



School of Planning and Architecture: Vijayawada

(An institution of National Importance under the Ministry of Human Resource Development, Govt. of India)
Survey No.4/4, ITI Road, Vijayawada-520008, Andhra Pradesh, India

Department of Architecture

Course: ARC 111 Basic Design -I
Instructors: Dr.Lilly Rose A, Dr.Srinivas D, Ar.Pushpendra Kumar, Mr. P. Santhosh Kumar
Contact Periods/ week: 10 periods.
Time Table:
Attendance: Min 75%
Class: I Yr B Arch I Sem A.Y. 2023-24
Internal Assessment: 50
External Theory Exam: 50
Total Marks: 100
Credits: 10
Min. Passing Marks: 50% each in Internal & External Assessment, 50% in Aggregate

Objective: To introduce to the students the fundamentals of design and development of design vocabulary, to nurture design thinking and to enable them to apply the same thought process in developing three-dimensional compositions. The studio also introduces drawings and models as tools for conceptualisation, organisation and furthering of design thought process. This studio teaches the students to learn the basics of graphic design and three-dimensional composition. The studio also has a direct interface with the Graphic Design Studio and Architectural Workshop.

Outcomes: Students finishing this course will be able to:

1. Understand the qualities of different elements as well as their composite fusions.
2. Engage and combine the elements of design in spontaneous as well as intentional ways in order to create desired qualities and effects.
3. Develop the required skills – observation / analysis / abstractions / interpretation / representations / expressions through models and drawings.
4. Understand form by making.

LECTURE PLAN

WEEK	DATE	TOPIC OF CLASS LECTURE & DISCUSSION	TOPIC OF STUDIO WORK& ASSIGNMENTS / REMARKS
1	Week-1 Date	Orientation Programme & Introduction (Day-1) Collage developed on the basis of a "CONCEPT". (Day-2) Concept shall be selected from a list of concepts which are given to students earlier. Collage is a technique of an art production, primarily used in the visual arts, where the artwork is made from an assemblage of different forms, thus creating a new whole. Introduction to Architectural Design	Lecture/studio
2	Week-2 Date	Useful from Useless – Designing and making a model of useful object/product from useless (waste) similar to the concept of Socially useful product work (SUPW)	Lecture/studio
3	Week-3 Date	Introduction to Elements of design, Presentation and group discussion	Lecture/studio
4	Week-4 Date	Work Shop -1	Lecture/studio

5	Week-5 Date	Objective: To learn about the "GRID" as an important tool in organizing architectural spaces. Assignment: On the given Grid, the students are required to work, develop patterns in pencil, black and white and colour on A4 size sheets. Three dimensional output of one interesting part of the grid is expected in the final module. The students are expected to design a folder for storing their own sheets, comfortable for the sheets to be safeguarded and presentable.	Lecture/studio
6	Week-6 Date	Elements and Principles of design – PresentationIntroduction to group work on principles and elements of design, Selection of a building in their home town and a building of their choice and present the understanding of elements and principles of design.	Lecture/studio
7	Week-7 Date	Opposite words: Translation of selected opposite words in to graphical representation from two dimensional (black & white, colour) and to three dimensional modelling. (Day-2)	Lecture/studio
8	Week-8 Date	Workshop -2	Lecture/studio
9	Week-9 Date	Introduction to Anthropometry , exercises related to anthropometry to understand the basic concepts of anthropometry	Lecture/studio
10	Week-10 Date	Colour Wheel and Compositions: <i>Colour is one of the elements of Visual Art. Colours and textures enhance our visual experience-not only because of their obvious embellishment value, but also because of their spatio-plastic behaviour. They are known to effect human psyche. Colours and textures must also be matched well, with each other, and for maximum visual impact, with the form that they would together embellish.</i>	Lecture/studio
11	Week-11 Date	Colour Wheel and Compositions: cont.	Lecture/studio

12	Week-12 Date	Opposite words: Translation of selected opposite words in to graphical representation from two dimensional (black & white, colour) and to three dimensional modelling. (cont.) (Day-1) Workshp - 3 (Origamy) Day -2	Lecture/studio
11	Week-13 Date	<i>Line</i> as component of design-working on a hardboard platform, using threads/wool etc., to visual 3Dimensional.	Lecture/studio
12	Week-14 Date	<i>Design and presentation of models based on enclosed spaces (4 models)</i> Objective: <i>Design and Materials</i> <i>Architectural composition depends on the designer's selection of appropriate materials in order to express certain design ideas.</i> <i>Linear form, organic, sculptural, traditional, hi-tech, etc are some of these expressions that can be explained by the use of different materials.</i>	Lecture/studio
13	Week-15 Date	<i>Case study of existing projects</i> <i>Bus shelter, saloon, hawkers etc.</i>	Lecture/studio

S. No.	Stages of Evaluation	Weightage
1	First stage: Assessment –1	50
2	Second stage: Mid-semester Examination	
3	Third stage: Assessment –3	
	Total	50

References:

1. Broadbent, G. (1973). Design in Architecture - Architecture and Human Science. New York John Wiley and Sons.
2. Chauhan, P. (2005). Learning Basic Design. Mumbai : Rizvi College of Architecture.
3. Ching, F. D. K. (1997). Design Drawing. Hoboken : John Wiley & Sons.
4. Ching, F. D. K. (2012). Architecture: Form, Space and Order. 3rd Ed. Hoboken: John Wiley & Sons.
5. Roger, K. L. (1998). Architect? A Candid Guide to the Profession. Cambridge : The MIT Press.
6. Rasmussen, S. (1962). Experiencing Architecture. 2nd Rev. Ed. Cambridge : MIT Press.

Course Instructors: Dr.Lilly Rose A, Dr.Srinivas D, Ar.Pushendra Kumar, Mr. P. Santhosh Kumar

Head of Department :

**SCHOOL OF PLANNING AND ARCHITECTURE, VIJAYAWADA
(LECTURE PLAN)**

Subject: **Building Materials and Construction I (ARC112)**

Class: BMC, I Semester

Faculty: Ar. Deepak, Ar. Sneha Dept: Architecture
Reddy, Ar. Manali Basu
(Scholar), Ar. Tanaya Paul
(Scholar)

Number of Hours:05

Internal Marks: 50

External Marks: 50

Total Marks: 100

Objectives:

- To understand fundamental building material in the context of various construction methods. Focus on various building materials would be emphasized based on the performing standards and codes, wherein application of each material would be discussed in detail, both in the context of historical and contemporary methodology. With time, each topic can also focus on latest trends in practice and usage of new technology/materials.
- Each material would be taught in a manner such that its application would be discussed in a sequential manner, starting from foundation level, followed by plinth & others (sill, lintel, sunshades, window/door openings, walling material, as a floor & flooring) and culminating at roof and parapet wall.

S.NO	DATE	TOPIC OF CLASS LECTURE & DISCUSSION	REMARKS
1	Week 1	Introduction to fundamental components of a building	Lecture
2	Week 2	Introduction to building construction, building components i. Foundation ii. Plinth iii. Wall iv. Sill and lintel levels v. Roof vi. Doors, windows and ventilators vii. Staircases viii. Sunshades	Lecture
3	Week 3	Introduction to first assignment	Lecture
4	Week 4	Source of the material, classification, tests and various grades available and their uses, physical and chemical properties.	Lecture
5	Week 5	Introduction to ferrous and non-ferrous metals-their properties, types and application in building components.	Lecture
6	Week 6	Composition of glass, brief study on manufacture, properties, treatment, and uses of glass. Types of glass.	Lecture
7	Week 7	First Assignment presentation and Submission	Lecture
8	Week 8	MID -TERM Assessment	
9	Week 9	Types of timber, defects, seasoning and preservation of timber. Ecological impact due to use of wood, deforestation etc. Study of engineered wood used in buildings, i.e., plywood, block boards, particleboards, and other types.	Lecture

10	Week 10	Application of timber in building components with Joinery details. Terms defined; mitring, ploughing, grooving, rebating, veneering. Types of joints in wood work: lengthening joints, bearing joints, halving, dovetailing, housing, notching, tusk and tenon etc.	Lecture
11	Week 11	Dussehra Holiday	
12	Week 12	Timber Joints workshop	Workshop
13	Week 13	Manufacturing process, physical and chemical properties, classification of cast-in situ and precast systems. Foundation, column & beam structure, lintels, sunshades, floor and roof slabs in concrete, granolithic flooring, CC blocks (solid & hollow), fly ash bricks as a walling material, cement bonded particle boards.	Lecture
14	Week 14	Different grades, composition, preparation and properties of cement mortar. Introduction to assignment: Market Survey	Lecture & Survey
15	Week 15	Market Survey submission	Lecture
16	Week 16	Use and selection of mortar for different construction works.	Lecture

Tentative Break-up of Internal Assessment

S. No.	Evaluation	Marks	Note
1	Internal test/ Presentation	15	1. Marks allotted at each stage is tentative 2. New stages or categories of evaluation may be included if and when the need arises
2	Mid Term Assessment	15	
3	Internal test/ Presentation	20	

Reference Books

1. Barry, R. (1999). The Construction of Buildings Vol. 2. 5thEd. New Delhi: East-West Press.
2. Foster, J. and Mitchell, S. (1963). Building Construction: Elementary and Advanced, 17thEd. London: B.T. Batsford Ltd.
3. Hailey and Hancork, D. W. (1979). Brick Work and Associated Studies Vol. II. London: MacMillan.
4. McKay, W. B. (2005). Building Construction Metric Vol., I-IV. 4thEd. Mumbai: Orient Longman.
5. Moxley, R. (1961). Mitchell's Elementary Building Construction. London: B. T. Batsford.
6. Rangwala, S. C. (1963). Building Construction: Materials and types of Construction. 3rdEd. New York: John Wiley and Sons.
7. Chudley, R. (2008). Building Construction Handbook. 7thEd. London: Butterworth- Heinemann.
8. Sushil-Kumar, T. B. (2003). Building Construction. 19thEd. Delhi: Standard Publishers.

Course Instructors:

Sd/-
(Ar. Deepak / Ar. Sneha Reddy/
Ar. Manali Basu / Ar. Tanaya Paul)

Head of the Department

Sd/-
(Dr. Uma Sankar Basina)



Department of Architecture

Course: ARC113 Architectural Drawing and Graphics I

Instructor: Santhosh Kumar Pedagadi, Dr. Banu Chitra M, Dr. Faiz Ahmed & AF/VF

Class: I Yr B.Arch I Sem AY -23-24

Internal Assessment: 50

External Theory Exam: 50

Total Marks: 100

Credits: 3

Contact Periods/ week: 03 periods

Time Table: Wednesday (Section A & B)

Attendance: Min 75% **Min. Passing Marks:** 50% each in Internal & External Assessment, 50% in Aggregate

Objective:

- 1 Introducing students to fundamental techniques of architectural drawings and to equip with the basic principles of representation.
- 2 Enhancing the skills in developing a graphical language of architecture and model making.

Outcome of the Course:

Students completing this course will be able to:

1. Use drawing as a medium of communication using different skills, such as pencil drawing, coloring, physical model making, technical drawings basics, architectural font and letter styles.

LECTURE PLAN

WEEK	DATE	TOPIC OF CLASS LECTURE & DISCUSSION	Remarks
1	23-08-2023	Unit I Learning Sketching, Drawing, and visual thinking Free-hand drawings; indoor & outdoor sketching; drawing from observation; terminology & abbreviations used in architectural drawings; Sheet layouts; line & shape	Lecture/Demonstration
2	30-08-2023	Unit I Learning Sketching, Drawing, and visual thinking sketching, drawing from observation, terminology & abbreviations used in visual representation, Sheet layouts, line & shape, tone & texture, figure & ground, Color & value, lettering & art lettering, dimensioning, shading, symbols & scale.	Lecture/Demonstration/Visit to Art Lab
3	06-09-2023	Unit I Learning Sketching, Drawing, and visual thinking Free-hand drawings; indoor & outdoor sketching; drawing from observation; terminology & abbreviations used in architectural drawings; Sheet layouts; line & shape; tone & texture; figureground; Colour & value; lettering & art lettering; dimensioning; shading; symbols & scale; Representation technique in plan, elevation and section; Representation of trees, hedges, foliage, human figures, cars, symbols; exposure to various mediums of presentation.	Lecture/Demonstration
4	13-09-2023	Architectural Sketching - Workshop	1. Workshop ~ Invited Expert
5	20-09-2023	Architectural Fonts and Typography - Workshop	2. Workshop ~ Invited Expert
6	27-09-2023	Unit II Need for Architectural Models Role of scale-models in design; General practices in model making; Types of models; block, detailed, construction & interior models; Various materials and tools to be used in model making; Use of materials, viz. paper, mount board, cardboard in architectural models; Use of materials viz. Clay, Plaster of Paris (POP) in architectural models; Simple exercises in cutting, finishing and joinery with simple blocks, composition of basic geometrical forms etc	Lecture/Demonstration
7	04-10-2023	Architectural Physical Models - Workshop	3. Workshop ~ Invited Expert

8	11-10-2023	Unit III Development of Surfaces Models Methods of surface development by Parallel-line, Radial-line, Triangulation methods, approximate methods, development of lateral surfaces of right solids, viz.	Lecture/Demonstration/Visit to Material Museum & Lab
9	18-10-2023	Unit IV Geometric Drawings and Projections Construction of lines, angles, Constructions of planes- circles, tangent, curves, conic, sections and regular polygons. Introduction to projection; methods of orthographic projection; Projection of Points, lines, planes and solids; Section of solids such as prisms, pyramids, cylinders, cones and spheres etc., Development of surfaces of solids. Intersection of surfaces.	Lecture/Demonstration
10	25-10-2023	Unit IV Geometric Drawings and Projections Construction of lines, angles, Constructions of planes- circles, tangent, curves, conic, sections and regular polygons. Introduction to projection; methods of orthographic projection; Projection of Points, lines, planes and solids; Section of solids such as prisms, pyramids, cylinders, cones and spheres etc., Development of surfaces of solids. Intersection of surfaces.	Lecture/Demonstration
11	01-11-2023	Unit V Isometric and Axonometric Views Introduction to views, types and advantages. Isometric, Axonometric and Oblique view of objects; building components and Interior of the room.	Lecture/Demonstration
12	08-11-2023	Architecture and Technical Detailing - Workshop	4. Workshop ~ Invited Expert
13	15-11-2023	Unit V Isometric and Axonometric Views Introduction to views, types and advantages. Isometric, Axonometric and Oblique view of objects; building components and Interior of the room.	Lecture/Demonstration
14	22-11-2023	Review of submissions and documentation	Students Presentaiton
15	29-11-2023	Review of submissions and documentation	Students Presentaiton

S. No.	Stages of Evaluation	Weightage
1	First stage: Assessment –1	15
2	Second stage: Mid-semester Examination	20
3	Third stage: Assessment –3	15
	Total	50

References:

1. Ching, F. D. K. (2011). A Visual Dictionary of Architecture. 2nd Ed. John Wiley & Sons. 2.
- Martin, L. C. (1970). Architectural Graphics. 2nd Ed. Macmillan Pub Co. 3.
- Morris, I. H. (1902). Geometrical Drawing for Art Students. Longmans.
4. Lockard, W. K. (1992). Drawing as a Means to Architecture. 6th Ed. New York : Van Nostrand Reinhold Company.
5. Zell, Mo. (2008). The Architectural Drawing Course. 1st Ed. Thames and Hudson.

Course Instructors:

sd/-

Head of Department:

sd/-



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S.No. 71/1, NH-5, Nidamanuru, Vijayawada – 521 104, Andhra Pradesh, India

Department of Architecture

Course: **ARC115 - Theory of Architecture**

Class: **I Semester B.Arch, 2023-24 A.Y**

Instructor: **Dr. RNS Murthy**

Contact Periods/week: **03 Lecture of 55 min. each**

Timetable: **21 Aug 2023 onwards**

Internal Assessment Marks: **50**, External Assessment (Theory Examination): **50** Total Marks: **100**

Min Attendance: **75%** Minimum Passing Marks: **40% each in Internal & External Assessment, 50% in Aggregate**

Theory of Architecture - Course Objective

To create a deep understanding about Architecture and Design from a theoretical perspective.

To develop a strong design vocabulary, how and by what means to communicate their design and to understand the philosophy and the undercurrents of the design process. It also provides the student of architecture a foundation in the conception of forms, spatial aspects, compositions and their analysis in buildings.

TEACHING PLAN

S.N O	WEEK	TOPIC	REMARKS
1	Week –I 22/8/23	<ul style="list-style-type: none">General Introduction to the subject.Discussion of course objectives, Architectural style/s	Lecture/ PPT
2	Week –II 29/8/23	<ul style="list-style-type: none">Architecture, an overview of elementsForm, Structure	Lecture/ PPT
3	Week –III 5/9/23	<ul style="list-style-type: none">Architecture, an overview of elementsForm, Structure	Lecture/ PPT
4	Week –IV 12/9/23	<ul style="list-style-type: none">Architectural Design, an overview of PrinciplesPrinciples of Design	Lecture/ PPT
5	Week –V 19/9/23	<ul style="list-style-type: none">Architectural Design, an overview of PrinciplesPrinciples of Design	Lecture/ PPT
6	Week –VI 26/9/23	<ul style="list-style-type: none">Architectural Design, an overview of PrinciplesPrinciples of Design	Lecture/ PPT

S.N O	WEEK	TOPIC	REMARKS
7	Week –VII 3/10/23	<ul style="list-style-type: none"> • Mid Semester Assessment 	
8	Week –VII 10/10/23	<ul style="list-style-type: none"> • Architectural Design, an overview of Express & Experience in Architecture <p>Elements, People, Place etc</p>	Lecture/ PPT
9	Week –IX 17/10/23	<ul style="list-style-type: none"> • Architectural Design, an overview of Express & Experience in Architecture <p>Elements, People, Place etc</p>	Lecture/ PPT
10	Week –X 24/10/23	<ul style="list-style-type: none"> • Dussera Vacation 	
11	Week –XI 31/10/23	<ul style="list-style-type: none"> • Architectural Design, an overview of Design Philosophies and Strategies <p>Lateral & Vertical thinking, creative thinking etc</p>	Lecture/ PPT
12	Week –XII 7/11/23	<ul style="list-style-type: none"> • Architectural Design, an overview of Design, Philosophies and Strategies <p>Lateral & Vertical thinking, creative thinking etc</p>	Lecture/ PPT
13	Week –XIII 14/11/23	<ul style="list-style-type: none"> • Architectural Design, an overview of Concepts • Concept development based on traditional, historical and vernacular characteristics etc 	Lecture/ PPT
14	Week –XIV 21/11/23	<ul style="list-style-type: none"> • Architectural Design, an overview of Concepts • Concept development based on traditional, historical and vernacular characteristics etc 	Lecture/ PPT

Break-up of Internal Assessment Marks

S. No.	Stages of Evaluation	Weightage
1	Assessment – I Study on Architectural elements	15
2	Assessment – II Architectural Principles	20
3	Assessment – III Architects works – Concepts – Forms - Function	15
	Total	50

- **Submission of all three assignments is a must.**

References:

1. Francis D.K. Ching, "Architecture-Form, Space and Order", Van Nostrand Reinhold Company, New York, 2007.
2. Roger H. Clark, Michael sPause, Precedents In Architecture, Van Nostrand Reinhold Company , 1996
3. Leland M.Roth, "Understanding Architecture: Its Experience History and Meaning", Craftsman house, 1994.
4. Peter von Meiss, "Elements of architecture – from form to place", Spon Press 1977.
5. Rudolf Arnheim, "The dynamics of architectural form", University of California Press, 1977
6. NeilsPrak, "The language of Architecture", Mounton& Co., 1968.
7. Paul Alan Johnson, "The Theory of Architecture – Concepts and themes", Van Nostrand Reinhold Co., New York, 1994.
8. Helen Marie Evans and Carla David Dunneshil, "An invitation to design", Macmillan Publishing Co. Inc., New York, 1982.
9. Lefebvre, H. "The production of space". Oxford:Cambridge, 1991
10. Pallasmaa, J. Theeyesoftheskin:Architectureandthesenses. Chichester:Wiley- Academy, 2005
11. V.S.Pramar, Design Fundamentals in Architecture, Somaiya Publications, New Delhi, 1973
12. Tschumi, B. Architecture and disjunction. Cambridge, Massachusetts :MIT, 1994
13. Smith, K. H. Introducing architectural theory: Debating a discipline. New York : Routledge, 2012
14. Schulz, N. C. The Phenomenon of Place. In :Larice, M. and Macdonald, E. (Ed.). The Urban Design Reader (pp. 125–137).Routledge, 2007
15. Geoffrey Broadbent - Design in Architecture - Architecture and the human sciences - John Wiley & Sons, New York, 1981
16. Nigel Cross - Developments in Design Methodology, John Wiley & Sons, 1984.

Sd/-
(Dr. RNS Murthy)
Course Instructor

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(Dr. Umashanker Basina)



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Department of Architecture

Course: ARC116 - Design communication

Instructors: Pushpentdra Kumar, Santosh Kumar Pedagadi

Class: 1st Yr B. Arch I Sem A.Y. 2023-24

Internal Assessment: 50

External Theory Exam: 50

Total Marks: 100

Credits: 3

Contact Periods/ week: 03 periods.(55 min each)

Time Table: Friday (9:00- 11:45AM)Total: 45 Periods

Attendance: Min 75%

Min. Passing Marks: 40% each in Internal & External Assessment, 40% in Aggregate

Objective: To equip the students with good spoken and written skills in English, awareness and skills about various intellectual gatherings, business presentations, advertising and using digital tools for better communication.

Out Line of the Course: Using creative skill for multipurpose to communicate through Art works, Digital works, Exploring ideas in various platform.

LECTURE PLAN

WEEK	TOPIC OF CLASS LECTURE & DISCUSSION	TOPIC OF STUDIO WORK& ASSIGNMENTS / REMARKS
1	Unit I: Introduction to types of communication.	Lecture
2	Methods, use & application of communication- Verbal, nonverbal, written and visual. Developing group discussions and elocution skills on communication.	Lecture/Exercise
3	Unit II: Introduction with Academic writing & referencing, avoiding Plagiarism. Academic writing , A general term for any academic essay, report, presentation or article.	Lecture
4	Academic writing , A general term for any academic essay, report, presentation or article	Lecture/Exercise
5	Unit III: Communication Techniques- Business presentations, Illustration techniques- Manually. Preparing flow charts, tables & diagrams, Books and magazines, film and television posteretc, reprographic techniques.	Internal Assessment -1
6	Preparing flow charts, tables & diagrams, Books and magazines, film and television posteretc., reprographic techniques.	Lecture/Exercise
7	Unit IV: Advertising - Typography, artwork, Multimedia/ Mixed media	Lecture/Exercise
8	2D digital graphic design techniques, 3D digital modeling techniques, Packaging design.	Lecture/Exercise
9	Print Making-photo screen-printing and etching, scanning and laser printing.	Lecture/Exercise
10	Print Making-photo screen-printing and etching, scanning and laser printing. Review and Marking	Lecture/Exercise

11	Unit V: Creating graphics using digital tools. Advanced business presentations, Multi-media presentation.	Lecture/Exercise
12	Audio-visual projection and Computer based presentations.	Mid-semester examination
11	Creating graphics using digital tools. Advanced business presentations, Multi-media presentation, Audio-visual projection and Computer based presentations.	Lecture/Exercise
12	Movie making - Flash movies, animation graphics, and walkthroughs	Lecture/Exercise
13	Mural Introduction, Techniques, Material Exploration and Designing	Lecture/Exercise
14	Mural Concept Development, review, Discussion, Application, Prototyping and Implementation	Lecture/Exercise
15	Final Review for Murals, Stop Motion, Presentation TechniQUES and hands on work	Internal Assessment -3
16	Marking , Review and Discussion , Presentation	Overall discussion

S. No.	Stages of Evaluation	Weightage
1	First stage: Assessment –1	15
2	Second stage: Mid-semester Marking	20
3	Third stage: Assessment –3	15
	Total	50

Reference Books:

1. Adrian, D. and Christopher J. (2000). Language in Use – Upper intermediate. Self–study Workbook and Classroom Book. Cambridge : Cambridge University Press.
2. Dinsmore, G. A. (1968). Analytical Graphics. Canada : D. Van Nostrand, Company Inc.
3. Edward, J. F. and Lee, J. (2000). Feature Writing for Newspapers and Magazines. 4th Ed. Longman.
4. Freeman, S. (1978). Written Communication. New Delhi : Orient Longman.

Course Instructors: Santhosh Kumar Pedagadi/ PushPendra Kumar
sd/-

Head of Department :
sd/-