Bahria University, Islamabad Campus
Department of Computer Science
Final Term Examination
Class & Section: BS(CS)-3A, 3B
(Spring 2023 Semester)
Paper Type: Descriptive

Course:	**Professional Practices**	Date: 6-07-2023
Course Code:	CSC-307	Session: I
Faculty's Name:	Faima Abbasi	Max Marks: 50
Time Allowed:	2.5 Hours	Total Pages: 4(including this)

INSTRUCTIONS:

1. All questions are compulsory and there are six questions in total.
2. The paper is a closed book and students are not allowed any helping material (books, tables, formulas, etc.).
3. **Comprehension of the question is part of the examination, do not call the instructor or ask the invigilator, make assumptions.**
4. **Attempt Q#5 & Q#6 on question paper and attach question paper with answer sheet.**

Student's Name: _____Enroll No:_____
(USE CAPITAL LETTERS)

Question # 1 Software Contract & Computer Security (2 × 3= 6 Marks) .... CLO 1

You are newly hired in mark logistics. Your job is to manage employees and see the issues of contract they created. Currently four big projects are running in Mark Logistics. Mark logistics is well organized company, but their contract template and contract terms and conditions are not well planned. Mark Logistic is a software house whose work is to provide software solutions to other companies. They work in both manners in-house development as well as do other companies work or provide services at their place.

    i.   How will you plan or manage the contract template?
a contract might consist of:
- a short introductory section
- A set of standard terms and conditions
- A set of appendices or annexes

Term and condition include:
- What is to be produced?
- What is to be delivered? (source code, command files, training to employees)
- Ownership of rights (in physical items books, dics, documents or duration of licence)
- Payment terms
- Calculating payments for delays and changes
- Penalty clauses
- Obligations of the client
- Standards and methods of working (QA procedures)
- Progress meetings
- Project Managers
- Acceptance procedure
- Warranty and maintenance
- Termination of the contract

    ii.   **Identify** the basic contract types you can use in Mark Logistic and why?
For normal software fixed price contract is used and this organization provide their employee services so for that contract hired is used.

Question # 2 Personal Information and Privacy (4 × 2 =8 Marks) ....CLO 1,2

a. It is important to distinguish between public information and personal information. Public information that you have provided to an organization has the right to share it with other organizations. A good example of public information is a listing of telephone directory. On the other hand, personal information is information that is not public information or part of public record. Personal information becomes public information or a public record through voluntary, involuntary, or statutory disclosure.

    i. **Identify** THREE (3) ways that the personal information of a user can be stolen by other users via online sessions.

        By sending any file containing malware
        Access your computer by ethernet(MAC address)
        Try to get access to your camera or mic and record your data.

    ii. If people value privacy so much, give TWO (2) reasons why do they put so much personal information on their social networking applications. (e.g., Facebook, blog, twitter etc.)

        People didn't release that what the level of information they are sharing, they didnt know the severity of information
        They want to maintain their status and showing everyone than they are doing lot fun in their real life so they post lot of pictures.

b. Each service provider or product will be accompanied by a Privacy Policy. For example, Google's privacy policy state that they may collect the following types of information from the users: (1) Information you provide, (2) Cookies, (3) Log information, (4) User communication, (5) Affiliated Google services on other sites, (6) Third party application, (7) Location data, (8) Unique application number and (9) Another site.

    i. In your opinion, **describe** why does Google need to collect all that information from their users?

        For feedback and target advertisement.

    ii. By collecting the information from users, how can we ensure our privacy data will be protected by Google?

        They send privacy policies and encrypt data as well. Basically we can't ensure our privacy in free platforms. hacking google server isn't easy because of high security so we ensure in a way that our data is safe from hacker atleast. But our data is used in target marketing means other companies buy our data.

Question # 3 Intellectual Property Rights (3×2=6 Marks) ……………………………CLO 2

Lukman is a lecturer at a large university. For the past several years, he has been teaching a large class with over 70 students. Although the assignments and reading materials change every semester, the course objectives, and its main ideas that Lukman is trying to deliver remain the same. Some assignments are classified as take-home easy questions.

This semester, Lukman notices that there seems to be uncanny similarity on the opinion that students express in the assignment. Lukeman is worried that, because he has taught the course for several years, there may be papers available from students who took the course in the past.

So Lukman decides to check the assignment paper by using the service turnitin.com. Turnitin.com compares the papers to the content of web and to a database of paper that Turnitin.com has accumulated.

    i. **Describe** whether Lukman has done anything wrong or not.

        No he didn't do anything wrong plagiarism or copying work shouldn't be allowed in any stage of life.

    ii. Discuss the effects of Lukman's action on the students related to educational goal.

        Lukman action shows positive effect on student goals next time students work more hard and instead of copying or searching things in internet they try to do by their selves.

iii.   Discuss what will happen if Turnitin.com makes a mistake in detecting plagiarism. Suggest how to overcome such situations.

Usually these kind of websites doesn't make mistake but if this websites doesn't indicate proper plagiarism report then student get good marks and they don't feel any hazard in doing the same next time or if the system detect more plagiarism then student marks deduct and they got bad result.

Question # 4 Risk Management (3.5 + 3.5=7 Marks) ………………………………… CLO 3

The Side Lobe Company ($12M annual sales) designs and develops surface and air search radars for various industrial sectors including commercial, state, and federal organizations. Side Lobe has decided to embark on a risky air search radar project for the Navy. The radar is risky because it takes advantage of newly developed software algorithms that automatically detect, track, identify, engage, and destroy air targets. Typical radars of this type normally require human intervention to assess threats and engage them with the appropriate weapon system. The Side Lobe Robotic Acquisition System (RAS) automates this entire process without human intervention.

At the outset of the project Side Lobe consulted various references (including the Project Management Body of Knowledge (PMBOK)) and established the probability and impact verbal descriptors shown in Table 1 for use in the risk assessment.

Side Lobe then developed a list of project risks, of which the 5 most significant are shown. **Draw** a heat map matrix to map the given events Table 2.

Table 1: Verbal Descriptors

Probability Descriptor	Impact Descriptor
Very High (VH)	Very High (VH)
High (H)	High (H)
Moderate (M)	Medium (M)
Low (L)	Low (L)

Table 2: Significant Project Risks

ID	Risk	Probability	Impact
1	Desired technology and functionality are not achievable	M	VH
2	L band radar subcontractor cannot deliver required functionality on time.	M	H
3	Required staffing levels cannot be met.	H	H
4	Design maturity cannot meet radar stability requirements.	L	M
5	Targets are misidentified and subsequently engaged.	L	VH

TABLE 09. SideLobe's Heat-Map Risk Matrix

Question # 5 Please provide a one-word/sentence answer for given statements. (20 Marks) ……………………………………………………………………………………. CLO 1

	Statement	Answer
1	Through which software eavesdropping is done?	Spyware
2	Ali is hired by a software house. His company owner tells him about the company security and asks him to hack. What type of testing is Ali doing?	Gray box testing
3	Simply visiting a Web site, a computer user may become the victim of what type of hacking?	Clickjacking
4	**Identify** 3 types of computer frauds?	Input, output and program
5	For remote access to a system which kind of tool is used?	Telnet
6	What type of hacking is Phishing?	Website hacking
7	Which contract is somewhere between a contract hire agreement and a fixed price contract?	Time and material
8	In which type of software service type of contracts, Payment is made based on a fixed rate for each man day worked?	Contract hire
9	NR3C stands for?	National Response Center for Cyber Crime
10	What is the primary goal of an Ethical Hacker?	Test the system or find weakness
11	What type of attack is when a server is flooded with fake requests to overwhelm it, crash it and make it unavailable to other users?	Denial of service attack
12	What type of attack is when attacker tricks victim to perform actions on their behalf?	Cross site request forgery
13	When hackers use browser add-ons for stealing information what type of activity is this?	Cookie theft
14	Which malware provides gateways to malicious users?	Trojan

15	Which malware replicates themselves, damage files and need host program to activate?	Virus
16	Which malware is used to encrypt data and prevents you from using your computer partially or wholly?	Ransomware
17	Which software is used to detect security weakness in remote host?	Scanner
18	Which software is used to transfer files from a remote host?	File transfer protocol
19	Does the software bug a manufacturing defect or design defect?	Manufacturing defect
20	Name two ways used commonly used for password hacking?	Brute force, Dictionary based

Question # 6 Information Security Practices (3 Marks) ……………………………CLO 1
To understand how the CIA triad works in practice, consider the example of a bank ATM, which can offer users access to bank balances and other information. An ATM has tools that cover all three principles of the triad.

	Statement	Answer
1	By ensuring that any transfers or withdrawals made via the machine are reflected in the accounting for the user's bank account, **identify** which CIA principle is ensured by ATM and bank software? (**Confidentiality**, **integrity**, **availability**)	Integrity
2	What is provided by requiring two-factor authentication (both a physical card and a PIN code) before allowing access to data. (**Confidentiality**, **integrity**, **availability**)	Confidentiality
3	A machine is in a public place and is accessible even when the bank branch is closed is an example of which CIA principle? (**Confidentiality**, **integrity**, **availability**)	Availability

Best of Luck