

8.00 Name: Uduokhai Samuel Osagie

Course: Chemistry 102

9.00 Department: Electrical Electronics Engineering
Matric No: 19/EMG04/057

10.00

Assignment Solution

11.00 1. A. Based on the number of hydrogen attached to the carbon carrying the functional group.

12.00

13.00 a. Primary alcohols: If the number of hydrogen attached to the carbon carrying the functional group $-OH$ is 2 or 3. E.g. CH_3CH_2OH - Ethanol.

14.00

15.00 b. Secondary alcohols: If the number of hydrogen attached to the carbon carrying the $-OH$ is just 1.

16.00

E.g. $CH_3CH(OH)CH_3$ - Propan-2-ol

17.00

18.00 c. Tertiary alcohols: If there is no hydrogen atom attached to the carbon carrying the hydroxyl group.

19.00

E.g. $(CH_3)_3COH$ - 2-Methyl-Propan-2-ol

20.00

OCT

2019 OCTOBER

10 Thursday

283/082 Week 41

JANUARY							FEBRUARY							MARCH							APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6					
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18					
20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25					
27	28	29	30	31																																					

8.00 B. Based on the number of hydroxyl groups present in the compound.

9.00 a. Monohydric alcohols: They are alcohols with just one hydroxyl group. E.g $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$ - PROPANOL

11.00 b. Dihydric alcohols: They have 2 hydroxyl groups.

12.00 E.g $\text{CH}_2(\text{OH})\text{CH}_2(\text{OH})$ - ETHAN-1,2-DIOL

13.00 c. Trihydric alcohols: They have 3 hydroxyl groups. E.g PROPAN-1,2,3-

14.00 TRIOL - $\text{CH}_2(\text{OH})\text{CH}(\text{OH})\text{CH}_2(\text{OH})$

15.00 2 Alcohols especially those with 3 and less number of carbon atoms in their molecules are soluble in water

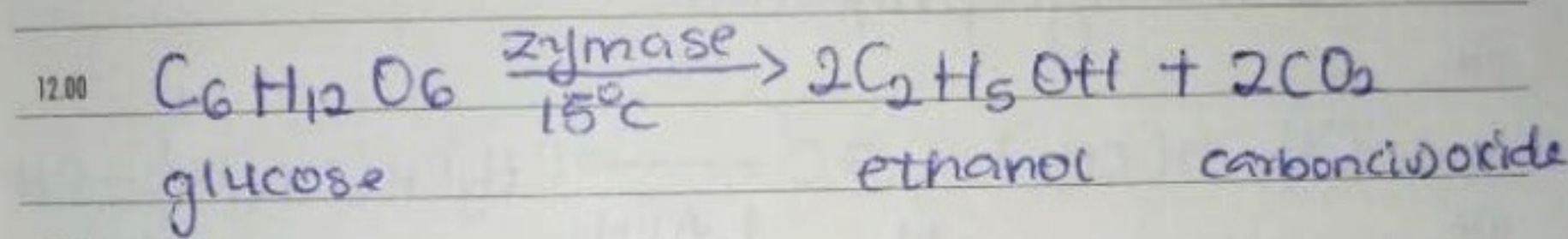
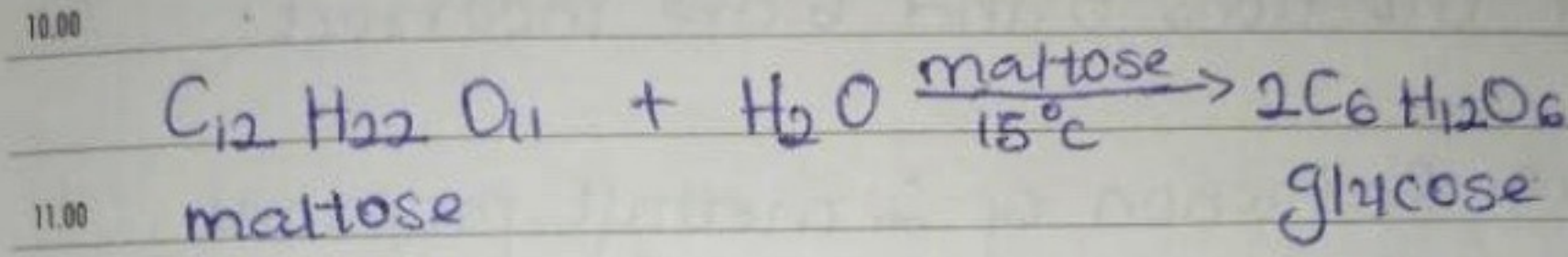
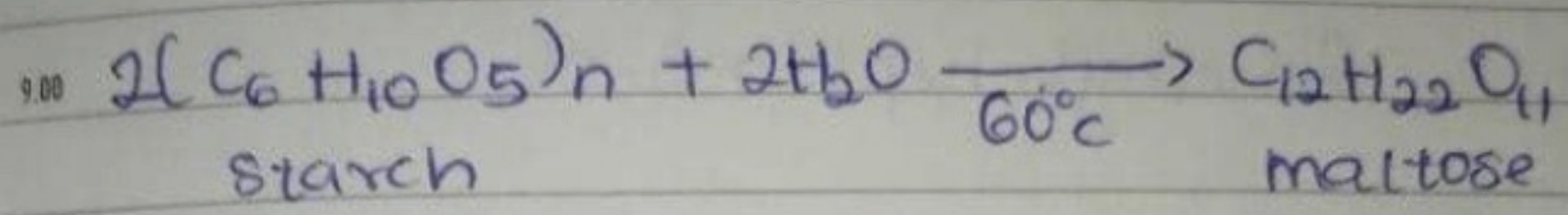
16.00 because they can form hydrogen with water molecules. Also, all monohydric alcohols are soluble in organic solvents.

19.00

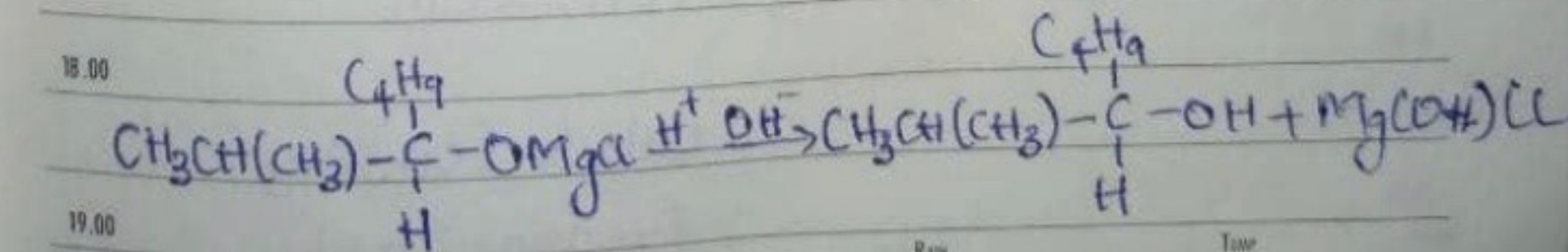
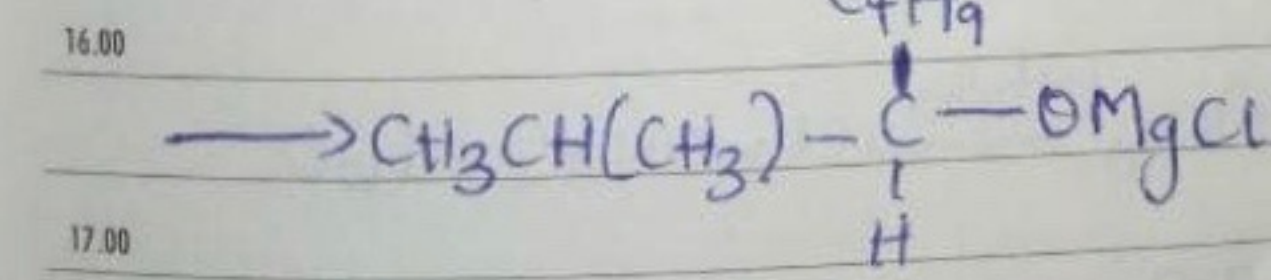
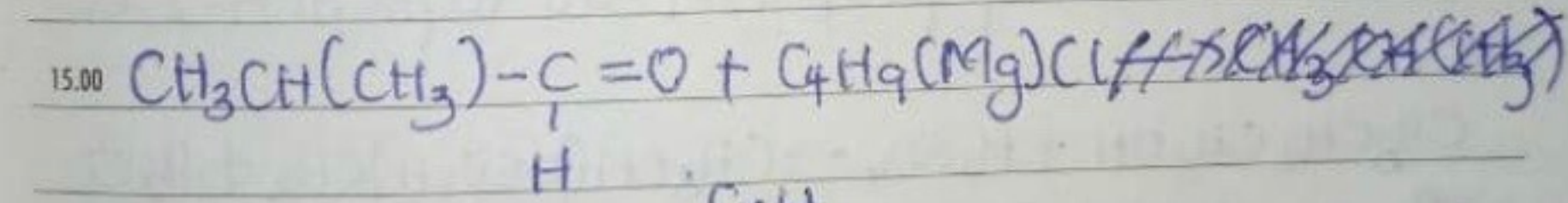
Week 41

JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
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1 2 3 4 5 6	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8 9 10 11 12 13	8 9 10 11 12 13 14	8 9 10 11 12 13 14	6 7 8 9 10 11 12	8 9 10 11 12 13 14	8 9 10 11 12 13 14
15 16 17 18 19 20	15 16 17 18 19 20 21	15 16 17 18 19 20 21	13 14 15 16 17 18 19	10 11 12 13 14 15 16	10 11 12 13 14 15 16
21 22 23 24 25 26	22 23 24 25 26 27 28	22 23 24 25 26 27 28	20 21 22 23 24 25 26	17 18 19 20 21 22 23	17 18 19 20 21 22 23
27 28 29 30 31	29 30	29 30	27 28 29 30 31	24 25 26 27 28 29 30	29 30 31

8.00 8. INDUSTRIAL PREPARATION OF ALCOHOLS



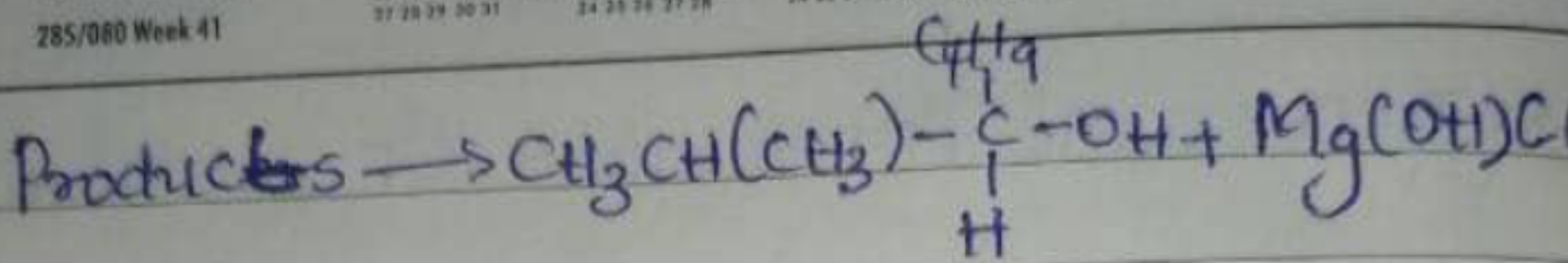
14.00 4. 2-Methyl propanal and butylmagnesium chloride



2019 OCTOBER

12 Saturday
285/080 Week 41

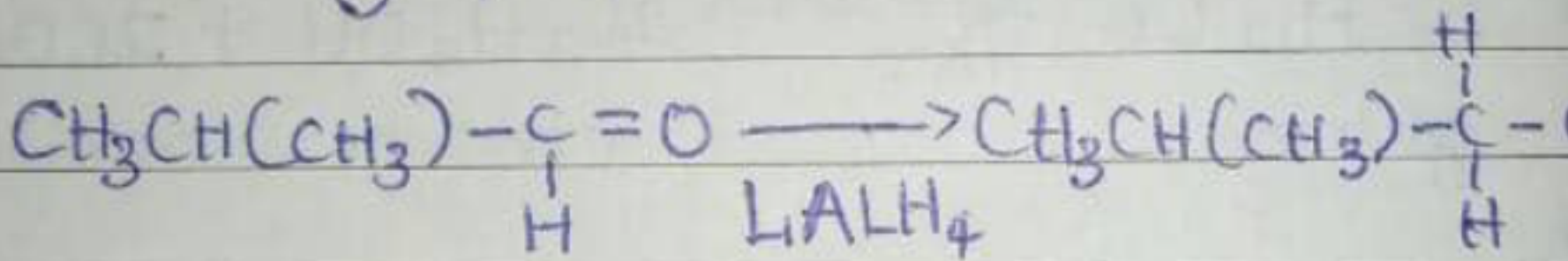
JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



2-methyl-heptan-3-ol

Questions 5 and 6 are incorrect.

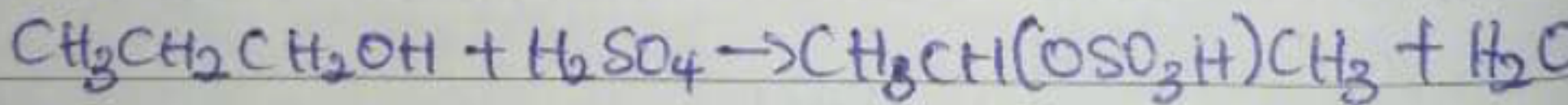
7. Reduction of 2-methyl propanal
2-methyl propanal



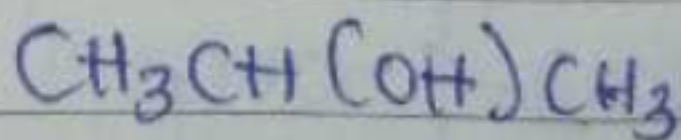
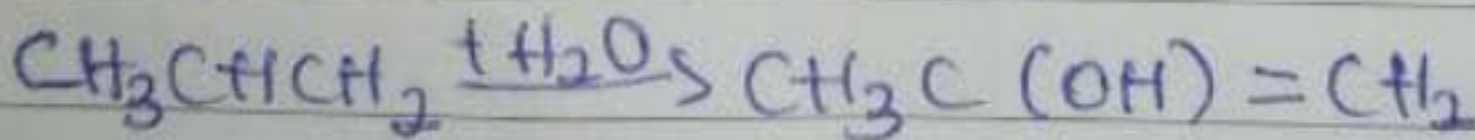
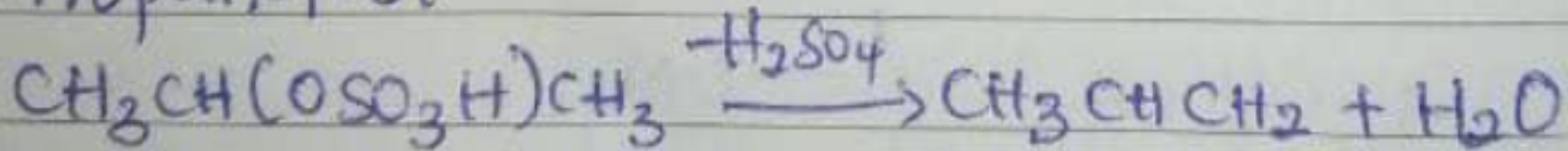
Alddehyde

Primary alcohol

8. Conversion of propan-1-ol to propan-2-ol



Propan-1-ol



Propan-2-ol

19.00

WEATHER

Wind

Rain

Temp