



جامعة القاهرة
كلية الحاسبات و المعلومات
Q. Bank Spring2023

قسم: Software Security	تاريخ:
اسم المقرر: SC359	المدة: min
د. حسين محمد شرف	إجمالي الدرجات:

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Question (1) MCQ Write the letter of the most correct answer

[E.T. =30][40 marks]

Part A: Lec1&2 Product Quality & Measuring system complexity:

1) SQFs that are affected by *product revision* [2 marks]

A) Reusability	B) Portability
C) Maintainability	D) Availability

2) Which of the following testing techniques ensures that the software product runs correctly after the changes during maintenance [2 marks]

E) Black-box Testing	F) Unit Testing
G) White-box Testing	H) Regression Testing

3) SQFs that are affected by *product transition* [2 marks]

I) Availability	J) Portability
K) Maintainability	L) Correctness

4) Which of the following testing processes is used to test the functionality of software [2 marks]

M) Black-box Testing	N) Unit Testing
O) White-box Testing	P) Regression Testing

5) SQFs that are affected by *product operation* [2 marks]

Q) Availability	R) Portability
S) Maintainability	T) Correctness

6) Cyclomatic complexity is? [2 marks]



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U) Black-box Testing	V) Unit Testing
W) White-box Testing	X) All the above

- 7) Using the cyclomatic-complexity metrics. What conclusions can you draw about the relative complexity of the code? [2 marks]

```
i = 0;
n=4; //N-Number of nodes present in the graph
while (i<n-1) do
  j = i + 1;
  while (j<n) do
    if A[i]<A[j] then
      swap(A[i], A[j]);
    end do;
  j=j+1;
end do;
```

Y) 1	Z) 2
AA) 3	BB) 4

- 8) Checking that the software system performs in accordance with its requirements specification. [2 marks]

CC) Unit Testing	DD) Integration Testing
EE) System Testing	FF) Acceptance Testing

- 9) Equivalent Partitioning technique is [2 marks]

GG) Black-box Testing	HH) Unit Testing
II) White-box Testing	JJ) All the above

- 10) Cyclomatic-complexity is equal to [2 marks]

KK) Number of independent paths	LL) Number of paths
MM) Number of edges	NN) None of the above



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11) is an architectural design pattern. [2 marks]

A) Observer Behavioral pattern	B) Singletons Creational pattern
C) model view controller (mvc)	D) Factory Creational pattern

12) Keeping general services separate from other parts of the system increases:

A)separation of concerns	B)reusability
C)lowered coupling	D)Maintainability

13) There are two styles of Layers pattern, one contains Layers and the other containslayers.

A)3, 5	B) 7,2
C)4,3	D)3, 6

14) The following layers are from principle layers:

A)Presentation & Application	B) technical service & Application
C)Presentation & Domain	D)data source & technical service

15) Pattern separates the presentation from the model.

A)The layers (N-tier)	B) mvc
C)singleton	D)factory

16) is a collection of dynamic stored procedures that can rebuild their behavior at run time based on parameters passed to them.

A)presentation layer	B)business layer
C)requests library	D) none of the previous



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17) What does the following line do:

`r = requests.get(url = URL, params = PARAMS)`

E) it is an api-endpoint	F) defining a params dict for the parameters to be sent to the API
G) sending get request and saving the response as response object	H) passing a location

18) A software entity which allows the service to be found:

I) registry	J) provider
K) Service api	L) Web server

19) Flask is:

M)name of a web service in some SOA	N) a component in SOA infrastructure
O) a lightweight web application framework	P) none of the previous

20) is/are a way(s) for passing values in form of (key, Value) pair allowing recursive data structures.

A)XML	B)SQL
C)JSON	D) A and C

Part C: Lec5 Secure Coding session:

21) is a type of attack that tricks site users or administrators to unknowingly perform malicious actions for the attacker like changing order value and product prices, transfer funds from one account to another, change user passwords to hijack accounts.

Q) SQL injection	R) command injection
S) Cross-Site Request Forgery	T) Cross-Site Scripting



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- 22) Which attack can execute scripts in the user's browser and is capable of hijacking user sessions, defacing websites or redirecting the user to malicious sites:

A) SQL injection	B) Cross-Site Scripting
C) command injection	D) Malware Uploading

- 23) Which threat is most likely to occur when a POST parameter performs an operation on behalf of a user without checking a shared secret?

A) Cross-Site Request Forgery	B) SQL injection
C) Cross-Site Scripting	D) Insecure Direct Object Reference

- 24) What threat arises from not flagging HTTP cookies with tokens as secure:

A) Insecure Cryptographic Storage	B) Access Control Violation
C) Session Hijacking	D) Session replay

- 25) What is the best way to prevent csrf attack?

A) Using csrf on session cookies	B) using the customer header
C) Validation of Referrer depends on header being present	D) Tied to the user's session