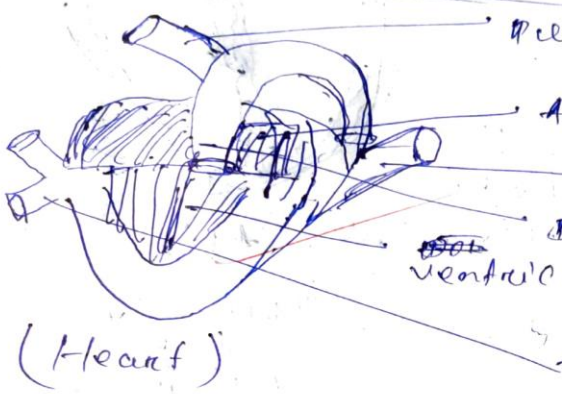
Name - Spandan Kishan Sahu.
BPT 4th sem
Sub - PT in respiratory system.

(1) What is normal cardiac contraction, relaxation mechanism. with diagnostic.

Ans: cardiac contraction and relaxation

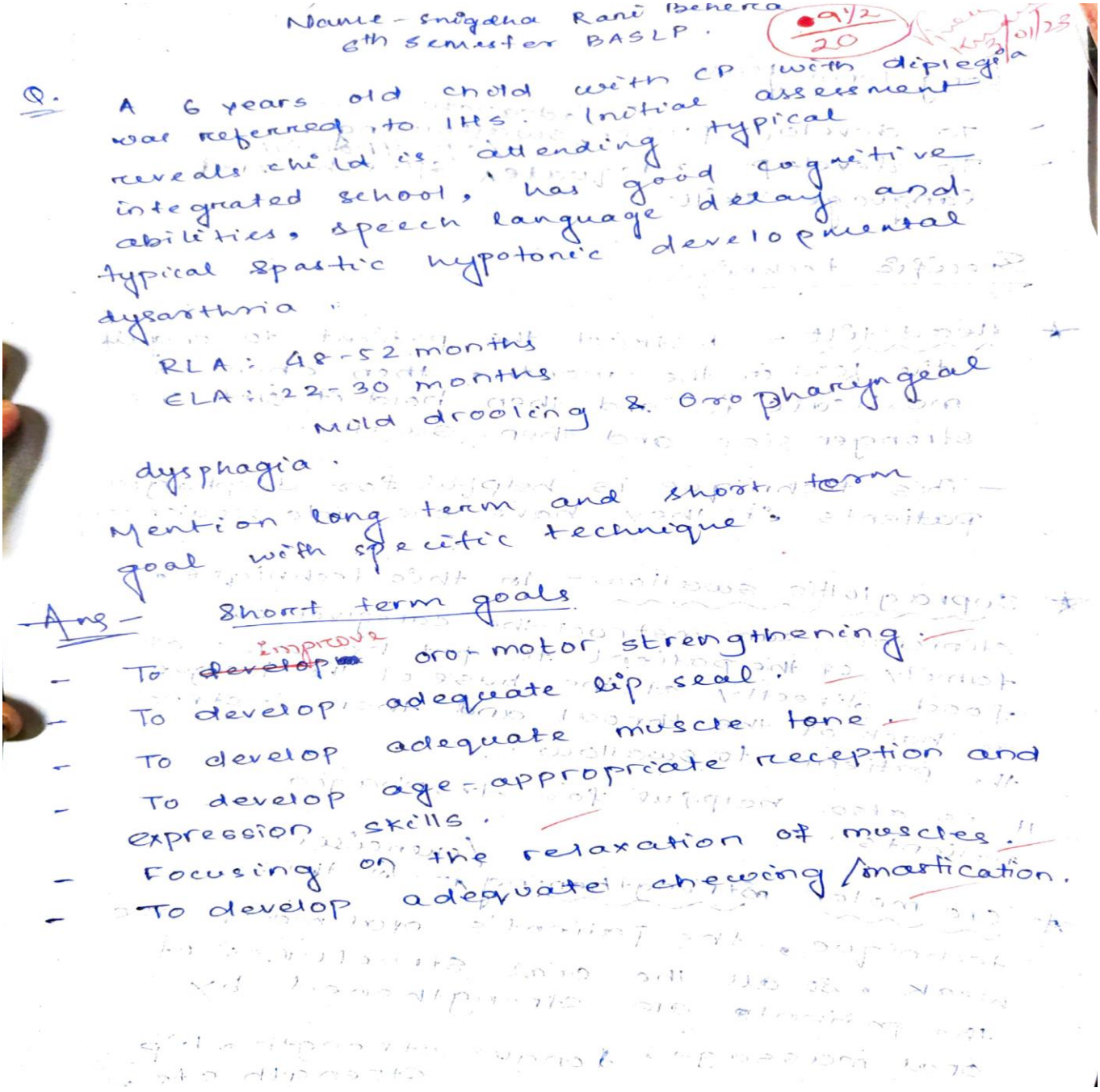


(Heart)

=> cardial contraction refers to the systole of heart and cardiac relaxation refers to the diastole of heart

=> In accordance the alternating contraction and relaxation of rhythmically of the heart chambers

=> Heart contraction always followed by relaxation which ensure our the blood (oxygenated) and pumps blood



Name - Snigdha Rani Behera
6th semester BASLP.

9½/20

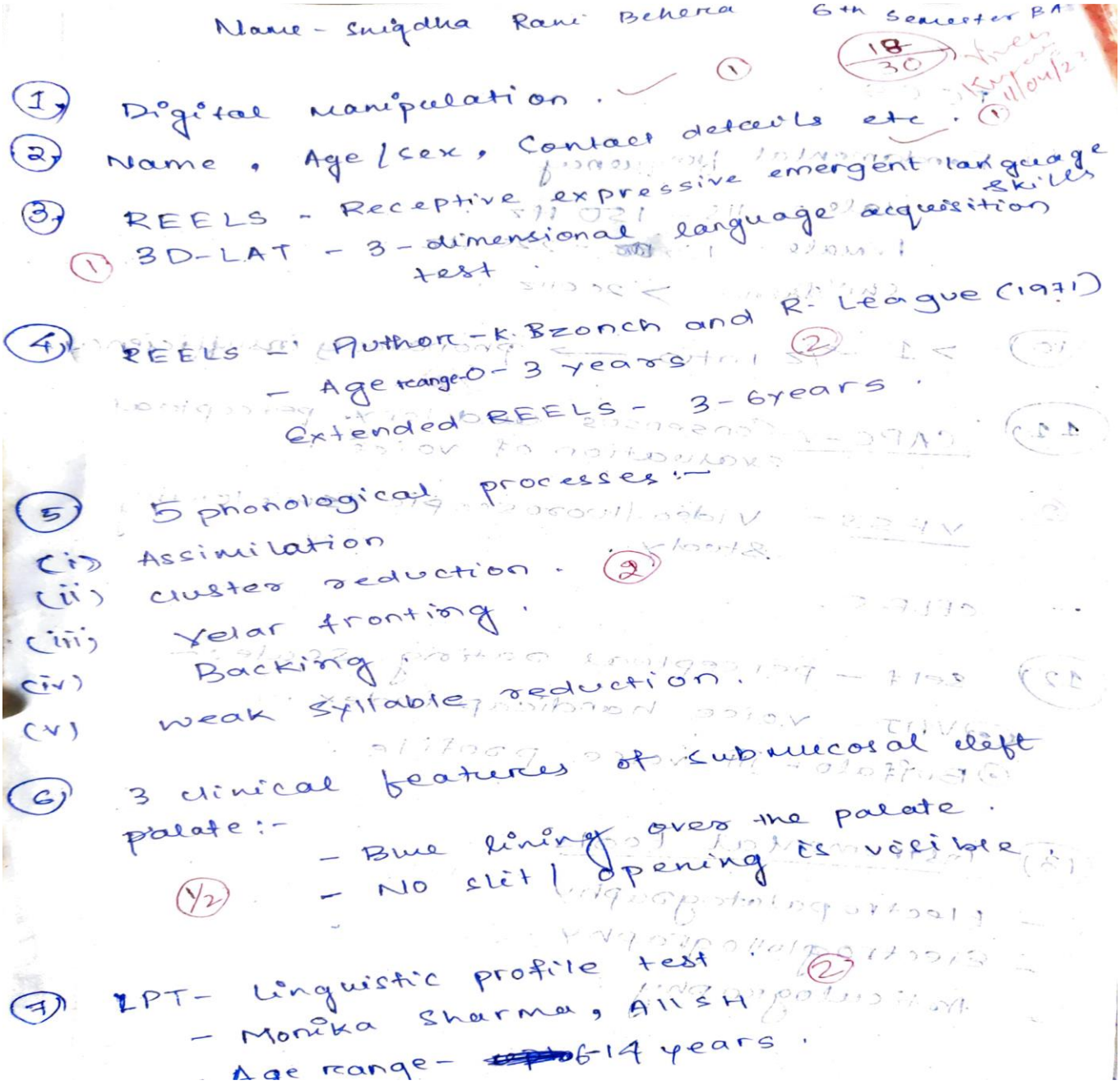
Q. A 6 years old child with CP (with diplegia) was referred to IHS. Initial assessment reveals child is attending typical integrated school, has good cognitive abilities, speech language delay and typical spastic hypotonic developmental dysarthria.

RLA : 48-52 months
ELA : 22-30 months
Mild drooling & Oropharyngeal dysphagia.

Mention long term and short term goal with specific technique.

Ans — Short term goals

- To ~~develop~~ improve oro-motor strengthening.
- To develop adequate lip seal.
- To develop adequate muscle tone.
- To develop age-appropriate reception and expression skills.
- Focusing on the relaxation of muscles.
- To develop adequate chewing / mastication.



Name - Snigdha Rani Behera 6th Semester BA

18/30

1. Digital manipulation.
2. Name, Age/sex, Contact details etc.
3. REELS - Receptive expressive emergent language skills
   1. 3D-LAT - 3-dimensional language acquisition test
4. REELS - Author - K. Bzonch and R. League (1971)
   - Age range 0-3 years
   - Extended REELS - 3-6 years.
5. 5 phonological processes:-
   (i) Assimilation
   (ii) cluster reduction.
   (iii) Velar fronting.
   (iv) Backing
   (v) weak syllable reduction.
6. 3 clinical features of submucosal cleft palate:-
   - Blue lining over the palate.
   - No slit/opening is visible
7. LPT - Linguistic profile test
   - Monika Sharma, AIISH
   - Age range - 6-14 years.

Name- Somen Katra
Roll no.:- 15

(1) Normal cardiac Contraction and Relaxation mechanism and diagnosis.

Ans:- → Cardiac Muscle Contract within the heart muscles get stimulation by self excitation and Nerves.

→ It contracts as a unit and has a long absolute refractory period.

→ Remaining Cardiac Cells contracts same as skeletal muscles

→ Depolarization is rhythmic and spontaneous and the gap junction ensure unit contraction.

→ Depolarisation also opens the Ca^{2+} channels in Sarcolemma and Na^+ channels also opens.

→ Cardiac muscle contraction is an electrical event initiated at the Sino-Arterial Node.

Each cardiac muscles cells ~~[illegible]~~ an action potential. ~~[illegible]~~ get fired due to which the excitation is propagated from the SA node.

→ And in this mechanism the heart Volume get decreased by the blood get propel out of all the chamber

(i) Arterial systole

- Here, both the atrium contracts & blood is pumped or forced to the ventricle through bicuspid & tricuspid valve.
- The arterial systole lasts about 0.1 secs.
-

(ii) Ventricular systole

- Blood is pumped by the contraction of ventricles and is forced to the lungs by pulmunary artery or trunk and to the body or systemic circulation by the aorta.
- It lasts about 0.3 secs.
-

(iii) Ventricular diastole

- It starts before arterial systole and allows the ventricles to fill the blood coming from atria.
- It lasts for about 0.5 secs.
-

(iv) Arterial diastole

- It is the relaxation ~~phase~~ for the atria during which atria fills the blood from large veins ie superior & inferior venacava.

- The "lub" sound is created by the closure of bicuspid & tricuspid valve at the begin of ventricular systole and "dub" sound is created by close of aortic & pulmunary valve at the end of ventricular systole.

Q. What is cardiac contraction & relaxation mechanism & diagnosis.

- cardiovascular system is a closed system of heart & blood vessels.
  → Heart a pumping organ that pumps blood
  → Blood vessels that is circulated by the pumping action of heart.

- The cardiac muscles are covered by three layers :
  - Pericardium
  - Myocardium
  - Endocardium

- The cardiac contraction is initiated by the SA Node of heart, which is responsible for electrical pulse generation to initiate the contraction
- Basically, SA Node rhythmically generate electrical pulse that is regulated by Autonomic nervous system (ANS) and causes the contraction of myocardium for blood pumping.

-

The process of cardiac contraction & relaxation includes 2 main stages :

(i) systole
(ii) Diastole

These 2 phases even further divided into 4 :

(i) Arterial systole - 0.1 secs
(ii) ventricular systole - 0.3 secs
(iii) ventricular diastole - 0.5 secs
(iv) Arterial diastole - 0.7 secs