

**DIRECTORATE OF DISTANCE EDUCATION
NALSAR UNIVERSITY OF LAW, HYDERABAD**

Advanced Diploma in Cyber Security & Data Protection Laws

Academic Year: 2022-2023

Second Semester - End Semester Examination (June, 2023)

**Paper II - 1.2.5. Cyber Security and Forensics LAB
Sessions: - Digital Evidence Retrievals
and Analysis Systems (DERAS)**

Duration of the Examination: 2 ½ hours

Total Marks : 50 marks

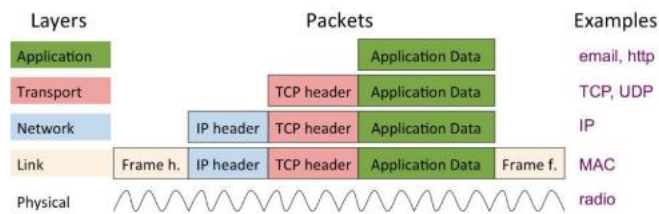
INSTRUCTIONS TO CANDIDATES

- a) Read the instructions carefully and adhere to the same.
 - b) Please mention your DDE ID No., date of the exam, name of the programme & subject on the Answer Sheet and the Additional Answer Sheets, if any.
 - c) The questions to be interpreted as given and no clarification can be sought from the Invigilator.
 - d) Clearly indicate the question numbers while answering them. Answers without question numbers / wrong question numbers will not be evaluated.
 - e) Write the answers clearly and neatly. Answers in illegible handwriting will not be taken into consideration.
 - f) Candidates are prohibited to carry phones or any other electronic devices, books, material etc. in the Examination Hall.
 - g) Copying is strictly prohibited and is considered as a serious academic misconduct and the University will take action as it deems fit.
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1. Explain the concept of Transport Layer Protocol.

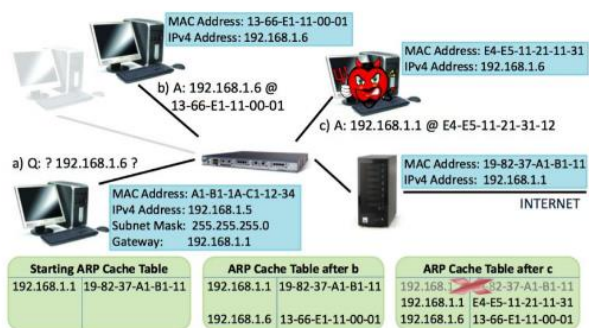
How Transport Layer protocol handles the following technicalities from data being converted to packets. **(20 marks)**

- a) Addressing processes and pocketisation
- b) Connection and Connection Less service
- c) Reliability of Data Transfer
- d) Explain the different protocols in the below image

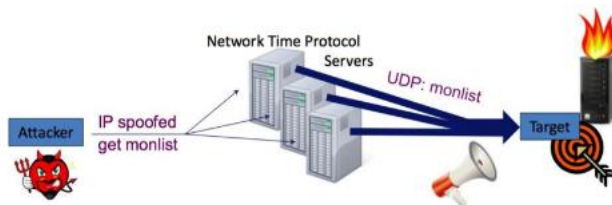


2. Explain the following Cyber Crimes with a real-time example derived from your own understanding (20 marks)

1. ARP spoofing



2. DOS Attack



3. SQL Injection

```

i?php mysql connect('127.0.0.1', 'dbuser', 'mysqlnwd');mysql select
db('name tabel mysql');
if(isset($ POST['login'])) {
$user = $ POST['name'];
$pwd = $ POST['password'];
$query = mysql query("SELECT uid, uname FROM users
WHERE uname = '$user' AND pwd = '$pwd' ");
... }?&

```

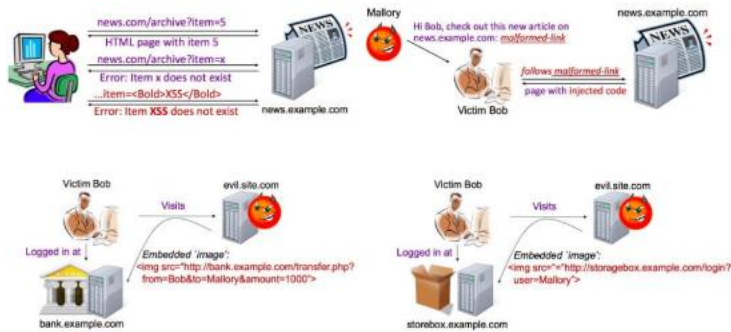
Malory Post to comments http://news.example.com

Victim Bob Login

news.example.com cookie stores credentials - has user comment section

<H1>Comment Section</H1> Comment from Malory: <script>steal cookies</script>

4. XSS Attack



3. Explain the following technological aspects of Data Communication and Networking (10 Marks)

- TCP packet format
- TCP Flow Control and TCP Visualizer