These are sample MCQs to indicate pattern, may or may not appear in examination
University of Mumbai
Online Examination 2020
Program: BE Computer Engineering
Curriculum Scheme: Revised 2016
Examination: Third Year Semester VI
Course Code: CSC604 and Course Name: Cryptography and System Security
Time: 1hour Max. Marks: 50

| Q1. | Schnorr signature is a digital signature scheme known for its -------- |
| :--- | :--- |
| Option A: | simplicity |
| Option B: | efficiency |
| Option C: | generates short signatures |
| Option D: | keys can be typically 1024 or 2048 bits long |


| Q2. | A transposition cipher reorders (permutes) symbols in a |
| :--- | :---: |
| Option A: | block of packets |
| Option B: | block of slots |
| Option C: | block of signals |
| Option D: | block of symbols |


| Q3. | A |
| :--- | :---: |
| Option $\mathrm{A}:$ | tries to formulate a web resource occupied or busy its users |
| Option $\mathrm{B}:$ | Phishing attack |
| Option $\mathrm{C}:$ | DoS attack |
| Option $\mathrm{D}:$ | Website attack |


| Q4. | 11 and $\mathrm{q}=19$ and choose e=17. Apply RSA algorithm where message=5 and find the ciph |
| :--- | :---: |
| Option $\mathrm{A}:$ | $\mathrm{C}=80$ |
| Option $\mathrm{B}:$ | $\mathrm{C}=92$ |
| Option $\mathrm{C}:$ | $\mathrm{C}=56$ |
| Option $\mathrm{D}:$ | $\mathrm{C}=23$ |


| Q5. | Find feature of kerberos |
| :--- | :---: |
| Option A: | Based on Certificate |
| Option B: | Ideal for the www |
| Option C: | uses private key encryption |
| Option D: | The service is not free |


| Q6. | t, Shamir, Adleman cryptosystem with $\mathrm{p}=7$ and $\mathrm{q}=9$. Encrypt $\mathrm{M}=24$ to find ciphertext. The d |
| :--- | :---: |
| Option $\mathrm{A}:$ | 42 |
| Option $\mathrm{B}:$ | 93 |
| Option C: | 114 |
| Option D: | 103 |


| Q7. | ensures that sensitive information are accessed only by an authorized person |
| :--- | :---: |
| Option A: | Availability |
| Option B: | Cryptanalysis |
| Option C: | Confidentiality |
| Option D: | Integrity |


| Q8. | Password-based authentication can be divided into two broad categories: ___ and |
| :--- | :---: |
| Option A: | fixed; variable |
| Option B: | time-stamped; fixed |
| Option C: | fixed; one-time |
| Option D: | fixed; two-time |


| Q9. | What is the expanded key size of AES-192? |
| :--- | :---: |
| Option A: | 44 words |
| Option B: | 52 words |
| Option C: | 66 words |
| Option D: | 36 words |


| Q10. | What is the full-form of CMAC? |
| :--- | :---: |
| Option A: | Code-based MAC |
| Option B: | Cipher-based MAC |
| Option C: | Construct-based MAC |
| Option D: | Collective-based MAC |


| Q11. | the process of giving individuals different levels of access to system objects based on their |
| :--- | :---: |
| Option $\mathrm{A}:$ | Threat |
| Option $\mathrm{B}:$ | Authorization |
| Option $\mathrm{C}:$ | Authentication |
| Option $\mathrm{D}:$ | Encryption |


| Q12. | The $4 \times 4$ byte matrices in the AES algorithm are called |
| :--- | :---: |
| Option A: | States |
| Option B: | Words |
| Option C: | Transitions |
| Option D: | Permutations |


| Q13. | Which of these systems use timestamps as an expiration date? |
| :--- | :---: |
| Option A: | Public-Key Certificates |
| Option B: | Public announcements |
| Option C: | Publicly available directories |
| Option D: | Public-Key authority |


| Q14. | Calculate the number of subkeys required in RC5 for 18 rounds of computation. |
| :--- | :---: |
| Option A: | 40 |
| Option B: | 36 |


| Option C: | 38 |
| :--- | :--- |
| Option D: | 34 |


| Q15. | The number of unique substitution boxes in DES after the 48 bit XOR operation are |
| :--- | :---: |
| Option A: | 8 |
| Option B: | 4 |
| Option C: | 6 |
| Option D: | 12 |


| Q16. | DoS threats to overload a server as it sends a large number of requests requiring resources |
| :--- | :---: |
| Option A: | Network Layer DoS |
| Option B: | Physical Layer DoS |
| Option C: | Transport Layer DoS |
| Option D: | Application Layer DoS |


| Q17. | a weakness in a security system; and _$\quad$ = circumstances that have a potential to caus |
| :--- | :---: |
| Option A: | Vulnerability, threat |
| Option B: | Vulnerability, attack |
| Option C: | Attack, threat |
| Option D: | Threat, vulnerability |


| Q18. |  |
| :---: | :---: |
| Option A: | phishing |
| Option B: | spoofing |
| Option C: | hijacking |
| Option D: | vishing |


| Q19. | Which is not the property of digital signature |
| :--- | :---: |
| Option A: | It must verify the author and the date and the time of the signature |
| Option B: | it must to authenticate the contents at the time of the signature |
| Option C: | It must be verifiable by third parties, to resolve disputes. |
| Option D: | It does protect the two parties against each other |


| Q20. | means to prove the identity of the entity that tries to access the system's resources. |
| :--- | :---: |
| Option A: | Message authentication |
| Option B: | Entity authentication |
| Option C: | Message confidentiality |
| Option D: | Entity confidentiality |


| Q21. | If GCD of two numbers is 1, then the two numbers are said to be |
| :--- | :---: |
| Option A: | Prime numbers |
| Option B: | Composite numbers |
| Option C: | Co-prime numbers |
| Option D: | Rational numbers |


| Q22. | Which is not the property of digital signature |
| :--- | :---: |
| Option $\mathrm{A}:$ | It must verify the author and the date and the time of the signature |
| Option $\mathrm{B}:$ | it must to authenticate the contents at the time of the signature |
| Option C: | It must be verifiable by third parties, to resolve disputes. |
| Option D: | It does protect the two parties against each other |


| Q23. | the DES algorithm the Round Input is 32 bits, which is expanded to 48 bits via |
| :--- | :---: |
| Option $\mathrm{A}:$ | Scaling of the existing bits |
| Option $\mathrm{B}:$ | Duplication of the existing bits |
| Option $\mathrm{C}:$ | Addition of zero |
| Option $\mathrm{D}:$ | Addition of ones |


| Q24. | DNS stands for |
| :--- | :---: |
| Option A: | Data Name System |
| Option B: | Domain Name Server |
| Option C: | Domain Name System |
| Option D: | Domain's Naming System |


| Q25. | n attack in which |
| :--- | :---: |
| Option A: | code is inserted into strings that are later passed to an instan |
| Option B: | malicious |
| Option C: | redundant |
| Option D: | clean |

