



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : OEC- CS801B/OECIT801B Cyber Law and Ethics

UPID : 008258

Time Allotted : 3 Hours

Full Marks : 70

The Figures in the margin indicate full marks.

Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :

[1 x 10 = 10]

- (I) What are the key elements of Cyber Security?
- (II) Which is not a type of cyber crime?
- (III) Which Federal Code applies the consequences of hacking activities that disrupt subway transit systems?
- (IV) Classify cyber crime.
- (V) What are Phishing and Pharming?
- (VI) What is the full form of ITA-2000?
- (VII) What is the difference between the Host Intrusion Detection System (HIDS) and Network Intrusion Detection System (NIDS)?
- (VIII) Report vulnerability in any system is not done by cyber criminals: True/False
- (IX) What is the difference between active attack and passive attack?
- (X) What do you understand by the MITM attack?
- (XI) What is phishing?
- (XII) What is a Trojan Horse ?

Group-B (Short Answer Type Question)

Answer any three of the following :

[5 x 3 = 15]

2. What is electronics evidence ? Explain the nature and admissibility of electronic records. [5]
3. Explain Cyber Terrorism with suitable illustration. [5]
4. What is cyber law? Write its advantages and disadvantages. [5]
5. Compare and contrast between Indian context of jurisdiction and International context of jurisdiction. [5]
6. Write the steps to register patent in India . [5]

Group-C (Long Answer Type Question)

Answer any three of the following :

[15 x 3 = 45]

7. Describe different types of cyber attacks. [15]
8. (a) Define Cybercrime? Discuss about various type of Cybercrime [6]
 (b) Discuss about email spoofing and email spamming [4]
 (c) What is Reconnaissance in the world of Hacking? [3]
 (d) What is Salami Attack? [2]
9. Explain the liability aspect of the Internet Service Provider as per the Information Technology Act 2000. [15]
10. Explain in detail the public key functioning and Protection provided by it under the Electronic Signature. [15]
11. Briefly explain Digital Signature. [15]

*** END OF PAPER ***



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : OEC- CS802A/OECIT802A E-Commerce and ERP

UPID : 008261

Time Allotted : 3 Hours

Full Marks : 70

The Figures in the margin indicate full marks.

Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :

[1 x 10 = 10]

- (I) What is 'EOQ' in Inventory control?
- (II) What is URL?
- (III) Compared to B2C e-commerce, B2B e-commerce is _____.
- (IV) What is email marketing?
- (V) EDI stands for _____.
- (VI) VMI stands for _____.
- (VII) What type of E - Commerce is tenders and submission of application?
- (VIII) What is called sale or purchase of items without physically visiting a shop?
- (IX) What is E-Business?
- (X) The purchase of machinery, equipment, or materials must go through the _____ department.
- (XI) What is a virtual storefront?
- (XII) SMTP refers to _____.

Group-B (Short Answer Type Question)

Answer any three of the following :

[5 x 3 = 15]

2. What are the 4 C's of Digital Marketing? [5]
3. Explain the Internet Marketing in detail [5]
4. What are the features of E-commerce? [5]
5. Discuss EDI architecture. [5]
6. Explain the internet industry structure with diagram? [5]

Group-C (Long Answer Type Question)

Answer any three of the following :

[15 x 3 = 45]

7. (a) Write down the benefits of electronic web commerce [5]
 (b) Distinguish between Internet and Intranet. [5]
 (c) What is Firewall? [3]
 (d) What do you mean by Electronic Marketers? [2]
8. (a) Explain any 5 types of Electronic Payment Systems. [10]
 (b) Discuss the impact of e-commerce in the following areas [5]
 (i) Marketing
 (ii) Finance and Accounting
9. (a) Define Convergence, Collaborative Computing, Content Management & Call Center. [10]
 (b) How is e-mail useful for E-Commerce? Is it secure to transact through e-mail? Explain and justify. [5]
10. (a) Distinguish between e-business and e-commerce. [5]
 (b) Discuss how E-Commerce is helpful to business success. [5]
 (c) Write about Tangible and Intangible benefits of e-business [5]
11. (a) Draw and explain the architecture of an online shopping e-commerce portal that sells a large number of different types of goods. [10]
 (b) Discuss how E-Commerce is helpful to business success. [5]

*** END OF PAPER ***



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : PEC- CS801E/PECIT801D Internet of Things

UPID : 008270

Time Allotted : 3 Hours

Full Marks : 70

The Figures in the margin indicate full marks.

Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following :

[1 x 10 = 10]

- (I) What is a potential benefit of distributed smart sensor networks?
- (II) GPS sensor commonly used in IoT devices. True/False
- (III) Why is measurement important in environmental monitoring?
- (IV) What is the working principle of a photodiode sensor?
- (V) What is the advantage of using fractional-order elements in IoT?
- (VI) What is the role of sensors in IoT?
- (VII) Write down the factors affects the performance of sensors in IoT?
- (VIII) What is a challenge associated with electroplating sensing films?
- (IX) What is a consideration when selecting a sensor for use in an IoT device?
- (X) What types of environmental parameters can be measured and monitored using IoT?
- (XI) What is a resistive sensor for temperature measurement?
- (XII) What is the significance of using fractional-order elements in modeling biological systems in IoT?

Group-B (Short Answer Type Question)

Answer any three of the following :

[5 x 3 = 15]

2. What is the working principle of a thermocouple sensor? [5]
3. What is the main component of a smart sensor? [5]
4. What is a sensor and what is its primary function? [5]
5. What is the purpose of a microcontroller in smart sensor architecture? [5]
6. What are some of the challenges associated with scaling down sensors to the nanoscale, such as fabrication techniques, signal processing, or environmental stability? [5]

Group-C (Long Answer Type Question)

Answer any three of the following :

[15 x 3 = 45]

7. (a) How can IoT devices be used to improve safety in industrial settings through environmental parameter monitoring? [5]
- (b) How can IoT devices be used to optimize HVAC systems in buildings, and what types of environmental parameters are typically measured and monitored for this purpose? [5]
- (c) What are some of the challenges associated with collecting and analyzing data from IoT-enabled environmental sensors, and how can these challenges be addressed? [5]
8. (a) What are some common environmental parameters that are measured and monitored? [5]
- (b) What are the benefits of using IOT for environmental monitoring? [5]
- (c) What are some examples of successful environmental monitoring frameworks? [5]
9. (a) Discuss the potential of using IoT devices for precision agriculture and how this can contribute to sustainable farming practices. What types of environmental parameters can be measured and monitored for precision agriculture? [5]
- (b) How can IoT devices be used to monitor and mitigate the effects of climate change on the environment? What types of data can be collected and analyzed to inform climate change research and policy? [10]
10. (a) What are the potential risks of not measuring and monitoring environmental parameters? [5]
- (b) What are the potential risks of not measuring and monitoring environmental parameters? [5]
- (c) How can environmental monitoring be integrated into sustainable development strategies? [5]

11. (a) How does silicon technology enable the integration of sensing and processing functions on a single chip? [5]
- (b) How does the miniaturization of sensors using silicon technology impact their performance and sensitivity? [5]
- (c) What is the role of interface electronic circuitry in smart sensor architecture? [5]

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