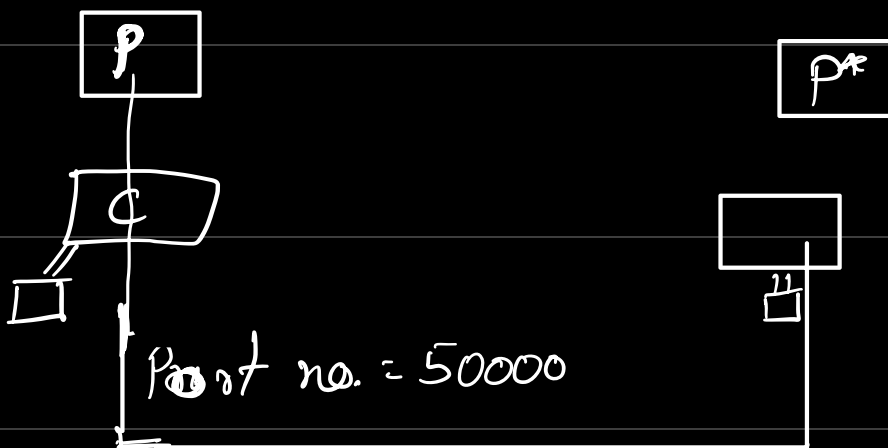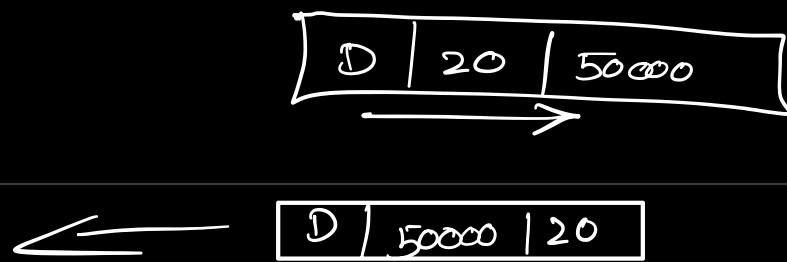# Internet Assigned Number Authority (IANA)

- Well known ports → 1024
  ↓
  controlled and assigned by IANA only.

- Registered ports → not assigned or controlled by IANA but it is used as duplicate ports as and when req.

  Range 1024 – 49151

- Dynamic ports → Also known as Ephemeral ports (Randomly choosen)

Port no. = 50000

```
| D | 20 | 50000 |
```
→

← ```| D | 50000 | 20 |```

- Total length = IP length − header length (UDP length)

- UDP checksum looks into 3 important sections at transport layer

  → ① pseudo header → part of header of IP packet in which user datagram is to be encapsulated.

  ② UDP header

  ③ Data from application Layer

Sections utilized for calculating checksum.

Psuedo header.

32-bit source IP Adress		
32-bit dest'n IP Ad		
All 0s	8bit protocol (17)	16-bit UDP total byte

UDP Header

DATA

Ex:

153. 18. 8. 105		
171. 2. 14. 10		
All 0s	17	15

1087	13
15	All 0s

153. 18
8.105
171.2
14.10
0 @ 17
15

T	E	S	T
I	N	G	Alos

1087
13
15
T
E
S
T
I
N
G

- <u>Note</u> → The checksum is optional in UDP and if it is not calculated then it is filled with all 1's.