



BAHRIA UNIVERSITY (Karachi Campus)

Department of Computer Science

Final Term Examination – SPRING 2021

[CSC-307] Professional Practices

(OBJECTIVE)- SOLUTION

Class: **BSCS- 3A & 3B Morning**

Course Instructors: **Adnan Ahmed, Tooba Zahid**

Date: **09-July-2021**

Session: **2nd**

Time Allowed: **30 Minutes**

Max. Marks: **20**

Student's Name: _____

Reg. #: _____

Note: Write the letters for your answers in the table provided.

MULTIPLE CHOICE ANSWER SHEET

Q. No. #	Answer	Q. No. #	Answer	Q. No. #	Answer	Q. No. #	Answer	Q. No. #	Answer
Q. 1	C	Q. 9	A	Q. 17	A	Q. 25	A	Q. 33	D
Q. 2	D	Q. 10	A	Q. 18	C	Q. 26	B	Q. 34	A
Q. 3	B	Q. 11	A	Q. 19	D	Q. 27	A	Q. 35	B
Q. 4	A	Q. 12	A	Q. 20	B	Q. 28	B	Q. 36	B
Q. 5	B	Q. 13	C	Q. 21	D	Q. 29	C	Q. 37	D
Q. 6	C	Q. 14	B	Q. 22	D	Q. 30	C	Q. 38	B
Q. 7	B	Q. 15	A	Q. 23	C	Q. 31	A	Q. 39	B
Q. 8	B	Q. 16	D	Q. 24	B	Q. 32	B	Q. 40	B

Question # 1

- 1: Choose the correct option in terms of Issues related to professional responsibility
- a) Confidentiality
 - b) Intellectual property rights
 - c) **Both Confidentiality & Intellectual property rights**
 - d) Managing Client Relationships
- 2: “engineers should not use their technical skills to misuse other people’s computers.” Here the term misuse refers to:
- a) Unauthorized access to computer material
 - b) Unauthorized modification of computer material
 - c) Dissemination of viruses or other malware
 - d) **All of the mentioned**
- 3: Explain what is meant by PRODUCT with reference to one of the eight principles as per the ACM/IEEE Code of Ethics?
- a) The product should be easy to use
 - b) **Software engineers shall ensure that their products and related modifications meet the highest professional standards possible**
 - c) Software engineers shall ensure that their products and related modifications satisfy the client
 - d) It means that the product designed /created should be easily available
- 4: Identify an ethical dilemma from the situations mentioned below:
- a) **Your employer releases a safety-critical system without finishing the testing of the system**
 - b) Refusing to undertake a project
 - c) Agreement in principle with the policies of senior management
 - d) All of the mentioned
- 5: Identify the correct statement: “engineers shall
- a) Act in a manner that is in the best interests of his expertise and favour.”
 - b) **Act consistently with the public interest.”**
 - c) Ensure that their products only meet the SRS.”
 - d) all of the mentioned
- 6: Select the incorrect statement: “engineers should
- a) Not knowingly accept work that is outside your competence.”
 - b) Not use your technical skills to misuse other people’s computers.”
 - c) **Be dependent on their colleagues.”**
 - d) Maintain integrity and independence in their professional judgment.”

7: Company has latest computers and state-of the- art software tools, so we shouldn't worry about the quality of the product.

- a) True
- b) False**

8: Efficiency in a software product does not include _____

- a) Responsiveness
- b) Licensing**
- c) Memory utilization
- d) Processing time

9: As per an IBM report, "31%of the project get cancelled before they are completed, 53% overrun their cost estimates by an average of 189% and for every 100 projects, and there are 94 restarts". What is the reason for these statistics?

- a) Lack of adequate training in software engineering**
- b) Lack of software ethics and understanding
- c) Management issues in the company
- d) All of the mentioned

10: Every application for a patent shall be for one invention only and shall be filed in Form-1 at an appropriate office

- a) One invention- one application**
- b) Up to four connected inventions are permissible
- c) Multiple inventions can be clubbed in one application and special fees to be charged for it
- d) One major invention and one minor invention are permissible

11: _____ concerned the protection of intellectual property rights in the face of widespread piracy of software products

- a) General Agreement on Tariffs and Trade**
- b) General Contract on Tariffs and Trade
- c) General Rules on Tariffs and Trade
- d) General Government on Tariffs and Trade

12: _____ is a form of protection for intellectual property that does not require any disclosures or the filing of an application.

- a) Copyright**
- b) Patent
- c) Trade Secret/Confidential Information
- d) Trademark

- 13: Which of the following is not the function normally performed by HR department?
- a) Recruitment and Selection
 - b) Pay and reward
 - c) **Accounting**
 - d) Employee Relation
- 14: Organization limited by grantee means _____.
- a) Commercial Companies
 - b) **Charities and professional bodies**
 - c) Trade shares
 - d) None
- 15: _____ commercial organization are mostly not legalizing.
- a) **Sole Traders**
 - b) Partnership
 - c) Private Limited
 - d) Public limited
- 16: _____ is socially acceptable behavior.
- a) Professions
 - b) Professionalism
 - c) Morals
 - d) **Ethics**
- 17: Local Shop, Plumber (small shop, single shop) are example of:
- a) **Sole Trader**
 - b) Partnership
 - c) Business Bodies
 - d) All of the above
- 18: In a company board of directors are elected by.
- a) Directors
 - b) Professional expert
 - c) **Shareholders**
 - d) CEO
- 19: Activities that directly contribute to creating the products or services that the company sells.
- a) Advertisement
 - b) Profession
 - c) Service Provider
 - d) **Production**
- 20: Private or Public Companies are example of:
- a) Small shops
 - b) **Limited company**
 - c) Professionalism

- d) All of the above

21: Memorandum of Association.

- a) Company Name
- b) Country of Registration
- c) Objectives of Company
- d) **All of the above**

22: To pay bills, look after its funds and all central services.

- a) Production
- b) Quality management
- c) Sales and Marketing
- d) **Finance and Administration**

23: An organization operates in more than one country.

- a) Business partnerships
- b) Local organization
- c) **Geographical organization**
- d) All of the above

24: In a _____ the detailed operational decisions are taken at the center.

- a) Multinational organization
- b) **Centralized organization**
- c) Local organization
- d) None of the above

25: The goal of _____ is to produce systems which meet the users' needs, on time and within budget.

- a) **Project manager**
- b) Administrator
- c) Marketing manager
- d) All the above

26: _____ is responsible for the long-term strategy of the organization.

- a) Quality manager
- b) **Corporate manager**
- c) Production manager
- d) All the above

27: _____ refers to the skilled workforce in an organization.

- a) **Human**
- b) Management
- c) Organization
- d) All the above

28: _____ refers how to optimize and make best use of such limited or scarce resource so as to meet the organization goals and objectives.

- a) Human
- b) **Management**
- c) Organization
- d) All the above

29: Money paid to the company in exchange for a share in the owner ship of the company.

- a) Grant
- b) Loan
- c) **Sale of Equity**
- d) All the above

30: A prediction of the future financial position of an organization covering, usually, the current or the next financial year.

- a) Cash flow
- b) Monitoring
- c) **Budget**
- d) All the above

31: The amount of cash expected to be received and disbursed in each of the next twelve months.

- a) **Cash flow**
- b) Loan
- c) Grant
- d) All the above

32: A sum of money lent to the company; interest is pay able on it, at a rate that may be fixed or variable.

- a) Cash flow
- b) **Loan**
- c) Grant
- d) All the above

33: What is primary goal of an Ethical Hacker?

- a) Avoiding detection
- b) Determining return on investment
- c) Resolve Security vulnerabilities
- d) Testing Security Control**

34: An ethical hacker is asked to perform a penetration test for a client and all he has received is a URL. What kind of test is this?

- a) Black Box penetration test**
- b) White box penetration test
- c) Black hat hacking test
- d) White hat hacking test

35: What are the forms of password cracking technique?

- a) Attack Syllable
- b) Attack brute forcing**
- c) Attacks Hybrid
- d) All of the above

36: When a hacker attempts to attack a host via the internet it is known as what type of attack?

- a) Local Access
- b) Remote Attack**
- c) Internal Attack
- d) Physical Access

37: _____ is socially acceptable behavior.

- a) Professions
- b) Professionalism
- c) Morals
- d) Ethics**

38: Phishing can be used in _____ kind of hacking.

- a) Password hacking
- b) Email Hacking**
- c) Net Hacking
- d) Software Hacking

39: Risk management is one time process.

- a) True
- b) False**
- c) Don't know

40: Which of the following is not a way to protect yourself on social media?

- a) Keeping your account details private
- b) Posting your location on social media**
- c) Not adding strangers
- d) Installing an antivirus software



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Class: **BSCS- 3A & 3B (Morning)**

Session: **2nd**

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Time Allowed: **120 Minutes**

Date: **09-July-2021**

Max. Marks: **30**

Student's Name: _____

Reg. #: _____

Note: Attempt all questions in the answers sheet and in sequence.

Question: 2

(2 x 2 = 4 Marks)

A team of programmers is developing a communications system for firefighters to use when fighting a fire. Firefighters will be able to communicate with each other, with Supervisors near the scene, and with other emergency personnel. The programmers will test the system in a field near the company office.

- a) What is the real ethical issue of the testing of this program in this scenario? Explain?

The smoke and the unreal testing environment while testing the program can be a challenge to the system later on. The system might not work on the real scenario when the real fire occurs, so that's the real ethical issue over here.

- b) Do you think that such programs can be developed? If yes, which part should be more focused on?

Real time systems like this should be made with great care, tested in several real life simulations and any bug should be resolved as soon as possible. Timely response and message receipt should be the main focus of such types of program.

Question: 3

(2 x 2 = 4 Marks)

Face Recognition is a new technology in the market which has taken the application and mobile industry by storm. It is now being used to unlock devices, for identification and other functions similar to it. Now the governments also want some of its data to keep track of people and catch

criminals.

- a) In what 2 ways do you think that face recognition can infringe on the privacy of a person?
Explain?

The face recognition technology can infringe on the privacy of a person in the following ways:

- **The facial recognition system as of today is nowhere near perfect. So if it is implemented in criminal detection without any background check, with the wrong identification, it has the potential to ruin someone's reputation and livelihood.**
- **Simply going and walking in the street is not a consent for any government or private organization to keep facial features and track humans by it.**

- b) Can we stop breach of privacy through face recognition? Give any two theoretical solutions that comes to your mind?

Two solutions can be as under:

- **Seeking its alternatives which are less privacy intrusive, like digital signature, keystrokes pattern etc.**
- **The facial data if need to be stored must be done so in a limited amount of time accessed by only a few authorized personnel.**

Question: 4**(2 x 2 = 4 Marks)**

Few university student viewed a tutorial on how to build a blog and built one about the latest campus news going on. But then the things went wrong when some of the personal news of some students were shared on the blog without their consent. They have complained about this to the university administration. The bloggers have rested their case that their blog has covered news like this before, and it's all a part of freedom of speech.

a) Being in the admin, you are required to sort out this issue.

Sharing personal information without the consent of their owners is a serious breach of privacy which should be dealt with strict disciplinary action.

- **First and foremost, it's my job to make the bloggers issue a public apology in their blog and all of the social sites that they use.**
- **A consent agreement must be done with the individual in order to publish news related to their lives in the future.**
- **A team of moderators must be selected so that they can monitor that these rules are not breached.**

b) Suggest how you will do so with 3 valid points and their reason?

- **Call the disciplinary action, fine the students and issue the warning to the students involved in this act.**
- **The content should be immediately taken down from all social sites.**
- **The students affected should be consoled and reassured that management is with them and this won't happen again.**

Question: 5**(3 x 3 = 9 Marks)**

A famous singer, Taylor Swift, had her all her music confiscated by the record company who owns the right to all her songs and music. Now she can't sing her own songs at the concerts as the record company has denied her the right of doing so. Unfortunately, this is not a new case in the entertainment industry where artists can't get the basic rights over their own work.

a) Keeping copyright and intellectual property in mind, suggest 2 ways that the artists can protect their rights from the beginning?

The artist should keep the protection of their copyright right from the beginning of their respective career. They can protect from being copied and stolen as follows:

- **The artist should keep an eye on their respective contracts and set clauses in their contract which protect their work from being stolen and their work remains their work.**
- **The artist should file copyrights right from the start of their career.**

- b) List down the 4 requirements for obtaining a patent that must be satisfied before an invention can be patented.
- c) Define as taking the ideas or words of someone else as your own with 3 types?
- **Copying someone else work and posting with your own name without giving credit to the owner is called Plagiarism.**
 - **Forwarding someone else work as yours is called stealing.**
 - **Reporting or presenting fake ideas/numbers/results that don't exist is called fraud.**

Question: 6

(3 x 3 = 9 Marks)

You are a teacher for a nonprofit organization. You would like your students to use a software package, but the school's budget does not include enough money to buy copies for all the students. Your school is in a poor neighborhood, and you know most of the parents cannot afford to buy the software for their children.

- a) List 2 ways you could try to obtain the software without making unauthorized copies.

Answer) I can try to obtain the software without making unauthorized copy in the following ways:

- **I can email the representative or customer service of the company and explain the situation to her and work out a solution. Maybe they can offer a major discount or group sharing license of the software to us.**
- **A GoFundMe page for the above scenario will also work quite effectively. One can start a crowd funding page and share it among peers and relevant NGOs who can help fulfill the crowd funding goal.**

- b) Suppose the methods you try do not work. Will you copy the software or decide not to use it?

Answer) I will try to use a free alternative of that software so that students are able to learn and grow professionally. If no such alternative is available, then I may train them in local institute by contacting them and asking them to train the systems for some days as a part of their social work program.

c) Give 2 arguments for and against your position. Explain why you think the arguments on your side are stronger.

Answer)

For my argument

- **Copying a software is an ethically illegal act which should be avoided as much as we can.**
- **I have suggested that we leverage the power of social contribution of both people and the company so we can easily overcome this financial hurdle of the students.**

Against my argument

- **We might not be able to raise enough money for the software required.**
- **The alternative software might not have all the features of the software we need to train the students on.**

The argument on my side are stronger because copying is illegal and should be avoided by any alternative means possible.