

SEMESTER: II

PAPER 2.1 ADVANCED COURSE IN VICTIMOLOGY

Max.Marks:80+20=100

Duration: 4 Hrs/Week

Credits: 4

Unit 1: (i) Definition of Victimology:

Semantic (Latin 'victima' + Greek 'logos'); Substantive definitions by Mendelsohn B (1963), Andrew Karmen (1992), Hans Hentig and others; as a branch of criminology.

(ii)Scope of Victimology:

Study of victimization/victimogenesis; victim-offender relationships; costs and consequences of victimization; victim interface with criminal justice system; victim and societal interface, victim and media; victim movements (advocacy, assistance and compensation).

(iii)Historical Development of Victimology:

Hebrew meaning as Sacrifice or Scapegoat (Biblical times);

Recognition of Victim Rights in Code of Hammurabi,

Manusmriti; Islamic Sharia;

Modern science from 1940s (H v Hentig, Mendelsohn, Wolfgang, Viano, Karmen, World Conferences, Journal, UN Convention, Victim Advocacy, Victim Compensation)

UNIT 2: (A) Major Theories:

- a) Luckenbill's (1977) Situated Transaction Model (action-clarification-reaction-counteraction-presence of weapon/situation-presence/absence of onlookers–victimization/crime)
- b) Benjamin and Master's Threefold Model; Precipitating Factors, Attracting Factors, Predisposing Factors;
- c) Cohen and Felsons Routine Activities Model: Suitable Targets, Motivated Offender, Absence of guardian;
- d) Propinquity Hypothesis, Proximity Hypothesis, Familiarity Hypothesis, Power Assymetry Hypothesis (of Feminists)

(B) Psychological Typologies of Victim Reactions:

- a) "Just World Syndrome and Blaming the Victim" (victim depression),

- b) “Fundamental Attribution Error and Blaming the Situation” (partly responsible victim)
- c) “Dunning-Kruger Effect and Inviting Victimization” (victim precipitation)
- d) “Actor-Observer Bias and Blaming the Victim” (innocent victim)
- e) “Battered Person Syndrome and repeat Victimization/ Bashing the Victimizer”
- f) “Stockholm Syndrome” and siding with the victimiser (power asymmetry)/ mutual attraction;
- g) Clandestine Victimization and unreported Victimization/Crime: Part-blame/ Rational choice

(C) Power Asymmetry and Predisposing Categories:

- a) Women Victims (rape, trafficking, abduction, assault, domestic violence, marital violence, wartime violence, refugee women);
- b) Child Victims (kidnap, sexual violence, trafficking, assault);
- c) Aged Victims (theft, robbery, burglary, assault, murder);
- d) Minorities: Racial, Nationality based, poor, unorganized, weak (mass violence, exploitation, genocide, internally displaced persons, victims of war, refugees, child soldiers);
- e) Victims of Abuse of Power: custodial violence; hate crime; caste and ethnic violence

UNIT 3: (A) Victim and the Criminal Justice System:

- a) **Police:** as a complainant, as a witness; interrogating with suspicion, police perception depending upon victim precipitation/felicitation
- b) **Prosecution:** as a witness;
- c) **Courts:** as a witness; examination in chief, cross examination, re-examination: court room drama and victim trauma as a public display; no role in deciding punishment; no role in appeal; restitution and compensation, ancient reparation.
- d) **Corrections:** no involvement of victim; parole/probation conditions of victim safety.
- e) **UN Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power (1985);**

(B) Cost and Consequences of Victimization:

- i. Consequences to Primary Victims: emotional, pecuniary, physical, social and occupational;

- ii. Consequences to Secondary Victims: dependents, survivors and family and clan: feuds and bloodshed;
- iii. Tertiary Victims: fear of crime and insecurity in the public via media, perception about law enforcement and justice; concept of victim compensation, restitution, victim advocacy and assistance.

UNIT 4: Magnitude of Victimization:

- (i) Self Report studies;
- (ii) Crime Victim Surveys in the USA and the magnitude of crime;
- (iii) International Crime Victim Surveys and comparative magnitudes; Anecdotal Studies;
- (iv) Dark Figure of Crime and Crime Pyramid: comparing crime statistics to victim statistics
- (v) Sensational Victim/Crime Reporting and exaggerated Fear of Crime: Public Panic after serious episodes like 9/11 bombings;
- (vi) Consequences of public reactions: political action: Nirbhaya Case, Homeland Security measures after 9/11 in USA and Bombay Terror Attack in India.

UNIT 5: Crime Victim Compensation and Victim Assistance and Advocacy:

- a) Costs of Crime and their impact on the victim/ victim family;
- b) New Zealand Experiment in Victim Compensation(1960), British Scheme of Victim Compensation (1964), US Schemes of Victim Compensation, Japan's New Scheme of Victim Compensation, South African Victim Compensation Scheme;
- c) Victim Compensation In India: Sections 357, 357A and 357B of Cr.P.C.; Atrocity Victims' Compensation, Motor Vehicle Accident Cases Victim Compensation; Calamity Victim Compensation; Rape Victim Compensation; Miscellaneous Compensation Schemes;
- d) Victim Assistance: Crisis Centre, Medical Care, Mental trauma and Psychological; counselling, Social Support services;
- e) Advocacy Movements Local, National and International
- f) UN Declaration of Basic Principles of Justice for Victim of Crime and Abuse of Power (G.A. 40/34 on 29th Nov. 1985);
- g) UN Guidelines on Witness Protection;
- h) Measures for Witness Protection in India.

References:

1. Andrew Karmen , 2015, "Crime Victims: An Introduction to victimology" Cengage Learning.
2. Bonnie S Fisher, Steven P Lab, 2010, " Encyclopedia Of Victimology and Crime Preventions" Vol I, Sage Publications Inc
3. Brent E. Turvey, 2013, "Forensic Victimology" Academic Press.
4. Emilio Viano , 1992, "Critical Issues In Victimology: International Perspective", SpringerPublications
5. Emilio Viano, 1991, Victims rights and Legal Reforms, Onati IIO.S.L.
6. Hans Joachin Schneider, 1982, "The Victims in International perspective", Walter De Gryter Pub
7. Israel Drapkin, Emilio Viano, 1974, "Victimology" Lexington Books.

SEMESTER: II

PAPER 2.2 ADVANCED COURSE IN JUVENILE JUSTICE

Max.Marks:80+20=100

Duration: 4 Hrs/Week

Credits: 4

Objectives:

This course while introduce fresh students laterally entering P.G. program in Criminology to the concept of juvenile deviance and its brief history, it seeks to enhance their knowledge of the current situation of JD in India in comparison to developed countries. The discussion of various theories of deviancy is kept to the barest minimum and greater emphasis is laid on teaching the relevant laws, institutions dealing with juvenile deviants, and the practical aspects of treating the juveniles so that they will grow into normal citizens.

UNIT 1:

(i) Meaning of Juvenile Deviancy: in narrow legal terms and in broader behavioural terms and the frequent overlap; adolescent wayward behaviour as a developmental problem: its history as old as human society; Status Offences as Juvenile Deviancy;

(ii) Evolution of Juvenile Justice Philosophy in the West: *parens patriae*, *in loco parentis*, welfarism: Separation of juvenile deviants from adult criminals (in non-Islamic countries) as a recent development; Child Saving Movements, The Christian Charities, emphasis on the evil effects of contamination of juveniles by the adult criminals in the jails; child's presumed innocence and non- responsibility for his actions; greater stress on education, welfare and proper socialization, vocational training etc., as an offshoot of reform movement in general; Juvenile Justice as a combination of welfare of children and safeguarding of society.

(iii) Separate Courts for Juveniles in the USA, then in UK and Europe; Simplified procedure; admonition, fine, bond for good behaviour, apprenticeship, probation,

commitment to institutions; separate correctional institutions for juvenile deviants (Reformatory Schools, Boot Camps).

UNIT 2:

(i) **Early History of JJ in India up to 2000:** Joint Family system and typical Varnashram beliefs and duty towards children; No JJ on the lines of the West prior to British advent in India;

(ii) Juvenile Justice introduced by the British on British model at the provincial level in India: Apprenticeship Act, Reformatory Schools Act, Children Acts of 1920s and 1930s; Borstal Schools Acts, Central Children Act 1960, JJ Act 1986, JJ Act 2000;

(iii) Varying definitions of child (girls and boys age limits varied); classification of children varied: neglected, ungovernable, destitute and deviant children: Remand Homes and Certified School for boys and girls; JMFC as Juvenile Judge; Central Children Act 1960 and separation of deviants and other categories and separate institutions for them (Children's Home and Special Schools); First Juvenile Justice Act 1986, amended in 2000 and further amended in 2002.

Unit 3:

(i) **JJ Act 2000 as a reflection of India ratifying United Nations Convention on the Rights of Child, Beijing Rules and Riyadh Guidelines; India's National Policy on Children:** Discussion of these;

(ii) Philosophy of JJ Act 2000: uniform age for girls and boys; bifurcation of juveniles into: those violating the laws and those requiring care and protection; separate institutions for the two: for the former the SJPU and JJB and for the latter the Child Welfare Officer and CWC: simple procedure; for the former children's home and the latter Special home whereas initially both may be kept in Observation home; offences relating children and punishment therefor;

(iii) Special Categories Children requiring care and protection: Street Children, Child Labourers, Trafficked Children, Victims of Child Abuse and Children from Disturbed Areas and Children in Natural Calamities and Refugee Children, Devdasi victims,

(i) Recent trends in Deviancy: Ragging, Pornography, Date Rapes, Sexual Harassment under POCSO, children misused by adult criminals, Street Violence and Gangsters, Drug Abuse, Bootlegging, Begging and Vagrancy;

(ii) Government of India's special programme - Integrated Child Development (ICPS) and a separate agency to implement: its objectives and importance in preventing deviancy;

- (iii) Magnitude of Juvenile Deviancy in India and Karnataka: CII reports; trends in JD in the last ten years (2005- 2015); incidence of JD among girls and boys; different age groups; different social backgrounds;
- (iv) Juvenile Recidivism and its rates across the countries and different section of the society;
- (v) Comparison of deviancy rates in USA, UK, Japan to India's rates

UNIT 4: Theories of Juvenile Deviancy:

(i) Early theories on slum environment, street gangs and deviancy as a result of Differential Association; (ii) Social Disorganization, Broken Homes and Deviancy; (iii) Broken Window Theory of Deviancy; (iv) Poverty and Deviancy; (v) Deviancy as a developmental problem of adolescents; impact of hormones, personality factors, intelligence, genetics and family genealogies (Jukes and Kallikaks), Eugenic programmes in Europe; (vi) impact of mass media on juveniles: Bandura and Imitation Theory, Glaser and Identification Theory; Learning Theories; Criminal Opportunity Theory; Sub culture Theories.

UNIT 5:

Composition, Powers, Procedures and Functions of JJB and CWC: Purpose, Programmes and impacts of Children's Homes, Special Homes, Observation Homes; Application of social work methods in the treatment, reform and rehabilitation of problematic juveniles: Counselling, Repatriation, Adoption, Foster Care and Sponsorship; Are these institutions adequate? Efficient and effective in rehabilitating children committed to them. Aftercare and follow up programmes; Assessment of ICPS and the problems in implementing them.

References:

1. Hirschi, T. (1968). Causes of Delinquency. London: University California Press.
2. Kvaraceus, W. C. Juvenile Delinquency- A Problem for the Modern World: Paris, UNESCO, 1964.
3. Nye, I. F. Family Relations and Delinquent Behaviour; New York: John Wiley, 1958.
4. Sampson, R. J. and Laub, J. H. (1993), Crime in the Making: Pathways and Turning Points through Life. Harvard University Press.
5. Shaw, C. R. and McKay, H.D. Juvenile Delinquency and Areas. Chicago: University of Chicago press, 1942.
6. Srivastava, S. S. Juvenile Vagrarancy: A Socio Ecological Study. Bombay: Ashia Publishing House. 1963.
7. Tappan, W. P. (1949). Juvenile Delinquency. New York: McGraw-Hill Book Company.

8. Wadsworth, M. (1979). Roots of Delinquency. Martin Robertston & Company.
9. Whechler, S. & Cotterall, L.S. Jr. (1966). Juvenile Delinquency: Its Prevention and Control. New York: Russel Sage Foundation.
10. Union and the State Women and Child Welfare Websites
11. Gupta M C Chokulingam – Child Victims of crime, Gyan Publishing House, New Delhi.
12. Chakravarti N K 1999, Institutional Corrections, Deep and Deep Publications, New Delhi.
13. Devasia and Devasia, 1992, Criminology , Victimiology and Corrections , Ashis
14. JJ Act 2000 with latest amendments till date
15. Child Labour (Prohibition and Regulation) Act 1986
16. The Protection of Children From Sexual Offences Act 2012
17. Factories Act 1948
18. Prohibition of Child Marriage Act 2006
19. Immoral Traffic Prevention Act 1986 with latest amendments till date
20. Pre-natal Diagnostic Techniques Act 1994

SEMESTER: II

PAPER 2.3: ADVANCED FORENSIC SCIENCE

Max.Marks:80+20=100

Duration: 4 Hrs/Week

Credits: 4

Objectives:

This course is intended primarily to familiarize students of criminal justice to the use of science in the cause of justice. This is not adequate to prepare students as experts. But it will make them aware of a variety of experts, how to use their expertise when required, and apply the scientific principles while detecting crimes.

UNIT 1:

- (i) Meaning of Forensic Science as a branch of Criminal Justice and varieties of Forensic Sciences; Importance of Forensic Science at various stages of investigating crimes and detecting criminals;
- (ii) The Scope of Expert Opinion and its importance under the Indian Evidence Act 1872; (a) Basic Principles of Forensic Science; Issues of Privacy in Forensic Science; (b) Identification of Criminals; Fingerprints and Footprints, Biometric Devices, DNA Fingerprinting, Iris, Bite Marks; Lip Prints, Voice Identification, Body Smells and Dog

Squad; Modus Operandi and force of habits; Police Lineup, and Photography and CC TV footages, Crime Profiling and Psychological methods;

UNIT 2:

(i) Ballistics: basic questions to be asked; determination of bullets marks, speed, direction, angle and distance from the firearm to the body; entry wound, exit wound; types of weapons and their varying impacts: guns and gun-shot wounds, rifles and the rifle wounds; revolver/pistol;

(ii) Handwriting and Questioned Documents: basic questions to be asked; types of documents: hand written, typed, printed; linking writer/criminal to the document and examining individual characteristics: slant, size, flourishes, strokes, scribble, idiosyncrasy etc.

(iv) Fingerprints: pores, ridges and sweat on the palmer surface and soles of feet and their three basic characteristics; patterns and peculiarities; AFIS and manual examination; decisions of the Supreme Court and the High Court on the number of peculiarities required: chance prints and specimen; methods of lifting of chance prints, photography and expert evidence.

UNIT 3: Toxicology and Poisoning Cases: Types of Poisons:

(A) Chemicals: (i) Caustic: (Inorganic): Sulphuric, Nitric and Hydrochloric acids; (Organic): Carboic acid (Phenol), Oxalic and Acetylsalicylic acids; (ii) Inorganic elements: Phosphorus, Iodine and Barium; (iii) Heavy Metals: Arsenic, Lead, Mercury, Copper, Iron, Cadmium, Thallium; (iv) Alcohols: Ethanol, Methanol, Ethylene Glycol; (v) Hydrocarbons and Pesticides: Kerosene, Petrol, Benzene, Methane, Turpentine; Organophosphates, Carbamates, Organochlorines, Pyrethroids, Paraquat, Aluminium and Zinc Phosphide; (v) Toxic Gases: Ammonia, Carbon Monoxide, Hydrogen Cyanide;

(B) Pharmaceuticals: (i) overdoses of Medicines, Analgesics, Anaesthetics, Muscle Relaxants; (ii) Neuropsychotoxins: (i) Barbiturates, (ii) Benzodiazepine, Phenytoin, Lithium, Haloperidol, Neuroleptics, Tricyclics;

(C) Poisonous Plants: Castor, Croton, Datura, Strychnos, Abrus, Calotropis;

(D) Food Poisoning: Bacterial, Viral, Chemical, Toxic Mushrooms and Fish;

(E) Venomous Bites and Stings: Snakebites, Scorpion Stings, Bee & Wasp Sting, Spider Bites;

(F) Substance Abuse: Cannabis, Cocaine, Amphetamines, Hallucinogens and NDPS Act. In each category clinical features, fatal doses, fatal period, post mortem appearance and medico-legal aspects shall be explained briefly.

UNIT 4: Forensic Medicine:

(a) Death and its Medico-Legal Aspects: medical definition of death and its types; cellular, somatic or brain-death; asphyxial, comatose, or synocopial death;

(b) Post-Mortem Changes: cooling of body, lividity, rigor mortis, cadaveric spasm, cold and heat stiffening; putrefaction, mummification, adipocere and maceration; estimation of time of death; ascertaining cause of death: natural or unnatural;

(c) Injuries and Wounds: abrasion, contusion and laceration; stab wound, incised wound, defence cuts, hesitation cuts, self-inflicted injuries and fabricated wounds; wounds caused by Heat, Cold, Electricity, Lightning, Explosions and Radiation; asphyxial injuries and marks in hanging, suffocation, strangulation, drowning; differentiation between accidental, suicidal and homicidal injuries; age of injury;

(d) Firearm Injuries based on firearms and weapon identification by wound features;

(f) NHRC guidelines for torture and Human Right cases;

(g) Medico-Legal Aspects of Virginity, Pregnancy and Delivery in rape, conjugal disputes, disputed parentage cases;

(h) Illegal Pre-Natal Sex Determination Tests;

(i) Impotency and Infertility Tests;

(j) Disputed Identity (sex): Hermaphrodites: Eunuchs, Turner Syndrome, Klinefelter Syndrome; **(k) Disputed age** and its medical determination.

Unit 5: Forensic Serology:

A. Blood and its grouping, Different Tests: Basic and Preliminary tests, Saliva and its importance, Semen and its importance in Sexual Crimes, Semen tests: Acid Phosphate and linking it to crime scene, Serology and extracting DNA;

B. Ethical Issues in Forensic Science

References:

1. Andrew R.W.Jackson, Julie M Jackson, 2011, " Forensic Science", Pearson Education Limited.
2. B.S.Nabar , 2001, forensic science in Crime Investigation", Asia law House.

3. J C Upshaw Downs, Anjali Ranadive, Swienton , 2002, "Ethics in Forensic Science, Academic Press Publications.
4. Jay A Siegel, KatheyMirakovits, 2013, " Forensic Science: The Basics", CRC press.
5. Jim Fraser, Robin Williams, 2013,"Hand book of Forensic Science", Routldge publications.
6. Max.M.Houck, Jay A Siegal,2010, "Fundamentals of Forensic Science" Academic Press.

SEMESTER: II

PAPER 2.4: ADVANCED RESEARCH METHODOLOGY IN CRIMINOLOGICAL RESEARCH

Max.Marks:80+20=100

Duration: 4 Hrs/Week

Credits: 4

Objectives:

This course in research methodology is intended to enable students to learn methods and techniques of doing research and apply them to the problems they study. These concepts and practises will be converted into workable skills by making students compulsorily do a student research project in the last semester. Having studied bivariate analysis at the undergraduate level they will be exposed to some of most common multivariate analytical tools.

UNIT 1:

Epistemology and Meaning of Scientific Research as an attempt to answer basic questions (what, who, where, when, how, and why) about any phenomena;

As a method of applying those methods of science which are Objective and Observable, Measurable and Verifiable, Self-Correcting and Cumulative;

Basic scientific ways of thinking/ reasoning: Deductive, Inductive and Abductive;

Basic scientific concepts and language of science: Words vs Terms, Sentence vs Proposition/Statement, Variable vs Constant, Dogmas and Postulates, Assumptions and Hypothesis, Hypothesis vs Theory, Theory Building vs Theory Testing;

Types of Research: Exploratory Studies: Descriptive Studies and Comparative Studies (e.g., natural observation (qualitative) studies in ethnology, case study methods, discourse analysis, RAPs, field studies); Explanatory Studies: Classical experimental design, Quasi-experimental designs, and Factorial designs etc); Survey Research Method as a versatile method.

UNIT 2:

(i) Survey Research as a versatile method which can be used for (a) Exploratory, (b) Comparative or (c) Explanatory purposes; Nature of Study decides the Tools: Questionnaires (pre-coded or open ended), Opinionnaires (i.e., open ended questionnaires) and Delphi Technique, Interview Schedule (coded or open ended or both), Interview Guides for probing in Exploratory studies or in Focussed Group Discussions or items of observation in Natural Field Studies;

(ii) Census Survey vs Sample Survey: Population and Sample; Sample Survey and Sampling; population parameters and sampling techniques: basic features of random sampling; Types of Random Sampling Methods: Simple Random (Lottery with or without replacement and RN Tables), Patterned Serial/Systematic Random Sampling, Stratified Random Sampling, Cluster Sampling Method, Multi-Stage Sampling; Non-Random Sampling: Opportunistic Sampling, Snow Balling Sampling method, Purposive Sampling, Accidental Sampling, Quota Sampling; Determining Sample Size based on population parameters and their representativeness.

UNIT 3:

Formulation of a research problem/project: general steps: (a) choosing a main domain area of study, (b) choosing a specialization within the main domain, (c) selecting a problem within the specialization considering Time required, Cost involved, Manpower necessary, Availability and Access to data; (d) sources of hypotheses about the chosen problem: (i) literature review and identifying gaps in knowledge, (ii) discussion with experts and brain storming, (iii) general observations, (iv) educated guesses, (v) critical thinking and inferences about probable associations among many variables, (e) defining the objectives of the study precisely, (f) Choosing appropriate method of research for the selected study to fulfil the defined objectives, (g) Identifying items of information and the sources of information (primary or secondary) to satisfy the objectives, (h) Constructing the Tools for Data Collection: Questionnaire/Interview Schedule/Guide/Opinionnaire, scaling design and score sheet, Maps, Sketches, Diagrams and obtaining appropriate equipments wherever necessary;

UNIT 4: DATA COLLECTION: METHODS and TOOLS:

(i) Observation Method in natural field studies like Malinowski's Trobriand Islanders; Tools of Observation: Observation Guide/Schedule, Camera, Sound Recorder (Video), Binocular, Pen and Pencil, Tape, Graded Scaling Sheet for scoring, various diagrams for observation recording on physical positions, GPS/GIS;

- (ii) Interviewing: In Survey Methods: Tools to record: Video, Hidden Camera/CCTV, Questionnaire/Interview Schedule/ Opinionnaire, Scales and Score Sheets, Maps and Diagrams etc.;
- (iii) Mailed/self administered questionnaires in surveys or polls;
- (iv) Experimental Design: Controlled Observation of manipulated variable on the dependent variable: measurement of effects before and after on Control Group and Experimental Groups.

UNIT 5: DATA ANALYSIS and REPORT WRITING:

- (i) Data Scrutiny and editing; coding the open ended questions, data transfer to Master Sheet or Computer and controlling of entry errors;
- (ii) Tabulation Plan according to objectives of study: Data Presentation Plan: Tables, Maps, Sketches, Pictographs; Graphics: Pie diagram, Bar Charts, Histogram, Frequency Polygon, Smooth Curve and how to draw them;
 - a. Types of Tables: Simple Frequency Tables, Cross Tables, Complex Tables, Original Tables, Derived Tables;
 - b. Table Structure: heading, units of figures, column and row naming, marginal totals and grand total, foot notes and source of data;
- (iii) Data Analysis and application of descriptive or inferential statistics to examine hypotheses or varying associations, their strength, direction and significance;
- (iv) Report Writing: purpose and style of report writing; chapterization as per objectives of research plus first chapter on introduction and literature review and second chapter on methodology, its justification and significance, and the last chapter on recommendations or general conclusions; Executive Summary;

References:

1. Doing Criminological Research by Davies, Francies & Victor
2. Hagan F E 1993, Research Methods in Criminal Justice and Criminology Prentice Hall, Englewood Cliffs .NJ
3. Methodology of Research in Social Sciences by Krishnaswamy and Ranganathan. Himalaya Publishing House.
4. Research Methodology: Methods and Techniques by Khotari.C.R. New Age International Publishers.
5. Research Methods by Ram Ahuja. Rawat Publications.

SEMESTER: II

PAPER 2.5 ASSESSED FIELD WORK/LAB BASED PRACTICAL

Max.Marks:80+20=100

Duration: 4 Hrs/Week

Credits: 4

A. Field work

1. Visit to different Correctional and Rehabilitation Institutions and DCPO.

B. Forensic Science and Police Science Lab Based Practicals-II

2. Examination of inner and outer morphology of hair
3. Examination of models of different wounds.
4. Examination of human skeleton and Identification of Sex through Bone remains.
5. Examination of typewritten document and Hand Written.
6. Blood Test : Preliminary -Benzidine Test
Microscopic Chemical Test – Titchman and TakayamaTest
Microscopic examination or RBC Test.

SEMESTER: II

PAPER 2.6: INTRODUCTION TO FORENSIC SCIENCE (OEC)

Max.Marks:80+20=100

Duration: 4 Hrs/Week

Credits: 4

Objectives:

This course will introduce basics of Forensic Science, its main tenets, organization and Administration and the related institutions. It also introduces students to basic theory and practice in respect of the use of scientific knowledge relating to physical clues and their links with the crime and the criminals.

UNIT 1: Historical Development of the Forensic Science

(A) Origin of the word Forensic, Definition of Forensic Science, Historical Development of the Forensic Science across the World, Pioneers and their contribution to the growth of knowledge. Basic Principles of Forensic Science, Various Branches of Modern Forensic Studies.

(B) Organization of Forensic Laboratories in India under Union Ministry of Home Affairs, Special Establishments, State Forensic Laboratories, Organization and Administration.

UNIT 2: Forensic Science as a Science Applied to the Cause of Justice – Police Investigation stages, Experts, Crime Scene Investigation: types and methods, Physical Clues- Scientific Examinations through labs; Scientific Evidence to link and identify criminals through physical “clues” and their tools, identification of criminals through eye witness description, identification parade and its procedure; drawing features of body (Anthropometry, Bertillonage, Portrait Parle) Scientific evidence (section 43, 45, 59 to 79, 137-138 of IE Act) the scope of Expert Opinion and its importance under the Indian Evidence Act 1872.

UNIT 3: Law of Individual Differences:

1.Print Science: Brief Development of Finger print science, Nature- Pores, Ridges and Sweat on the palmer surface and soles of feet and their three basic characteristics, Different Patterns,

Principles AFIS and manual examination; decisions of the Supreme Court and the High Court on the number of peculiarities required, Foot Prints- Nature, Types and importance.

2. Handwriting and Questioned Document: basic questions to be asked; types of documents: hand written, typed, printed; linking writer/criminal to the document and examining individual characteristics: slant, size, flourishes, strokes.

3. Ballistics: basic questions to be asked; determination of bullets marks, speed, direction, angle, and distance from the firearm to the body; entry wound, exit wound; types of weapons and their varying impacts: guns and gun-shot wounds, rifles and the rifle wounds; revolver/pistol.

UNIT 4: Forensic Medicine and Toxicology: “Dead body tells a tale”, Death and its medico-legal aspects: medical definition of death and its types; cellular, somatic or brain-death; asphyxial, comatose or synocopial death; Post-mortem changes: suicidal or homicidal; types of injuries and weapons used; body fluids and their identity; blood, semen, brief importance of DNA and hair samples.

(b) Toxicology- Importance, Classification of Poisons, Use of Spectroscopy, Chromatography- Gas chromatography.

UNIT 5: Forensic Psychology: (i) Crime Profiling; (ii) Narco-Analysis; (iii) Lie Detection: Polygraphs, BEOS, Electrical Oscillations of the Brain; (iv) Insanity Plea and competency to stand trial; (v) Fitness for child custody; (vi) Prognosis of criminal behaviour for early release cases.

Reference:

1. Andrew R.W.Jackson, Julie M Jackson, 2011, “ Forensic Science”, Pearson Education Limited.
2. B.S.Nabar , 2001, forensic science in Crime Investigation”, Asia law House.
3. J C Upshaw Downs, Anjali Ranadive, Swienton , 2002, “Ethics in Forensic Science, Academic Press Publications.
4. Jay A Siegel, KatheyMirakovits, 2013, “ Forensic Science: The Basics”, CRC press.
5. Jim Fraser, Robin Williams, 2013,“Hand book of Forensic Science”, Routlidge publications.
6. Max.M.Houck, Jay A Siegal,2010, “Fundamentals of Forensic Science” Academic Press.