Harcourt Butler Technical University, Kanpur
MID SEM EXAM : 2021-2022

Class (Yr & Br) : (CSE/ET/CE/IT/ME/EE)
Subject: Cyber security
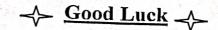Time: 1:30 hr

Semester : IV
Subject Code: ECS 260
MM: 30

Note: All questions carry equal marks. (5*6 = 30)

1: What is information system? Define its types. How components are secured in an information system?

2: What are the various phases of Development of information system? How development of information system are differ from System Development of Life Cycle phases

3: What is intrusion detection system (IDS)? What are different types of IDSs? How is Intrusion detection done?

4: Difference between symmetric key cryptography and asymmetric key cryptography techniques.

5: Define these terms.
   (i) Warm.   (ii) Malware.   (iii) Virus.   (iv) Spyware.
   (v) Spam.   (vi) Logic Bomb.

‑‑‑‑ **Good Luck** ‑‑‑‑

Time: 1:30 hr

MM: 30

Note: All questions carry equal marks. (6*5 =30)

1. What do you mean by programming language? Explain different characteristics of a good programming language?
2. Using suitable example, illustrate the difference between:
   a) Static and Dynamic type- checking
   b) Implicit and explicit type-conversion
3. Write short note on:
   a) Virtual Computer
   b) Abstraction
   c) Binding time.
4. Describe the different phases of compiler with suitable example?
5. Define a subprogram. Write the semantics of call and return of a subprogram.

Mid Semester Examination
II (CSE+IT)
Operating Systems (Subject code: ECS-256)

Max Marks: 30   **Total Time: 1.5 Hours**

Q1.) What is an Operating System? Discuss the main Services and Components of the operating system
[5 marks]

Q2.) What do you understand by system call? How is system call made? How system call is handled by system? Choose suitable examples for explanation.   [5 marks]

Q3.) Explain Dual Mode operation and system protection with example.   [5 marks]

Q4.) Differentiate between user level threads and Kernel level threads?   [5 marks]

Q5.) What is concurrency? What role does mutual exclusion play in achieving concurrency?
[5 marks]

Q6.) Write short note on inter process communication. (Define message passing and shared memory inter-process communication).
[5 marks]

Harcourt Butler Technical University, Kanpur
Mid Semester Examination, Even Semester 2021-22
Software Engineering (ECS-252)
II Year B. Tech. CSE/IT

Time: 1.5 Hours
Marks: 15

Note:- Attempt all questions. Marks of every question are given against it.

1. Differentiate between Software and Program. Explain the statement "Software does not wear out".

   (2)

2. Discuss the Spiral model for software development process and illustrate that this model contains good features of almost every other software development process model.   (3)

3. Suppose you have to develop software for Result Management System (RMS) of our University. Draw the Use Case Diagram and Data Flow Diagram for the RMS.   (5)

4. Define Coupling and Cohesion and write their types. How can we use Coupling and Cohesion levels of various modules to assess the strength of software Design?   (5)

MM: 15   WEB TECHNOLOGY (EIT-202)   TIME: 1:30 hr

NOTE: ATTEMPT ALL QUESTIONS.

1. Describe History of the web in detail? **[3]**
2. Explain HTML text formatting tags with example? **[3]**
3. Write the JAVA script to print "Good-Day" using IF-ELSE condition? **[3]**
4. Create a HTML FORM with minimum 10 fields using table formatting? **[3]**
5. Explain list elements in HTML?**(3)**

HARCOURT BUTLER TECHNICAL UNIVERSITY, KANPUR
MID SEMESTER EXAMINATION 2021-22
Organizational Behavior (HHS-254)
B.Tech 2nd year (ME/CE/IT/CS/EE/ET)

Total marks – 30

Time: 1:30 hr.

Note: Attempt all questions. Each question carries equal marks.

1. Define Organizational Behavior? Discuss the importance and scope of OB?
2. What is motivation? Discuss the Maslow's theory of motivation.
3. Write a short note on:
   a) Organizational Commitment
   b) Causes of stress