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Paper Code: BSC-FS-401A

A (SVSU:2023-24/R)

Enrollment No.

Program Name: B.Sc. Forensic Science

IV Semester / II Year Examination

Subject: ABNORMAL PSYCHOLOGY-Code: BSc-FS-401A

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : 1. Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs) [01×15=15]

- I ICD is published by
(a) WHO (b) APA (c) PSA (d) UNO
- II Fear of water is
(a) Zoophobia (b) Hydrophobia (c) Algophobia (d) Pyrophobia
- III Disorder which consists of physical complaints without any physical pathology is termed as
(a) Dissociative disorders (b) Somatoform disorders
(c) Depression (d) Stress
- IV Which of the following conditions is NOT included in the DSM?
(a) Bulimia (b) Anorexia (c) Binge-eating (d) Obesity
- V Generalised Anxiety Disorder (GAD) is a pervasive condition in which the sufferer experiences
(a) Fear of fear
(b) Continual apprehension and anxiety about future events
(c) Continual flashbacks to past events
(d) A desire to check that the environment is safe
- VI In Obsessive Compulsive Disorder (OCD) compulsions are generally thought to be which of the following
(a) Repetitive or ritualized behaviour patterns that the individual feels driven to perform in order to prevent some negative outcome happening.
(b) Repetitive thoughts about harming or distressing others.
(c) Overwhelming desires to behave in an inappropriate fashion.
(d) Ritualised worrying about negative outcome of events.
- VII In Pain Disorder, which of the following are considered as central features?
(a) The pain itself (and not any other feature of the physical symptoms) is the predominant focus of the individual's complaints
(b) The pain causes significant distress
(c) The pain causes impairment in social, occupational or other functioning
(d) All of the above
- VIII Somatoform disorders include which of the following
(a) Conversion disorder (b) Somatization disorder
(c) Hypochondriasis (d) All of the above
- IX In learning disabilities, the name for mathematical disorder is
(a) Dyspraxia (b) Dyslexia (c) Dyscalculia (d) Dysphasia

- X Which of the following is an important factor in substance abuse?
 (a) Whether the substances are regularly used by other family members
 (b) Whether the family environment is rural or urban
 (c) Whether you are a twin (d) Whether you are born in the winter
- XI Paranoid schizophrenia is a sub-type of Schizophrenia which is characterized by
 (a) The presence of disorganized behavior and flat or inappropriate affect
 (b) The presence of delusions or auditory hallucinations
 (c) The severe disturbances of motor behavior
 (d) A lack of prominent positive symptoms with evidence of on-going negative symptoms
- XII Mania involves
 (a) Boundless, frenzied energy (b) Feelings of euphoria
 (c) Ideas coming too fast and too many (d) All of the above
- XIII The term 'abnormal psychology' refers to which of the following?
 (a) The psychological study of people who are fundamentally odd
 (b) Psychological research carried out using highly unconventional methods
 (c) Psychology relating to atypical patterns of thoughts, feelings and behaviours
 (d) The more obscure areas of psychology that relate to topics such as what sheep think about
- XIV Which of the following physical symptoms are associated with Panic attacks?
 (a) Heart palpitations (b) Perspiring
 (c) Hyperventilating (d) All of the above
- XV To understand anxiety disorders we need to take account of
 (a) Only biological factors (b) Only environmental factors
 (c) Both biological and environmental factors
 (d) Neither biological nor environmental factors
2. **Answer in long (any three)** [10×3=30]
 I Differentiate between normal and abnormal person with some examples.
 II Draw the Clinical Picture and explain Etiology of Phobia.
 III Briefly explain Reasons of substance abuse.
 IV Draw the Clinical Picture and explain Etiology of Depression.
3. **Answer in short (any five)** [5×5=25]
 I Differentiate between ICD 11 and DSM 5.
 II Examine the causes and symptoms of Obsessive Compulsive Disorders.
 III Describe the Etiology of Bipolar disorder.
 IV Explain the symptoms of Schizophrenia.
 V Identify the Causes of Learning Disabilities.
 VI Elaborate on different types of substance abuse.
 VII Define the list Symptoms of Autism.

15/05/2024

Printing Pages : 2

Paper Code: BSC-FS-403

A (SVSU:2023-24/R)

Enrollment No.

Program Name: B.Sc. Forensic Science

2nd Year IV Semester / Examination

Subject Name: FORENSIC BIOLOGY Code: BSC-FS-403

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[01×15=15]

- I Apneumones arise from
(a) Corpse (b) Carcass (c) Carrion (d) All of the above
- II Predominant order of forensic arthropods
(a) Diptera (b) Coleoptera (c) Both of these (d) None of the above
- III Reduction of population size by 90% in 10 years resembles
(a) Critically endangered (b) Endangered (c) Threatened (d) Vulnerable
- IV What is achieved in Forensic casework?
(a) Identifying wildlife (b) Supporting prosecution
(c) All of the above (d) None of the above
- V Pupae can be found in
(a) Moist areas in and around carrion (b) Well-lit areas around carrion
(c) Dry areas around carrion (d) Rocks/ stones near carrion
- VI Which type of footwear has highest probability of containing diatoms?
(a) Leather (b) Canvas (c) Rubber (d) None of the above
- VII Which of the following is correct?
(a) The medulla contains mitochondrial DNA which can be extracted from the hair
(b) The cortex surrounds the medulla
(c) The cortex holds the pigment of the hair (d) All of the above
- VIII Why hair is easy to locate at crime scene?
(a) Shape and color make them distinct (b) They do not decompose
(c) Attach to surface due to electrostatic force (d) All of the above
- IX In how many instars, do maggots reach full size?
(a) 4 (b) 2 (c) 3 (d) 1
- X Through which part a hair is attached to the scalp
(a) Cuticle (b) Medulla (c) Cortex (d) Root

- XI Steady decrease in carrion biomass occurs by
(a) 1-2 days (b) 2-7 days (c) 5-10 days (d) 10-23 days
- XII Volatile chemicals are released at which stage of decomposition of a dead body? (a) Early (b) Middle (c) Late (d) All of the above
- XIII Red Data Book is the name commonly associated with
(a) Threatened (b) Endangered (c) Vulnerable (d) All of the above
- XIV 90% Reduction in population size over the last 10 years indicates the organism is
(a) Endangered (b) Vulnerable (c) Extinct (d) Critically endangered
- XV Some pugmarks are very close to the median line. Which animals has such pugmark ? (a) Elephant (b) Tiger (c) Sloth (d) Fox

2. Answer in long (any three) [10×3=30]

- I Describe the different parts of hair with forensic application. Explain the different types of analysis.
- II Explain in detail how the gender of an animal can be determined from its pug mark. Compare the pug marks of different categories of animals.
- III Discuss the different stages of decomposition of carrion. Write in detail the entomological significance.
- IV Write down the features of the life-cycle of forensic arthropods. Give detailed forensic significance of the life-cycle.

3. Answer in short (any five) [5x5=25]

- I What are apneumones? Explain its forensic significance and the information that can be derived.
- II Write down the major types of analysis in trichology.
- III Highlight the significance of palynology in forensics.
- IV Explain the exceptions in pug-mark analysis. Provide appropriate examples and pictorial representations.
- V Point out the significant features of the paw of a tiger, which are used in wildlife forensics.
- VI Why wildlife trade is considered illegal. Explain with appropriate examples?
- VII Explain the different categories of arthropods that are found in decomposing carrion.

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Paper Code: BSC-FS-404S

B (SVSU:2023-24/R)

Enrollment No.

Program Name: B.Sc. Forensic Science

IV Semester / 2nd Year Examination

Subject Code: BSC-FS-404S

Subject Name: HANDWRITING IDENTIFICATION & RECOGNITION

[Time : 03:00 Hours]

[Max. Marks : 70]

Note : Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[01×15=15]

- I** Removal, changing or adding a portion of the original document is
 (a) Obliteration (b) Alteration
 (c) Simulation (d) Interlineation
- II** Which of the following are examples of Diacritic marks?
 (a) Dots of i and j (b) Loops of g and j
 (c) Loops of p and y (d) Curves of j and i
- III** The writing in which a person made a deliberate attempt to change his own handwriting features to make it look different is
 (a) Forged writing (b) Contemporary writing
 (c) Traced writing (d) Disguised handwriting
- IV** The electrostatic detection apparatus (ESDA) doesn't analyze
 (a) Sequence of writing impressions and ink strokes
 (b) Torn edges of paper for possible matching
 (c) To visualize indented writing (d) To date ink
- V** First GEQD of India was established in
 (a) Kolkata (b) Delhi (c) Shimla (d) Hyderabad
- VI** The following is most acceptable for revealing indented writing
 (a) Oblique lighting (b) ESDA
 (c) Intense lighting (d) Pencil shading
- VII** Guided handwriting is also known as
 (a) Traced handwriting (b) Skilled handwriting
 (c) Assisted handwriting (d) Simulated handwriting
- VIII** The characteristic features of wrist writing is/are-
 (a) Tapering terminals (b) Heavy pen pressure
 (c) Irregular curves (d) All of the above
- IX** Handwriting which is joined top to bottom lower case is
 (a) Cursive writing (b) Script writing
 (c) Graphic writing (d) Disconnected writing

- X Secret writing consists of-
 (a) Overt writing (b) Covert writing
 (c) Invert writing (d) None of the above
- XI Contemporary standards of handwriting relate to:
 (a) Standard writing of different period
 (b) Standard writing of same period
 (c) Standard writing of different individual
 (d) Standard writing of same individual
- XII Which crime comes under White collar crimes
 (a) Robbery (b) Dacoity (c) Forgery (d) Murder
- XIII The writing present on charred documents can be restored by
 (a) Infrared photography (b) Oblique light
 (c) UV light photography (d) Reflected light
- XIV Which of the following disease affect handwriting?
 (a) Leukemia (b) Chronic malaria
 (c) Thalassemia (d) Parkinson's disease
- XV Forger selects model signature of writing in
 (a) Copied forgery (b) Simulated forgery
 (c) Freehand forgery (d) All of the above
2. **Answer in long (any three)** [10×3=30]
- I What is forgery? Explain the different types of forgery.
- II Describe handwriting recognition. Mention the process of pre-processing and feature extraction in recognition.
- III Explain the preliminary and confirmatory examination of handwritten documents.
- IV Define the handwriting features. How these features help in analysis of handwriting?
3. **Answer in short (any five)** [5×5=25]
- I Elaborate the role of pen pause, pen lifts and pen pressure in handwriting examination.
- II Explain the scope and application of handwriting examination in Forensic Science.
- III Discuss the uses of IR and UV light in handwriting examination.
- IV What is disguised writing? How it can be analyzed?
- V Define the following terms: (a) Simulated forgery (b) Indentation
- VI Write a note on individual characteristics that can be employed in examination.
- VII What are the different standards for comparison of handwriting? How are they obtained?

Printing Pages :2

Paper Code: BSC-FS-401

B (SVSU:2023-24/R)

Enrollment No.

Program Name: B.Sc. Forensic Science
2nd Year IV Semester / Examination

Subject Code: BSC-FS-401

Subject Name: FORENSIC CHEMISTRY

[Time : 03:00 Hours]

[Max. Marks : 70]

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Note: Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)

[01×15=15]

- I If an explosion took place in an open area, the recommended area that needs to be secured is (X: fastest distance from a seat at which fragments were found)
 - (a) Circular area of radius X
 - (b) Circular area of radius 2X
 - (c) Circular area of radius 5X
 - (d) Circular area of radius 1.2X
- II HMX contains
 - (a) Trinitro Toluene
 - (b) Cyclotetra methylene Tetranitramine
 - (c) Ammonium Nitrate
 - (d) Cyclotrimethylene Tri-nitrate
- III Semtex is a high explosive that is a mixture of
 - (a) PETN and RDX
 - (b) PETN and TNT
 - (c) RDX and TNT
 - (d) TNT and Ammonium Nitrate
- IV Which of the following is not a useful evidence for examination of Arson case?
 - (a) Semi-burnt materials
 - (b) Unburnt materials
 - (c) Completely burned materials
 - (d) Porous materials
- V Which of the following is an example of primary high explosive?
 - (a) Dynamite
 - (b) Gun powder
 - (c) Nitrogen sulphide
 - (d) Fire crackers
- VI Trinitrophenol is another name for
 - (a) Picric Acid
 - (b) TNT
 - (c) PETN
 - (d) RDX
- VII At a scene of fire, the debris containing accelerants should be packed in which of the following
 - (a) Glass Bottles
 - (b) Unused paint cans which can be made air tight
 - (c) Large plastic bags
 - (d) Paper bags
- VIII Blue color of Kerosene is due to presence of
 - (a) Dialkyl amino anthraquinone
 - (b) Sunset yellow
 - (c) Phenyl azo-2-naphthol
 - (d) Eosin
- IX The lowest temperature at which liquid gives vapor to form an ignitable mixture with air to support combustion is known as
 - (a) Flame point
 - (b) Aniline point
 - (c) Flash point
 - (d) Fire point

- X A military bomb bear which of the following characteristics on their basic structure
(a) Identification mark of their make (b) Year of manufacturing
(c) Both a and b (d) None of the above
- XI Which of the following is the suitable solvent system for analysis of petroleum products
(a) Hexane: toluene: acetic acid (b) Chloroform: Acetone
(c) Hexane: acetone: acetic acid (d) Chloroform: diethyl ether
- XII The full form of IED is
(a) Improved explosion devices (b) Improvised explosive devices
(c) Improvised explosion devices (d) Impressive explosion devices
- XIII Adulteration of gasoline with kerosene oil can be detected by:
(a) Thin Layer Chromatography (b) Gas Liquid Chromatography
(c) High performance Liquid Chromatography (d) All of the above
- XIV Which of the following is a low explosive
(a) Nitroglycerine (b) RDX (c) Ammonium Nitrate (d) Black powder
- XV Kerosene normally boils in the range of
(a) 350- 450degrees Celcius (b) 150- 250 degrees Celcius
(c) 750 – 850 degrees Celcius (d) 550- 650 degrees Celcius
2. **Answer in long (any three)** [10×3=30]
- I Discuss about the explosion process. Write a note on search, collection and analysis of post blast residues.
- II What is a fire triangle? Write a note on different phases/ stages of fire.
- III Explain the process of obtaining different fractions of petroleum products?
- IV As a forensic investigator, how will you investigate an arson case? Elaborate your views.
3. **Answer in short (any five)** [5x5=25]
- I What are Low explosives?
- II Explain the role of accelerants in arson cases. Give examples of accelerants of fire.
- III Describe the refining process of petroleum products.
- IV What do you understand by forensic chemistry? What is the role of a forensic chemist?
- V Define the following terms: (a) Flash point (b) Secondary explosives
- VI Write a note on Improvised Explosive devices (IEDs) with examples.
- VII Mention the commercial uses of Diesel, Kerosene and Gasoline?

Note: Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs) [01×15=15]

- I** Adding a portion between the spaces of lines of the original document is known as
 (a) Obliteration (b) Alteration
 (c) Simulation (d) Interlineation
- II** Which of the following is the suitable technique for examination of sequence of strokes?
 (a) Stereomicroscope (b) UV spectroscopy
 (c) ESDA (d) Compound microscope
- III** Which section of Indian Penal Code defines document
 (a) Section 463 IPC (b) Section 465 IPC
 (c) Section 29 IPC (d) Section 470 IPC
- IV** Which of the following organizations is completely dedicated to Document Analysis?
 (a) GEQD (b) CFSL (c) BPRD (d) CBI
- V** The following is least acceptable for revealing indented writing
 (a) Oblique lighting (b) ESDA
 (c) Transmitted lighting (d) Pencil shading
- VI** Which of the following techniques are destructive in nature for examination of Ink from a document?
 (a) Video Spectral Comparator (VSC) (b) Alternate Light Source
 (c) IR Microscopy (d) Thin Layer Chromatography
- VII** Forger don't need a model signature of writing in
 (a) Copied forgery (b) Simulated forgery
 (c) Freehand forgery (d) Forgery by memory
- VIII** Preliminary examination of Documents are done with
 (a) Microscopes (b) Hand Magnifying Lens (c) ESDA (d) Naked eye
- IX** If a person is asked to write the dictated material in certain conditions, then the sample obtained will be known as
 (a) Non- request samples (b) Requested samples
 (c) Exhibits (d) None of the above

- X Contemporary standards of handwriting relate to:
 (a) Standard writing of different period
 (b) Standard writing of same period
 (c) Standard writing of different individual
 (d) Standard writing of same individual
- XI Documents are sometimes chemically treated to make them look like
 (a) Old documents (b) New documents
 (c) More authentic (d) None of them
- XII Ball pen inks are
 (a) Gel based (b) Water based (c) Oil based (d) Carbon based
- XIII Indentation is also known as:
 (a) Visible impression (b) Latent impression
 (c) Plastic Impression (d) None of the Above
- XIV Which type of Writing movement in an unskilled writer's handwriting is present prominently?
 (a) Whole arm Movement (b) Wrist Movement
 (c) Fast Movement (d) Forearm Movement
- XV Ambidextrous Writer is a writer who can write with equal ease and skill with:
 (a) Right Hand only (b) Left Hand only
 (c) Both the hands (d) Holding pen in Mouth
2. **Answer in long (any three)** [10×3=30]
- I Explain about destructive, semi- destructive and destructive analysis of Questioned documents with processes involved.
- II Define the process of Handwriting formation. How does it get changed under different circumstances?
- III Discuss about examination of different security documents with features involved.
- IV What is forgery and its types? Write a short note on forgery detection.
3. **Answer in short (any five)** [5x5=25]
- I Elaborate the role of different types of microscopes in document examination.
- II How can we determine age and relative age of documents?
- III Define the process of analysis of documents using ESDA.
- IV What is the role and importance of writing instrument and surfaces in handwriting formation?
- V Discuss about the following terms:
 (a) Counterfeit currency (b) Disguised writing
- VI Write a note on ink and paper analysis.
- VII Differentiate between features of traced and simulated forgery.