E.G.S.PILLAY ENGINEERING COLLEGE, NAGAPATTINAM

DEPARTMENT OF MCA

IMPORTENT 2 MARK QUESTION AND ANSWER

Unit-1

**1.What is Ethics?** Ethics is rather an abstract concept and is often considered to be a fuzzy area of discussion.

**2. What is Computer Ethics?**  
 Computer Ethics means computer systems performs tasks and the way they perform tasks has moral consequences, consequences that affect human interests.

**3. Why Computer Ethics is unique?**  
 Computer ethics is unique because computers have certain properties that raise unique issues. According to Moor, there are there properties that makes computers a special case. They are

\*Logical malleability  
\*Impact on society  
\*Invisibility factor

**4. Define Logical malleability?**  
 Logical malleability is that computers can be shaped and moulded to perform any activity that can be characterized in terms of inputs, outputs and connecting logical operations.

**5. Mention the three kinds of invisibility factors?**  
 \*Invisible abuse  
 \*Invisible programming values  
 \*Invisible complex calculation

**6. What are the key issues related to computer ethics?**  
 \*stealing  
 \*Intellectual property  
 \*The right of privacy  
 \*The right of equality  
 \*keeping promises  
 \*Not lying

**7. List out the two ethical theories?**  
 \*Kantianism(a theory provided by Immanuel Kant)  
 \*Consequentialism(sometimes called utilitarianism)

**8. Compare the strength and weakness of the Kantianism and Consequentialism theories?**

|  |  |  |
| --- | --- | --- |
| Ethical Theories | Strengths | Weakness |
| Kantianism | It assumes equality.  It is based on logic and rationality.  If something is good enough for one person, logically it must be good enough for another person. | It does not take into account conflicting priorities, or special circumstances like stealing of food. |
| Consequentialism | It takes into account different circumstances and can accommodate conflicting priorities. | It does not take into account the individual, or accommodate minority groups. |

**9. State some of the highlights of Kantianism ethical theory?** \*simply say that we must not lie  
 \*There are no circumstances in which a lie could be justifies.  
 \*If we believe that it is acceptable to lie, and then in accordance with the above categorical imperative, we must then accept that telling lies should become the norm-everybody can lie.  
 \*As a result, truth and honesty would become things of the past and they would no longer exist.  
 \*killing, Lying, Stealing and Breaking of promises are also wrong.

**10. State some of the highlights of Consequentialism ethical theory?**  
 \*Stealing could sometimes be the right action to take, provided the outcome is for the ‘good’.  
 \*Utilitarian theory says that a good outcome is that which bring ‘the greatest benefit to the greatest number of people’.  
 \*Stealing is a morally permissible act if it brings greater benefit to the greatest number.

**11. What is meant by ‘Ethical Dilemma’?**  
 An ethical dilemma is a situation wherein moral precepts or ethical obligations conflict in such a way that any possible resolution on the dilemma is morally intolerable. In other words, an ethical dilemma is any situation in which guiding moral principles cannot determine which course of action is right or wrong.

**12. List out the principles or issues for making ethical decisions?**  
 \*Laws  
 \*Codes of conduct  
 \*Ethical theories  
 \*Social norms and other arguments

**13. Who are called Hackers?**  
 A person who enjoys learning the details of computer systems and how to stretch their capabilities, as opposed to most computer users who prefer to learn only the minimum amount necessary.

**14. State the motives behind hacking?**  
 \*some of the motives behind hacking are  
 \*vandalism-criminal behaviour  
 \*Public interest  
 \*Reveal wrongdoing  
 \*Financial gain  
 \*As a protest  
 \*The challenge(fun)

**15. what is virus?**  
 A virus is a self-replicating piece of programming code inserted into other programs to cause some sort of unexpected, and usually undesirable, event.

**16. Give the names of some viruses?**  
 \*Trojan horses  
 \*Worms  
 \*Time or logic boms  
 \*Denial – of – services  
**17. What is Trojan horse?**  
 A Trojan horse or Trojan, in computing is a non-self-replicating type of malware program containing malicious code that, when executed, carries out actions determined by the nature of the Trojan, typically causing loss or theft of data, and possible system harm.

**18. What is computer worm?** A computer worm is a standalone malware computer program that replicates itself in order to spread to other computers. Often, it uses a computer network to spread itself, relying on security failures on the target computer to access it.

**19. what is logic bomb?**  
 A logic bomb is a piece of code intentionally inserted into a software system that will set off a malicious function when specified conditions are met.

**20. what is time bomb?**

A time bomb refers to a computer program that has been written so that it will stop functioning after a predetermined date or time is reached.

**21. What is meant by Denial-of-service?** Denial-of-service (DOS) is an attempt to make a machine or network resource unavailable to its intended users.

**22. List down the five principal values of hacker ethic?**  
 The Hacker ethic was comprised of five principal values:  
 \* Access to computer, and anything which might teach you something about the way the world works, should be unlimited and total. Always yield to the hands-on imperative.  
 \* All information should be free  
 \* Promote Decentralization  
 \* Hackers should be judged by their hacking, not bogus criteria such as academic excellence, agr or position.  
 \* Can create art and beauty on a computer

**23. What are the important aspects of BCS code of conduct?**  
BCS CODE OF CONDUCT   
\* sets out the professional standards required by BCS as a condition of membership.  
\* applies to all members, irrespective of their membership grade, the role they fulfil, or the jurisdiction where they are employed or discharge their contractual obligations.  
\* governs the conduct of the individual, not the nature of the business or ethics of any Relevant Authority.

**Unit-II**

**1.What is computer crime?**  
 Computer crime can be broadly defined as a criminal act that has been committed using a computer as the principal tool. The definition of computer crime is a narrow one, and includes new cyber crimes which are specific to computers, such as hacking, virus attacks, and identify theft.

**2. List out the two categories of computer crime?**  
 Crimes that target computers directly  
 Crimes facilitated by computer networks or devices

**3. What are crimes that primarily target computer networks or devices?**  
 \* Computer viruses  
 \* Denial-of-service attacks  
 \* Malware(malicious code)

**4. What are the different types of computer crime?** \* Unauthorized access(Hacking)  
 \* Theft: goods, information or money  
 \* Theft of computer time  
 \* Computer espionage  
 \* Identity theft  
 \* Harassment and sexually-related material  
 \* Forgery and piracy

**5. What is corporate espionage?**  
 Corporate espionage and theft is a rapidly growing area of computer crime which involve theft of these corporate assets or trade secrets from competitors.

**6. What are the various computer security measures?**  
 \* passwords  
 \* Encryption   
 \* Access Control Software   
 \* Firewalls   
 \* Biometrics   
 \* Audit control software   
 \* Anti-virus software

**7. What is Firewall?**  
 A firewall is software or hardware-based network security system that controls the incoming and outgoing network traffic by analyzing the data packets and determining whether they should be allowed through or not, based on applied rule set.

**8. State the problems of biometrics?**  
 The problem which biometric is if a hacker gets a copy of the file with our digitized thumbprint or retina scan, we cannot get a new one. Another problem is reliability. Biometric systems have to be completely robust and carefully tested before being introduced.

**9. What is IPR?**  
 Intellectual property rights(IPR) are the legally recognized exclusive rights to creations of the mind. Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary, and artistic works; discoveries and inventions; and words, phrases, symbols, and designs.

**10. what are key areas of Intellectual property rights?**  
 \* Patents   
 \* Copyrights   
 \* Trademarks   
 \* Trade secrets

**11. What is patent?**

A patent is a set of exclusive rights granted by a sovereign state to an inventor or assignee for a limited period of time in exchange for detailed public disclosure of an invention.

**12. What is Copyright?**

Copyright is a legal concept, enacted by most governments, that grants the creator of an original work exclusive rights to its use and distribution, usually for a limited time, with the intention of enabling the creator of intellectual wealth(e.g .the photographer of a photograph or the author of a book) to receive compensation for their work and be able to financially support themselves.

**13. What is meant by Trade mark?**

A trademark is a recognizable sign, design or expression which identifies products or services of a particular source from those of others.

**14. In what ways Trademarks can be violated?**  
 a. Infringement  
 b. Dilution

**15. What is Trade secret?**

A trade secret is information that is intentionally kept confidential and that provides a competitive advantage to its possessor.

**16. Define Software Piracy?**  
 Software piracy can be defined as “copying and using commercial software purchased by someone else”.

**17. How to minimize the software piracy?**  
 The ways to minimize the software piracy are  
 \* Have a central location for software programs. Know which applications are being added, modified or deleted.  
 \* secure master copies of software and associate documentation, while providing faculty access to those programs when needed  
 \* Never lend or give commercial software to unlicensed users.  
 \* Permit only authorized users to install software.  
 \* Train and make staff aware of software use and security procedures which reduces likelihood of software piracy.

**18. What is meant by Free Software?**  
 Free software is computer software that is distributed along with its source code, and is released under a software license that guarantee users the freedom to run the software for any purpose as well as to study, adapt/modify, and distribute the original software and the adapted/changed versions.

**19. What is open source code?** open source refers to a computer program in which the source code is available to the general public for use and/or modification from its original design. Open source code is typically created as a collaborative effort in which programmers improve upon the code and share the changes within the community.

Unit –III

**1. What is the importance of free speech and thought?** Free speech and open discussion of ideas stimulates thinking, and the questioning of ideas. Engagement in discussion encouraged people to think for themselves rather than simply accept ideas promoted by others.

**2. What is the consequence of denying free expression?**  
 consequence of denying free expression is the suppression of intellectual activity.

**3. Define Censorship?**  
 Censorship is the suppression of speech or other public communication which may be considered objectionable, harmful, sensitive, politically incorrect or inconvenient as determined by a government, media outlet or other controlling body.

**4. Differentiate between self censorship and soft censorship?**  
 Government , private organizations and individuals may engage in censorship. When an author or other creator engages in censorship of his or her own works, it is called self-censorship.

Censorship may be direct or it may be indirect, in which case it is called soft censorship.

**5. What are the various types of censorship base on the information censored?**  
 \* Moral censorship  
 \* Military censorship   
 \* Political censorship  
 \* Religious censorship   
 \* Corporate censorship.

**6. What contents must be filtered or blocked from Internet?**  
 \* Obscene material   
 \* Child pornography   
 \* Harmful to minors

**7. List out the most problematic forms of speech on the Internet?**  
 The most problematic forms of speech on the Internet have been  
 \* Pornography   
 \* Hate speech   
 \* Forms of expression connected with terrorism or political dissent.

**8. What are the five important characteristics which have made censorship is more difficult?**

\* Many-to-may communications  
 \* Dynamic  
 \* Scale and size of the internet  
 \* Global  
 \* Users-adults and children

**9. What are the censorship tools?**  
 \* Cancelbots  
 \* Content filters  
 \* Encryption

**10. What is cancelbot?**

A concelbot is an automated or semi-automated process for sending out third party cancel messages over Usenet, commonly as a stopgap measure to combat spam.

**11. What is anonymity on the internet?** Anonymity means that the real author of a message is not shown. Anonymity can be implemented to made it impossible or very difficult to find out the real author of a message.

**12. What is called chained re-mailing?**  
 By encrypting a message and then routing that message through a series of anonymous re-mailers, a user can assume that their message will remain anonymous and confidential. This process is called ‘chained re-mailing’.

**13. Define Internet Governance?**  
 Internet governance is the development and application of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet.

**14. Write down the three layers of internet governance?**

\* Physical infrastructure layer (through which information travels)  
 \* code or logical layer(controls the infrastructure)  
 \* content layer(contains the information signalled through the network)

**15. Define cookie?**  
 A cookie is a small piece of data sent from a website and stored in a user’s web browser while the user is browsing that website.

**16. What is spam?**  
 Spam, also known as junk email or unsolicited bulk email(UBE), is a subset of electronic spam involving nearly identical messages sent to numerous recipients by email.

**17. what is RFID?**  
 Radio-frequency identification(RFID) is the wireless non-contact use of radio frequency electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects

**18. What is meant by safety?**  
 A thing is safe if, its risks were fully known and the risks must be judged acceptable in the light of settled values principles.

**19. How the risk is influenced?**  
 The risk is influenced by following factors.  
 \* Whether the risks is voluntary  
 \* knowledge of harm from risk  
 \* job related risks  
 \* Effects of risky situation

**20. What is risk assessment?**  
 Risk assessment is the determination of quantitative or qualitative value of risk related to a concrete situation and a recognized threat (also called hazard). A risk assessment is simply a careful examination of what, in your work, could cause harm to people, so that you can weigh up whether you have taken enough precautions or should do more to prevent harm.

**21. How to assess the risks in workplace?**  
 follow the five steps to assess the risks.  
 Step 1: Identify the hazards  
 Step 2: Decide who might be harmed and how

Step 3: Evaluate the risk and decide on precautions  
 Step 4: Record your findings and implement them.  
 Step 5: Review your assessment and update if necessary.

**22. State some if the risk exposure assessments?**  
 \* Requirement specification changes during coding phase  
 \* Staffs inability to complete the task assigned affecting the critical activities.  
 \* Specification process takes much longer than expected.  
 \* Module testing produces errors of design phase.

**23. What is risk benefit analysis?**  
 Risk-benefit analysis is the comparison of the risk of a situation to its related benefits.

**24. What is risk reduction?**  
 Risk reduction attempts to reduce the occurrence of risk whereas risk mitigation ensures that the risk impact is much lesser when actually occurs.

Unit-IV

**1. What is meant by equity of access?**  
 Equity of access means that all people have the information they need regardless of age, education, ethnicity, language, income, physical limitations or geographic barriers. It means they are able to obtain information in a variety of formats-electronic, as well as print.

**2. What are the Exemplar groups that may be disadvantaged in term of computer access?** \* The under-educated  
 \* The poor  
 \* The elderly  
 \* The disabled

**3. List down the professional responsibilities?** Uphold the values of the society in which he/she operates  
 Recognize and abide by the relevant legislation.  
 Promote the good for the public at large, and vulnerable groups in particular

**4. What are the main reasons for the impact of new technology was not as great as envisaged?** The introduction of computers into the workplace was slower than expected(due to financial, technical, human and organizational problems- including oversell by the computer industry)

The alarming rate of unemployment was not seen to increase dramatically.  
particularly in the US and Europe, the baby boom generations entry into the workforce was largely complete by the end of the eighties, and the arrival of the baby bust generation in the 1990s saw some shortages of labour developing.

**5. What are the hazards possible when the computers are introduced in work place?**  
 \* There are indications that prolonged use of video displays can have a detrimental impact on health.  
 \* It is found that a high level of miscarriages premature births and stillbirths among computer operators.  
 \* Other research highlighted effects from monitors resulting in eyestrain, double vision, neck and shoulder problems, and depression.  
 \* Excessive use of computer keyboards and other hand-held input devices (e.g. mouse) can lead to injuries to the arm, hand and fingers. This type of physical stress is commonly known as repetitive strain injury.

**6. What is EIM?** Employee Internet Management software (EIM) is a new class of software which is able to detect, among other things, the presence of particular file, changes in hardware and software, excessive use of certain applications, browsing on unauthorized websites and monitoring bandwidth consumption(for example, the downloading of large files).

**7. What are the arguments against monitoring in the work place?** Critics that computerized employee monitoring undermines trust, encourage competitiveness among co-workers and is more concerned with measuring quantity rather than quality.

**8. What is Telecommuting?**  
 Telecommuting or teleworking are synonyms for the use of telecommunications and Internet technologies to work outside the traditional office or workplace, usually at home or in a mobile situation.

**9. List out the benefits of telecommuting?**  
 One of most obvious benefits of telecommuting is the associated reduction of office space required for employees.  
 \* Increased productivity  
 \* Reduction in absenteeism  
 \* Improved morale  
 \* recruitment  
 \* Benefits to the environment  
 \* Lower costs for the worker

**10. State some of the drawbacks of telecommuting?**  
 The threat to management control of worker autonomy  
 \* Lack of face-to-face interaction with customers at the work place   
 \* Security issues(particularly sensitive information)  
 \* Difficulty of scheduling team meetings

**11. What are the purposes for using internet based tools?**  
 \* To learn how to do the work  
 \* To gather information

**12. What is software Failure?**  
 \* software failure has been defined as the occurrence of either  
 \* deficient functionality, where the program fails to perform a required function, or  
 \* deficient performance, where the program performs a function too slow or in an insufficient manner.

**13. Mention the different software documentation types?**  
 \* Request for Proposal(REF)  
 \* Requirements/ Statement of work/ Scope of Work(SOW)  
 \* Software Design and Functional Specifications  
 \* Change Management, Error and Enhancement Tracking  
 \* User Test and Acceptance(UTA)

**14. What is Authentication?**   
 Authentication is the act of confirming the truth of an attribute of a single piece of data (datum) or entity.

Unit-V

**1. What is Trustworthy Computing Security initiative?** Eliminating common coding mistakes and improving the program design process in order to reduce errors in developing high quality software, employees of Microsoft Windows division were given training. This internal quality improvement training program is called as the Trustworthy Computing Security initiative.

**2. Name the issues associated with improving the quality of the software by manufacturers?** Software manufactures are struggling with economic, ethical, and organizational issues associated with improving the quality of their software.

**3. Define software quality assurance(SQA)?** Software quality assurance(SQA) is a process that ensures that developed software meets and complies with defined or standardized quality specifications. SQA is an ongoing process within the software development life cycle(SDLC) that routinely checks the developed software to ensure it meets desired quality measures.

**4. What is dynamic testing?**  
 Software is developed in units called subroutines or programs. These units, in turn, are combined to form large systems. When a programmer completes a unit of software, one quality assurance measure is to test the code by actually entering test data and comparing the actual results to the expected results.

**5. What is ISO?**  
 ISO (International Organization for Standardization) is the world’s largest developer of voluntary International Standards. International Standards give State of the art specifications for products, services and good practice, helping to make industry more efficient and effective. Developed through global consensus, they help to break down barriers to international trade.

**6. List the various ISO 9000 series of standards?** \* ISO 9001- Design, development, production, installation, servicing  
 \* ISO 9002-Production, installation, servicing  
 \* ISO 9003-Inspection and testing  
 \* ISO 9004-The Development , supply, and maintenance of software  
 \* ISO 9005-Quality management and quality systems elements.

**7. Define social networking?**  
 Social networking occurs through a variety of websites that allow users to share content, interact and develop communities around similar interests.

**8. Name popular social networking sites?** \* Facebook.com  
 \* Twitter.com   
 \* LinkedIn.com   
 \* MySpace.com

**9. What is Social Networking Website?**  
 It is a site whose purpose is to create an online community of Internet users that enables members to break down barriers created by time, distance and cultural differences. It allows people to interact in online by sharing opinions, insights, information, interests and experiences.

**10. What are the issues for social networking web sites?**  
 \* Cyber-bullying   
 \* Cyber-talking   
 \* Sexual predators   
 \* Uploading inappropriate material

**11. What is cyber-bullying?**  
 It is harassment, torment, humiliation, or threatening of one minor by another minor or group of minors via the Internet or cellphone.

**12. What is cyber-stalking?** It is kind of threatening behaviour or unwanted advances using the Internet or online and electronic communications.

**13. What is Online Virtual World?**  
 A virtual world is a computer-based online community environment that is designed and shared by individuals so that they can interact in a custom-built, simulated world. Users interact with each other in this simulated world using text-based, two-dimensional or three-dimensional graphical models called avatars.

**14. What is an avatar?** Avatars are graphically rendered using computer graphics imaging(CGI) or any other rendering technology. Individuals control their avatars using input devices like the keyboard, mouse and other specially designed command and simulation gadgets.

**15. What are virtual crimes?**  
 Virtual crimes are considered similar to cybercrimes, defining cybercrimes as “crimes committed against a computer or by means of a computer.” Obviously, computers can be utilized in the furtherance of criminal conduct, and there are many countries that expressly criminalize certain types of conduct involving computer networks.

**16. Define thin and thick copyright?** Thin Copyright usually refers to a minimalist approach to copyright, giving works only as much protection as is needed to encourage creativity but with a goal of making works readily available to the public.

**17. What is defamation?**  
 Defamation is where a person intentionally states or spreads information about another person to cause others to think less of that person.

**18. Define piracy?** Piracy refers to the unauthorized duplication of copyrighted content that is then sold at substantially lower prices in the ‘grey’ market. The ease of access to technology has meant that over the year, piracy has become more rampant. For example, CD writers are available off the shelf at very low prices, making Music piracy a simple affair.

**19.What is Internet piracy?**  
 Internet piracy is the unlawful reproduction and/or distribution of any copyrighted digital file that can change hands over the Internet. This can be done with music files, videos and movies, e-books, software, and other materials.

**20. Name three main types of piracy?**  
 \* Software piracy  
 \* Music piracy  
 \* Film piracy

**21. What is SOPA?** SOPA is an acronym for the Stop Online Piracy Act. It’s a proposed bill that aims to crack down on copyright infringement by restricting access to sites that host or facilitate the trading of pirated content.

**22. what is mean by Internet Fraud?**  
 A crime in which the perpetrator develops a scheme using one or more elements of the Internet to deprive a person of property or any interest, estate, or right by a false representation of a matter of fact, whether by providing misleading information or by concealment of information.

**23. Define fishing mail?**  
 Phishing is a method used by fraudsters to access valuable personal details, such as usernames and passwords. The fake messages generally include a link to phony, or spoofed, websites, where victims are asked to provide sensitive personal information. The information goes to criminals, rather than the legitimate business.

**24. What is Identity theft?**  
 It is a criminal activity where a thief appropriates vital information such as your name, birth date, account number, or credit card number without your knowledge.

This occurs when someone illegally obtains your personal information such as  
 \* your credit card number  
 \* bank account number  
 \* other identification

**25. List frequently busted online fraud?** \* Phishing emails   
 \* Counterfeit web sites   
 \* Email fraud   
 \* Lottery frauds   
 \* Bank account fraud   
 \* Credit card fraud   
 \* Malware  
 \* Auction fraud

**26. What is lottery fraud?**  
 Lottery frauds are most common online fraud that happens every day on internet. Every day Gmail, Yahoo or Hotmail like mailing portal users receive mails regarding lottery. Such mails comes with popular brand names saying that “You have won 50 Million dollars” from Coca-Cola, Yahoo, Hotmail and other big names. When you reply to those mails they ask for your bank details to transfer your lottery money. When you send them the details asked, then they ask you to give a processing fee or handling charges.

**27. What is Credit card fraud?**  
 This is another category that can include a variety of scams. It can include overcharging you for items you legitimately purchased as well as unauthorized credit card charges. Remember that as a consumer, you have more legal protections when using a credit card than a debit card. Also review your credit card statements each month to ensure that they’re accurate, and contact your credit card issuer immediately if you think you’ve been overcharged or if an unauthorized charge appears on your statement.

**28. What is malware?**  
 Malware is malicious software that consists of programming, for example code or scripts, designed to disrupt the performance of Pc, laptops, handheld devices, etc. Malware can also collect information or data from infected devices and pass them on to another device. Malware is often referred to as viruses. Worms, Trojan horses, spyware, dishonest adware, scare ware, and crime ware.