Arid Agriculture University, Rawalpindi

Office of the Controller of Examinations
(TWO LEAVES ANSWER BOOK) S.No: 058074

No. of Extra Sheets Attached: ----------

Student's Name : Shanza Muzaffar Regd. No : 20-ARID-826

Name of the Degree/Diploma: BSSE(5)A ✓ Morning/Evening

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

Semester (Fall/Spring/Summer) : Fall Year: 2022 Date of Examination : 12 Dec, 2022

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	3.5	3.5								8	8/18

Total Marks in Words: Eight only.

Name of the Teacher who taught the course : Sir Kashif Sattar

Signature of Teacher / Examiner :

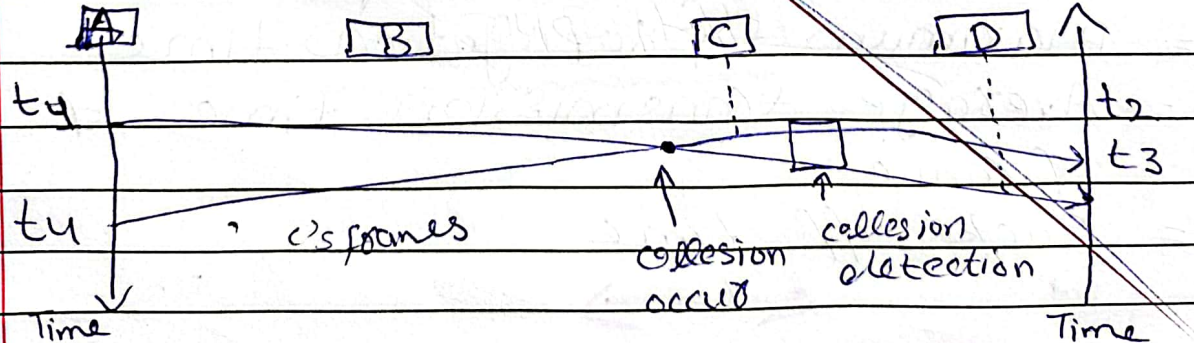
3.5

Question #02

0.5

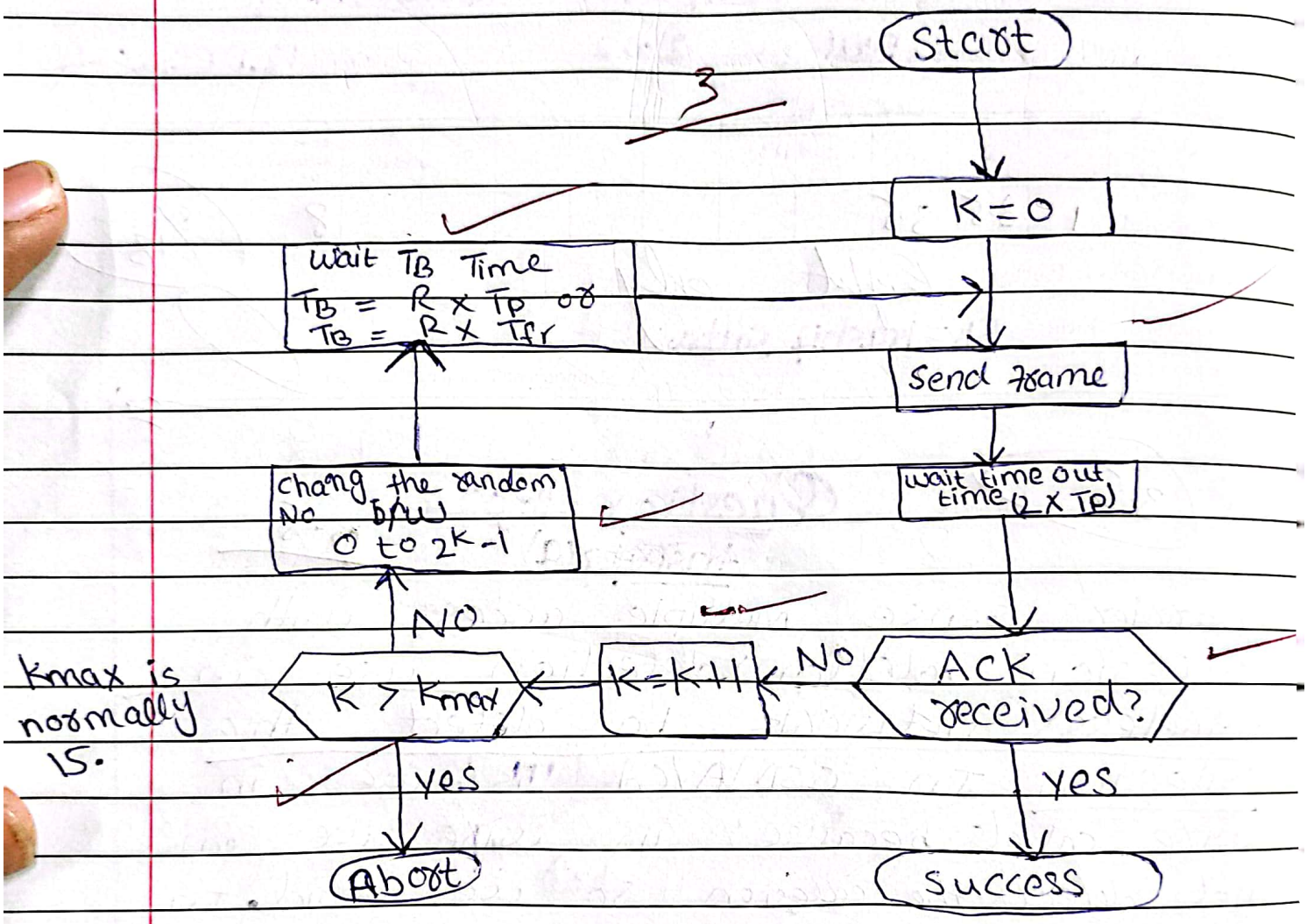
Answer(a)

Carrier sense Multiple access with collesion (detion) detection use in wireless network to detect the collesion. In CSMA/CA is use in wire cabels because in wire we can not detect the collesion so we avoid. In student the communication callision is Produce. so we use CSMA/CD for collesion detection.



Answer 2(b)

Flow diagram of pure ALOHa:



Kmax is normally 15.

K = number of attempt
Tp = Maximum propagation time
Tfr = Average transmission time of frame
TB = Back off time

Question # 03

Answer (c)

Given:

$C = ?$

$SNR = 3162$

$B = 300KHz$

3.5

Solution:-

$$C = B \log_2 (1 + SNR)$$

$$C = 300 \times 10^3 \log_2 (1 + 3162)$$

$$= 300 \times 10^3 \log_2 (3163)$$

$$= 3 \times 10^5 (\log 3163 \div \log 2)$$

$$= 3 \times 10^5 (3.5001 \div 0.3010)$$

$$= 3 \times 10^5 (11.63)$$

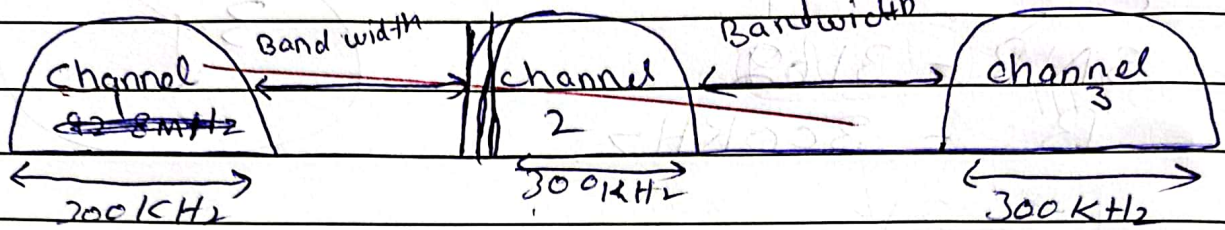
2

$$C = 3489 \times 10^3$$

$$C = 3489KHz$$

Answer (b)

0.5



Answer (a)

starting freq 88

ending freq ~~1024~~ 108

0.5

Answer (d)

Bitrate = $\log_2 16$

$= \log 16 \div \log 2$ 0.5

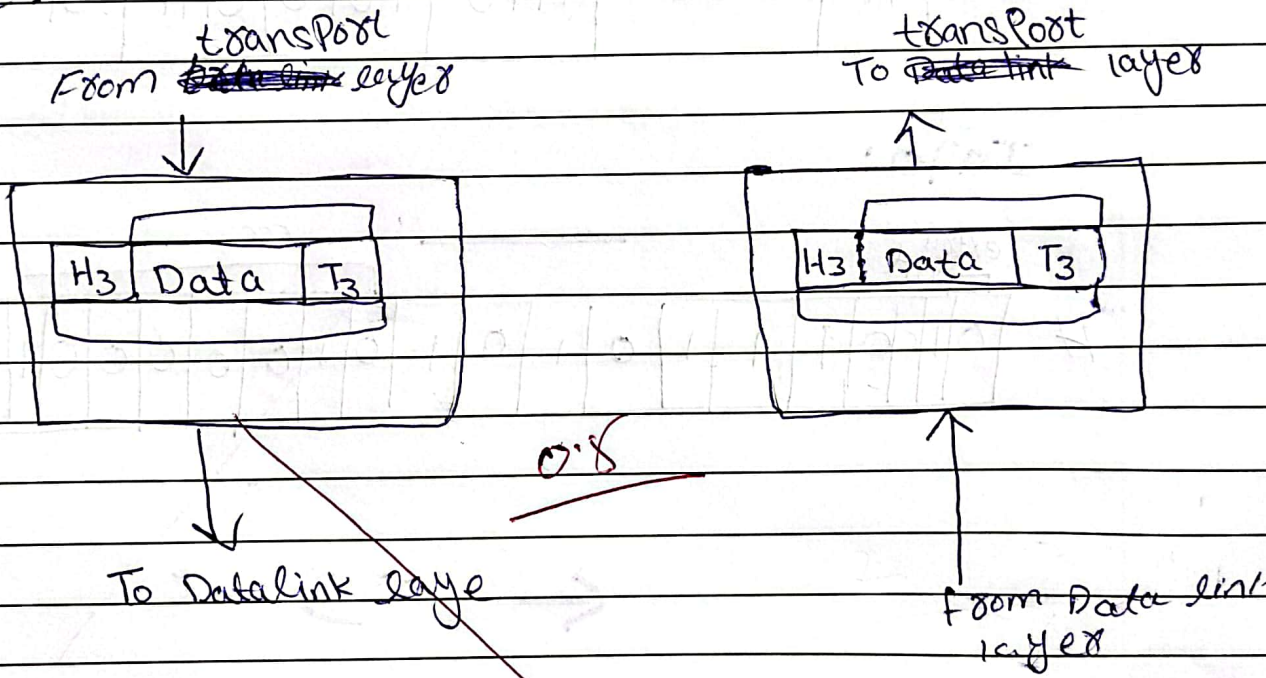
$= 1.204 \div 0.3010$

Bitrate = 4 bits

Question #01

Answer (a)

In network layers we deliver the packet from source host to distination host.



source and destination address does not change intermediate because it the ack is received the first frame/packet we send the the sender send next frame/packet.

Answer 1(b)

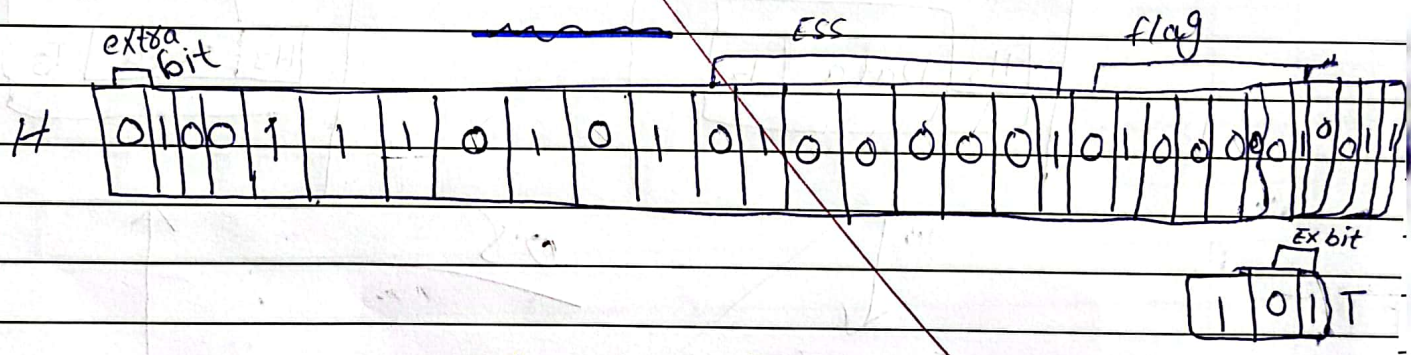
=) In this the flag is

ESC	flag
01000001	01000001

=) Extra 2 bit is 01, 01

H	0100	1110	1010	0111	01	T

Into:



Answer (a)

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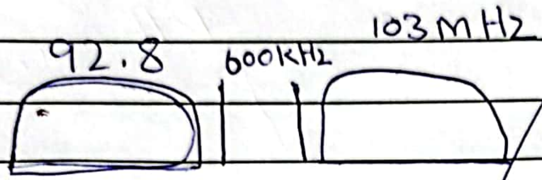
Continuous Sheet No : .... Regd. No : 826

11.63

01111000



00

$= G - e^{-2G}$

(01000001)
(0100001)

01(0011 1 01)01(0 01111 01)

0100 1110 1010 0111 01