No. of Extra Sheets Attached: ....

Student's Name : Ali Khursheed.   Regd. No : 20-Arid-748

Name of the Degree/Diploma: Software Engineering (BS)   Morning/Evening

Course No: ....   Course Title: Computer Networking.

Semester (Fall/Spring/Summer) : ....   Year: 2022.   Date of Examination : 18-Dec.

Q.No.	1	2	3	4	5	6	7	8	9	10	Marks Obtained /Total Marks	If Applicable Converted Marks/Total Marks
Marks Obtained	1	2	4								7	7/18

Total Marks in Words: Seven only

Name of the Teacher who taught the course :

Signature of Teacher / Examiner :

Question.No.01

(a)

Explanation:

By reference to network layer, it's responsible for receiving the frams from data link & conversion into packets. if address remains un-changed then router opens the header in order to (th) send the packets to (trans) transport layer for the whole process.

(b)

Find value where ASCII (A) = 65:

Let's find out the binary conversion of Hexadecim...

The binary conversion of ASCII value
of A = 1000001

The value of A lies between.

2	65
2	32 - 1
2	16 - 0
2	8 - 0
2	4 - 0
2	2 - 0
	1 - 0

Header 0100 1110101010000 0101000001001 11 Tra
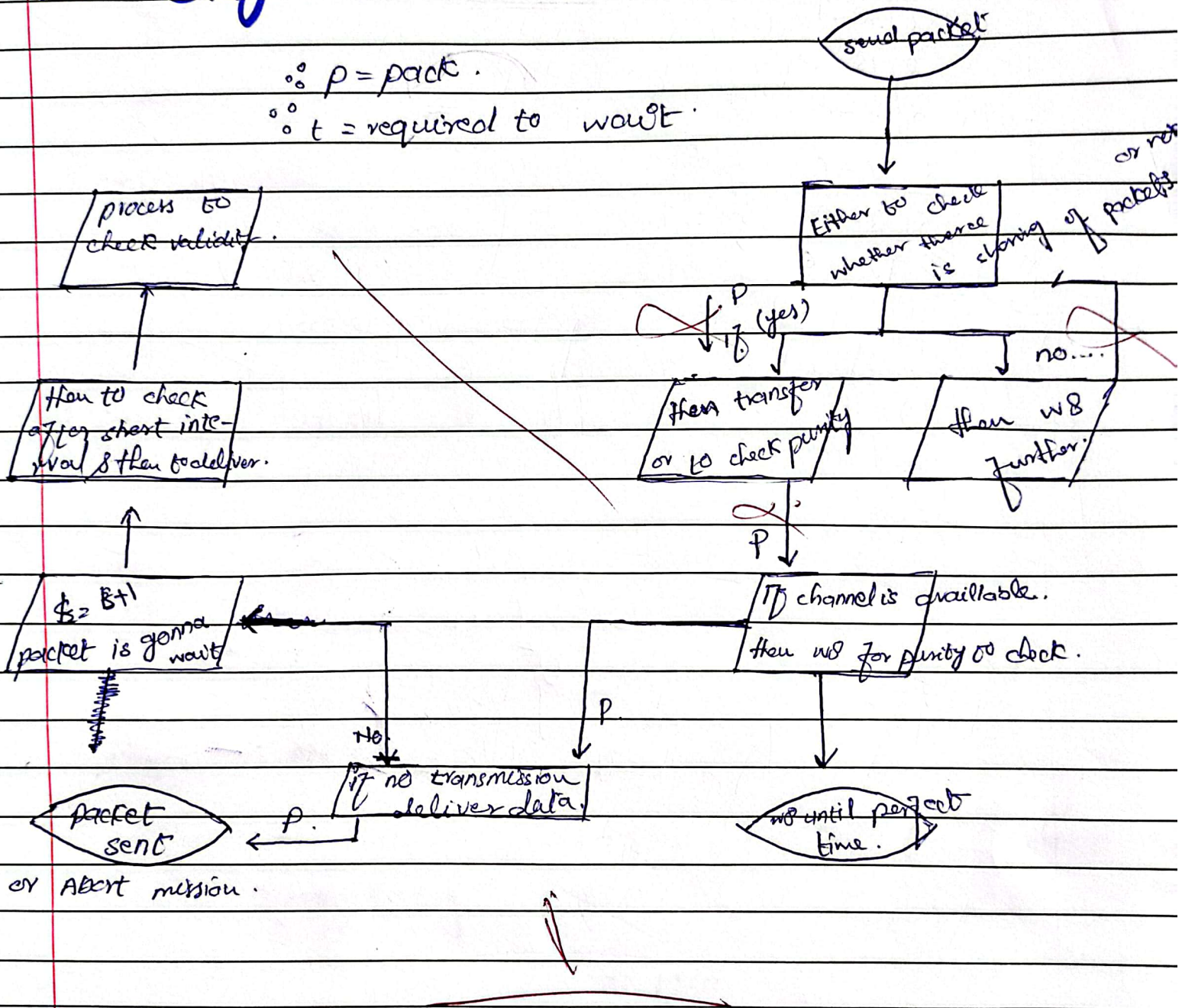
B.T

Question. No. 02.

(b)   ②

Pure Aloha (flow Diagram):

The procedure of pure Aloha or random Access is explained by using flow Diagram.

Flow Diagram:

$\therefore$ P = pack.
$\therefore$ t = required to wait.

send packet

process to check validity.

Either to check whether therce is cloning of packets or re...

if (yes) ↓ P

no....

then to check after short interval 8 then to deliver.

then transfer or to check purity

then w8 further.

↓ P

$t_2 = t+1$ packet is gonna wait

If channel is available.

then w8 for purity o check.

No

if no transmission deliver data.

P.

packet sent

P.

w8 until perfect time.

or Abort mission.

Rough

```
2 | 65
2 | 32 - 1        Pure Aloha -
2 | 16 - 0
2 | 8 - 0
2 | 4 - 0
2 | 2 - 0
    | 1 - 0
```

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Arid Agriculture University, Rawalpindi

Office of the Controller of Examinations
(EXTRA SHEET)

S.No: ....

Continuous Sheet No : ....

Regd. No : ....   20-Arid-748.

Question.No.02.

(a)

Explanation.

In case of CSMA/CD, I mean to explain that there is scenario of Aloha. or random Access. In case of Aloha pure or slight, there are too much chances of packet disrupt-ion. If packet is distorted then it'll will send it again & again & at the end of time-er. The process will be stopped in my point of view. CSMA/CD is not so good idea to use in wireless networks till any technological change in it.

1

Question.No.03

(a)

④

Radio frequency:

$$frequency = 88 \, MHz \quad to \quad 108 \, MHz.$$

2

(b)

starting = 92.8×10^6 Hz   req = 300×10^3 Hz.

ending = 103×10^6 Hz.   guard band = 600×10^3 Hz.

$$\therefore 6 \times 10^5$$

$\therefore$ PTA can add round about 8 to 10 guard bands between noise 92 to 103 MHz.

(c)
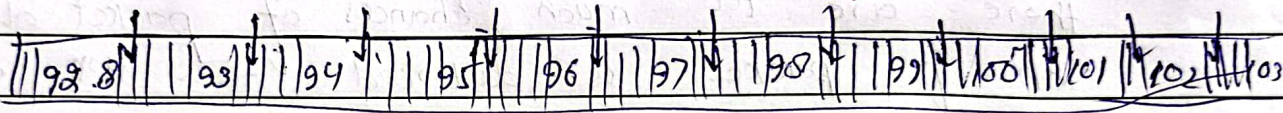
Answer:-

$$B \log_2(1 + SNR)$$
$$C = 13 \log_2(1 + 3162) \quad \text{formula}$$

$$C = 34.8 \text{ MHz.}$$

(d)

levels = 16.   bitrate per level = 2.

$\therefore$ Bitrate = $\dfrac{16}{2}$

Bitrate = ?