1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years (10)

1.3.2.1. Courses that include experiential learning through project work/ field work/ internship

T.Y.B.Sc. (Semester V and VI)
Computer Science Syllabus
Credit Based Semester and Grading System
To be implemented from the Academic year 2018-2019

SEMESTER V			
Course	TOPICS	Credits	L / Week
	Elective-I (Select Any Two)		
USCS501	Artificial Intelligence	3	3
USCS502	Linux Server Administration	3	3
USCS503	Software Testing and Quality Assurance	3	3
	Elective-II (Select Any Two)		
USCS504	Information and Network Security	3	3
USCS505	Architecting of IoT	3	3
USCS506	Web Services	3	3
	Skill Enhancement		
USCS507	Game Programming	2	3
	Practical		
USCSP501	Practical of Elective-I	2	6
USCSP502	Practical of Elective-II	2	6
USCSP503	Project Implementation	1	3
USCSP504	Practical of Skill Enhancement : USCS507	1	3

SEMESTER VI			
Course	TOPICS	Credits	L / Week
	Elective-I (Select Any Two)		
USCS601	Wireless Sensor Networks and Mobile Communication	3	3
USCS602	Cloud Computing	3	3
USCS603	Cyber Forensics	3	3
	Elective-II (Select Any Two)		

USCS604	Information Retrieval	3	3
USCS605	Digital Image Processing	3	3
USCS606	Data Science	3	3
	Skill Enhancement		
USCS607	Ethical Hacking	2	3
	Practical		
USCSP601	Practical of Elective-I	2	6
USCSP602	Practical of Elective-II	2	6
USCSP603	Project Implementation	1	3
USCSP604	Practical of Skill Enhancement : USCS607	1	3

Project Implementation Guidelines

1. A learner is expected to carry out two different projects: one in Semester V and another in Semester VI.
2. A learner can choose any topic which is covered in Semester I- semester VI or any other topic with the prior approval from head of the department/ project in charge.
3. The Project has to be performed individually.
4. A learner is expected to devote around three months of efforts in the project.
5. The project can be application oriented/web-based/database/research based.
6. It has to be an implemented work; just theoretical study will not be acceptable.
7. A learner can choose any programming language, computational techniques and tools which have been covered during BSc course or any other with the prior permission of head of the department/ project guide.
8. A project guide should be assigned to a learner. He/she will assign a schedule for the project and hand it over to a learner. The guide should oversee the project progress on a weekly basis by considering the workload of 3 lectures as assigned.
9. The quality of the project will be evaluated based on the novelty of the topic, scope of the work, relevance to the computer science, adoption of emerging techniques/technologies and its real-world application.
10. A learner has to maintain a project report with the following subsections

     a) Title Page
     b) Certificate

     A certificate should contain the following information –

     - The fact that the student has successfully completed the project as per the syllabus and that it forms a part of the requirements for completing the BSc degree in computer science of University of Mumbai.
     - The name of the student and the project guide
     - The academic year in which the project is done
     - Date of submission,
     - Signature of the project guide and the head of the department with date along with the department stamp,

- Space for signature of the university examiner and date on which the project is evaluated.

c) Self-attested copy of Plagiarism Report from any open source tool.

d) Index Page detailing description of the following with their subsections:

- Title: A suitable title giving the idea about what work is proposed.
- Introduction: An introduction to the topic giving proper back ground of the topic.
- Requirement Specification: Specify Software/hardware/data requirements.
- System Design details : Methodology/Architecture/UML/DFD/Algorithms/protocols etc. used(whichever is applicable)
- System Implementation: Code implementation
- Results: Test Cases/Tables/Figures/Graphs/Screen shots/Reports etc.
- Conclusion and Future Scope: Specify the Final conclusion and future scope
- References: Books, web links, research articles, etc.

11. The size of the project report shall be around twenty to twenty five pages, excluding the code.

12. The Project report should be submitted in a spiral bound form

13. The Project should be certified by the concerned Project guide and Head of the department.

14. A learner has to make a presentation of working project and will be evaluated as per the Project evaluation scheme

Semester – 6			
Course Code	**Course Type**	**Course Title**	**Credits**
USIT601	Skill Enhancement Course	Software Quality Assurance	2
USIT602	Skill Enhancement Course	Security in Computing	2
USIT603	Skill Enhancement Course	Business Intelligence	2
USIT604	Discipline Specific Elective (Any One)	Principles of Geographic Information Systems	2
USIT605		Enterprise Networking	
USIT606	Discipline Specific Elective (Any One)	IT Service Management	2
USIT607		Cyber Laws	
USIT6P1	Skill Enhancement Course Practical	Project Implementation	2
USIT6P2	Skill Enhancement Course Practical	Security in Computing Practical	2
USIT6P3	Skill Enhancement Course Practical	Business Intelligence Practical	2
USIT6P4	Discipline Specific Elective Practical (Any One)*	Principles of Geographic Information Systems Practical	2
USIT6P5		Enterprise Networking Practical	
USIT6P6	Skill Enhancement Course Practical	Advanced Mobile Programming	2
		Total Credits	**20**

*The choice of Practical course is based on the theory Course. For Semester V, USIT504, USIT505, USIT506 and USIT507, the practical courses are USIT5P4, USIT5P5 USIT5P6, USIT5P7. For Semester VI, USIT604, USIT605 the practical courses are USIT6P4, USIT6P5 respectively. Practical Course USIT6P6 is compulsory.

B.Com Programme
Under Choice Based Credit, Grading and Semester System
Course Structure

F.Y.B.Com

(To be implemented from Academic Year- 2016-2017)

No. of Courses	Semester I	Credits	No. of Courses	Semester II	Credits
1	Elective Courses (EC)		1	Elective Courses (EC)	
1A	Discipline Specific Elective(DSE) Courses		1A	Discipline Specific Elective(DSE) Courses	
1	Accountancy and Financial Management - I	03	1	Accountancy and Financial Management - II	03
1B	Discipline Related Elective(DRE) Courses		1B	Discipline Related Elective(DRE) Courses	
2	Commerce - I	03	2	Commerce - II	03
3	Business Economics - I	03	3	Business Economics - II	03
2	Ability Enhancement Courses (AEC)		2	Ability Enhancement Courses (AEC)	
2A	Ability Enhancement Compulsory Courses (AECC)		2A	Ability Enhancement Compulsory Courses (AECC)	
4	Business Communication - I	03	4	Business Communication II	03
5	Environmental Studies I	03	5	Environmental Studies II	03
2B	*Skill Enhancement Courses (SEC)		2B	**Skill Enhancement Courses (SEC)	
6	Any one course from the following list of the courses	02	6	Any one course from the following list of the courses	02
3	Core Courses (CC)		3	Core Courses (CC)	
7	Mathematical and Statistical Techniques - I	03	7	Mathematical and Statistical Techniques - II	03
	Total Credits	20		Total Credits	20

	*List of Skill Enhancement Courses (SEC) for Semester I (Any One)		**List of Skill Enhancement Courses (SEC) for Semester II (Any One)
1	Foundation Course - I	1	Foundation Course - II
2	Foundation Course in NSS - I	2	Foundation Course in NSS - II
3	Foundation Course in NCC - I	3	Foundation Course in NCC - II
4	Foundation Course in Physical Education - I	4	Foundation Course in Physical Education - II
Note: Course selected in Semester I will continue in Semester II			

Topics for Project Guidance: Growing Social Problems in India:

- *Substance abuse- impact on youth & challenges for the future*
- *HIV/AIDS- awareness, prevention, treatment and services*
- *Problems of the elderly- causes, implications and response*
- *Issue of child labour- magnitude, causes, effects and response*
- *Child abuse- effects and ways to prevent*
- *Trafficking of women- causes, effects and response*

Note:

Out of the 45 lectures allotted for 5 units for Semester I, about 15 lectures may be allotted for project guidance

B.Com. Programme
Under Choice Based Credit, Grading and Semester System
Course Structure

(To be implemented from Academic Year- 2016-2017)

Semester II

No. of Courses	Semester II	Credits
1	*Elective Courses (EC)*	
1A	*Discipline Specific Elective(DSE)Courses*	
1	Accountancy and Financial Management II	03
1B	*Discipline Related Elective(DRE)Courses*	
2	Commerce II	03
3	Business Economics II	03
2	*Ability Enhancement Courses (AEC)*	
2A	*Ability Enhancement Compulsory Courses (AECC)*	
4	Business Communication II	03
5	Environmental Studies II	03
2B	*""Skill Enhancement Courses (SEC)*	
6	Any one course from the following list of the courses	02
3	*Core Courses (CC)*	
7	Mathematical and Statistical Techniques II	03
	Total Credits	20

"List of Skill Enhancement Courses (SEC) for Semester II (Any One)	
1	Foundation Course - II
2	Foundation Course in NSS - II
3	Foundation Course in NCC - II
4	Foundation Course in Physical Education - II

B.Com. Programme
Under Choice Based Credit, Grading and Semester System
Course Structure

(To be implemented from Academic Year- 2017-2018)

Semester III

No. of Courses	Semester III	Credits
1	*Elective Courses (EC)*	
1A	*Discipline Specific Elective(DSE) Courses*	
1Aa	*Discipline Specific Elective(DSE) Courses*	
1	Accountancy and Financial Management III	03
1Ab	*Discipline Specific Elective(DSE) Courses*	
2	*Any one course from the following list of the courses	03
1B	*Discipline Related Elective(DRE) Courses*	
3	Commerce III	03
4	Business Economics III	03
2	*Ability Enhancement Courses (AEC)*	
2A	*Skill Enhancement Courses (SEC)* *Group A*	
5	*Any one course from the following list of the courses	03
2B	*Skill Enhancement Courses (SEC)* *Group B*	
6	Any one course from the following list of the courses	02
3	*Core Courses (CC)*	
7	Business Law I	03
	Total Credits	20

1Ab *List of Discipline Specific Elective (DSE) Courses for Semester III (Any One)	
1	Financial Accounting and Auditing - Introduction to Management Accounting
2	Business Management - Marketing Management
3	Banking & Finance- Introduction to Banking in India
4	Commerce- International Business Relations

*List of Skill Enhancement Courses (SEC) Group A for Semester III (Any One)	
1	Advertising I
2	Field Sales Management I
3	Public Relations I
4	Mass Communication I
5	Travel & Tourism Management Paper I
6	Journalism I
7	Company Secretarial Practice I
8	Rural Development I
9	Co-operation I
10	Mercantile Shipping I
11	Indian Economic Problem I
12	Computer Programming I
13	Logistic and Supply Chain Management I
14	Economic System I
Note: Course selected in Semester III will continue in Semester IV	

** List of Skill Enhancement Courses (SEC) Group B	
1	Foundation Course – Contemporary Issues- III
2	Foundation Course in NSS - III
3	Foundation Course in NCC - III
4	Foundation Course in Physical Education - III
Note: Course selected in Semester III will continue in Semester IV	

Projects / Assignments (for Internal Assessment)

i. Projects/Assignments should be drawn for the component on Internal Assessment from the topics in Module 1 to Module 4.

ii. Students should be given a list of possible topics - at least 3 from each Module at the beginning of the semester.

iii. The Project/Assignment can take the form of Street-Plays / Power-Point Presentations / Poster Exhibitions and similar other modes of presentation appropriate to the topic.

iv. Students can work in groups of not more than 8 per topic.

v. Students must submit a hard / soft copy of the Project / Assignment before appearing for the semester end examination.

B.Com. Programme
Under Choice Based Credit, Grading and Semester System
Course Structure

(To be implemented from Academic Year- 2017-2018)

Semester IV

No. of Courses	Semester IV	Credits
1	Elective Courses (EC)	
1A	Discipline Specific Elective(DSE) Courses	
1Aa	Discipline Specific Elective(DSE) Courses	
1	Accountancy and Financial Management IV	03
1Ab	Discipline Specific Elective(DSE) Courses	
2	*Any one course from the following list of the courses	03
1B	Discipline Related Elective(DRE) Courses	
3	Commerce IV	03
4	Business Economics IV	03
2	Ability Enhancement Courses (AEC)	
2A	*Skill Enhancement Courses (SEC) Group A	
5	*Any one course from the following list of the courses	03
2B	*Skill Enhancement Courses (SEC) Group B	
6	Any one course from the following list of the courses	02
3	Core Courses (CC)	
7	Business Law II	03
	Total Credits	20

1Ab *List of Discipline Specific Elective (DSE) Courses for Semester IV (Any One)	
1	Financial Accounting and Auditing - Auditing
2	Business Management- Marketing Management
3	Banking & Finance- Introduction to Banking in India
4	Commerce- International Business Relations

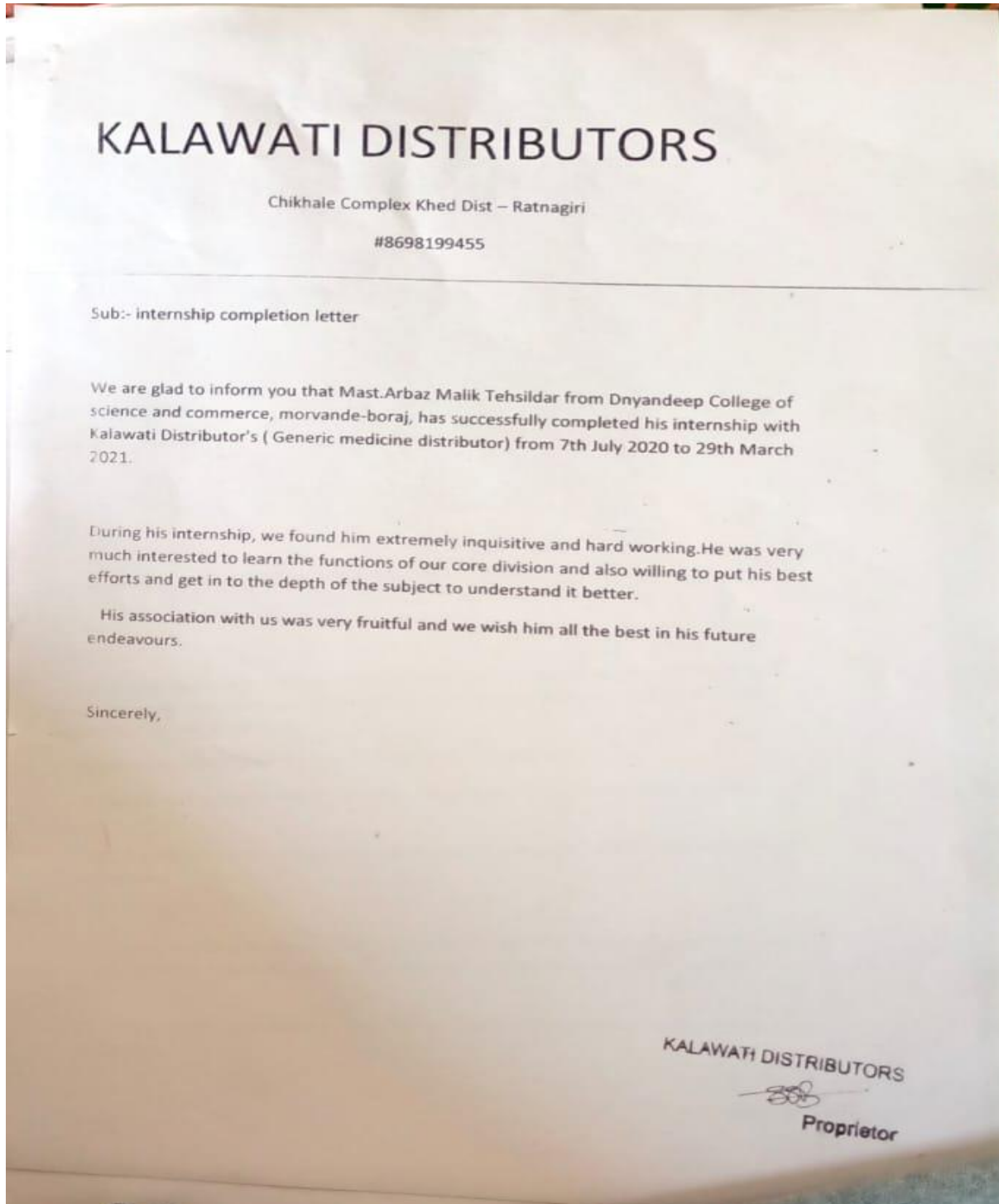| *List of Skill Enhancement Courses (SEC) Group A for Semester IV (Any One)*	
1	Advertising II
2	Field Sales Management II
3	Public Relations II
4	Mass Communication II
5	Travel & Tourism Management II
6	Journalism II
7	Company Secretarial Practice II
8	Rural Development II
9	Co-operation II
10	Mercantile Shipping II
11	Indian Economic Problem II
12	Computer Programming II
13	Logistic and Supply Chain Management I
14	Economic System II
Note: Course selected in Semester III will continue in Semester IV	

** List of Skill Enhancement Courses (SEC) Group B	
1	Foundation Course- Contemporary Issues - IV
2	Foundation Course in NSS - IV
3	Foundation Course in NCC - IV
4	Foundation Course in Physical Education - IV
Note: Course selected in Semester III will continue in Semester IV	

2. Internships during year

Sr. No.	Name of the Student	Class
1.	Arbaz Malik Tehsildar	S. Y. B. Com.

KALAWATI DISTRIBUTORS

Chikhale Complex Khed Dist – Ratnagiri

#8698199455

Sub:- internship completion letter

We are glad to inform you that Mast.Arbaz Malik Tehsildar from Dnyandeep College of science and commerce, morvande-boraj, has successfully completed his internship with Kalawati Distributor's (Generic medicine distributor) from 7th July 2020 to 29th March 2021.

During his internship, we found him extremely inquisitive and hard working.He was very much interested to learn the functions of our core division and also willing to put his best efforts and get in to the depth of the subject to understand it better.

His association with us was very fruitful and we wish him all the best in his future endeavours.

Sincerely,

KALAWATI DISTRIBUTORS

Proprietor

KALAWATI DISTRIBUTORS

Chikhale Complex Khed Dist – Ratnagiri

#8698199455
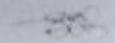
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Sincerely,

KALAWATI DISTRIBUTORS

Proprietor