of environmental issues. • Describe corrective measures for the abatement of pollution. • Identify the role of non-conventional energy resources in environmental protection. • Recognize various types of disasters. • Demonstrate knowledge of basic computer skills and WINDOWS as OS. • Identify Computer hardware components, network components and peripherals. • Apply Word Processing software to prepare document.

	<ul style="list-style-type: none"> • Apply Spreadsheet software to create workbooks and automate calculation. • Apply Presentation software to create interactive presentation. • Acquire overview of Prerequisites to Business Communication. • Demonstrate the communication skills required in the workplace. via electronic mail, Internet, and other technologies. • Compose accurate Banking correspondence. • Select appropriate formats used in Government correspondence.
<p>PO5: Demonstrate responsibility to perform office management and secretarial task under close supervision with some responsibility within defined limit.</p>	<ul style="list-style-type: none"> • Specify how the managerial task of planning, organizing and controlling can be executed in a variety of circumstances. • Determine the most effective action to take in specific situation. • Identifying the process of recruitment, selection and training. • Comprehend the utilization & importance of Office Accommodation and layout. • Illustrate the significance of external surrounding and internal environment on office work. • Comprehend the concepts of types of consonants, vowels sign and places of vowels • Practice circle, loops, hooks and phraseography. • Take dictation of any subject using shorthand symbols at very fast. • Transcribe any meeting and dictated letters. • Comprehend the finger position in the Keyboard.

	<ul style="list-style-type: none">• Familiarize the rows of Keyboard of computer system.• Achieve accuracy in typing.• Acquire speed of 35-40 wpm in typing.• Demonstrate the communication skills required in the workplace. via electronic mail, Internet, and other technologies.• Utilize the correct practices of the strategies of Effective Business writing.• Compose accurate Banking correspondence.• Select appropriate formats used in Government correspondence.
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15. SUBJECTS & DETAILED CONTENTS

FIRST SEMESTER

FIRST SEMESTER

1.1	English & Communication Skill-I	12-14
1.2	Principles of Management	15-17
1.3	Typing Practice - I	18-19
1.4	Office Management	20-22
1.5	Fundamentals of IT	23-26
1.6	Environmental Studies and Disaster Management	27-29

1.1 ENGLISH & COMMUNICATION SKILLS – I

L	P
2	2

RATIONALE

Language as the most commonly used medium of self-expression remains indispensable in all spheres of human life –personal, social and professional. This course is intended to break fresh ground in teaching of Communicative English as per the requirements of National Skill Quality Framework. This course is designed to help students to acquire the concept of communication and develop an ability or skills to use them effectively to communicate with the individuals and community.

COURSE OUTCOMES

After undergoing this subject, the students will be able to:

- CO1: Identify the nuances of Communication, both Oral and Written.
- CO2: Acquire knowledge of the meaning of communication, communication process and speaking skills.
- CO3: Acquire enhanced vocabulary and in-depth understanding of Grammatical Structures and their usage in the communication.
- CO4: Communicate effectively with an increased confidence to read, write and speak in English language fluently.

DETAILED CONTENTS

UNIT I

Reading

- 1.1 Techniques of reading: Skimming and Scanning
- 1.2 Extensive and Intensive Reading: Textual Study
- 1.3 Homecoming – R.N. Tagore
- 1.4 Life Sketch of Sir Mokshagundam Visvesvarayya
- 1.5 Life Sketch of Dr. Abdul Kalam
- 1.6 Narayan Murthy's speech at LBSNA, Dehradun

UNIT II**Fundamentals of Communication**

- 2.1 Concept and Process of Communication,
- 2.2 Types of Communication (Verbal Communication)
- 2.3 Barriers to Communication
- 2.4 Speaking Skill: Significance and essentials of Spoken Communication
- 2.5 Listening Skill: Significance and essentials of Listening

UNIT III**Grammar and Usage**

- 3.1 Nouns
- 3.2 Pronouns
- 3.3 Articles
- 3.4 Verbs(Main and Auxiliary)
- 3.5 Tenses

UNIT IV**Writing Skills**

- 4.1 Significance, essentials and effectiveness of Written Communication
- 4.2 Notice Writing
- 4.3 Official Letters and E-mails.
- 4.4 Frequently-used Abbreviations used in Letter-Writing
- 4.5 Paragraph Writing
- 4.6 Netiquettes

PRACTICAL EXERCISES**1. Reading**

Reading Practice of lessons in the Lab Activity classes.

- i. Comprehension exercises of unseen passages along with the lessons prescribed.
- ii. Vocabulary enrichment and grammar exercises based on the selected readings.
- iii. Reading aloud Newspaper headlines and important articles.

2. Fundamentals of Communication

- i. Introducing oneself, others and leave- taking(talking about yourself)
- ii. Just a minute (JAM) sessions: Speaking extempore for one minute on given topics
- iii. Situational Conversation: Offering-Responding to offers; Congratulating; Apologizing and Forgiving; Complaining; Talking about likes and dislikes, Self-introduction Mock Interviews

3. Grammar and Usage

- i. Written and Oral Drills will be undertaken in the class to facilitate holistic linguistic competency among learners.
- ii. Exercises on the prescribed grammar topics.

4. Writing Skills

- i. Students should be given Written Practice in groups so as to inculcate team-spirit and collaborative learning .
- ii. Group exercises on writing paragraphs on given topics.
- iii. Opening an e-mail account, receiving and sending emails

RECOMMENDED BOOKS

- 1) Alvinder Dhillon and Parmod Kumar Singla, “Text Book of English and Communication Skills Vol – 2”, M/S Abhishek Publications, Chandigarh.
- 2) V Sasikumar & PV Dhamija, “Spoken English”, Tata MC Graw Hills, New Delhi, Second Edition.
- 3) JK Gangal, “A Practical Course in Spoken English”, PHI Learning Pvt. Ltd., New Delhi.
- 4) NK Aggarwal and FT Wood, “English Grammar, Composition and Usage”, Macmillan Publishers India Ltd., New Delhi.
- 5) RC Sharma and Krishna Mohan, “Business Correspondence & Report writing”, Tata MC Graw Hills, New Delhi, Fourth Edition.
- 6) Kavita Tyagi & Padma Misra, “Professional Communication”, PHI Learning Pvt. Ltd., New Delhi.
- 7) Nira Konar, “Communication Skills for professionals”, PHI Learning Pvt. Ltd., New Delhi.
- 8) Krishna Mohan & Meera Banerji, “Developing Communication Skills”, Macmillan Publishers India Ltd., New Delhi, Second Edition
- 9) M. Ashraf Rizwi, “Effective Technical Communication”, Tata MC Graw Hills, New Delhi.
- 10) Andrea J Rutherford, “Basic Communication Skills for Technology”, Pearson Education, New Delhi.

INSTRUCTIONAL STRATEGY

This is practice based subject and topics taught in the class should be practiced as exercises in the Lab regularly for development of communication skills in the students. The students should be involved in activities to enhance their personality skills. This subject contains four units of equal weightage.

1.2 PRINCIPLES OF MANAGEMENT

L	P
4	2

RATIONALE

The study and understanding of principles of management concepts and different functions of management is very essential for the students of this diploma. The subject includes elementary knowledge of concepts of management viz. planning, organizing, staffing, directing and controlling. The basic knowledge of various functions of management will enable the students to take effective steps for performing various office duties.

COURSE OUTCOMES

At the end of this subject, the students will be able to:

- CO1: Integrate management principles into management practice.
- CO2: Assess Managerial practice and choices relating to management principles.
- CO3: Specify how the managerial task of planning, organizing and controlling can be executed in a variety of circumstances.
- CO4: Determine the most effective action to take in specific situation.
- CO5: Identifying the process of recruitment, selection and training.

DETAILED CONTENTS

UNIT I

Introduction & Planning

- 1.1 Meaning, Features and Objective of management
- 1.2 Management Principles
- 1.3 Functions of Management
- 1.4 Levels of Management
- 1.5 Meaning, features and importance of Planning
- 1.6 Planning process
- 1.7 Types of Planning
- 1.8 Effective Planning

UNIT II

Organizing

- 2.1 Meaning, features and importance
- 2.2 Formal and informal organization

- 2.3 Organizational structures
- 2.4 Centralization and Decentralization
- 2.5 Delegation of Authority

UNIT III

Staffing

- 3.1 Meaning, Need & Objectives.
- 3.2 Characteristics of Staffing
- 3.3 Steps involved in Staffing Process
- 3.4 Recruitment and Selection Process
- 3.5 Essentials of Effective Training
- 3.6 Introduction to ‘on the job’ and ‘off the job’ training

UNIT IV

Directing

- 4.1 Leadership - Concept, Importance, Types of Leaders
- 4.2 Qualities of good leader
- 4.3 Motivation - Meaning, Types and Importance

UNIT V

Controlling

- 5.1 Meaning & Importance
- 5.2 Objective of controlling
- 5.3 Traditional and modern methods
- 5.4 Steps involved in controlling process

PRACTICAL EXERCISES

- 1. Designing a plan for setting-up of a business
- 2. Preparation of Organization Charts for Commercial and industrial organizations
- 3. Visit to industrial Organization and preparation of report
- 4. Role of playing exercises on Motivation of the employees
- 5. Case studies on management (10 Case Studies)
- 6. Discuss the leadership styles and determine an appropriate style for a given situation

RECOMMENDED BOOKS

- 1) T.N. Chhabra, Dhanpat Rai & Sons, “Principles & Practice of Management”
- 2) L.M. Prasad, Sultan Chand and Sons, “Principles & Practice of Management”
- 3) P.C. Tripathi & P.N. Reddy, “Principles of Management”, Mc Graw Hill Education.
- 4) Poonam Gandhi, “Business studies-II”, V.K. Publication.
- 5) Subhash Dey, “Business studies- II”, Geeta Publishing House.
- 6) R.K. Singla, “Business studies-II”, V.K. Publication.
- 7) C.B Gupta, “Management – Theory and Practice”, Kalyani Publisher, New Delhi.
- 8) J.C Katyal, C.B Gupta, “Business Organization Principles and Practices”, Sultan Chand & Sons, New Delhi

INSTRUCTIONAL STRATEGY

This is a skill bases subject and topics taught in the class should be practiced by studying Case Studies for development of required skills in students. This subject contains five units of 20% equal weight age with more than 60% hands on practice for skill development. Teacher may invite experts from various organizations to deliver extension lectures. Case studies should be discussed with the students in the class pertaining to all topics of the cases. Educational trips in industries and govt. offices should be organized. Teacher should prepare assignment of case study for the students and students may also be encouraged to prepare and present the case studies.

1.3 TYPING PRACTICE - I

L P
- 8

RATIONALE

Computer is used to type letters, bills, invoices, forms, notices reports, statements and almost every kind of written communication. The students of this course must have the necessary skills to operate the keyboard of computer. The objective of this paper is to enable the student to acquire a speed of 15 w.p.m. by having a computer.

COURSE OUTCOMES

At the end of this subject, the students will be able to:

- CO1: Identify the importance of typewriting.
- CO2: Learn typewriting skills.
- CO3: Comprehend the finger position in the Keyboard.
- CO4: Familiarize the rows of Keyboard of computer system.
- CO5: Acquire speed of 35-40 wpm typing.

PRACTICAL EXERCISES

UNIT I

- 1.1 Practicing sitting posture on the computer
- 1.2 Knowledge of essential part of computer
- 1.3 Touch Vs sight typing and rhythm in typing
- 1.4 Finger position
- 1.5 Familiarization of Alphanumeric keys, Punctuation keys and Special Keys

UNIT II

- 2.1 Practice of home key on the computer with repetitive practice / exercise.
- 2.2 Practice of upper row on the computer with repetitive practice / exercise.
- 2.3 Practice of bottom row on the computer with repetitive practice / exercise.
- 2.4 Practicing words and simple sentences.

UNIT III

- 3.1 Fixing and releasing margin stops.
- 3.2 Practicing top row (figures and symbols) and other printing keys
- 3.3 Practicing shift keys and other non - printing keys
- 3.4 Practicing special symbols and punctuation marks

UNIT IV

- 4.1 Rhythm in typing, Spacing in Punctuation signs, Rules of Syllabification, Words which are not broken at line ends
- 4.2 Common errors committed during Key board operation, Importance of producing an error free document, Penalty for Errors.
- 4.3 Ensuring proper margins and line spacing
- 4.4 Straight forward copying from exercises

UNIT V

- 5.1 Practicing exercises (easy and difficult), each exercise should be typed five times
- 5.2 Practicing for building speed and control speed test for 15 minutes, speed drills and accuracy drills
- 5.3 Typing Practice Minimum speed should be 15 wpm

INSTRUCTIONAL STRATEGY

This is hands-on practice based workshop for development of required skills in the students. There are set of Practice Sessions of 20% equal weightage.

A successful teacher must understand that there are some basic requirements for getting success in the field of typewriting such as:

- i. Accuracy is the most important objectives and speed is regarded as the basic principle
- ii. Concentration i.e. the ability to keep the mind on an objective, is also essential
- iii. Rhythm i.e. hitting each stroke with equal force and evenness is an essential factor
- iv. Correct posture cannot be neglected.
- v. Demonstration method is the best method of teaching a skill with the following steps:
 - a) Special care should be taken for proper fingering
 - b) It should be ensured that students inculcate the habit of learning typing as per correct method
 - c) Minimum speed should be 15 wpm

1.4 OFFICE MANAGEMENT

L P
4 -

RATIONALE

One of the main objective of the diploma programme in Office Management and Computer Applications is to make the students understand the basics concepts and importance of office management. This subject on office management aims at making the students well conversant with the services provided by an office and helps them to perform efficiently and effectively.

COURSE OUTCOMES

Upon completion of this subject, students will be able to:

- CO1: Identify the concepts related to office & its functions.
- CO2: Identify skills and competencies of an office manager.
- CO3: Comprehend the utilization & importance of Office Accommodation and layout.
- CO4: Illustrate the significance of external surrounding and internal environment on office work.
- CO5: Detail office organization structure & its process.

DETAILED CONTENTS

UNIT I

Introduction to Office

- 1.1 Meaning and Importance of office
- 1.2 Functions of office
- 1.3 Centralization and decentralization - merits and demerits
- 1.4 Relation with other departments

UNIT II

Office Management

- 2.1 Meaning of office Management
- 2.2 Importance of office Management
- 2.3 Qualities of an office manger

UNIT III**Office Accommodation and Layout**

- 3.1 Office building
- 3.2 Sections and sub-sections of office
- 3.3 Office location
- 3.4 Office furniture and fixtures
- 3.5 Office accommodation
- 3.6 Office layout- objectives, principles and private verses open office

UNIT IV**Office Environment**

- 4.1 Significance of external surrounding and internal environment
- 4.2 Working facilities – lighting arrangements; seating arrangement; Air-conditioning; ventilation; interior decoration; recreational facilities;
- 4.3 Safety and sanitary arrangement; pollution, noise and security control etc.

UNIT V**Organizing an Office**

- 5.1 The structure of the organization
- 5.2 Process of organization
- 5.3 Principles relating to the process of organizing in an office

PRACTICAL EXERCISES

1. The students should perform functions on form designing.
2. The students may be practiced to arrange filing in office.
3. The students may be practiced to handle office correspondence.

RECOMMENDED BOOKS

- 1) Shashi Gupta and Sushil Nayya, “Office Management”, Kalyani Publications, New Delhi
- 2) P.K. Gupta, “Office Management”, Kalyani Publications, New Delhi
- 3) Ghosh and Aggarwal, “Office Management”
- 4) Gupta, Bansal, Jain, Malik, “Office Management”
- 5) R.K. Sharma, Shashi Kr. Gupta, Sushil and Nayyer, “Office Management and Practices”, Kohli Publishers, 34 Industrial Area Phase-II, Chandigarh.

INSTRUCTIONAL STRATEGY

This is theoretical subject and contains five units of equal weight age.

The teacher of this subject should supplement the classroom teaching. Experts from various organizations should be invited to deliver expert lectures. Teacher should lay emphasis on identification and proper execution of tutorial assignments. Mock situations may be created in the classroom and students may be given live experiences/environment/ culture to enable them appreciate the real life situation.

The students may be exposed to office work during the course and industrial visit of organization's in order to know the detailed process of office management. The students may be encouraged to to gather more information on latest technological changes and developments in the field of office management.

1.5 FUNDAMENTALS OF IT

L P
2 4

RATIONALE

Information technology has great influence on all aspects of life. Almost all work places and living environment are being computerized. In order to prepare diploma holders to work in these environments, it is essential that they are exposed to various aspects of information technology such as understanding the concepts of information technology and its scope, operating a computer: use of various office management tools, using internet and mobile applications etc. This course is intended to make new students comfortable with computing environment - Learning basic computer skills, learning basic application software tools, Understanding Computer Hardware, Cyber security awareness.

COURSE OUTCOMES

At the end of the subject student will be able to

- CO1: Explain the basic components of Computers, Internet and issues of abuses/ attacks on information and computers
- CO2: Handle the computer/laptop/mobiles/Internet Utilities and Install/Configure OS
- CO3: Assemble a PC and connect it to external devices
- CO4: Manage and Use Office practiced Automation Tools
- CO5: Develop worksheets and Prepare presentations

DETAILED CONTENTS

UNIT I

Basics of Computer

Brief history of development of computers, Definition of Computer, Block diagram of a Computer, Hardware, Software, Booting: Cold and Hot Booting, Interaction between the CPU and Memory with Input/Output devices, Function of CPU and major functional parts of CPU.

Memory, Bit, Nibble, Byte, KB, MB, GB, TB, PB, Functions of memory, Use of storage devices in a Computer, List types of memory used in a Computer, Importance of cache memory, CPU speed and CPU word length

UNIT II**Basic Internet Skills**

Understanding browser, Introduction to WWW, efficient use of search engines, awareness about Digital India portals (state and national portals) and college portals. Advantages of Email, Various email service providers, Creation of email id, sending and receiving emails, attaching documents with email and drive.

Effective use of Gmail, G-Drive, Google Calendar, Google Sites, Google Sheets, Online mode of communication using Google Meet & WebEx.

Unit III**Basic Logic building**

Introduction to Programming, Steps involved in problem solving, Definition of Algorithm, Definition of Flowchart, Steps involved in algorithm development, differentiate algorithm and flowchart, symbols used in flowcharts, algorithms for simple problems, flowcharts for simple problems, Practice logic building using flowchart/algorithms

Unit IV**Office Tools**

Office Tools like LibreOffice/OpenOffice/MSOffice.

OpenOffice Writer – Typesetting Text and Basic Formatting, Inserting Images, Hyperlinks, Bookmarks, Tables and Table Properties in Writer

Introducing LibreOffice/OpenOffice *Calc*, Working with Cells, Sheets, data, tables, using formulae and functions, using charts and graphics.

OpenOffice Impress – Creating and Viewing Presentations, Inserting Pictures and Tables, Slide Master and Slide Design, Custom Animation.

Unit V**Use of Social Media**

Introduction to Digital Marketing – Why Digital Marketing, Characteristics of Digital Marketing, Tools for Digital Marketing, , Effective use of Social Media like LinkedIn, Google+, Facebook, Twitter, etc.: Features of Social media, Advantages and Disadvantages of Social Media.

PRACTICAL EXERCISES

1. Browser features, browsing, using various search engines, writing search queries
2. Visit various e-governance/Digital India portals, understand their features, services offered
3. Read Wikipedia pages on computer hardware components, look at those components in lab, identify them, recognize various ports/interfaces and related cables, etc.
4. Using Administrative Tools/Control Panel Settings of Operating Systems

5. Connect various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software.
6. Explore features of Open Office tools and MS-Office, create documents, create presentation, create spread sheet, using these features, do it multiple times
7. Working with Conversion Software like pdfToWord, WordToPPT, etc.
8. Working with Mobile Applications – Searching for Authentic Mobile app, Installation and Settings, Govt. of India Mobile Applications
9. Creating email id, sending and receiving mails with attachments.
10. Using Google drive, Google calendar
11. Create Flow chart and Algorithm for the following
 - i. Addition of n numbers and display result
 - ii. To convert temperature from Celsius to Fahrenheit
 - iii. To find Area and Perimeter of Square
 - iv. Swap Two Numbers
 - v. find the smallest of two numbers
 - vi. Find whether given number is Even or Odd
 - vii. To print first n even Numbers
 - viii. find sum of series $1+2+3+\dots+N$
 - ix. print multiplication Table of a number
 - x. generate first n Fibonacci terms $0,1,1,2,3,5\dots n$ ($n>2$)
 - xi. sum and average of given series of numbers
 - xii. Factorial of number n ($n!=1\times 2\times 3\times\dots n$)
 - xiii. Armstrong Number
 - xiv. Find whether given number is Prime or not

RECOMMENDED BOOKS

1. R.S. Salaria, “Computer Fundamentals”, Khanna Publishing House.
2. Ramesh Bangia, “PC Software Made Easy – The PC Course Kit”, Khanna Publishing House.
3. Online Resources, Linux man pages, Wikipedia
4. Mokhtar Ebrahim and Andrew Mallett, “Mastering Linux Shell Scripting: A practical guide to Linux command-line, Bash scripting, and Shell programming”.
5. Vikas Gupta, “Comdex Hardware and Networking Course Kit” Dream Tech press, New Delhi, 2008.
6. Sumitabha Das, “UNIX concepts and applications” Tata McGraw Hill, New Delhi, 2008, Fourth Edition.

SUGGESTED WEBSITES

1. <https://nptel.ac.in/courses/106/106/106106222/> - NPTEL Course on Modern Application Development
2. https://onlinecourses.swayam2.ac.in/aic19_de01/preview -
3. <https://spoken-tutorial.org/> - Tutorials on Introduction to Computers, HTML, LibreOffice Tools, etc.
4. NOTEPAD++
5. <https://tms-outsourcing.com/blog/posts/web-development-ide/>

INSTRUCTIONAL STRATEGY

This is a skill based subject and topics taught in the class should be practiced in the Lab regularly for development of required skills in the students. This subject contains five units of equal weight age.

1.6 ENVIRONMENTAL STUDIES AND DISASTER MANAGEMENT

L	P
2	-

RATIONALE

A diploma holder must have knowledge of different types of pollution caused due to industrial and construction activities so that he/she may help in balancing the ecosystem and controlling pollution by various control measures. The course is intended to provide a general concept in the dimensions of environmental pollution and disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by human activities with emphasis on disaster preparedness, response and recovery.

COURSE OUTCOMES

After undergoing the subject, the student will be able to:

- CO1: Comprehend the importance of sustainable ecosystem.
- CO2: Clarify interdisciplinary nature of environmental issues.
- CO3: Describe corrective measures for the abatement of pollution.
- CO4: Identify the role of non-conventional energy resources in environmental protection.
- CO5: Recognize various types of disasters.

DETAILED CONTENTS

UNIT I

Introduction

- 1.1 Basics of ecology, eco system- concept, and sustainable development, Sources, advantages, disadvantages of renewable and nonrenewable energy.
- 1.2 Rain water harvesting
- 1.3 Deforestation – its effects & control measures

UNIT II

Air and Noise Pollution

- 2.1 Air Pollution: Source of air pollution. Effect of air pollution on human health, economy, Air pollution control methods.
- 2.2 Noise Pollution: Source of noise pollution, Unit of noise, Effect of noise pollution, Acceptable noise level, Different method of minimizing noise pollution.

UNIT III**Water and Soil Pollution**

- 3.1 Water Pollution: Impurities in water, Cause of water pollution, Source of water pollution. Effect of water pollution on human health, Concept of DO, BOD, COD. Prevention of water pollution- Water treatment processes, Sewage treatment. Water quality standard.
- 3.2 Soil Pollution :Sources of soil pollution, Effects and Control of soil pollution, Types of Solid waste- House hold, Industrial, Agricultural, Biomedical, Disposal of solid waste, Solid waste management E-waste, E – waste management

UNIT IV**Impact of Energy Usage on Environment**

Global Warming, Green House Effect, Depletion of Ozone Layer, Acid Rain. Eco-friendly Material, Recycling of Material, Concept of Green Buildings, Concept of Carbon Credit & Carbon footprint.

UNIT V**Disaster Management****A. Different Types of Disaster:**

Natural Disaster: such as Flood, Cyclone, Earthquakes and Landslides etc.

Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea Rail & Road), Structural failures(Building and Bridge), War & Terrorism etc.

B. Disaster Preparedness:

Disaster Preparedness Plan

Prediction, Early Warnings and Safety Measures of Disaster

Psychological response and Management (Trauma, Stress, Rumour and Panic)

RECOMMENDED BOOKS

1. S.C. Sharma & M.P. Poonia, “Environmental Studies”, Khanna Publishing House, New Delhi.
2. BR Sharma, “Environmental and Pollution Awareness”, Satya Prakashan, New Delhi.
3. Dr. RK Khitoliya, “Environmental Pollution”, S Chand Publishing, New Delhi.
4. Erach Bharucha, “Environmental Studies”, University Press (India) Private Ltd., Hyderabad.
5. Suresh K Dhamija, “Environmental Engineering and Management”, S K Kataria and Sons, New Delhi.
6. E-books/e-tools/relevant software to be used as recommended by AICTE/BTE/NITTTR, Chandigarh.
7. Dr. Mrinalini Pandey, “Disaster Management”, Wiley India Pvt. Ltd.

8. Tushar Bhattacharya, “Disaster Science and Management”, McGraw Hill Education (India) Pvt. Ltd.

INSTRUCTIONAL STRATEGY

In addition to theoretical instructions, different activities pertaining to Environmental Studies and Disaster Management like expert lectures, seminars, visits etc. may also be organized This subject contains five units of equal weightage.

SECOND SEMESTER

SECOND SEMESTER

2.1	Office Methods and Practices	30-32
2.2	Stenography-I	33-35
2.3	Typing Practice-II	36-37
2.4	Computers for Office Management	38-41
2.5	Office Correspondence	42-44

2.1 OFFICE METHODS & PRACTICES

L	P
4	2

RATIONALE

The main objective of Office Management and Computer Applications diploma programme is to make the students understand the concepts and principles of Office Management methods and procedures and develop skills in performing various office operations. This subject on office management aims at making the students well conversant with the services provided by a modern office and helps them to perform efficiently and effectively.

COURSE OUTCOMES

At the end of this subject, the students will be able to:

- CO1: Illustrate the concept of office methods and Best Practices.
- CO2: Comprehend the utilization and importance of forms, indexing.
- CO3: Handle the office correspondence effectively.
- CO4: Maintain office records and arrange files.
- CO5: Detail the office organization and its structure.

DETAILED CONTENTS

UNIT I

Office Filing

- 1.1 Meaning, essentials and importance
- 1.2 Classification of files
- 1.3 Traditional and modern filing methods and equipment

UNIT II

Office Records

- 2.1 Meaning and significance
- 2.2 Types of records and importance
- 2.3 Need of effective record
- 2.4 Computer based indexing and recording

UNIT III**Office Forms**

- 3.1 Meaning
- 3.2 Significance
- 3.3 Types of forms
- 3.4 Form designing

UNIT IV**Handling Office Correspondence**

- 4.1 Meaning and importance of correspondence
- 4.2 Incoming correspondence procedures
- 4.3 Outgoing correspondence procedures
- 4.4 Ordinary post, Registered post, Parcel, Registered Parcel, Speed post, Courier, Airmail and e-mail etc.

UNIT V**Office Indexing**

- 5.1 Meaning, importance
- 5.2 Types of Indexing
- 5.3 Methods of Indexing

PRACTICAL EXERCISES

- 1. The students should perform functions on form designing.
- 2. The students may be practiced to arrange filing in office.
- 3. The students may be practiced to handle office correspondence.

RECOMMENDED BOOKS

- 1) Shashi Gupta and Sushil Nayya, "Office Management", Kalyani Publications, New Delhi
- 2) P.K. Gupta, "Office Management", Kalyani Publications, New Delhi
- 3) Ghosh and Aggarwal, "Office Management"
- 4) Gupta, Bansal, Jain, Malik, "Office Management"
- 5) R.K. Sharma, Shashi Kr. Gupta, Sushil and Nayyer, "Office Management and Practices", Kohli Publishers, 34 Industrial Area Phase-II, Chandigarh

INSTRUCTIONAL STRATEGY

This is case study based subject and topics taught in the class should be supported by various case studies regularly for development of required skills in the students. This subject contains five units of 20% equal weightage.

Group discussions/seminar to be arranged on relevant topics. A viva may be conducted on these topics. The teacher of this subject should supplement the classroom teaching with industrial/field visits. Experts from various organizations should be invited to deliver expert lectures. Teacher should lay emphasis on identification and proper execution of tutorial assignments. Mock situations may be created in the classroom and students may be given live experiences/environment/ culture to enable them appreciate the real life situation

- i. The students will be required to participate in group discussions and practical operations of the office Management.
- ii. The students may be encouraged to visit trade fairs and exhibitions in order to gather more information on latest technological changes and developments in the field of office Management.
- iii. The students should be given knowledge and skills and practice of office management.
- iv. The teachers should give demonstration and repetitive practical exercises of handling all the office mails to the students. Teachers should closely watch and assist the students during their practical.

2.2 STENOGRAPHY - I

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RATIONALE

For the performance of a private secretary's work it is necessary to have proficiency in stenography, as he has to take dictation, quite often, on matters of confidential nature. The objective of this subject is to enable the students to acquire a good speed in stenography.

COURSE OUTCOMES

At the end of this subject, the students will be able to:

- CO1: Identify the meaning and importance of shorthand.
- CO2: Comprehend the concepts of types of consonants, vowels sign and places of vowels
- CO3: Practice circle, loops, hooks and phraseography.
- CO4: Take dictation of any subject using shorthand symbols at very fast.
- CO5: Transcribe any meeting and dictated letters.

DETAILED CONTENTS

UNIT I

Definition and Importance of Shorthand, Job Opportunities, Emphasis on phonetic system in Pitman Shorthand, Correct Sitting Position, Holding of Pencil/Pen and Note Book and their quality, Qualities of a good Stenographer.

UNIT II

Consonants – Meaning, Types (Straight, Curved, Horizontal and Up strokes), Size of Stroke, Thickness and Thinness of Strokes, Joining of Strokes.

UNIT III

Vowels: places (First, Second and Third Place), Intervening Vowels and their positions Grammalogues and Punctuation Sign.

UNIT IV

Short forms, Phraseography, Qualities of a good Phraseogram, Tick 'The', Alternate forms of 'R' and 'H' (Upward and Downward), Diphthongs and Triphones, Abbreviated W.

UNIT V

Stroke 'S' and 'Z'

Circle – S and Z, SES and SW,

Loops – ST & STR.

PRACTICAL EXERCISES

1. Practicing sitting posture including the position of Note Book and holding of pen/pencil
2. Practice of consonants, writing each consonant with particular attention to their formation, length, angle, size, direction, thickness, etc., joining of strokes **(5 exercises)**
3. Repeated practice of using vowels and exercises from the text book **(5 exercises)**
4. Practice of using grammalogues, Punctuation marks, phrases diphthongs, triphones **(5 exercises)**
5. Practice of using small circles and stroke S and Z **(3 exercises)**
6. Class Work : Dictation and reading
Home Work: Reading and Copying work (Daily throughout the semester)

INSTRUCTIONAL STRATEGY

This is hands-on practice based subject and topics taught in the class should be practiced regularly for development of required skills in the students. This subject contains five units of equal weightage.

For effective teaching of stenography, it is important for the teacher to familiarize student with the general background, scope of work, employment opportunities and future prospects in order to motivate them for continuous, organized and methodical learning and practicing. Stenography being a new language science for students, complimentary to the language of English, the teacher is expected to simultaneously built to the language skills of learners to achieve the goal. For securing masters in the skill the following steps are prescribed:

- i. Assessment of student group profile i.e. determining the aptitude level of each student.
The intake not to exceed 15-20 students
- ii. Presentation of subject with due emphasis on practical
- iii. Use of only shorthand notebook and pencil
- iv. Ensure right direction for writing strokes and signs and their proper length
- v. Emphasis on legibility of outlines and repeated practice
- vi. Monitoring of vowel placement and positioning at the initial stage
- vii. Repeated practice of prescribed word exercises, grammalogues, phrases etc
- viii. Strict adherence to speed exercises at different speed levels from s Complex.
- ix. Practice variety of speed drills.

- x. Periodical test during the course for re-teaching

All student should be divided in two groups. Each group should comprise of a maximum of 15 – 20 students. Assignments up to exercise 38 will be based on Pitman Shorthand Instructor and Key by Sir Isaac Pitman. Dictation from seen exercises up to exercise no. 38 and its transcription in shorthand notebook itself by pen.

2.3 TYPING PRACTICE -II

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RATIONALE

The students of this diploma programme must have the necessary skills to operate the keyboard of computer efficiently and effectively. Through a series of modules, mastery of the necessary typing skills to be developed in the students so that they can type speedily and accurately to secure a job as an administrative professional. The objective of this paper is to enable the student to acquire a speed of 35-40 w.p.m. by having a computer.

COURSE OUTCOMES

At the end of this subject, the students will be able to:

- CO1: Identify the importance of typewriting.
- CO2: Comprehend the finger position in the Keyboard.
- CO3: Familiarize the rows of Keyboard of computer system.
- CO4: Achieve accuracy in typing.
- CO5: Acquire speed of 35-40 wpm in typing.

PRACTICAL EXERCISES

UNIT I

- 1.1 Speed practice from various drills given in the book starting from sentence to paragraphs.
- 1.2 Typing letters and other communications in all styles (indented, block and semi- block)
- 1.3 Use of different fonts, using table in a letter, headers and footers, use of sub – paras, numbering etc.
- 1.4 Punctuation marks, spacing after punctuation, syllabification

UNIT II

- 2.1 Manuscript: some proof correction signs
- 2.2 Practicing of different types of letter (official letter, business letter)
- 2.3 Practicing invoices and bills
- 2.4 Practicing forms, notices, and reports

UNIT III

- 3.1 Practicing envelope addressing
- 3.2 Practicing centralizing headings
- 3.3 Practicing horizontal and vertical centering
- 3.4 Mail – Merge
- 3.5 Practicing different types of headings including spaced headings

UNIT IV

- 4.1 Practicing simple tabular statement.
- 4.2 Typing on printed forms, creating and filling forms, minutes, notices, legal documents and literary matter
- 4.3 Practicing typing of draft copy of advertisement for press

UNIT V

- 5.1 Practice of small business letters
- 5.2 Application letters
- 5.3 Practice of small paragraph of about 200-250 words
- 5.4 Practicing exercises for speed building, Calculating speed and errors

INSTRUCTIONAL STRATEGY

This is hands-on practice based programme for development of required skills in the students. There are five practice units of 20% equal weightage.

A successful teacher must understand that there are some basic requirements for getting success in the field of typewriting such as:

- i. Accuracy is the most important objectives and speed is regarded as the basic principle.
- ii. Concentration i.e. the ability to keep the mind on an objective, is also essential.
- iii. Rhythm i.e. hitting each stroke with equal force and evenness is an essential factor.
- iv. Correct posture cannot be neglected.
- v. Suitable equipment and congenial atmosphere are essentials for efficient work.
- vi. Demonstration method is the best method of teaching a skill with the following steps:
- vii. Minimum speed should be 35-40 wpm.

2.4 COMPUTERS FOR OFFICE MANAGEMENT

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RATIONALE

In order to prepare diploma holders to work in today technological environments, it is essential that they are familiar with latest technology and should be comfortable with working on various applications of computers. This program provides students with detail introduction to computer basics, understanding of Computer Hardware and Software, detail understanding of different Operating Systems, different tools of Microsoft Office. This exposure will enable the students to enter their professions with confidence.

COURSE OUTCOMES

After undergoing the subject, the students will be able to:

- CO1: Demonstrate knowledge of basic computer skills and WINDOWS as OS.
- CO2: Identify Computer hardware components, network components and peripherals.
- CO3: Apply Word Processing software to prepare document.
- CO4: Apply Spreadsheet software to create workbooks and automate calculation.
- CO5: Apply Presentation software to create interactive presentation.

PRACTICAL EXERCISES

UNIT I

Fundamentals of Computers

- 1.1 Given a PC, name its various components and peripherals. List their functions.
- 1.2 Block diagram of a computer, Components of computer system, CPU, Memory, Input devices; keyboard, Scanner, mouse etc; Output devices; VDU, LCD, Printers etc.
- 1.3 Familiarization of Primary and Secondary Memory: RAM, ROM, magnetic disks – optical disk (CD, DVD & Blue Ray Disk.), USB/Flash Drive.
- 1.4 Discussion of System software, Application software, Virtualization software and Utility software
- 1.5 Installation of I/O devices, printers, Keyboards
- 1.6 Installation of software, Antivirus.

UNIT II**Windows as an Operating System**

- 2.1 Start, Shut down and restore
- 2.2 Creating and operating the icons
- 2.3 Opening, closing and sizing the windows and working with windows interfacing elements (option buttons, checkbox, scroll etc.)
- 2.4 Using elementary job commands like – creating, saving, modifying, renaming, finding and deleting a file and folders
- 2.5 Changing settings like, date, time, colour (back ground and fore ground etc.)
- 2.6 Using short cuts
- 2.7 Using on line Help

UNIT III**Word Processing (MS Office/Open Office)**

- 3.1 File Management: Opening, creating and saving a document, locating files, copying contents in some different file(s), protecting files, giving password protection for a file
Page set up: Setting margins, tab setting, ruler, indenting, Editing a document: Entering text, cut, copy, paste using tool- bars,
- 3.2 Formatting a document: Using different fonts, changing font size and colour, changing the appearance through bold/italic/underlined, highlighting a text, changing case, using subscript and superscript, using different underline methods, Aligning of text in a document, justification of document, inserting bullets and numbering, Formatting paragraph, inserting page breaks and column breaks, line spacing, Use of headers, footers: Inserting date, time.
- 3.3 Tables and Borders: Creating a table, formatting cells, use of different border styles, shading in tables, merging of cells, partition of cells, inserting and deleting a row in a table, Print preview, zoom, page set up, printing options, Using find, replace options.
- 3.4 Using Tools like: Spell checker, help, mail merge, printing envelopes and labels, Using shapes and drawing toolbar, Working with more than one window.

UNIT IV**Spread Sheet Processing (MS Office/Open Office)**

- 4.1 Starting excel, open worksheet, enter, edit, data, formulae to calculate values, format data, save worksheet, switching between different spread sheets
- 4.2 Menu commands: Create, format charts, organise, manage data, solving problem by analyzing data.
- 4.3 Work books: Managing workbooks (create, open, close, save), working in work books, selecting the cells, choosing commands, data entry techniques, formula creation and links, controlling calculations. Editing a worksheet, copying, moving cells, pasting, inserting,

deletion cells, rows, columns, find and replace text, numbers of cells, formatting worksheet, conditional formatting.

UNIT V

MS- PowerPoint

- 5.1 Introduction to PowerPoint
 - i. How to start PowerPoint
 - ii. Working environment: concept of toolbars, slide layout & templates.
 - iii. Opening a new/existing presentation
 - iv. Different views for viewing slides in a presentation: normal, slide sorter.
 - v. Addition, deletion and saving of slides
- 5.2 Insertion of multimedia elements
 - i. Adding text boxes
 - ii. Adding/importing pictures
 - iii. Adding movies and sound
 - iv. Adding tables and charts etc.
 - v. Working with Clip Art
- 5.3 Formatting slides
 - i. Changing slide layout
 - ii. Changing slide colour scheme
 - iii. Changing background
- 5.4 Viewing the slide show
 - i. Viewing the presentation using slide navigator
 - ii. Slide transition
 - iii. Animation effects, timing, order etc.

RECOMMENDED BOOKS

- 1. V Rajaraman, "Fundamentals of Computer", Prentice Hall of India Pvt. Ltd., New Delhi.
- 2. B Ram, "Computers Fundamentals Architecture and Organisation", New Age International Publishers, New Delhi, Revised Edition.
- 3. SK Basandara, "Computers Today", Galgotia publication Pvt Ltd. Daryaganj, New Delhi.
- 4. Sanjay Saxena, "A First Course in Computer", Vikas Publishing House Pvt. Ltd., Jungpura, New Delhi.
- 5. PK Sinha, "Computer Fundamentals", BPB Publication, New Delhi.

INSTRUCTIONAL STRATEGY

Since this subject is practice oriented, the teacher should demonstrate the capabilities of computers to students while doing practical exercises. The students should be made familiar with computer parts, peripherals, connections and proficient in making use of MS Office/Open Office in addition to working on internet. The student should be made capable of working on computers independently.

2.5 OFFICE CORRESPONDENCE

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RATIONALE

Correspondence within the organisation lends a meaning of definiteness to corporate policies and practice, promotes understanding between the members and departments the organisation. A diploma holder in Office Management and Computer Applications has to work as Private Secretary to the executives, managers and office executive in the organizations. To handle his/her job well, knowledge about techniques of correspondence is a must. In fact he/she has to acquire the skills of effective correspondence as he/she has to manage the office and has to provide help to his/her seniors and chief executives.

COURSE OUTCOMES

After undergoing this subject, the learners will be able to:

- CO1: Acquire overview of Prerequisites to Business Communication.
- CO2: Demonstrate the communication skills required in the workplace. via electronic mail, Internet, and other technologies.
- CO3: Utilize the correct practices of the strategies of Effective Business writing.
- CO4: Compose accurate Banking correspondence.
- CO5: Select appropriate formats used in Government correspondence.

DETAILED CONTENTS

UNIT I

Introduction to Office Correspondence

- 1.1 Meaning and importance
- 1.2 Process and Uses
- 1.3 Communication: Various means of communication- Their use, merits and limitations.
Selection of means of communication
- 1.4 Communication Through Internet

UNIT II

Office Records

- 2.1 Filing and Indexing.
- 2.2 Retention and weeding out of papers.
- 2.3 Planning and Scheduling Office Work: Office routine, flow of work and office manual.
- 2.4 Stationery and forms

UNIT III**Business Correspondence**

- 3.1 Essential Parts of Business Letter
- 3.2 Formats/styles of a business letter
- 3.3 Enquiry Letter, Quotation, Order
- 3.4 Complaint letter, Adjustment Letter etc and their formats.
- 3.5 Essential of a good business letter

UNIT IV**Banking Correspondence**

- 4.1 Account opening letters
- 4.2 Credit Letters
- 4.3 Guarantee Documents
- 4.4 Standing Instructions for Payment
- 4.5 Request for Bank over Draft etc.

UNIT V**Government Correspondence**

- 5.1 General Govt. Letters
- 5.2 Demi Official Letters
- 5.3 Office Memorandum, Circulars, Notifications, Office Orders, Press Release

RECOMMENDED BOOKS

1. Pradhan Bhende and Thakur, "Business Communication", Himalaya Publishers.
2. Mazumdar, "Commercial Correspondence".
3. Reddy Appannaiah and Raja Rao, "Essentials of Business Communication", Himalaya Publishers.
4. P. Rathnaswamy, "Communication Management Theory and Practice", Deep and Deep Publications.
5. Parag Diwan, "Communication Management", Deep and Deep Publications.
6. P.N. Reddy, H.R. Appannaiah, B.S. RajaRao, "Essentials of Business Communication", Himalaya Publishing House.
7. U.S Rai and SM Rai, "Business Communication", Himalaya Publishing House.
8. Rajendra Pal and J.S. Korlahali, "Essentials of Business Communication", Sultant Chand and Sons.
9. R.C. Sharma and Krishan Mohan, "Business Correspondence and Report Writing", Tata McGraw Hill, Reprint 1997.

INSTRUCTIONAL STRATEGY

As the business correspondence is an integral part of any office work, special attention has to be given so that the students attain proficiency in drafting different letters/documents used in the office. For achieving this objective, teachers should undertake the following actions:

- i. Students must be made to draft minimum 5 letters on each topic such as inquiry letters, order letters, sales letters, complaints, claims and adjustment letters, circulars, collection and remittance letters, letters of introduction, letters of credit and status inquiries etc.
- ii. Students may be asked to edit and correct a given letter with reference to layout, format, style, drafting and language. Teacher should identify other appropriate and related assignments. Some sample of good letters/documents may be collected and students should be asked to read them aloud to the whole class.

EFFECTIVE IMPLEMENTATION & EVALUATION TOOLS

28. ASSESSMENT TOOLS AND CRITERION

The assessment is carried out by conducting:

1. Formative assessments
2. Summative assessments

1. FORMATIVE ASSESSEMENT

The **formative assessment** will be evaluated on the basis of the internal assessments for theory subjects and practical by the concerned teachers for evaluating the knowledge and skill acquired by students and the behavioral transformation of the students. This **internal assessment** is primarily carried out by collecting evidence of competence gained by the students by evaluating them at work based on assessment criteria, asking questions and initiating formative discussions to assess understanding and by evaluating records and reports, and sessional marks are awarded to them.

2. SUMMATIVE ASSESSMENT

The **summative assessment** will include end semester examination for theory part for each candidate and practical examination with viva voce. Each Performance Criteria will be assigned marks proportional to its importance and proportion of marks for Theory and Skills Practical for each subject should be laid down.

The following assessment tools are used for effective student evaluation:

1. Theory Examinations
2. Practical Work
3. Internships
4. Professional Industrial Training
5. Project Work (Minor & Major)
6. Massive Open Online Courses (MOOCs)
7. Viva Voce
8. Case Studies

1. Theory

Evaluation in theory aims at assessing students' understanding of concepts, principles and procedures related to a course/subject, and their ability to apply learnt principles and solve problems.

The **formative evaluation** for theory subjects may be caused through

- i. Sessional /class-tests,
- ii. Quizzes,
- iii. Assignments,
- iv. Seminars/ Presentations
- v. Attendance
- vi. Case Studies

For **Summative evaluation** of theory, the question paper may comprise of three sections.

- i. It should contain objective type question and multiple choice questions. The objective type items should be used to evaluate students' performance in knowledge, comprehension and at the most application domains only.
- ii. It should contain short answer questions.
- iii. Descriptive type questions, with some internal choice of the questions set may be given in this section

2. Practical Assessment

Evaluation of students performance in practical work (Laboratory experiments, Workshop practical /field exercises) aims at assessing students ability to apply or practice the concepts, principles and procedures, manipulative skills, ability to observe and record, ability to interpret and draw conclusions and work related attitudes. This will comprise of a creation of mock environment, wherever applicable in the skill lab which is equipped with all required equipment for development of desired skills. Candidate's soft skills, communication, aptitude, safety consciousness, quality consciousness etc. will be ascertained by observation and will be marked in observation checklist along with the assessment of Job carried out in labs and maintenance of Lab Record files.

Formative and summative evaluation may comprise of weightages to performance on task, quality of product, general behavior and it should be followed by viva-voce of the relevant subject. The end product will be measured against the specified dimensions and standards to gauge the level of his skill achievements

3. Internship

The two mandatory internships after I Year and II Year of the programme are to be assessed in 3rd and 5th semester subsequently. The internships should be preferably done in the field/ in the industry, can be in house depending upon the stream and availability of resources in and around the institute.

Every faculty should be assigned the students and made responsible for the evaluation and assessment of the internship. Formative assessment should be taken from the industry/institute/ department on the basis of performance, behavior and learning capabilities. Summative evaluation may comprise of weightages on the basis of report submission/ presentation followed by viva-voce of the relevant subject.

4. Professional Industrial Training

Evaluation of professional industrial training report and viva-voce/ presentation aims at assessing students' understanding of industrial processes, practices in the industry/field and their ability to engage in activities related to problem-solving in industrial setting as well as understanding of application of learnt knowledge and skills in real life situation. Formative and summative evaluation may comprise of weightages to performance on task, quality of product, general behavior and it should be followed by viva-voce of the relevant subject.

The formative assessment should include the evaluation from the employer where the student is doing his training or Project work in the ratio of 40:60. The final assessment will be the combination of the employer assessment and evaluation by the faculty of the institute which shall include report submission/ presentation/ seminar followed by viva-voce of the relevant subject.

5. Project Work Assessment

The purpose of evaluation of project work is to assess student's ability to apply, in an integrated manner, knowledge and skills in solving real life problems, manipulative skills, ability to observe, record, creativity and communication skills. The project work assigned should be of

relevance to the core skill, state of the art topics and the project areas that are pertaining to enhance job skill and enhance occupational opportunities. For both, minor and major project, Formative and summative evaluation may comprise of weightages to performance on task, quality of product, nature and relevance of project and general behavior.

The formative assessment should include the continuous assessment based on the work allocated and mid semester viva voce or presentation. The final assessment will be the combination of the project undertaken, report submission and should be followed by viva-voce of the relevant subject.

In case of the assessment of this component, the team of examiners should be constituted on 50 – 50 % basis. i.e. half of the examiners in the team should be invited from outside the institute conducting examination.

6. MOOC COURSES (Open Elective and Multi-Disciplinary Elective)

Massive Open Online Courses (MOOCs) platforms promise open, online courses to massive numbers of students as they are free to join, they provide a wide range of courses, they allow for space and time flexibility and their participants can benefit from various online communication tools and access to quality content.

The coordinating Department/Centre/Office shall monitor every student to adopt the courses online of their choice and preference on Swayam portal. The duration of courses will vary depending on the level and credit points. Courses offered in the duration of 4-10 weeks for 2 to 3 credits at diploma level are to be opted. Students, after they have registered, can get a certificate after attending the classes and submitting the assignments/quizzes and qualifying nationwide exam conducted written exam at the institute close to the one where the student is enrolled.

On successful completion of each course, the institution offering the MOOCs course would issue the certificate, along with the number of credits and grades, through which the student can get credits transferred into his marks certificate issued by his parent institution. Guidelines for credit sharing will be issued by concerned Regulators such as UGC, AICTE, etc. for consideration by various Institutes. There may be standard norms for the host Institution to conduct the course that may include continuous evaluation through assignments, online quizzes, case studies, online writing exercises, term examinations, student feedback, online forum management, etc.

The coordinating Department/Centre/Office of the respective department shall monitor every student and submit to the Office of Examinations, a score sheet (marks card) during the last 10 days prior to the close of the even semester.

7. Viva Voce

This tool will be used to assess the conceptual understanding and the behavioral aspects as regards the job role and the specific task at hand. It will also include questions on safety, quality, environment and equipment's etc. Ask questions on non-prescribed tasks to ensure that the learners have complete knowledge on the assessment

Computation of SGPA and CGPA

The UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):

- i. The SGPA is the ratio of sum of the product of the number of credits with the marks scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e

$$SGPA (S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

where C_i is the number of credits of the i th course and G_i is the marks scored by the student in the i th course.

- ii. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$CGPA = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

where S_i is the SGPA of the i th semester and C_i is the total number of credits in that semester.

- iii. The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

29. TEACHING LEARNING TOOLS FOR EFFECTIVE IMPLEMENTATION

For effective implementation of curriculum, the faculty and staff of institutions have to play a vital role in planning instructional experiences for the courses in four different environments viz. class-room, laboratory, library and field and execute them in right perspective. It is emphasized that only a proper mix of different teaching methods in all these places of instruction can bring the changes in students behavior as stipulated in the curriculum document. It is important to understand curriculum document holistically and further be aware of intricacies of Teaching-Learning Tools for achieving curriculum objectives. Given below are certain recommendations which may help in carrying out teaching-learning effectively:

PROGRAMME LEVEL RECOMMENDATIONS

1. Curriculum implementation takes place at programme, course and class-room level respectively and synchronization among them is required for its success. The first step towards achieving synchronization is to read curriculum document holistically and understand its rationale and philosophy.
2. An academic plan needs to be prepared at institute level. The Head of the institute have a great role to play in its dissemination and percolation up to grass-root level.
3. Head of Department are required to prepare academic plan at department level referring to institutional academic plan.

COURSE LEVEL RECOMMENDATIONS

Teachers are educational managers at class room level and their success in achieving course level objectives lies in using course plan and their judicious execution which is very important for the success of programme by achieving its objectives. Teachers are required to plan various instructional experiences viz. theory lecture, expert lectures, lab/workshop practicals, guided library exercises, field visits, study tours, camps etc. In addition, they have to carry out progressive assessment of theory, assignments, library, practicals and field experiences. Teachers are also required to do all these activities within a stipulated period which is made available to them in the academic plan at Board level. With the amount of time to their credit, it is essential for them to use it judiciously by planning all above activities properly and ensure execution of

the plan effectively. Following is the gist of suggestions for subject teachers for effective utilization of Teaching Learning Tools to achieve the course objectives:

1. Teachers need to ensure attainment of course outcomes so as to help the students achieve program outcomes and also meet the desired learning outcomes in five domains of NSQF i.e. Process, Professional knowledge, Professional skills, Core skills and Responsibility.
2. Teachers are required to prepare a course plan, taking into account number of weeks available and courses to be taught.
3. Teachers are required to prepare lesson plan for every theory class. This plan may comprise of contents to be covered, learning material for execution of a lesson plan.
4. Teachers are required to plan for expert lectures from field/industry. For this, necessary steps need to be taken such as planning in advance, identifying field experts, making correspondence to invite them, taking necessary budgetary approval etc.
5. Teachers are required to plan for guided library exercises by identification of course specific experience requirement, setting time, assessment, etc. The assignments and seminars can be thought of as terminal outcome of library experiences.
6. Concept based industrial/field visits may be planned and executed for such contents of course which are abstract in nature and no other requisite resources are readily available in institute to impart them effectively.
7. Lot of focus needs to be laid on skill development. There is need for planning practical experiences in right perspective. These slots in a course are the avenues to use problem based learning and experiential learning effectively. The development and use of lab manuals will enable the institutes to provide lab experiences effectively.
8. Emphasis should to lay on developing soft skills like communication skills, personality Development, self-learning, inter personal skills, problem solving, and creativity etc.
9. Where ever possible, it is essential to use activity based learning rather than relying on delivery based conventional teaching all the time. While teaching, the teacher should make

extensive use of audio visual aids such as video films, power point presentations and IT tools.

10. Teachers may take initiative in establishing liaison with industries and field organizations for imparting field experiences to their students.
11. Students be made aware about issues related to ecology and environment, safety, concern for wastage of energy and other resources etc.
12. To enhance digital learning, open electives and multi-disciplinary electives have been provided in the curriculum to be taken up in the form of MOOCs. For Open electives, some courses may be identified out of the prescribed list given in the curriculum keeping in mind the interest of students. Similarly, for multi-disciplinary electives, courses to be offered may be identified by considering their relevance and utility. Every year SWAYAM is notifying the list of courses which are going to be offered in forthcoming even and odd semester. The institute needs to select the courses that are offered on SWAYAM platform or any other online platform.
13. For effective implementation of Massive Open Online Courses (MOOCs), a faculty member in the department may be identified and given the responsibility to coordinate various activities related to MOOCs. The concerned faculty member will facilitate in registration of students for MOOCs. The faculty member will also be responsible for compiling the result of students on the completion of MOOCs and pass on the information to the concerned authority.
14. Flexibility has been provided in the curriculum for the students to choose a course related to the discipline as per their interest. For effective implementation of discipline-specific electives, the institute should identify some courses from the list of courses prescribed in the curriculum. The courses should be selected and offered keeping in mind the interest of students, infrastructure and expertise available in and around the institute related to the courses. Option for discipline-specific elective may be taken from students through a form and a course, with more than 10 students opting for it, may be run.
15. Where ever possible, it is essential to use activity based learning rather than relying on delivery based conventional teaching all the time. While teaching, the teacher should make extensive use of audio visual aids such as video films, power point presentations and IT tools.

16. Teachers may take initiative in establishing liaison with industries and field organizations for imparting field experiences to their students.
17. Students be made aware about issues related to ecology and environment, safety, concern for wastage of energy and other resources etc.
18. To enhance digital learning, open electives and multi-disciplinary electives have been provided in the curriculum to be taken up in the form of MOOCs. For Open electives, some courses may be identified out of the prescribed list given in the curriculum keeping in mind the interest of students. Similarly, for multi-disciplinary electives, courses to be offered may be identified by considering their relevance and utility. Every year SWAYAM is notifying the list of courses which are going to be offered in forthcoming even and odd semester. The institute needs to select the courses that are offered on SWAYAM platform or any other online platform.

30. LIST OF EXPERTS & REVIEWERS

1. Sh. Sanjeev Kumar, Deputy Secretary (Exam), Haryana State Board of Technical Education, Panchkula,
2. Sh. Nidhi Aggarwal, Deputy Secretary (Acad.), Haryana State Board of Technical Education, Panchkula.
3. Dr. Labh Singh Nain, Senior Lecturer, Office Management and Computer Application Department, Government Polytechnic for Women, Ambala.
4. Smt. Santosh Rani, Lecturer, Office Management and Computer Application Department, Government Polytechnic for Women, Ambala.
5. Sh. Mahipal Choudhary, Lecturer, Office Management and Computer Application Department, Government Polytechnic, Sonapat.
6. Sh. Pawan Kumar, Lecturer, Office Management and Computer Application Department, Vaish Technical Institute, Rohtak.
7. Sh. Sushil Kumar, Lecturer, Office Management and Computer Application Department, Vaish Technical Institute, Rohtak.
8. Dr. Rajesh Jhamb, Head of Department, Commerce Department, Government Polytechnic College for Women, Sector 10-D, Chandigarh.
9. Mrs Sonika Saini, Lecturer, Modern Office Practice Department, Government Polytechnic College for Women, Chandigarh.
10. Dr. Suman Dhawan, Deputy Director, (Academic), Directorate of Training and Technical Education, Delhi.
11. Mrs. Sunita Chugh, Lecturer, Office Management and Computer Application Department, Meera Bai Institute of Technology, New Delhi.
12. Sh. Sher Singh Malik, Lecturer, Office Management and Computer Application Department, Khanpur Kalan, Haryana.
13. Sh. Jitender Singh Tomar, Senior Lecturer, Office Management and Computer Application Department, Govt. Polytechnic, Education Society, Uttawar Palwal.
14. Mr. Manish Kumar Jindal, CEO, Quality Control of India, NABET, Delhi.
15. Smt. Pushpa Rani, Senior Lecturer, Applied Science Department, Government Polytechnic, Sonipat, Haryana.

16. Smt. Krishna Bhoria, Lecturer, Applied Science Department, Government Polytechnic, Ambala, Haryana.
17. Smt. Preetpal Kaur, Guest Faculty, Applied Science Department, Government Polytechnic, Ambala, Haryana.
18. Ms. Monika, Lecturer, Applied Science Department, Seth Jai Parkash Polytechnic, Damla, Haryana.
19. Dr. Neena Sharma, English Department, MCM College, Chandigarh.
20. Sh. PK Singla, Associate Professor, Education & Educational Management Department, NITTTR, Chandigarh.
21. Mr. KG Srinivasa, Professor, Information Management & Emerging Engineering, NITTTR, Chandigarh.
22. Dr. Vidhi Grover, Lecturer, Applied Science Department, Seth Jai Parkash Polytechnic, Damla.
23. Mr. Tavinder Singh, Lecturer, Applied Science Department, Government Polytechnic, Sirsa.
24. Ms. Sunita Rani, Lecturer, Applied Science Department, Government Polytechnic, Ambala.
25. Dr. Rajesh Mehra, Professor and Head, Curriculum Development Centre, NITTTR, Chandigarh.
26. Dr. AB Gupta, Professor, Curriculum Development Centre, NITTTR, Chandigarh.
27. Dr. SK Gupta, Associate Professor, Curriculum Development Centre, NITTTR, Chandigarh.
28. Dr. Meenakshi Sood, Associate Professor, Curriculum Development Centre, NITTTR, Chandigarh.

Dr. Meenakshi Sood
Programme Coordinator