DCFS – 101

First Semester B.Sc. Degree Examination, May/June 2022
(NEP Scheme)
CRIMINOLOGY AND FORENSIC SCIENCE
Introduction to Forensic Science

Time : 2½ Hours Max. Marks : 60

PART – A

Answer **any 6** questions. **Each** question carries **1** mark. **(6×1=6)**

1. Define Mahazaar.
2. What is oral evidence ?
3. Define Forensic Ballistics.
4. What is Locard's Principle of Exchange ?
5. What is computer forensics ?
6. Define Narcotic Unit.
7. What is Central Reserve Police Force ?
8. What is the role of Dog squad ?

PART – B

Answer **any 6** questions. **Each** question carries **2** marks. **(6×2=12)**

9. What are the qualifications of Forensic Scientists ?
10. Explain the code of conduct for forensic scientist.
11. Explain digital and cyber forensics.
12. What is questioned document examination ?
13. What is Forensic physics and its importance in forensic science ?

P.T.O.

14. What are the functions of forensic chemistry ?

15. Explain central detective training school.

16. What is the role of National Police Academy ?

PART – C

Answer **any 3** questions. **Each** question carries **4** marks. **(3×4=12)**

17. Explain the steps involved in report writing.

18. Explain the contribution of Sir Edgar Hoover through the FBI ?

19. What are the scientific kits available in mobile forensic lab ?

20. Explain the role of CBI and FBI.

PART – D

Answer **any 5** questions. **Each** question carries **6** marks. **(5×6=30)**

21. Explain the principle of Forensic Science.

22. What is the definition, scope, need and functions of forensic science ?

23. Explain the branches of forensic science.

24. What is the history of Forensic Science ?

25. Explain about the branches of Forensic Science laboratories.

26. Explain Central, State and Regional forensic science laboratories.

27. Explain the role of BPR&D.

28. Explain the functions and hierarchical set up of law enforcement agencies.

DCFS – 102

I Semester B.Sc. Degree Examination, May/June 2022
(NEP)
CRIMINOLOGY AND FORENSIC SCIENCE
Basic Forensic Chemistry

Time : 2½ Hours Max. Marks : 60

Instructions : *1) The question paper has **4** Parts. Answer **all** the **four** Parts.*
*2) Draw diagrams **wherever** necessary.*

PART – A

Answer **any six** of the following questions. **Each** question carries **one** mark. **(6×1=6)**

1. Define normality.
2. What is bond order ?
3. Give one use for neon.
4. What are f-block elements ?
5. What is meant by tetravalency of carbon ?
6. Define hybridization.
7. Give an example for a complexometric titration.
8. What is standard solution ?

PART – B

Answer **any six** of the following questions. **Each** question carries **two** marks. **(6×2=12)**

9. Define formal charge.
10. Define :
    i) Change in internal energy
    ii) Entropy.
11. Write a note on acidic corrosives.
12. What is lanthanide contraction ?
13. Specify the hybridization of carbon in the following molecules.
    i) CH_4 ii) C_2H_4
    iii) C_2H_2 iv) C_2H_6

P.T.O.

14. Write the IUPAC names of the following molecules.
    i) $CH_3 – CH(OH) – CH = CH – CH_3$
    ii) $CH_3 – CH_2 – CH_2 – CHO$

15. Explain the term Seeding of crystallisation.

16. What is the principle of gravimetric analysis ?

PART – C

Answer **any three** of the following questions. **Each** question carries **four** marks. **(3×4=12)**

17. Give any four differences between Sigma and Pi bonds.

18. Explain any two properties each for anomalous behaviour of beryllium and its diagonal relationship with Aluminium.

19. Explain substitution reaction with an example.

20. Briefly explain electro gravimetric analysis.

PART – D

Answer **any five** of the following questions. **Each** question carries **six** marks. **(5×6=30)**

21. What is hydrogen bonding ? Explain its types with examples.

22. What is an ionic bond ? Explain the formation of ionic bond with illustration.

23. a) Give any two differences between order and molecularity. **2**

    b) Define pseudo first order reaction. Give an example. **2**

    c) Explain (i) Isotopes (ii) Isobars with an example. **2**

24. Discuss the classification of elements into s, p, d and f block elements.

25. What are polymers ? Explain addition and condensation polymers with examples.

26. Explain the classification of organic compounds with one example for each class.

27. Explain distillation and fractional distillation with neat diagram.

28. What are titrimetric analysis ? Briefly explain its classification.

DCFS – 102

I Semester B.Sc. Degree Examination, February/March 2023
(NEP)
FORENSIC SCIENCE
FS-102 : Basic Forensic Chemistry

Time : 2½ Hours | Max. Marks : 60

Instructions : 1) *The question paper has* ***4*** *Parts. Answer* ***all*** *the* ***four*** *Parts.*
2) ***Draw*** *diagrams* ***wherever*** *necessary.*

PART – A

Answer **any six** of the following questions. **Each** question carries **one** mark : **(6×1=6)**

1. Define Molality.
2. What is pH ?
3. Calculate the molecular mass of $K_2Cr_2O_7$. Given Atomic mass of K = 39; Cr = 52; O = 16.
4. Give the general electronic configuration of d-block elements.
5. What are acidic corrosives ?
6. Explain isotopes with an example.
7. What is meant by tetravalency of carbon ?
8. What is titration ?

PART – B

Answer **any six** of the following questions. **Each** question carries **two** marks : **(6×2=12)**

9. Calculate the molarity of a solution containing 4.9 g of H_2SO_4 in one dm^3 solution. Molar mass of H_2SO_4 = 98.0 g.
10. Define : (i) change in internal energy, (ii) entropy.
11. What are chalcogens ? Give an example.
12. Define electronegativity. Name the most electronegative element.
13. Mention any two consequences of lanthanide contraction.

P.T.O.

14. Explain elimination reaction with an example.
15. Explain the term seeding of crystallisation.
16. What is the principle of gravimetric analysis ?

PART – C

Answer **any three** of the following questions. **Each** question carries **four** marks. **(3×4=12)**

17. Give any four differences between sigma and pi bonds.
18. Explain any two properties each for anomalous behaviour of beryllium and its diagonal relationship with Aluminium.
19. Explain sp^3 hybridisation taking CH_4 as an example.
20. Explain solvent extraction technique for the separation of organic compounds.

PART – D

Answer **any five** of the following questions. **Each** question carries six marks. **(5×6=30)**

21. What is hydrogen bonding ? Explain its types with examples.
22. What is an ionic bond ? Explain the formation of ionic bond with illustration.
23. Discuss the classification of elements into s, p, d and f block elements.
24. a) Give any two differences between order and molecularity. **2**
    b) Where and why are the elements with atomic numbers 58 to 71 placed separately in the periodic table ? **2**
    c) What are isoelectronic ions ? Illustrate with an example. **2**
25. What are polymers ? Explain addition and condensation polymers with examples.
26. Explain the classification of organic compounds with one example for each class.
27. Explain distillation and fractional distillation with neat diagram.
28. Briefly explain electro gravimetric analysis with a diagram.

DCFS – 101

First Semester B.Sc. Degree Examination, February/March 2023
(NEP Scheme)
FORENSIC SCIENCE
Introduction to Forensic Science

Time : 2½ Hours Max. Marks : 60

PART – A

Answer **any 6** questions. **Each** question carries **1** mark. **(1×6=6)**

1. Define forensic science.
2. Define first responder.
3. What is meant by forensic anthropology ?
4. Define Mahazar.
5. Expand INTERPOL.
6. Define BPR&D.
7. Define chain of custody.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks. **(2×6=12)**

8. What are the ethics to be followed by Forensic Scientist ?
9. Define forensic biology and serology.
10. Define Sec. 60 of IEA.
11. Explain the functions of civil police and reserved police.
12. Define RAW.
13. Define questioned document.
14. Define cyber forensic.
15. Define criminalistics.

P.T.O.

PART – C

Answer **any 3** questions. **Each** question carries **4** marks. **(3×4=12)**

16. Explain the scope and need of forensic science.

17. Explain Daubert and Frye standard.

18. Write about the duties of forensic scientist.

19. Explain the hierarchical setup of FBI.

PART – D

Answer **any 5** questions. **Each** question carries **6** marks. **(6×5=30)**

20. Explain the principles of forensic science.

21. Explain the contributions of Sir Edger Hoover through the FBI.

22. Write about the history and development of various branches of forensic science.

23. Explain the format of report writing.

24. Explain the hierarchical setup of central, state and regional forensic science laboratories.

25. Explain the functions and hierarchical setup of RAW and CBI.

26. Explain class and individual evidence.

DCFS – 103

First Semester B.Sc. Degree Examination, February/March 2024
(NEP) (Freshers and Repeaters)
CRIMINOLOGY AND FORENSIC SCIENCE
Criminology

Time : 2½ Hours

Max. Marks : 60

Instructions *:1) Part – **A** : Answer **any 6** questions.*
*2) Part – **B** : Answer **any 6** questions.*
*3) Part – **C** : Answer **any 3** questions.*
*4) Part – **D** : Answer **any 5** questions.*

PART – A

Answer **any 6** questions. **Each** question carries **1** mark. **(1×6=6)**

1. Define classical theory.
2. What is Actus Reus ?
3. What is criminal breach of trust ?
4. Define habitual criminal.
5. What is flogging ?
6. Define positive punishment.
7. Define victimization.
8. Define victim proneness.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks. **(2×6=12)**

9. Explain Routine Activity theory.
10. Define crime triangle.
11. Explain Prostitution.

P.T.O.

12. Explain sexual offence.

13. What is probation ?

14. Explain Aftercare.

15. Explain secondary victimization.

16. Explain crime victim.

PART – C

Answer **any 3** questions. **Each** question carries **4** marks. (4×3=12)

17. Explain social learning theory and differential association theory.

18. Explain dowry and child labour.

19. Explain crime against property with sections.

20. What are the elements of crime ?

21. Explain key concepts in criminology ?

PART – D

Answer **any 5** questions. **Each** question carries **6** marks. (6×5=30)

22. Explain biological theory and positivist school of criminology.

23. Explain crime against person with sections.

24. Explain non institutional programs.

25. Explain types of criminals and elements of crime.

26. Explain unusual programs in correctional administration and types of prisons.

27. Explain the historical perspectives of victimology and penology.

28. Explain theories of punishment.

DCFS – 101

First Semester B.Sc. Degree Examination, February/March 2024
(NEP Scheme) (Freshers and Repeaters)
CRIMINOLOGY AND FORENSIC SCIENCE
Introduction to Forensic Science

Time : 2½ Hours | Max. Marks : 60

Instructions : *1) Part – **A** : Answer **any 6** questions.*
*2) Part – **B** : Answer **any 6** questions.*
*3) Part – **C** : Answer **any 3** questions.*
*4) Part – **D** : Answer **any 5** questions.*

PART – A

Answer **any 6** questions. **Each** question carries **1** mark. **(1×6=6)**

1. Define forensic science.
2. Define questioned document.
3. The first CFSL was established in _____.
4. Who was the founder director of DFSS ?
5. What are the roles of Central Medico-legal Advisory Committe ?
6. Define RFSL.
7. Expand RAW.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks. **(2×6=12)**

8. Explain the role of NCRB.
9. Differentiate Exculpatory and Inculpatory evidence.

P.T.O.

10. Explain the qualification requirements for forensic scientist.
11. Explain the functions of cyber and digital forensics.
12. Explain the function of dog squad in CSM.
13. Explain the history of forensic toxicology.
14. Define chain of custody.
15. Define Mahazaar.

PART – C

Answer **any 3** questions. **Each** question carries **4** marks. **(4×3=12)**

16. Discuss the principle of analysis and Law of Circumstantial Facts.
17. Enlist the function of computer forensics.
18. Write a note on Frye rule.
19. Explain the BPR and D.

PART – D

Answer **any 5** questions. **Each** question carries **6** marks. **(6×5=30)**

20. Explain history, development and hierarchial setup of DFSS.
21. Explain the function and hierarchial setup of INTERPOL.
22. Define physical evidence and explain its classification.
23. Describe about the development of CFSL.
24. Define any two branches in FSL and its functions.
25. Explain the ethics in forensic science.
26. Explain the history and development of forensic toxicology.

DCFS – 103

I Semester B.Sc. Degree Examination, February/March 2023
(NEP Scheme)
FORENSIC SCIENCE
Criminology

Time : 2½ Hours | Max. Marks : 60

PART – A

Answer **any 6** questions. **Each** carries **1** mark. **(1×6=6)**

1. Expand LSD.
2. What is moral imbeciles ?
3. Give one example of depressant.
4. What is phishing ?
5. Who coined the term white collar criminal ?
6. Define malware.
7. Define criminology.
8. Define tertiary victimization.

PART – B

Answer **any 6** questions. **Each** question carries **2** marks. **(2×6=12)**

9. Explain Cesare Lombroso criminal classification.
10. Explain drug abuse and its categories.
11. Definition of dowry with Section.
12. What are the types of crimes ? Give example.
13. What are the after care services ?

P.T.O.

14. What are the types of prison ?

15. Explain NCVS.

16. Define crime against property with example.

PART – C

Answer **any 3** questions. **Each** carries **4** marks. **(4×3=12)**

17. Write the difference between probation and parole.

18. What are the types of cyber crime ?

19. What is forms of punishments ?

20. Explain child labour.

PART – D

Answer **any 5** questions. **Each** question carries **6** marks. **(6×5=30)**

21. Explain Non-institutional programmes.

22. Explain the concept of punishment.

23. Explain the unusual problems in correctional administration.

24. Explain the key concepts of criminology.

25. Explain positive and containment school of criminology.

26. Explain the psychodynamics of victimization.

27. Explain Social problems and crime.
