



GOVERNMENT OF KARNATAKA
Department of Collegiate and Technical education
BGS POLYTECHNIC (498)
Department of Computer/Information Science &
Engineering
Practical Questions -2022-23



Subject: Cyber Security

Sub. Code: 20CS54I

Portfolio Evaluation of Practical Assessment for SEE

Q1. Assessment framework

Problem Statement You've just been issued with a new laptop at your organization and are getting ready to set it up. What steps would you take to secure it before use?	
Scheme of Evaluation	
1) Create user account	20
2) Setting up Strong Password	20
3) Installation of 1. Antivirus 2. Firewall	30
4) Configuration of Firewall	20
5) Viva-voce	10
Total	100

Q2. Assessment framework

Problem Statement Design a simple crypto system (including key generation, encryption, decryption, digital signature or hash function) using any tool	
Scheme of Evaluation	
1) Designing Crypto System	20
2) Key generation	20
3) Encryption/decryption 1. Enigma 2. RSA algorithm	30
4) Prepare a Digital signature using RSA	20
5) Viva-voce	10
Total	100

Q3. Assessment framework

Problem Statement Need of a Version Control System in a GIT	
Scheme of Evaluation	
1) GIT Installation and setup	20
2) Creating a repository	20
3) 1. Cloning a repository 2. Making and recording changes	30
4) Reuse of Existing Repository	20
5) Viva-voce	10
Total	100

Q4. Assessment framework

Problem Statement Conduction of Windows process observation and file analysis	
Scheme of Evaluation	
1) Installation of Process Hacker and NTFS file system	20
2) Creating a New task	20
3) 1. Analyze system process 2. Showing of Tree structure of file systems.	30
4) Checking of File permissions	20
5) Viva-voce	10
Total	100

Q5. Assessment framework

Problem Statement Design a Threat Model for a Social Media Web Application	
Scheme of Evaluation	
1) Microsoft Threat Modeling Methodologies	20
2) Installation of Microsoft Threat Model	20
3) Create Threat Model of Social Media	30
4) Demonstration	20
5) Viva-voce	10
Total	100

Q6. Assessment framework

Problem Statement : Conduct Penetration testing on any web site/web application and report the vulnerabilities	
Scheme of Evaluation	
1) Installing ZAP	20
2) Running an automated scan	20
3) Exploring the application manually 1. Explore pages protected by login 2. Exploring web application over a defined sequence	30
4) Prepare a vulnerability report	20
5) Viva-voce	10
Total	100

Q7. Assessment framework

Problem Statement: Conduct of OWASP Dependency Check for Identifying Software Dependencies.	
Scheme of Evaluation	
1) Installation of Command line application	20
2) Setting up a JDK application	20
3) Extract the Vulnerabilities	30
4) Prepare a vulnerability report	20
5) Viva-voce	10
Total	100

Q8. Assessment framework

Problem Statement: You have to analyze project/program files in statically.	
Scheme of Evaluation	
1) Installation of Flaw finder	20
2) Installation of SonarQube	20
3) Creation of simple program file	30
4) Identification of Errors	20
5) Viva-voce	10
Total	100

Q9. Assessment framework

Problem Statement: Demonstrate the Simple Android Project.	
Scheme of Evaluation	
1) Installation of Android Studio	20
2) Installing Geny Motion Emulator	20
3) Creating a Simple Project with Android Virtual Devices	30
4) Transferring files b/w Host Machine and AVD using ABD	20
5) Viva-voce	10
Total	100

Q10. Assessment framework

Problem Statement: Conduct of Reversing Android Application	
Scheme of Evaluation	
1) Installation of APK Tool	20
2) Setting up Frame work	20
3) Revering the Android application	30
4) Demonstration	20
5) Viva-voce	10
Total	100

Q11. Assessment framework

Problem Statement: Demonstrate Setup MobSF locally on system and scan any 5 Android Application	
Scheme of Evaluation	
1) Configure of MobSF application	20
2) Setting up python software	20
3) Identifying the Vulnerabilities	30
4) Generating the report of Vulnerabilities	20
5) Viva-voce	10
Total	100

Q12. Assessment framework

Problem Statement: Conduct of Network vulnerability scanning	
Scheme of Evaluation	
1) Installation of Nmap	20
2) Scanning of System Vulnerabilities	20
3) Using Script command to identifying Vulnerabilities for remote system	30
4) Generating the HTML report	20
5) Viva-voce	10
Total	100

Q13. Assessment framework for SEE 2 (Practice)

Problem Statement: Conduct Cloud Penetration testing using Nessus and Prowler and report the vulnerabilities	
Scheme of Evaluation	
1) Installation of Nessus and Prowler	20
2) Running an automated scan	20
3) Exploring the application manually 1. Explore pages protected by login 2. Exploring web application over a defined sequence	30
4) Prepare a vulnerability report	20
5) Viva-voce	10
Total	100