

SCHEME OF EXAMINATION

And

SYLLABI

for

Bridge Course (Applied Arts)
Level IV Skill Component

Offered by

University School of Architecture and Planning

1st SEMESTER to 2nd SEMESTER



**GURU GOBIND SINGH
INDRAPRASTHA
UNIVERSITY**

Guru Gobind Singh Indraprastha University
Dwarka, Delhi – 110078 [INDIA]

www.ipu.ac.in

NOMENCLATURE OF CODES GIVEN IN THE SCHEME OF B.VOC

1. **ET** stands for Engineering and Technology.
2. **AP** stands for Architecture and Planning
3. **V** stands for Vocation.
4. **MC** stands for Mobile Communication.
5. **SD** stands for Software Development.
6. **AE** stands for Automobile.
7. **CE** stands for Consumer Electronics.
8. **PT** stands for Printing Technology.
9. **CT** stands for Construction Technology.
10. **RA** stands for Refrigeration & Air-Conditioning.
11. **PD** stands for Power Distribution Management.
12. **ID** stands for Interior Design.
13. **AA** stands for Applied Arts.
14. **CS** stands for Computer Science.
15. **MS** stands for Management Studies.
16. **EN** stands for Environmental Engineering
17. **PH** stands for Physics
18. **AS** stands for Applied Science.
19. **HS** stands for Humanities and Social Sciences.
20. **SS** stands for Social Services.
21. **L/T** stands for Lecture and Tutorial
22. **P** stands for Practical.
23. **S/D** stands for Drawing/Studio
24. **P/D** stands for Practical/Drawing

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TITLE OF THE PROGRAMME
BACHELORS OF VOCATION IN APPLIED ARTS

Preamble:

The undergraduate Technical Program-B.Voc is a 3 year program that is based on the National Skills Qualification Framework (NSQF-levels 5, 6 and 7). Consequently this program is designed to be industry focused, with exit and entry points each year and aims to prepare its graduates for skill-based careers in the creative industries.

The subject introduces the student to art intended to communicate information and advertising. The focus is on studying and using layout and design concepts used in the graphic design field. The student will employ both analog media(drawing with pencil and paper etc.) and digital media-using up-to-date Computer tools(graphic hardware and software) for drawing, painting, layout, typography, printing, scanning editing and photography. Design is the process of selection where visual elements such as point, line shape, volume, tone, texture, color, form format, space and structure are used by students to express their ideas. Visual sensitivity and working knowledge of design elements would be developed by solving a series of problems and employing a variety of media and materials. The curriculum aims at enabling the students to develop skills and sensitivity towards the use of visual elements for an effective visual communication.

Applied Art course has great potential in providing creative solutions to communication of print and digital media such as books, magazines and newspaper, known as pictographic depictions. It can be applied in typography, logo, brochure, packaging, poster , press layout ,designing for web etc. Since the advent of personal computers and design software, graphic design is being utilized in electronic media which has unlimited applications in advertising. The students can become graphic designers working in print and digital production, work as freelance artist or also as skilled artisans who conceptualize their craft and want to be an entrepreneur. The curriculum helps in building a strong foundation as career through case studies, hands-on exercises that will make students self-sufficient and it will enable them to get job according to the opportunities available as per need of artistic ambivalence.

OPPORTUNITIES

The course provides opportunities to master the skills and crafts required by an applied artist such as

1. Graphic designer
2. Illustrator
3. Photographer
4. Craft technician
5. Print maker

SKILL SET		
Level 5	Level 6	Level 7
<p>Familiarity with skill or craft techniques.</p> <p>Basic knowledge of the elements of design and working knowledge of typography, drawing and perspective.</p>	<p>Familiarity with multiple crafts and brand identity. Application of design knowledge in digital and print media.</p>	<p>Ability to conceptualize and execute a creative brief.</p> <p>Manipulation of images with technical expertise in digital and print media.</p>

EMPLOYMENT OPPORTUNITIES:		
Level 5	Level 6	Level 7
<p>Entry level in the desktop publishing house.</p> <p>Ability to work as an assistant in a studio.</p> <p>Ability to handle small art based projects done in the schools.</p>	<p>Junior artist in the department of publishing house.</p> <p>As an entrepreneur one can create artefacts and can sell them.</p>	<p>Assistant designer in a design studio or an advertising/publication firm.</p> <p>Event management (creative entrepreneurs / hobby art classes).</p> <p>Ability to teach up to level 4 of NSQF</p>

CAPABILITIES

1. Have a professional portfolio of hand done and digital work.
2. Have technical knowledge in print production and digital applications at current industry standard.
3. Develop thinking and making skills to become more introspective, observant, playful artist /designers.
4. Understand how to adapt/implement composition, words, images to many 2-D contexts including basic knowledge in photography, printmaking, package and graphic design.
5. Be familiar with a wide range of graphic applications-books, newspapers, websites etc.
6. Gain experience using professional modes of communication-written, verbal, and presentation.

**BACHELOR OF VOCATION
APPLIED ARTS
BRIDGE COURSE FOR STUDENTS (10+2)/ITI
(FIRST SEMESTER EXAMINATION)**

Paper Code	Paper ID	Paper	L	Studio	P	Credits
APVAA-401		Drawing and Study of Objects	1	2	0	3
APVAA-403		Methods and Material-I	1	2	0	3
APVAA-405		Vocation Workshop-I	0	3	0	3
APVAA-407		Visits/Project-I	0	3	0	3
TOTAL			02	10	0	12

APVAA-405.Vocation Workshop-I: - Crafts Workshop.

- The Students will prepare& submit two projects during the workshop for internal assessment.
- The final evaluation of the projects will be done by the External examiner.

APVAA-407 Students will be taken for visits / film shows to:-

- National Museum Janpath, New Delhi.
- National Handicrafts Bhairon Marg Pragati Maidan New Delhi.
- National Gallery of Modern Art, Jaipur House, New Delhi.
- Students will do sketches in the museum and submit a report based on the visit to any one of the above places for internal assessment.
- The final evaluation of the projects will be done by the External examiner.

No. of hours: 12 x 15 =180 and Total hours of study in Bridge Course: 180 + 180 = 360

Note: The students are advised to mandatorily complete the bridge course alongwith LEVEL-V regular course. The credits earned are of qualifying nature and should be completed within four semesters (2 years) for obtaining Diploma/Advanced Diploma/ B.Voc Degree, as a pre-requisite. A certificate to this affect shall be issued by the Principal/Director of affiliated Institutes to be submitted to COE. NSQF LEVEL-IV certification may be done through the respective agencies involved.

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**BACHELOR OF VOCATION
APPLIED ARTS
BRIDGE COURSE FOR STUDENTS (10+2)/ITI
(SECOND SEMESTER EXAMINATION)**

Paper Code	Paper ID	Paper	L	Studio	P	Credits
APVAA-402		Sketching	1	2	0	3
APVAA-404		Methods and Material-II	1	2	0	3
APVAA-406		Vocation Workshop-II	0	3	0	3
APVAA-408		Visits/Projects-II	0	3	0	3
TOTAL			02	10	0	12

APVAA-406 Vocation Workshop-II:- Crafts Workshop.

- The Students will prepare & submit two projects during the workshop for internal assessment.
- The final evaluation of the projects will be done by the External examiner.

APVAA-408 Students will be taken for visits / film shows to:-

- National Museum Janpath, New Delhi.
- National Handicrafts Bhairon Marg Pragati Maidan New Delhi.
- National Gallery of Modern Art, Jaipur House, New Delhi.
- Students will do sketches in the museum and submit a report based on the visit to any one of the above places for internal assessment.
- The final evaluation of the projects will be done by the External examiner.

No. of hours: 12 x 15 = 180 and Total hours of study in Bridge Course: 180 + 180 = 360

Note: The students are advised to mandatorily complete the bridge course along with LEVEL-V regular course. The credits earned are of qualifying nature and should be completed within four semesters (2 years) for obtaining Diploma/Advanced Diploma/ B.Voc Degree, as a pre-requisite. A certificate to this effect shall be issued by the Principal/Director of affiliated Institutes to be submitted to COE. NSQF LEVEL-IV certification may be done through the respective agencies involved.

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DRAWING AND STUDY OF OBJECTS**Paper Code: APVAA-401****Paper: Drawing and Study of Objects**

L	Studio	P	C
1	2	0	3

Instructions: Practical (Time 3 Hrs.) Instructions will be given by the External examiner.

Objectives & Pre-requisites: Drawing exercise from objects to learn correct proportion, shape, form, perspective, and values.

Outcomes & Deliverables: Develop an understanding of the tools as applied to traditional drawing. Identify and draw the structure of basic forms: sphere, cube, cylinder and cone.

UNIT-I

- Understanding of parallel and angular perspective, vanishing point.
- Understanding the eye level.
- Observing the form of the object such as sphere, cube, cylinder and cone drawing, in simple outlines. (4 Exercises)

UNIT-II

- Drawing of objects in pencil line anatomy, structure and proportions in relation to its surrounding.
- Understanding source of light.
- Drawings of objects with light and shade with pencil. (4 Exercises)

NOTE: All the assignments will be marked for internal assessment.

Reference Book(s):

- [R1] Pencil Drawing Techniques by David Lewis Watson-Guption Publication NY.
 [R2] Drawing 1. Learn to draw step by Step by William F Powell Walter Foster USA
 [R3] Drawing 2. Learn to draw step by Step by William F Powell Walter Foster USA

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METHODS AND MATERIAL-I**Paper Code: APVAA-403****Paper: Methods and Material-I**

L	Studio	P	C
1	2	0	3

Instructions: Practical (Time 3 Hrs.) Instructions will be given by the External examiner.

Objectives & Pre-requisites: To develop skills in drawing using tools.

Outcomes & Deliverables: Students should be able to use the tools for preparation of art works.

UNIT-I

- Use of drawing Board T-Scale and Sets Square.
- Drawing of Horizontal, Vertical and diagonal lines with Pencil.
- Creating patterns with the application of these lines.
(2 Exercises)

UNIT-II

- Use of Instrument Box.
- Drawing of Circles of different sizes with the help of compass in pencil.
- Creating patterns with the application of Circles in pencil.
(2 Exercises)

UNIT-III

- Drawing of Circles of different sizes with the help of compass with ink.
- Creating patterns with the application of Circles with ink.
(2 Exercises)

UNIT-IV

- Drawing of Circles and lines of different sizes with the help of liner and compass with colour.
- Creating patterns with the application of Circles with colour.
(2 Exercises)

NOTE:-All the assignments will be marked for internal assessment.

Reference:

- [R1] Pencil Drawing Techniques by David Lewis Watson-Guption Publication NY.
 [R2] Drawing 1. Learn to draw step by Step by William F Powell Walter Foster USA
 [R3] Drawing 2. Learn to draw step by Step by William F Powell Walter Foster USA

SKETCHING**Paper Code: APVAA-402****Paper: Sketching**

L	Studio	P	C
1	2	0	3

Instructions: Practical (Time 3 Hrs.) Instructions will be given by the External examiner.

Objectives & Pre-requisites: Develop an understanding of the tools and techniques used in traditional drawing.

Outcomes & Deliverables: Students learn skills, they can draw anything with them can observe.

UNIT-I

- Introduction to sketching, handling of pencil, understanding grades of pencils.
- Textures of pencils on news print paper and drawing sheets..
- Identifying simple subjects for sketching in the class/ home with pencil.
(Submission of 20 sketches)

UNIT-II

- Importance and use of a viewfinder in outdoor sketching.
- Identifying the subject with help of a viewfinder.
- Method to measure and compare length and proportion by sighting.
- Simple outdoor sketches with pencil.
(Submission of 20 sketches)

NOTE:-All the assignments will be marked for internal assessment.

Reference:

- [R1] Pencil Drawing Techniques by David Lewis Watson-Guption Publication NY.
 [R2] Drawing 1.Learn to draw step by Step by William F Powell Walter Foster USA
 [R3] Drawing 2.Learn to draw step by Step by William F Powell Walter Foster USA

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METHODS AND MATERIAL-II**Paper Code: APVAA-404****Paper: Methods and Material-II**

L	Studio	P	C
1	2	0	3

Instructions: Practical (Time 3 Hrs.) Instructions will be given by the External examiner.

Objectives & Pre-requisites: Develop an understanding of the tools and techniques.

Outcomes & Deliverables: Students learn skills and application of tools and variety of papers commonly used.

UNIT-I

- Introduction to painting brushes Synthetic /Hog hair/Round/Flat brushes of different sizes.
- Introduction to water based colours and their application with the help of brush.
- Freehand exercises using different strokes.
(4 Exercises)

UNIT-II

- Handling and using of Instrument Box
- Drawing of circles of different sizes with compass with colours.
- Creating design using circles of different sizes with compass in pencil.
(2 Exercises)

UNIT-III

- Handling of various sheets commonly used for day to day class work
- Preparation of tracing of a drawing.
- Transferring the same on the drawing sheet.
- Colouring and Handling of the sheet for final submission.
(2 Exercises)

NOTE:-All the assignments will be marked for internal assessment.

Reference:

- [R1] Pencil Drawing Techniques by David Lewis Watson-Guption Publication NY.
 [R2] Drawing 1.Learn to draw step by Step by William F Powell Walter Foster USA
 [R3] Drawing 2.Learn to draw step by Step by William F Powell Walter Foster USA

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**BACHELOR OF VOCATION
(APPLIED ARTS)
FIRST SEMESTER EXAMINATION
(LEVEL-V)**

Paper Code	Paper ID	Paper	L	S	T/P	Credits
THEORY PAPERS						
APVAA-501		Fundamentals of Computer	2	0	0	2
APVAA-503		Theory of Art and Design-I	3	0	0	3
ETVHS-519		Communication Skills (Common to all disciplines)	2	0	1	3
GENERAL ELECTIVE-I (Select any one)						
ETVHS-513		Human Values and Professional Ethics	2	0	1	2
ETVHS-517		Life Skills	2	0	0	2
ETVHS-519		Personality Development and Behavioural Science	2	0	0	2
PRACTICALS / VIVA VOICE /STUDIO						
APVAA-551		Fundamentals of Computer	0	0	2	1
APVAA-553		Basic Design	1	4	0	5
APVAA-555		Basics of Typography	1	4	0	5
APVAA-557		Sketching –I	1	0	2	2
APVAA-559		Drawing and Study of Objects-I	1	0	4	3
APVAA-561		Life Drawing-I	1	0	2	2
APVAA-563		Vocation Workshop-I	0	0	4	2
TOTAL			14	08	16	30

***Industrial Training-I:**

The students are advised to undergo two weeks training in-house/ Industry/Skill Knowledge Provider (SKP)/Sector skill Council(SSC) During winter vacation and should submit training report for Evaluation during the second semester.

****General Elective-II (Select any one):**

NCC, NSS, YOGA, Sports, Community Services, ECO Club

Note: The student can opt to take General Elective-II during the first to fifth semesters and can earn credits and /or certificate as per the requirements of the course opted for during the fifth semester. *The camps or classes for the said programme can be held either during weekend/holidays or winter/summer vacations. If in case, the classes are held during Saturday /Sunday then faculty should be given off in lieu of Saturday/Sunday.* Those students who complete General Electives-II shall be given certificate if they opt out of the programme taking Diploma/Advanced Diploma and credits will be posted in 5th Semester for B.Voc Degree students.

Note for Project Work:

All the assignments done (APVAA-553, APVAA-555, APVAA-557, APVAA-559, APVAA-561) will be marked for internal assessment

Vocation Worksop-I:

Visits to Museums/Art Galleries Students will prepare project for internal marking. Final evaluation will be done by the External Examiner.

Note:

It is very important to decide the general Elective(s), Core Elective(s) and Open Elective(s) to be offered in the next semester well before the completion of current semester. General/Core/Open Elective Paper(s) will be floated if about 50% (Not less than 1/3rd) of the total students opt for the same each course.

**BACHELOR OF VOCATION
(APPLIED ARTS)
SECOND SEMESTER EXAMINATION
(LEVEL-V)**

Paper Code	Paper ID	Paper	L	S	T/P	Credits
THEORY PAPERS						
APVAA-502		Computer Application in Applied Art –I	2	0	2	3
APVAA-504		Theory of Art and Design-II	3	0	0	3
ETVEN-502		Environmental Science (Common to all disciplines)	3	0	0	3
PRACTICALS / VIVA VOICE /STUDIO						
APVAA-552		Application of Design	1	2	4	5
APVAA-554		Lettering and Typography	1	3	2	5
APVAA-556		Sketching –II	1	0	2	2
APVAA-558		Drawing and Study of Objects-II	1	0	4	3
APVAA-560		Life Drawing-II	1	0	2	2
ETVEN-552		Environmental Science Lab / Field Work (Common to all disciplines)	0	2	0	2
APVAA-562		Vocation Workshop-II	0	0	4	2
APVAA-564		Industrial Training-I*	0	0	0	3
TOTAL			13	07	20	33

Note for Project work:

All the assignments done (APVAA-552, APVAA-554, APVAA-556, APVAA-558, APVAA-560) will be marked for internal assessment.

Vocation Worksop-II:

Craft project based on best out of waste material. Students will prepare project for internal marking. Final evaluation will be done by the External Examiner.

Industrial Training-II:

The students are advised to undergo 6-8 weeks training in **Industry/ Skill Knowledge Provider (SKP)/ Sector Skill Council (SSC)** during summer vacation and should submit training report for evaluation during the Third semester and credits will be posted during third semester.

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FUNDAMENTALS OF COMPUTER

Paper Code: APVAA-501
Paper: Fundamentals of Computer

L	S	T/P	C
2	0	0	2

Instructions: MM-100

THEORY: (Time: 3hrs) Consist of Multiple Choice Question, Short Answer Type and Long Answer Type.

Objectives & Pre-requisites: In present scenario, the advertising agencies, publishing houses and other art studios, computer knowledge and software learning are essential requirement for the graphic designing/art work purposes.

Outcomes & Deliverables: The students should be familiarized with the use of computer in applied art.

UNIT-I**BASIC KNOWLEDGE:**

- Block diagram of computer and its working
- Components of computer
- About operating system
- Booting and installation
- File management
- Printing

[No. of Hrs. 07]

UNIT-II**WORD PRÉCISING:**

- Opening and saving documents
- Editing
- Character and paragraph editing.

[No. of Hrs. 07]

UNIT-III**BASIC PPT:**

- Opening and saving a slide
- Inserting picture and movie clip
- Publishing a presentation

[No. of Hrs. 07]

UNIT-IV**INTERNET BROADCASTING:**

- Opening and saving a page
- Creating an account
- Elements of web page

[No. of Hrs. 07]

Reference Book(s):

[R1] Dummies Publication, Fundamentals of Computing

THEORY OF ART AND DESIGN-I**Paper Code: APVAA-503****Paper: Theory of Art and Design-I**

L	S	P	C
3	0	0	3

Instructions: MM-100**THEORY: (Time: 3hrs)** Consist of Multiple Choice Question, Short Answer Type and Long Answer Type.

Objectives & Pre-requisites: The objective of this course is to make the students understand about the various aspects of Art and Design, which will help them to become independent in understanding the design, its elements and principles, theory of color, drawing and perspective, Lettering and Typography. This will lead to their personal interpretations of understanding different Art styles as applied to the terminology of Folk Art, Painting, Handicrafts, Handloom, Print-making. Painting materials & methods related glossary.

Outcomes & Deliverables: The students should have understanding of basic concepts of, principles, terminology of art and crafts.

UNIT-I**DESIGN**

- Elements of Design
- Principles of Design
- Points for creating patterns

[No. of Hrs. 11]**UNIT-II****DRAWING**

- Proportion & Structure
- Texture, Light and Shade
- Rendering Techniques with Pencil, Pen and ink.
- Principles of perspective.
- Terminology & glossary of Material & methods.

[No. of Hrs. 11]**UNIT-III****TYPOGRAPHY**

- Serif / San Serif Type.
- Anatomy of type.
- Optical/Mechanical spacing
- Point system, Classification of Type Faces

[No. of Hrs. 11]**UNIT-IV****COLOUR**

- Role of colour: Functional and Emotional.
- Colour Wheel: Primary, Secondary and Tertiary Colours.
- Colour Schemes: Monochromatic, Complementary and Analogous.
- Hue, Saturation and value.
- Terminology & glossary in traditional Art and craft.

[No. of Hrs. 11]**Reference Book(s):**

- [R1] Applied Art Hand Book by Prof. S.K Luthra
 [R2] Design Basics Index, By Jim Krause, How Books; 1 edition (December 3, 2004)
 [R3] Colour form and Composition, by Wayen Derge, W. D Art Publications N.Y

COMMUNICATION SKILLS
(Common to All Disciplines)

Paper Code: ETVHS-519
Paper: Communication Skills

L	S	T/P	C
2	0	1	3

INSTRUCTIONS TO PAPER SETTERS:

MAXIMUM MARKS: 75

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be of 12.5 marks.

Objectives and Pre-requisites: Students should have studied General English up to secondary level and the subject aims at developing communication skills in writing, speaking as well as body language.

Learning Outcomes: The students should be able to communicate effectively to his/her superiors as well as juniors at work place in his/her professional field.

UNIT-I

Recognizing and Understanding Communication Styles: What is Communication?, Passive Communication, Aggressive Communication, Passive-Aggressive Communication, Assertive Communication, Verbal and Non Verbal Communication, Barriers and Gateways to Communication.

[T1, T2][No. of Hrs. 08]

UNIT-II

Listening Skills: Types of Listening (theory /definition), Tips for Effective Listening Academic Listening-(lecturing), Listening to Talks and Presentations, Basics of Telephone communication

Writing Skills: Standard Business letter, Report writing, Email drafting and Etiquettes, Preparing Agenda and writing minutes for meetings, Making notes on Business conversations, Effective use of SMS, Case writing and Documentation.

[T1, T2][No. of Hrs. 12]

UNIT-III

Soft Skills: Empathy (Understanding of someone else point of view), Intrapersonal skills, Interpersonal skills, Negotiation skills, Cultural Aspects of Communication.

[T1, T2][No. of Hrs. 10]

UNIT-IV

Group Communication: The Basics of Group Dynamics, Group Interaction and Communication, How to Be Effective in Groups, Handling Miscommunication, Handling Disagreements and Conflicts, Constructive Criticism.

[T1,T2][No. of Hrs. 12]

Text Book(s):

- [T1] Mckay, M., Davis, M. & Fanning, P.(2008). Messages: The Communication Skills Book, New Harbinger Publications
- [T2] Perkins, P.S., & Brown, L. (2008). The Art and Science of Communication: Tools for effective communication in the workplace, John Wiley and Sons

Reference Books:

- [R1] Krizan et al (2010). Effective Business Communication, Cengage Learning.
- [R2] Scot, O. (2009). Contemporary Business Communication, Biztantra, New Delhi.
- [R3] Chaney & Martin (2009). Intercultural Business Communication, Pearson Education
- [R4] Penrose et al (2009). Business Communication for Managers, Cengage Learning.

HUMAN VALUES & PROFESSIONAL ETHICS
(General Elective-I)

Paper Code: ETVHS-513

Paper : Human Values & Professional Ethics

L	S	T/P	C
2	0	1	2

Non-University Examination Scheme (NUES)

Note: There will be no End-Term External University Examination. Marks are to be given on the basis of two internal sessional test of 30 marks each and one final Viva-voce project report Examination of 40 marks.

Objectives:

This introductory course input is intended

- a. *To help the students appreciate the essential complementarity between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.*
- b. *To facilitate the development of a holistic perspective among students towards life, profession and happiness, based on the correct understanding of the Human reality and the rest of the Existence. Such a Holistic perspective forms the basis of value-based living in a natural way.*
- c. *To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behaviour and mutually enriching interaction with Nature.*

UNIT-1: Introduction to Value Education

1. Understanding the need, basic guidelines, content and process for value education.
2. Basic Human Aspirations: Prosperity and happiness
3. Methods to fulfil the human aspirations – understanding and living in harmony at various levels.
4. Practice Session – 1.

[T1], [R1], [R4][No. of Hrs. 07]

UNIT-2: Harmony in the Human Being

1. Co-existence of the sentient "I" and the material body–understanding their needs–Happiness & Conveniences.
2. Understanding the Harmony of "I" with the body–Correct appraisal of physical needs and the meaning of prosperity.
3. Programme to ensure harmony of "I" and Body-Mental and Physical health and happiness.
4. Harmony in family and society: Understanding Human-human relationship in terms of mutual trust and respect.
5. Understanding society and nation as extensions of family and society respectively.
6. Practice Session – 02

[T2], [R1],[R2][No. of Hrs. 08]

UNIT-3: Basics of Professional Ethics

1. **Ethical Human Conduct** – based on acceptance of basic human values.
2. **Humanistic Constitution and universal human order** – skills, sincerity and fidelity.
3. **To identify the scope and characteristics of people** – friendly and eco-friendly production system, Technologies and management systems.
4. Practice Session – 03.

[T1],[R4]][No. of Hrs. 07]

UNIT-4: Professional Ethics in practice

1. **Profession and Professionalism** – Professional Accountability, Roles of a professional, Ethics and image of profession.
2. **Engineering Profession and Ethics** - Technology and society, Ethical obligations of Engineering professionals, Roles of Engineers in industry, society, nation and the world.
3. **Professional Responsibilities** – Collegiality, Loyalty, Confidentiality, Conflict of Interest, Whistle Blowing
4. Practice Session – 04

[T1], [T2], [T3], [R3][No. of Hrs. 08]

Text Books:

- [T1] Professional Ethics, R. Subramanian, Oxford University Press.
- [T2] Professional Ethics & Human Values: [Subhash Bhalchandra Gogate](#), Vikas publication
- [T3] Professional Ethics & Human Values: Prof. D.R. Kiran, TATA Mc Graw Hill Education.
- [T4] Professional Ethics & Human Values: S.B. Srivastha, SciTech Publications (India) Pvt. Ltd. New Delhi.

References:

- [R1] Success Secrets for Engineering Students: Prof. K.V. SubbaRaju, Ph.D., Published by SMARTstudent.
 [R2] Ethics in Engineering Mike W. Martin, Department of Philosophy, Chapman University and Roland Schinzinger, School of Engineering, University of California, Irvine.
 [R3] Human Values: A. N. Tripathy (2003, New Age International Publishers)
 [R4] Value Education website, <http://www.universalhumanvalues.info>[16]
 [R5] Fundamentals of Ethics, Edmond G. Seebauer & Robert L. Barry, Oxford University Press.
 [R6] Human Values and Professional Ethics: R. R. Gaur, R. Sangal and G. P. Bagaria, Eecel Books (2010, New Delhi). Also, the Teachers' Manual by the same author.

***PRACTICAL SESSIONS OF 14 HOME ASSIGNMENTS** will be followed by the students pursuing this paper. (Ref: Professional Ethics & Human Values: S.B. Srivastava, SciTech Publications (India) Pvt. Ltd. New Delhi.)

CONTENT OF PRACTICE SESSION

Module 1: Course Introduction – Needs, Basic Guidelines, Content and Process of Value Education

PS-1: Imagine yourself in detail. What are the goals of your life? How do you set your goals in your life? How do you differentiate between right and wrong? What have been your achievements and shortcoming in your life? Observe and analyze them.

Expected Outcome:

The students start exploring themselves; get comfortable to each other and to the teacher and start finding the need and relevance for the course.

PS-2: Now a days there is lot of voice about techno-genie maladies such as energy and natural resource depletion, environmental Pollution, Global Warming, Ozone depletion, Deforestation, etc. – all these scenes are man-made problems threatening the survival of life on the earth – what is root cause of these maladies and what is the way out in your opinion?

On the other hand there is rapidly growing danger because of nuclear proliferation, arm race, terrorism, criminalization of politics, large scale corruption, scams, breakdown of relationships, generation gap, depression and suicidal attempts, etc - what do you think the root cause of these threats to human happiness and peace – what could be the way out in your opinion?

Expected Outcome:

The students start finding out that technical education with study of human values can generate more solutions than problems. They also start feeling that lack of understanding of human values is the root cause of all the problems and the sustained solution could emerge only through understanding of human values and value based living. Any solutions brought out through fear, temptation or dogma will not be sustainable.

PS-3: 1. Observe that each one of us has Natural Acceptance, based on which one can verify right or not right for him. Verify this in case of following:

- a) What is naturally acceptable to you in relationship – feeling of respect or disrespect?
 - b) What is naturally acceptable to you - to nurture or to exploit others? Is your living the same as your natural acceptance or different?
2. Out of three basic requirements for fulfillment of your aspirations, right understanding, relationship and physical facilities, observe how the problems in your family are related to each. Also observe how much time and efforts you devote for each in your daily routine.

Expected Outcome:

1. The students are able to see that verification on the basis of natural acceptance and experiential validation through living is the only way to verify the right or wrong, and referring to any external source life text or instrument or any other person cannot enable them to verify with authenticity, it will only develop assumptions.

2. The students are able to see that their practice in living is not in harmony with their natural acceptance at most of the time, and all they need to do is to refer to their natural acceptance to remove this disharmony.

3. The students are able to see that lack of right understanding leading to lack of relationship is the major cause of the problems in their family and the lack of physical facilities in most of the cases; while they have given higher priority to earning of physical facilities in their life ignoring relationship and not being aware that right understanding is the most important requirement for any human being.

Module 2: Understanding harmony in human being – Harmony in myself!

PS-4: Prepare the list of your desires. Observe whether the desires are related with self “I” or body. If it appears to be related with the both, see which part of it is related to self “I” and which part is related to body.

Expected Outcome:

The students are able to see that they can enlist their desires and the desires are not vague, also they are able to relate their desires to “I” and “body” distinctly. If, any desire appears to be related with both, they are able to see that feeling is related to “I” while the physical facility is related to the body. They are also able to see that “I” and “body” are two realities, and most of their desires are related to “I” and not with the “Body”; while their efforts are mostly connected on the fulfillment of the need of the body assuming that it will meet the needs of “I” too.

PS-5:

1. {A}. Observe that any physical facilities you use, follows the given sequence with time; Necessary and tasteful – unnecessary & tasteful – unnecessary & tasteless.
{B}. In contrast, observe that any feelings in you are either naturally acceptable or not acceptable at all. If, naturally acceptable, you want it continuously and if not acceptable, you do not want it at any moment.
2. List Down all your activities. Observe whether the activity is of “I” or of “body” or with the participation both “I” and “body”.
3. Observe the activities with “I”. Identify the object of your attention for different moments (over a period say 5 to 10 minute) and draw a line diagram connecting these points. Try to observe the link between any two nodes.

Expected Outcome:

1. The students are able to see that all physical facilities they use are required for limited time in a limited quantity. Also they are able to see that cause of feeling, they want continuity of the naturally acceptable feelings and they do not want feelings which are not naturally acceptable eve for a single moment.
2. The students are able to see that activities like understanding, desires, thoughts and selection are the activities of “I” only; the activities like breathing, palpitation of different parts of the body are fully the activities of the body. With the acceptance of “I”, while activities they do with their sense organs like hearing through ears, seeing through eyes, sensing through touch, tasting through tongue and smelling through nose or the activities they do with their work organs like hands, legs, etc. are such activities that require the participation of both “I” and “body”
3. The students become aware of their activities of “I” and start finding their focus of attention at different moments. Also they are able see that most of their desires are coming from outsides (through preconditioning or sensation) and are not based on their natural acceptance.

- PS-6:**
1. Chalk out the program to ensure that you are responsible to your body – for the nurturing, protection and right utilization of the body.
 2. Find out the plants and shrubs growing in and your campus. Find out their use for curing different diseases.

Expected Outcome:

The students are able to list down activities related to a proper upkeep of the body and practice them in their daily routine. They are also able to appreciate the plants wildly growing in and around the campus which can be beneficial in curing the different diseases.

Module 3: Understanding harmony in the family and society - Harmony in Human – Human relationship

PS-7: Form small groups in the class and in that group initiate the dialogue and ask the eight questions related to trust. The eight questions are-

S.No.	Intention (Natural Acceptance)	S.No.	Competence
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1.a.	Do I want to make myself happy?	1.b.	Am I liable to make myself always Happy?
2.a.	Do I want to make the other happy?	2.b.	Am I liable to make the other always happy?
3.a.	Does the other want to make him happy?	3.b.	Is the other able to make him always happy?
4.a.	Does the other want to make me happy? What is answer?	4.b.	Is the other able to make me always happy? What is answer?

Let each student answer the question for himself and everyone else. Discuss the difference between intention and competence.

Expected Outcome:

The students are able to see that the first four questions are related to our natural acceptance i.e. intention and the next four to our competence. They are able to note that the intention is always correct, only competence is lacking. We generally evaluate ourselves on the basis of our intention and other on the basis of their competence. We seldom look at our competence and other's intention as a result we conclude that I am a good person and other is a bad person.

PS-8:

1. Observe that on how many occasions you are respecting your related ones (by doing the right evaluation) and on how many occasion you are disrespecting by way of under evaluation, over evaluation or otherwise evaluation.
2. Also observe whether your feeling of respect is based on treating the other as yourself or on differentiations based on body, physical facilities or beliefs.

Expected Outcome:

The students are able to see that respect is right evaluation and only right evaluation leads to fulfilment of relationship. Many present problems in the society are an outcome of differentiation (lack of understanding of respect) like gender biasness, generation gap, caste conflicts, class struggle, and domination through poor play, communal violence, and clash of isms and so on so forth.

All these problems can be solved by realizing that the other is like me as he has the same natural acceptance, potential and program to ensure a happy and prosperous life for him and for others though he may have different body, physical facilities or beliefs.

PS-9:

1. Write a note in the form of a story, poem, skit, essay, narration, dialogue, to educate a child.
Evaluate it in a group.
2. Develop three chapters to introduce "social science", its needs, scope and content in the primary education of children.

Expected Outcome:

The students are able to use their creativity for educating children. The students are able to see that they can play a role in providing value education for children. They are able to put in simple words the issues that are essential to understand for children and comprehensible to them. The students are able to develop an outline of holistic model for social science and compare it with the existing model.

Module 4: Understanding harmony in the nature and existence – Whole existence as Co – existence -

PS-10: Prepare the list of units (things) around you. Classify them into four orders. Observe and explain the mutual fulfilment of each unit with other orders.

Expected Outcome:

The students are able to differentiate between the characteristics and activities of different orders and study the mutual fulfilment among them. They are also able to see that human beings are not fulfilling to their orders today and need to take appropriate steps to ensure right participation (in term of nurturing, protection and right utilization) in the nature.

PS-11:

1. Make a chart for the whole existence. List down different courses of studies and relate them to different or levels in the existence.
2. Choose any one subject being taught today. Evaluate and suggest suitable modifications to make it appropriate and holistic.

Expected Outcome:

The students are confident that they can understand the whole existence; nothing is a mystery in this existence. They are also able to see the interconnectedness in the nature, and point out how different courses of study relate to the different units and levels. Also they are liable to make out how these courses can be made appropriate and holistic.

Module 5: Implication of the above Holistic Understanding of Harmony at all Levels of Existence.

PS-12: Choose any two current problem of different kind in the society and suggest how they can be solved on the basis of the natural acceptance of human values. Suggest the steps you will take in present conditions.

Expected Outcome:

The students are liable to present sustainable solutions to the problem in society and nature. They are also able to see that these solutions are practicable and draw road maps to achieve them.

PS-13:

1. Suggest ways in which you can use your knowledge of engineering / technology / management for universal human order from your family to world family.
2. Suggest one format of humanistic constitution at the level of nation from your side.

Expected Outcome:

The students are able to grasp the right utilization of their knowledge in their streams of technology / engineering / management to ensure mutually enriching and recyclable production systems.

PS-14: The course is going to be over now. Evaluate your state before and after the course in terms of-

- Thoughts
- Behavior
- Work and
- Realization

Do you have any plan to participate in the transition of the society after graduating from the institute? Write a brief note on it.

Expected Outcome:

The students are able to sincerely evaluate the course and share with their friends. They are also able to suggest measures to make the course more effective and relevant. They are also able to make use of their understanding in the course for happy and prosperous society.

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LIFE SKILLS
(General Elective-I)

Paper Code: ETVHS-517
Paper: Life Skills

L	S	T/P	C
2	0	0	2

INSTRUCTIONS TO PAPER SETTERS:

MAXIMUM MARKS: 75

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be of 12.5 marks.

Objectives and Pre-requisites: Students should have studied subjects such as General languages, social studies and Moral education at school level. The objective of this subject is to prepare the students to become a good citizen and a professional useful to the society.

Learning Outcomes: The knowledge of this subject will give the student a value system which will help him in taking decisions in professional and social life for the benefit of society at large.

UNIT-I

Introduction: Definition and importance of Life Skills, Livelihood Skills, Survival Skills, Life Skills Approach, Life Skills based education, Life Skills Training- Implementation Models

[T1,T2][No. of Hrs. 07]

UNIT-II

Learning and Performance, Cognitive Development, Maturation, Adult Learning, Approaches to Learning Pillars of Education and Life Skills- Four Pillars: Learning to Know, Learning to Do, Learning to Live Together, Learning to be learning throughout Life

[T1,T2][No. of Hrs. 08]

UNIT-III

Social Skills and Negotiation Skills: Self Awareness, Empathy, Effective Communication, Interpersonal Relationships

Thinking Skills: Nature, Element of Thought, Types, Concept Formation, Reasoning, Creative and Critical Thinking

[T1,T2][No. of Hrs. 08]

UNIT-IV

Coping Skills: Coping with Emotions, Coping with Stress, Integrated use of thinking skills, social skills and coping skills

[T1,T2][No. of Hrs. 07]

Text Books:

- [T1] Rajasenan, N.V. (2010). Life Skills, Personality and Leadership, Rajiv Gandhi National Institute of Youth Development, TamilNadu
- [T2] Duffy, Grover,K., Eastwood, A. (2008). Psychology for Living-Adjustment, Growth and Behavior Today, Pearson Education

Reference Books:

- [R1] Debra McGregor, (2007), "Developing Thinking; Developing Learning - A Guide to Skills in Education", Open University Press, New York, USA
- [R2] Singh Madhu, (2003). "Understanding Life Skills, Background paper prepared for Education for All: The Leap to Equality"
- [R3] Nair. A. Radhakrishnan, (2010). "Life Skills Training for Positive Behaviour", Rajiv Gandhi National Institute of Youth Development, Tamil Nadu.
- [R4] Dahama O.P., Bhatnagar O.P, (2005). "Education and Communication for Development, (2nd Ed.)", Oxford& IBH Publishing Co. Pvt. Ltd. New Delhi

PERSONALITY DEVELOPMENT & BEHAVIORAL SCIENCE
(General Elective-I)

Paper Code: ETVHS-519

Paper: Personality Development & Behavioral Science

L	S	T/P	C
2	0	0	2

INSTRUCTIONS TO PAPER SETTERS:

MAXIMUM MARKS: 75

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be of 12.5 marks.

Objectives and Pre-requisites: Students should have studied subjects such as General languages, social studies and Moral education at school level. The objective of this subject is to prepare the students to become a good citizen and a professional useful to the society.

Learning Outcomes: The knowledge of this subject will give the student a value system which will help him in taking decisions in professional and social life for the benefit of society at large.

UNIT-I

Definition and Basics of Personality, Understanding Traits and Types of Personality, Analyzing strength and weakness (SW), Body Language

[T1, T2][No. of Hrs. 07]

UNIT-II

Business Etiquettes and Public Speaking: Business Manners. Body Language Gestures, Email and Net Etiquettes, Etiquette of the Written Word, Etiquettes on the Telephone, Handling Business Meetings; Introducing Characteristic, Model Speeches, Role Play on Selected Topics with Case Analysis and Real Life Experiences.

[T1, T2][No. of Hrs. 08]

UNIT-III

How to Make a Presentation, the Various Presentation Tools, along with Guidelines of Effective Presentation, Boredom Factors in Presentation and How to Overcome them, Interactive Presentation & Presentation as Part of a Job Interview, Art of Effective Listening.

Resume Writing Skills, Guidelines for a Good Resume, How to Face an Interview Board, Proper Body Posture, Importance of Gestures and Steps to Succeed in Interviews. Practice Mock Interview in Classrooms with Presentations on Self; Self Introduction – Highlighting Positive and Negative Traits and Dealing with People with Face to Face.

[T1, T2][No. of Hrs. 08]

UNIT-IV

Coping Management, Working on Attitudes: Aggressive, Assertive and Submissive Coping with Emotions, Coping with Stress

[T1, T2][No. of Hrs. 07]

Text Books:

- [T1] McGraw, S. J., (2008), “Basic Managerial Skills for All, Eighth Edition”, Prentice Hall of India.
 [T2] The Results-Driven Manager (2005). Business Etiquette for the New Workplace: The Results-Driven Manager Series (Harvard Results Driven Manager)

Reference Books:

- [R1] Pease, A. & Pease, B. (2006)., “The Definitive Book of Body Language”, Bantam Books.
 [R2] Scannell, E. & Rickenbacher, C. (2010)., “The Big Book of People Skills Games: Quick, Effective Activities for Making Great Impressions, Boosting Problem-Solving Skills and Improving Customer Service”, McGraw Hill Education

FUNDAMENTALS OF COMPUTER
(Lab)

Paper Code: APVAA-551
Paper: Fundamentals of Computer

L	S	T/P	C
0	0	2	1

Instructions: MM-100

PRACTICAL (TIME-3HRS)) Instructions to be given by the External Examiner for conducting the examination

Objectives & Pre-requisites: In present scenario, the advertising agencies, publishing houses and other art studios, computer knowledge and software learning are essential requirement for the graphic designing/art work purposes

Outcomes & Deliverables: The students should be familiarized with the use of computer in applied art.

UNIT 1 BASIC KNOWLEDGE

- Block diagram of computer and its working
- Components of computer
- About operating system
- Booting and installation
- File management
- Printing

[No. of Hrs. 07]

UNIT 2 WORD PRECESSING

- Opening and saving documents
- Editing
- Character and paragraph editing

[No. of Hrs. 07]

UNIT 3BASIC PPT

- Opening and saving a slide
- Inserting picture and movie clip
- Publishing a presentation

[No. of Hrs. 07]

UNIT 3 INTERNET BROADCASTING

- Opening and saving a page
- Creating an account
- Elements of web page

[No. of Hrs. 07]

Reference:-

- Dummies Publication , Fundamentals Of Computing

BASIC DESIGN**Paper Code: APVAA-553****Paper: Basic Design**

L	S	T/P	C
1	4	0	5

Instructions: MM-100**PRACTICAL (TIME-12Hrs.)** Question Paper will consist of 3 options.

Objectives & Pre-requisites: This subject deals with the fundamentals of the design process which involves thinking, perceiving, analyzing and organizing for the intended purpose. All aspects of principal and elements of design to be taught in this subject.

Outcomes & Deliverables: The curricular area aims at enabling the students to develop their observation, imagination, creation and develop skills and sensitivity towards the use of visual elements for an effective design.

UNIT-I

- Understanding the elements of design : Dot , Line, Shape , Form , Colour.
- Understanding of Space and Texture.
- Study of weight and space relationship.
(2Exercises)

[No. of Hrs. 18]**UNIT-II**

- Principles of design : Balance , Unity , Proportion , Harmony
- Understanding repetition and emphasis.
- Introduction to Colour (Primary , Secondary , Tertiary)
- Relation between the shapes and forms.
(2 Exercises)

[No. of Hrs. 18]**UNIT-III**

- Creating patterns.
- Preparing composition using Shapes and Forms.
- Understanding of space and colour relationship in a composition.
(2 Exercises)

[No. of Hrs. 18]**UNIT-IV**

- Prepare composition using nature and foliage.
- Prepare composition using object from daily life.
(2Exercises)

[No. of Hrs. 18]**NOTE: All the assignments done in the class will be marked for internal assessment.****Reference Book(s):**

- [R1] Design Basics Index, BY JIM KRAUSEHOW Books; 1 edition (December 3, 2004)
- [R2] Universal Principles of Design by William Lidwell, Kristina Holden, Jim Butler Rockport Publishers; Second Edition, Revised and Updated edition (January 1, 2010)
- [R3] The Elements of Graphic Design by Alex White Allworth Press; Second Edition (March 15, 2011)
- [R4] Designer's Guide to Colour, James Stockton, Chronicle Books

BASICS OF TYPOGRAPHY**Paper Code: APVAA-555****Paper: Basic Design**

L	S	T/P	C
1	4	0	5

Instructions: MM-100**PRACTICAL (TIME-12Hrs.)** Question Paper will consist of 3 options.

Objectives & Pre-requisites: Knowledge of all aspects of Typography, the terminology commonly used. Knowledge of anatomy of a Letter and character of different type faces, spacing in relation to each letter, words and lines.

Outcomes & Deliverables: Develop an understanding of the basic terminology of typography. Analyzing a letterform, identifying its distinctive features.

UNIT-I

- Introduction and importance of typography.
- Understanding of terminology in typography.
- Construction of a San-serif Font.(Capital Letters)
- Construction of a Serif Font.(Capital Letters)
(2 Exercises in Pencil)

[No. of Hrs. 18]**UNIT-II**

- Alignments in typography.
- Assignment based on a given Quotation(San-Serif Font)
- Assignment based on a given Quotation(Serif Font)
(2 Exercises in Black and White)

[No. of Hrs. 18]**UNIT-III**

- Introduction to Upper and lower case.
- Assignment based on a given Quotation(San-Serif Font)
- Assignment based on a given Quotation(Serif Font)
(2 Exercises in colour)

[No. of Hrs. 18]**UNIT-IV**

- Introduction and use of Calligraphy
- Learning basic calligraphic strokes with use of Calligraphy Nibs/Brush.
- Learning Calligraphy using Upper and Lower case.
(2 Exercises in Black and White/colour)

[No. of Hrs. 18]**NOTE: All the assignments done in the class will be marked for internal assessment.****Reference Book(s):**

- [R1] The World of Visual Communication, Rege G.M., Himalaya Art Book.
- [R2] Aksharanubhav, AchyutPalav, Callographic Expressions.
- [R3] Calligraphy Today, Ajit Mukherjee, Over Publication.
- [R4] Type and Colour, Richard Emery, Batsford, London.

SKETCHING-I**Paper Code: APVAA-557****Paper: Sketching-I**

L	S	T/P	C
1	0	2	2

Instructions: MM-100**PRACTICAL (TIME-12Hrs.)** Question Paper will consist of 3 options.

Objectives & Pre-requisites: The purpose of this subject is to develop skills of freehand sketching to enable the students to capture the impression. An understanding of the tools used in drawing. Identifying the subject while sketching.

Outcomes & Deliverables: An understanding of the tools used in drawing. The students should have knowledge of proportions and perspective. Developing techniques of pencil drawing. Identifying the subject while sketching.

UNIT-I

- Learning different strokes using pencils.
- Understanding of space and texture.
- (Submission of 20 sketches)

[No. of Hrs. 11]**UNIT-II**

- Creating form and depth by simple shading.
- Understanding intensity, value, proportion.
- Outdoor sketching of trees and foliage in Pencil.
- (Submission of 20 sketches)

[No. of Hrs. 11]**UNIT-III**

- Outdoor sketching of subjects from daily life in Pencil.
- Sketching of Antique in museum in pencil with light and shade.
- (Submission of 20 sketches)

[No. of Hrs. 11]**UNIT-IV**

- Sketch Book to be maintained by the students for regular quick sketching.
- (Submission of 100 sketches)

[No. of Hrs. 11]**NOTE: All the assignments done in the class will be marked for internal assessment.****Reference Book(s):**

- [R1] Perspective Drawing, MilindMulik, Jyotsna Prakashan
 [R2] Sketchbook, Milind Mulik, Jyotsna Prakashan
 [R3] How to be an artist in 10 steps, By Ian Sideway, Hamlyn.

DRAWING AND STUDY OF OBJECTS-I**Paper Code: APVAA-559****Paper: Drawing and Study of Objects-I**

L	S	T/P	C
1	0	4	3

Instructions: MM-100

PRACTICAL (TIME-6Hrs): Instructions to be given by the External Examiner for conducting the examination. The exam will be conducted in group of 25 students each.

Objectives & Pre-requisites: Drawing exercise from objects to learn correct proportion, shape, form, values etc. Establishing a centre of interest and line of direction that carries the viewer's eye into and around the picture, creating a sense of depth by overlapping objects

Outcomes & Deliverables: Develop an understanding of the tools used in traditional drawing. Identify and draw positive and negative space. Identify and draw the structure of basic forms: sphere, cube, cylinder and cone.

UNIT-I

- Understanding the importance of negative and positive space.
 - Understanding different textures in pencil.
 - Introduction of perspective in drawing.
- (2 Exercises)

[No. of Hrs. 18]**UNIT-II**

- Drawing of objects with drapery in pencil.
 - Relationship between negative and positive space.
 - Understanding of object in different angle.
 - Understanding of object in different eye level.
- (2 Exercises)

[No. of Hrs. 18]**UNIT-III**

- Drawing and Study of everyday objects.
 - Study of light and shade of the above objects in pencil shading.
- (2 Exercises)

[No. of Hrs. 18]**UNIT-IV**

- Drawing and Study of objects from daily life in pen and ink.
- (2 Exercises)

[No. of Hrs. 18]

NOTE: All the assignments done in the class will be marked for internal assessment.

Reference Book(s):

- [R1] Colour- A Workshop for artists and designers, David Harnung, Laurence King Publishing.
- [R2] Perspective Drawing, MilindMulik, Jyotsna Prakashan.
- [R3] How to be artist in 10 step, Ian sideway, Hamlyn.
- [R4] Designer's Guide to Colour, James Stockton, Chronicle Books.
- [R5] Communication Arts, International Periodical.

LIFE DRAWING-I**Paper Code: APVAA-561****Paper: Life Drawing-I**

L	S	T/P	C
1	0	2	2

Instructions: MM-100

PRACTICAL: (TIME-6 HRS) Model male/female to be hired for a group of 25 students and instructions will be given by the external examiner.

Objectives & Pre-requisites: The purpose of the subject is to develop skills, detailed study of parts of the Human body.

Outcomes & Deliverables: The students should have knowledge of proportions, perspective of various postures of Human body.

UNIT-I

- Understanding proportions of human body.
- Formation of stick drawing.
- Drawing of human figure in stick drawing in different postures.
- (2 Exercises)

[No. of Hrs. 15]**UNIT-II**

- Block diagram of human figure/different body parts in pencil.
- Drawing of human figure using block diagram, in different postures.
- (2 Exercises)

[No. of Hrs. 15]**UNIT-III**

- Detailed study of human body in different postures and angle.
- Detailed study of different body parts.
- (2 Exercises)

[No. of Hrs. 15]

NOTE: All the assignments done in the class will be marked for internal assessment.

Reference Book(s):

- [R1] Anatomy and Drawing, Victor Perard, Grace Prakashan.
 [R2] Sketchbook, MilindMulik, Jyotsna Prakashan.

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COMPUTER APPLICATION IN APPLIED ART-I**Paper Code: APVAA-502****Paper: Computer Application in Applied Art-I**

L	S	T/P	C
2	0	2	3

Instructions: MM-100**PRACTICAL (TIME-3HRS)** Question paper to be provided by external examiner

Objectives & Pre-requisites: In present scenario, the advertising agencies, publishing houses and other art studios, computer knowledge and software learning are essential requirement for the graphic designing/art work purposes

Outcomes & Deliverables: The students should be familiarized with the use of computer in applied art.

UNIT 1

- Introduction to Corel draw
- Understanding interface of Corel draw
- Making simple objects

[No. of Hrs. 20]**UNIT 2**

- Measurement in Corel draw
- Introduction to Photoshop
- Understanding interface of Photoshop

[No. of Hrs. 20]**UNIT 3**

- Simple image editing in Photoshop
- Bridging between Photoshop and Corel draw
- Saving and printing files

[No. of Hrs. 20]**Reference Book(s):**

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THEORY OF ART AND DESIGN-II

Paper Code: APVAA-504
Paper: Theory of Art and Design-II

L	S	T/P	C
3	0	0	3

Instructions: MM-100

THEORY (TIME-3HRS) Consist of Multiple Choice Question, Short Answer Type and Long Answer Type.

Objectives & Pre-requisites: The objective of this course is to make the students understand about the various aspects of Art and Design, which will help them to become independent in understanding the design, its elements and principles, theory of color, drawing and perspective, Lettering and Typography. This will lead to their personal interpretations of understanding different Art styles as applied to the terminology of Folk Art, Painting, Handicrafts, Handloom, Printmaking, Painting materials & methods and related glossary.

Outcomes & Deliverables: The students should have understanding of basic concepts of principles.

UNIT-I**FOLK ARTS OF INDIA**

- Terminology as applied to Art and Craft
- Brief introduction to Miniature Paintings, Mural, Frascos , Tempera, Mosaic, Collage, Alpana, Rangoli, PatChitra
Cartoon making, Printmaking, Woodcut, Terracotta, Ceramic

[No. of Hrs. 15]

UNIT-II**TYPOGRAPHY**

- Names of types. Purpose of Lettering
- Role of Typography in communication Design.
- Calligraphy
- Use of Calligraphy in Applied art.

[No. of Hrs. 15]

UNIT-III**GENERAL AWARENESS OF ART**

- Names of eminent Indian Artists
- Names of famous Monuments of India.
- Names of famous Art Museums of India

[No. of Hrs. 15]

Reference Book(s):

- [R1] Prof. S.K Luthra, "Applied Art Hand Book".
 [R2] Jim Krause, "Design Basics Index", How Books; 1 Edition (December 3, 2004)
 [R3] Wayen Derge, W.D, "Colour Form and Composition", Art Publications N.Y

ENVIRONMENTAL SCIENCE
(Common To All Disciplines)

Paper Code: ETVEN-502
Paper: Environmental Science

L	S	T/P	C
3	0	0	3

INSTRUCTIONS TO PAPER SETTERS:

MAXIMUM MARKS: 75

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be of 12.5 marks.

Objective: The objective of this course is to make students environment conscious. They will be exposed through the fundamental concepts of environment and ecosystem so that they can appreciate the importance of individual and collective efforts to preserve and protect our environment. This course must raise various questions in student's mind that how our environment is inter dependent on various factors and how human being must care for their natural surroundings.

UNIT-I

Environmental Studies: Ecosystems, Bio-diversity and its Conservation

(i) The Multidisciplinary Nature of Environmental Studies

Definition, scope and importance of Environmental Studies, Biotic and a biotic component of environment, need for environmental awareness.

(ii) Ecosystems

Concept of an ecosystem, structure and function of an ecosystem, producers, consumers and decomposers, energy flow in the ecosystem, ecological succession, food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structures and function of the following ecosystem:

- (a) Forest ecosystem
- (b) Grassland ecosystem
- (c) Desert ecosystem
- (d) Aquatic ecosystem (ponds, streams, lakes, rivers, oceans, estuaries).

(iii) Bio-diversity and its Conservation

Introduction to biodiversity - definition: genetic, species and ecosystem diversity, Bio-geographical classification of India, Value of biodiversity: Consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity at global, national and local levels, India as a mega-diversity nation, Hot-spots of biodiversity, Threats to biodiversity : Habitat loss, Poaching of wildlife, man-wildlife conflicts, rare endangered and threatened species (RET) endemic species of India, method of biodiversity conservation: *In-situ* and *ex-situ* conservation.

[T1], [R3] [No. of hrs. 12]

UNIT-II

Natural Resources: problems and prospects

Renewable and Non-renewable Natural Resources; Concept and definition of Natural Resources and need for their management

Forest resources: Use and over-exploitation, deforestation, case studies, timber extraction, mining, dams and their effects on forests and tribal people.

Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems, Water conservation, rain water harvesting, watershed management.

Mineral resources: Uses are exploitation, environmental effects of extracting and using mineral resources, case studies.

Food resources: World food problems, changes causes by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

Energy resources: Growing energy needs, renewable and non-renewable energy sources use of alternate energy sources, Urban problems related to energy, case studies.

Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

[T1], [R3] [No. of hrs. 11]

UNIT-III**Environmental Chemistry and Pollution Control****(i) Chemistry of Environment**

(a)**Green Technology:** Principles of Green technology, Zero Waste Technology, Green Chemistry & Its basic principles, Atom Economy, Green Methodologies, clean development mechanisms (CDM), concept of environmental impact assessment,

(b)**Eco-Friendly polymers:** Environmental degradation of polymers, Biodegradable, Photo-biodegradable polymers, Hydrolysis & Hydrobiodegradable, Biopolymers & Bioplastics: polylactic acid, polyhydroxybutyrate, polycaprolactone,. Concept of bioremediation.

(ii) Environmental Pollution

Definition, types, causes, effects and control measures of (a) Air pollution, (b) Water pollution, (c) Soil pollution, (d) Marine pollution, (e) Noise pollution, (f) Thermal pollution, (g) Nuclear hazards. Pollution case studies. Solid waste and its management: causes, effects and control measures of urban and industrial waste.

Chemical toxicology-Terms related to toxicity, impact of chemicals (Hg, As, Cd, Cr, Pb) on environment.

[T1], [R3] [No. of hrs. 11]

UNIT-IV**Disaster Management, Social Issues, Human Population and the Environment****(i) Disaster Management**

Disaster management: floods, earthquake, cyclone and land-slides, nuclear accidents and holocaust, *case studies*.

(ii) Social Issues, Human Population and the Environment

Sustainable development, Climate change, global warming, acid rain, ozone layer depletion, Environmental ethics: Issues and possible solutions, Consumerism and waste products, Wasteland reclamation. Population growth, problems of urbanisation, Environment Protection Act, 1986; Air (Prevention and Control of Pollution) Act, 1981; Water (Prevention and Control of Pollution) Act, 1974; Wildlife Protection Act, 1972; Forest Conservation Act, 1980; Environmental management, system standards-ISO 14000 series.

[T1][No. of hrs. 11]

Text Book(s):

- [T1] E. Barucha, Textbook of Environmental Studies for Undergraduate Courses, Universities Press (India) Pvt. Ltd., 2005.
[T2] S. Chawla, A Textbook of Environmental Studies, McGraw Hill Education Private Limited, 2012

References Books:

- [R1] G. T. Miller, Environmental Science, Thomas Learning, 2012
[R2] W. Cunningham and M. A. Cunningham, Principles of Environment Science: Enquiry and Applications, Tata McGraw Hill Publication, N. Delhi, 2003.
[R3] R. Rajagopalan, Environmental Studies: From Crisis to Cure, 2nd Edition, Oxford University Press, 2011.
[R4] A.K. De, Environmental Chemistry, New Age Int. Publ. 2012.,
[R5] A. Kaushik and C.P. Kaushik, Perspectives in Environment Studies, 4th Edition, New Age International Publishers, 2013
[R6] Environmental Engineering by Gerard Kiely, Tata McGraw-Hill Publishing Company Ltd. New Delhi, 2010.

APPLICATION OF DESIGN

Paper Code: APVAA-552
Paper: Application of Design

L	S	T/P	C
1	2	4	5

Instructions: MM-100

PRACTICAL (TIME-12Hrs.) Question Paper will consist of 3 options.

Objectives & Pre-requisites: Design is the process of selection where visual elements such as point, line, shape, volume, tone, texture, color, form, format, space, and structure are used by students to express their ideas. Visual sensitivity and working knowledge of design elements would be developed by solving a series of problems and employing a variety of medium.

Outcomes & Deliverables: The curricular area aims at enabling the students to develop their observation, imagination, creation and develop skills and sensitivity towards the use of visual elements for an effective design.

UNIT-I

- Understanding of half tone and flat colour.
- Distinguishing objects using different colour and texture.
(2 Exercises)

[No. of Hrs. 12]

UNIT-II

- Transformation objects to design.
- Introduction to abstract design.
- Applying living objects (Human and Animal fig.) in design.
(2 Exercises)

[No. of Hrs. 12]

UNIT-III

- Introduction to optical illusion through lines.
- Introduction to optical illusion through colour.
(2 Exercise)

[No. of Hrs. 12]

UNIT-IV

- Making of designed tiles.
- Making of mosaic design
(2 Exercise)

[No. of Hrs. 18]

NOTE:- All the assignments done in the class will be marked for internal assessment.

Reference Book(s):

- [R1] Design Basics Index, BY JIM KRAUSEHOW Books; 1 edition (December 3, 2004)
- [R2] Universal Principles of Design by William Lidwell, Kristina Holden, Jim Butler Rockport Publishers; Second Edition, Revised and Updated edition (January 1, 2010)
- [R3] The Elements of Graphic Design by Alex White Allworth Press; Second Edition (March 15, 2011) Type and Colour, Richard Emery, Bats ford, London
- [R4] Designer's Guide to Colour, James Stockton, Chronicle Books

LETTERING AND TYPOGRAPHY

Paper Code: APVAA-554
Paper: Lettering and Typography

L	S	T/P	C
1	3	2	5

Instructions: MM-100

PRACTICAL (TIME-12 HRS): Question Paper will consist of 3 options.

Objectives & Pre-requisites: *Typographical use in the form of design and its application in the form of monogram / logo etc. Development of calligraphy (English/Devnagari) in the form of design.*

Outcomes & Deliverables: *Develop a basic proficiency in identifying and classifying type by looking for the main features in a typeface.*

UNIT-I

- Typography in the form of design.
- Expressive Typography.
- Texture and pattern using typography.
(1 Exercise)

[No. of Hrs. 11]

UNIT-II

- Creating monogram / Logo/ Symbol .(1 Exercise)
- Application of the above exercise in office stationary (1 Exercise)

[No. of Hrs. 11]

UNIT-III

- Composing a calligraphic paragraph.
- Composing a meaningful poem in calligraphy.
(2 Exercises)

[No. of Hrs. 11]

UNIT-IV

- Introduction to Devnagari Script.
- Learning Devnagari strokes.
(2 Exercises)

[No. of Hrs. 18]

NOTE:- All the assignments done in the class will be marked for internal assessment.

Reference Book(s):

- [R1] The World of Visual Communication, Rege G.M., Himalaya Art Book.
 [R2] Aksharanubhav, AchyutPalav, Callographic Expressions.
 [R3] Calligraphy Today, Ajit Mukherjee, Over Publication.
 [R4] Type and Colour, Richard Emery, Batsford, London.

SKETCHING-II**Paper Code: APVAA-556****Paper: Sketching-II**

L	S	T/P	C
1	0	2	2

Instructions : MM-100**PRACTICAL (TIME-3HRS):** Instructions to be given by the External Examiner for conducting the examination.

Objectives & Pre-requisites: The purpose of this subject is to develop skills of freehand sketching to enable the students to capture the action/impression. An understanding of the tools and mediums used in drawings.

Outcomes & Deliverables: An understanding of the tools and different mediums used in drawing. The students should have knowledge of proportions and perspective. Developing techniques in pencil/charcoal/pen and ink. Identify positive and negative space while drawing.

UNIT-I

- Learning different strokes using different in Pen and Ink.
- Understanding of space and texture.
- Creating form and depth by different in Pen and Ink..
(Submission of 20 sketches)

[No. of Hrs. 11]**UNIT-II**

- Outdoor sketching of trees in Pen and Ink.
- Outdoor sketching composition of trees incorporating human figure in Pen and Ink.
- Sketching of Antique in Museum in Pen and Ink./charcoal.
(Submission of 20 sketches)

[No. of Hrs. 11]**UNIT-III**

- Sketching from subjects from daily life.
- Outdoor sketching composition in mix medium.
- Sketching of Antique in museum in mix medium.
(Submission of 20 sketches)

[No. of Hrs. 11]**UNIT-IV**

- Sketch Book to be maintained by the students for regular quick sketching in classroom/outdoor.
(Submission of 100 sketches)

[No. of Hrs. 11]**NOTE:- All the assignments done in the class will be marked for internal assessment.****Reference Book(s):**

- [R1] Perspective Drawing, Milind Mulik, Jyotsna Prakashan
 [R2] Sketchbook, Milind Mulik, Jyotsna Prakashan
 [R3] How to be an artist in 10 steps, By Ian Sideway, Hamlyn.

DRAWING AND STUDY OF OBJECTS-II**Paper Code: APVAA-558****Paper: Drawing and Study of Objects–II**

L	S	T/P	C
1	0	4	3

INSTRUCTIONS: MM-100

PRACTICAL (TIME-6Hrs): Instructions to be given by the External Examiner for conducting the examination. The exam will be conducted in group of 25 students each.

Objectives & Pre-requisites: The syllabus provides the study of the objectives of man-made and Natural objects. Drawing with different mediums to be handled. An opportunity is offered to the students to handle a variety of tools and mediums. Seasonal flowers/ fruits/ vegetables etc. in combination with different textures of drapery.

Outcomes & Deliverables: Know about the applications and limitations while using these tools and materials/ application of different mediums.. Students have to get beautiful and attractive results through their efforts.

UNIT-I

- Introduction of water colour in object drawing.
- Application and learning of water colour technique.
- Drawing and study of objects from daily life in water colour.
(2 Exercises)

[No. of Hrs. 18]**UNIT-II**

- Introduction of colour pencils in object drawing .
- Drawing and study of objects /drapery in colour pencils
- Drawing and study of objects/drapery in oil pastel/dry pastel colours.
(2 Exercises)

[No. of Hrs. 18]**UNIT-III**

- Study of objects of (steel/brass/copper/glass etc.) with drapery in monochrome in poster/.acrylic colours
(2 Exercise)

[No. of Hrs. 18]**UNIT-IV**

- Copy of any printed product, applying 4 different techniques (Photo finish/stippling/black and white/monochrome etc.)
(1Exercise)

[No. of Hrs. 18]

NOTE:- All the assignments done in the class will be marked for internal assessment.

Reference Book(s):

- [R1] Colour- A Workshop for artists and designers, David Harnung, Laurence King Publishing
- [R2] Perspective Drawing, Milind Mulik, Jyotsna Prakashan
- [R3] How to be artist in 10 steps, ian sideway, Hamlyn
- [R4] Designer's Guide to Colour, James Stockton, Chronicle Books
- [R5] Communication Arts, International Periodical

LIFE DRAWING-II**Paper Code: APVAA-560****Paper: Life Drawing-II**

L	S	T/P	C
1	0	2	2

Instructions: MM-100

PRACTICAL (TIME-6HRS): Model male/female to be hired for a group of 25 students and instructions will be given by the external examiner.

Objectives & Pre-requisites: The purpose of this subject is to capture the action and posture in proportion of human body within given space.

Outcomes & Deliverables: An understanding of the tools and techniques used in life drawing. The students should have knowledge of proportions, perspective various postures of human body.

UNIT-I

- Learning different strokes using charcoal.
- Detailed study of human body/body parts in different postures and angles in charcoal.
- (2 Exercises)

[No. of Hrs. 11]**UNIT 2**

- Learning different strokes using pen and ink.
- Detailed study of human body/ body parts in different postures and angles in pen and ink.
- (2 Exercises)

[No. of Hrs. 11]**UNIT 3**

- Learning different strokes using water color.
- Detailed study of human body/ body parts in water color.
- (2 Exercises)

[No. of Hrs. 11]**UNIT 4**

- Study from human figure with crayon / oil pastel
- Study of model in action.
- (2 Exercises)

[No. of Hrs. 11]

NOTE:- All the assignments done in the class will be marked for internal assessment.

Reference Book(s):

- [R1] Anatomy and Drawing, Victor Perard, Grace Prakashan
 [R2] Sketchbook, MilindMulik, Jyotsna Prakashan

ENVIRONMENTAL SCIENCE LAB/ FIELD WORK
(Common to All Disciplines)

Paper Code: ETVEN-552

Paper: Environmental Science Lab/ Field Work

L	S	T/P	C
0	2	0	2

List of Experiments

1. Determination of pH, conductivity and turbidity in drinking water sample.
2. Determination of pH and conductivity of soil/sludge samples.
3. Determination of moisture content of soil sample.
4. Determination of Total Dissolved Solids (TDS) of water sample.
5. Determination of dissolved oxygen (DO) in the water sample.
6. Determination of Biological oxygen demand (BOD) in the water sample.
7. Determination of Chemical oxygen demand (COD) in the water sample.
8. Determination of Residual Chlorine in the water sample.
9. Determination of ammonia in the water sample.
10. Determination of carbon dioxide in the water sample.
11. Determination of nitrate ions or sulphate ions in water using spectrophotometer.
12. Determination of the molecular weight of polystyrene sample using viscometer method.
13. Base catalyzed aldol condensation by Green Methodology.
14. Acetylation of primary amines using eco-friendly method.
15. To determine the concentration of particulate matter in the ambient air using High Volume Sampler.

P.S.: For better understanding of various aspects of environment visits to local areas, depending upon easy access and importance may be planned to any nearby river, forest, grassland, hills and students should write a report based on their observations.

Suggested Books:

- [T1] [A. I. Vogel, G. H. Jeffery](#), *Vogel's Text Book of Quantitative Chemical Analysis*, Published by Longman Scientific & Technical, 5th Edition, 1989.
- [T2] dst.gov.in/green-chem.pdf (monograph of green chemistry laboratory experiments).
- [T3] S. Chawla, *Essentials of Experimental Engineering Chemistry*, Dhanpat Rai & Co., 3rd Edition, 2008.
- [T4] S. Rattan, *Experiments in Applied Chemistry*, Published by S.K.Kataria & Sons, 2nd Edition, 2003.
- [T5] W. Cunningham and M. A. Cunningham, *Principles of Environment Science: Enquiry and Applications*, Tata McGraw Hill Publication, N. Delhi, 2003.
- [T6] A. Kaushik and C. P. Kaushik, *Perspectives in Environment Studies*, 4th Edition, New Age International Publishers, 2013.

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