

CS4001 Professional Practices in IT

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Course Instructor(s)

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CS-(B)

Sessional-II Exam

BSCS Section-C

Total Time (Hrs):

01

Total Marks:

50

Total Questions:

3

NO

Student Signature

Do not write below this line

Attempt all the questions.

Question 1  
[20 Marks]

17/20

MULTIPLE CHOICE QUESTIONS

Select the most appropriate answer for each question (circle it). Each question carries equal marks.

1. Which of the following is not a benefit of structured ethical decision-making?

- A. Consistency across similar cases
- ☒ B. Increased emotional bias
- C. Defensible outcomes
- D. Transparency

✓

4

2. The ethical dilemma in the Amazon AI hiring case centered on whether Alex should:

- A. Quit Amazon immediately
- ☒ B. Approve rollout of a biased AI hiring tool or stop it until bias is fixed
- C. Ignore management pressure and leak the issue to the media
- D. Retrain the AI personally without permission

3. In the 4-step ethical decision-making framework, which step involves identifying stakeholders and listing facts?

- ☒ A. Step I – Understanding the situation
- B. Step II – Isolating the ethical dilemma
- C. Step III – Analyzing the ethicality
- D. Step IV – Making a decision

✓

4. Under consequentialism, the most ethical choice is the one that:

- ☒ A. Creates the least harm and greatest benefit
- B. Follows company policy only
- C. Maximizes shareholder profit
- D. Avoids legal violations only

✓

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5. Alex's manager insists on rolling out the AI hiring system despite known gender bias because of a tight deadline. According to Kant's Categorical Imperative, what should guide Alex's decision?

- ☒ A. Whether the same action would be ethical if everyone did it
- B. Whether the decision minimizes short-term costs
- C. Whether his manager approves
- D. Whether public relations can handle the fallout

6. Which long-term preventive measure would help avoid similar AI ethics problems at Amazon?

- A. Delaying all AI projects
- ☒ B. Conducting ethical impact assessments during design stages
- C. Removing human oversight entirely
- D. Outsourcing fairness testing

7. If Alex escalates his findings to HR and senior management, which ethical principle is he most clearly following?

- A. Emotional reasoning
- ☒ B. Deontology — duty to act with integrity
- C. Consequentialism — seeking personal safety
- D. Relativism — following social norms

8. An ethical decision that is principled, defensible, and consistent shows the presence of:

- A. Technical compliance
- ☒ B. Ethical reasoning
- C. Situational flexibility
- D. Legalism

9. Which of the following is not an objective of professional codes of ethics?

- A. Disciplinary
- B. Educational
- C. Inspirational
- ☒ D. Commercial profit

10. The IEEE Code of Ethics emphasizes:

- ☒ A. Prioritizing safety, honesty, fairness, and professional competence
- B. Maximizing employer profit above all
- C. Obeying only local laws regardless of ethics
- D. Avoiding responsibility for public welfare

11. According to the Software Engineering Code of Ethics (Version 5.2), the first principle focuses on:

- A. Product quality
- ☒ B. Public interest
- C. Management ethics
- D. Professional development



12. A software engineer discovers that a hospital's patient monitoring system occasionally freezes but management refuses to act due to budget constraints. According to the SE Code, the engineer should:

- A. Ignore it since no patients have been harmed yet
- ☒ B. Disclose the danger to appropriate authorities or the client
- C. Continue work quietly and hope it gets fixed
- D. Post about it anonymously online

13. Which principle ensures that software engineers continually enhance their professional competence?

- A. Client & Employer
- B. Judgment
- C. Self
- ☒ D. Profession

14. Which of the following best defines an organization?

- A. A group of individuals working independently for personal goals
- ☒ B. A coordinated social unit working together toward common objectives
- C. A temporary collaboration for short-term gains
- D. A government-imposed structure with no goals

15. Fatima runs a one-person tech consultancy and wants limited liability without adding partners. Which business structure suits her best under SECP rules?

- A. General Partnership
- B. Private Limited Company
- ☒ C. Single-Member Company (SMC)
- D. Sole Proprietorship

16. According to the ethical frameworks discussed, Deontology emphasizes decisions based on:

- A. The outcome of the action
- B. The greatest good for the greatest number
- ☒ C. Duties and rights, regardless of consequences
- D. Company profitability

17. A developer discovers that a government database system unintentionally exposes citizens' personal data. Management insists on going live to meet deadlines. What should guide the developer's ethical choice?

- A. Legal compliance only
- ☒ B. The duty to prevent harm and respect privacy
- C. Obedience to management
- D. Avoiding financial loss

18. Which of the following is most likely to result from unstructured ethical decision-making in an organization?

- A. Enhanced fairness and trust
- ☒ B. Inconsistent handling of similar cases
- C. Transparent accountability
- D. Reduced bias

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19. The value judgment stage in ethical decision-making primarily requires:
- A. Identifying the most profitable option
  - ☒ B. Balancing personal values with societal expectations
  - C. Following organizational hierarchy
  - D. Avoiding all risks

20. Ali and Bilal form a small firm together, share profits and losses, and sign a written agreement outlining responsibilities and exit procedures. What type of business structure have they created?

- A. Sole Proprietorship
- ☒ B. General Partnership (AOP)
- C. Public Limited Company
- D. Non-profit organization

### Question 2 [15+15 Marks]

#### SCENARIO-BASED QUESTIONS

#### Scenario-A

Sam is working in company Salsoft for the past 6 years and his current job title is Principal Software Engineer. Salsoft has its own products as well as provides banking solutions to various leading banks in the country. Salsoft is extremely lenient towards employees and only focuses on deadlines for clients, rest they hardly care about paperwork. Salsoft's most important client is IHV. IHV's existing product will be re-designed and this project has 3 parts in total, web services, web front-end, and mobile app. Once again IHV relies on the efficient product delivery services of Salsoft and handed over this redesign project to Salsoft. Salsoft has started working on web services part of IHV's new plan. Sam is also working on the same project. He has the core knowledge of the application and knows everything about it. Sam is an energetic guy and always looks forward to new opportunities in the market. Recently he got an interview call from one of its competitors of Salsoft and got very good benefits and a competitive salary. He resigned Salsoft on a one-month notice period. During his notice period, Sam took all important codes and documents he has worked on in the past 6 years along to the new company and also the code of IHV as well. The new company he has joined took advantage of it, discussed with him all the project details of IHV, and planned a meetup with the CEO of IHV. Now the turn was very serious to Salsoft, as IHV is now going to make only web services with Salsoft while the other two parts of the project are now with Sam's new company.

- a) Identify and explain the two valid mistakes of Salsoft in the above scenario. [5]
- b) What do you think Salsoft should do in the future to avoid such cases? [5]
- c) As an IT expert what do you think, what's the legal obligation of Sam as an employee? [5]



**Scenario-B**

City Food Restaurants is a new restaurant chain in Pakistan. City Food is emerging business and its management is deeply focusing to make their presence on the internet. The company has created a website with the domain name of cityfood.com.pk. The web-site allows customers to book tables and order their dinners. City Food management is much interested for the registration of their unique trademark and service mark at national and global level. In addition, SEO (Search Engine Optimization) feature is also added so that a search engine likes to show it as a top result for search against quality food keyword. City food also launched an online utensils portal by adding a new webpage on its website where users can get access to the variety of utensils they want to purchase, and users can make order using cash on delivery or debit & credit card.

a) **Suggest a suitable Trade Mark for the City Food. In relation to the web-site, explain how City Food Restaurants can protect its intellectual property in terms of:**

- i. Trade Mark
- ii. Service Mark
- iii. Domain name

[2]  
[2]  
[2]

City food also launched a food blogging service where Faisal Badami is working as a food blogger. He copied few sentences from an article published in the food website <http://time.com>. This article mainly focuses on the eating habits of kids and their impact on their grades. Faisal has taken below excerpts from the article and place it on his blog.

"A new study suggests that eating a lot of Fast food might be linked to kids doing badly in school. Researchers at the Ohio State University found that the more frequently children reported eating fast food in fifth grade, the lower their improvement in reading, math, and science test scores by eighth grade. The difference between the test scores of kids who didn't eat any fast food and those who reported eating a lot was significant: 40%. Relying too much on fast food could hurt how well children

do in the classroom. The reason is that fast food is low in such nutrients as iron that aid in cognitive development, which may explain some of the gap in learning. Moreover, diets high in fat and sugar, both of which fast food tends to have in abundance, have been shown to have a bad effect on immediate memory and learning processes."

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1. **Discuss the Act of Faisal Badami is justified with respect to IP Rights?**

[4]

An independent restaurant review website contains user reviews about their experiences at restaurants. A person has written a review on the website that claims the City Food Restaurants chain has bribed the government authorities to ignore its breaches of food hygiene regulations.

2. **Describe the potential defamation issues in this situation.**

[5]

Q.2

Scenario - A

11  
15

(a)

(1) Lack of Documentation:

It is stated that Salsoft only cares about meeting client deadlines and does not care about paperwork. In the short it may be fast but in the long term there is no documentation about the codebase, architecture of the systems etc. Practically there is no re-usable information.

(2) Lack of Proper Contract:

There was no contract bounding Non-Complete clause on to Sam. Moreover it seems there was no contract clause preventing Sam from taking the code he wrote to the new company from Salsoft.



(b)

(1) Documentation:

Documentation should be added as an obligatory step in the product creation process. Documentation should be done regarding the codebase, the architectures of the systems, the tools used etc. This will ensure access to re-usable information for the future.

(2) Proper Contract:

There should be proper clauses in the contract stating a Non-Compete Agreement for a probationary time period.

A clause should be added to protect the intellectual property of the company.

(3) Transfer of Knowledge:

Salvoft should introduce a stage in the offboarding, in which the exiting employee should share/train other employees with their knowledge/processes to ensure continuity.

(c)

3 Sam should not have shared the codebase and documents he made at Salsoft with his new company. He may be able to get away with it due to loop holes in his agreement with Salsoft, but it sets the incorrect precedent. This leads to the theft of intellectual property.



## Scenario - B

(a)

Assuming City Foods has more than 7 employees, a suitable trademark would then be City Foods Restaurants Private Company Limited. This would allow for limited liabilities, trade on the Pakistan Stock Exchange, sell shares etc. FBR on well

(i)

~~Trade Mark : ~~American~~ City Foods Restaurants Private Company Limited.~~

Register it with the Securities and Exchange Commission of Pakistan. Register it with similar organizations for global trademarks

(iii)

Domain Name: cityfood.com.ph

The domain name can be bought from various hosting services such as GoDaddy, hostinger, AWS Route 53, ICANN etc.

30/2  
made?

OK

2/2

(ii)

Service Name : City Food Restaurants.

Register it with the patent office of Pakistan. Similar global organizations as well. FBR as well.

(1)

To a certain extent Yes, ~~with some modifications.~~

The content in the Time's article, specifically the above excerpt, is simply citing and summarizing the study, which in my opinion does not amount to an Intellectual Property. Hence, in my opinion when Faisal Bolami copies the excerpt, he is simply copying the shared summary and the cited work.

This could be thought of re-stating the study's conclusion.



(2)

In the current digital age, digital reviews can be the reason for the boom or bust of a food services organization.

In this context, the review may discourage potential customers.

If the review does not contain proof and/or is ambiguous, City Food can file a defamation suit against the user but in my opinion City Food should take a cool headed approach.

City Foods should instead directly contact the customer to address their grievances & any lapses on its part.

This will show City Food is serious about professional service and will serve as positive publicity.

Bribe  
allegation