INTRODUCTION:
In Ayurveda, there are many herbal drugs that have greater therapeutic value to treat many diseases. In ancient time, vaidyasthemselves used to collect drugs from the places where they grow naturally and process them according to therapeutic requirements. All care was taken by them regarding place, season of collection, age of plant but now a days for marketing purpose collection of plant done in abundant quantity ignoring maturity of plant, collection period of plant part etc. so that the expected results of drug are not achieved up to the mark.WHO has developed a series of technical guidelines relating to quality control of herbal medicines, this includes WHO guidelines on good agricultural and collection practices (GACP) for medicinal plant[1]. In ancient period Acharya have also mentioned specific seasons (Rutu) for collection of different plant part in which Twak (bark) of plant should be collected in Sharadarutu specially.[2,3,4] The plant Saptaparna (Alstoniascholaris R.Br.) is most important medicinal plant which has been described in almost all Ayurveda literature and as well as Nighantus.[5,6,7,8] It is belonging from the family Apocynaceae. Alstoniascholaris stem bark is one of the ingredient of Antimalerial drug Ayush-64, prepared by
CCRAS, India which has proved to be quite effective in combating malaria and it was also found effective in clearance of parasitaemia\cite{9,10}. The Saptaparna (Alstoniascholaris R.Br.) is Laghu, Snigdh, Tikta and Kashayarasa, Katuvipak and Ushnaveeryatmak drug so that it have KaphaPittaghna properties. According to Ayurveda Saptaparna bark is commonly used in many ailments such as Vrana, Kushtha, Shwas, Gulma, Jwar etc\cite{11,12}.

AIM OF STUDY:To study the Physicochemical and Phytochemical properties of Saptaparna (Alstoniascholaris R.Br.) stem bark collected in Shadarutu (Six seasons).

MATERIALS AND METHODS:For research purpose, all samples of Saptaparna (Alstoniascholaris R.Br.) stem bark were collected in six seasons (Shadarutu) on same mature plant at same day and time from pune region and they authenticated by Botanist. Preparation of samples:The stem bark of Saptaparna were collected in Sharadarutu (October), Hemantrutu (December), Shishirarutu (February), Vasantrutu (April), Grishmarutu (June), Varsha(August) namely and labeled as A-1, A-2, A-3, A-4, A-5, A-6. These samples were dried under shade. After that air dried stem bark Powdered with the help of pulverizer and powder was passed through the sieve. Powdering was done just before starting physical and chemical tests and store in airtight glass bottles.

Pharmacognostical study: The Macroscopic and Microscopic study of samples were carried out in Yashawantcollege, Nanded, Maharashtra.

Physicochemical and Phytochemical analysis: Physicochemical and Phytochemical study of samples carried out in Govt. Ayurveda and Unani drug testing Laboratory, Nanded, Maharashtra. The Observational values were comparing with standard values of API\cite{13,14,15}.

API values:
- Foreign matter - not more than 2%
- Total Ash - not more than 11%
- Acid insoluble Ash - not more than 3%
- Alcohol soluble extract - not less than 4%
- Water soluble extract - not less than 12%

OBSERVATIONS AND RESULTS:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture content (%)</td>
<td>6.25</td>
<td>7.77</td>
<td>4.49</td>
<td>5.68</td>
<td>4.72</td>
<td>6.10</td>
</tr>
<tr>
<td>Total Ash (%)</td>
<td>8.84</td>
<td>7.62</td>
<td>7.97</td>
<td>8.79</td>
<td>9.12</td>
<td>9.60</td>
</tr>
<tr>
<td>Acid insoluble ash (%)</td>
<td>2.62</td>
<td>1.34</td>
<td>2.75</td>
<td>2.63</td>
<td>2.61</td>
<td>2.14</td>
</tr>
<tr>
<td>Water soluble ash (%)</td>
<td>1.96</td>
<td>1.36</td>
<td>3.35</td>
<td>2.21</td>
<td>1.41</td>
<td>1.80</td>
</tr>
<tr>
<td>Watersoluble extractives (%)</td>
<td>11.13</td>
<td>6.52</td>
<td>17.65</td>
<td>17.07</td>
<td>8.64</td>
<td>14.76</td>
</tr>
<tr>
<td>Ethanol soluble extractives (%)</td>
<td>4.32</td>
<td>4.08</td>
<td>8.20</td>
<td>13.72</td>
<td>9.06</td>
<td>6.3</td>
</tr>
<tr>
<td>Ph value</td>
<td>6.28</td>
<td>5.55</td>
<td>5.95</td>
<td>5.56</td>
<td>5.70</td>
<td>6.01</td>
</tr>
<tr>
<td>Swelling index</td>
<td>3.66</td>
<td>5.50</td>
<td>4.1</td>
<td>5.1</td>
<td>6.00</td>
<td>5.55</td>
</tr>
<tr>
<td>Foaming index</td>
<td>142.85</td>
<td>250</td>
<td>500</td>
<td>1000</td>
<td>500</td>
<td>333.33</td>
</tr>
</tbody>
</table>

Thin layer chromatography (TLC):
For TLC, all samples were prepared in ethyl alcohol extractives and spots were observed in UV light (366nm), Visible light and in presence of Iodine vapors. Mobile phase- Toluene: Ethyl acetate: Methanol (8:1:1)
All samples showed the identical spots with slight variations.
High performance thin layer chromatography (HPTLC): HPTLC were carried out in Science college, Nanded, Maharashtra. Samples were prepared in methanol extract and spots observed at wavelength 254nm. Mobile phase- Toluene: Ethyl acetate: Formic acid: Methanol (4:3:2:1).

Samples of Saptaparna A-1, A-2, A-3, A-4, A-5, A-6 were collected in six seasons showed spots as 11, 9, 7, 9, 9, 8 namely. Maximum spots (11) observed in sample A-1 which was collected in Sharadarutu.

Phytochemical analysis:

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Test</th>
<th>A-1</th>
<th>A-2</th>
<th>A-3</th>
<th>A-4</th>
<th>A-5</th>
<th>A-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>For Tannins a) 5% ferric chloride</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
</tr>
<tr>
<td></td>
<td>a) Lead acetate</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
</tr>
<tr>
<td>2</td>
<td>Alkaloids: Wagner test</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
</tr>
<tr>
<td>3</td>
<td>Saponine: Foam test</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
</tr>
<tr>
<td>4</td>
<td>Flavonoids: Shinoda test</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
</tr>
<tr>
<td>5</td>
<td>Glycosides: Benedicts reaction</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
<td>+ve</td>
</tr>
</tbody>
</table>

(+ve sign indicates present)

DISCUSSION:

1. Foreign matters- All samples were self-collected. No impurities were found.
2. Ash value- Total Ash usually consists of inorganic radicals. Total Ash value and Acid insoluble ash value of all samples are within API limit.
3. Extractives value- Sample A-3 showed maximum extractive value in both alcohol
and water as compared to other samples which indicates that more water and alcohol soluble compounds in it.
4. Moisture content- Sample A-2 showed more moisture content value.
5. Ph value- All samples were showed slightly acidic nature.
6. Swelling index- Maximum swelling index value found in sample A-6 which indicates sample may be containing more amount of Mucilage, Pectin.
7. Foaming index- Sample A-4 showed more foaming index than other samples. It suggests sample containing more Sapone.
8. TLC of all samples showed the identical spots with slight variations.
9. HPTLC- After carrying out HPTLC, the sample A-1 collected in Sharadarutu showed more spots (11 spots) than other samples which indicates that increase the potency of drug.

CONCLUSION:
The present study was basic qualitative study and it is carried out on stem bark, whose specific season of collection was mentioned in Ayurveda. This research study providing a scientific basis for Dravyasangrahakala and also the developed specific collection technique for Saptaparna. So that the drug is made more potent

REFERENCES
1. WHO Geneva, Quality control methods for medicinal plant material, A.I.T.B.S. publisher and distributors (Regd) Delhi.
2. Dr. BrahmanandTripathi, Charakasahita, CharakChandrika, Hindi Vyakhya, ChaukhambaSurabharatiPrakashan, Varanasi.
14. Phytochemical standardization and
Biotechnology of ISM drugs, ISM and It. Min. of Health and family welfare Govt. of India

15. The Ayurvedic pharmacopoeia of India, Govt. of India, Ministry of health and family welfare department, The controller of publication, Delhi, part-1, Voume-3 (1999-2001)

16. The wealth of India, council of scientific and industrial research India, New Delhi, Raw materials and industrial products, reprinted by the publications and information directorate (1950), Vol-II,[C].

CORRESPONDING AUTHOR
Dr. Vaishali L. Khatale,
Email: vaishukhatale@gmail.com

Source of support: Nil
Conflict of interest: None Declared