



SCNR Government Degree College

Proddatur

Department of Telugu

Student Project work

Topic: తెలుగు సామెతలు-సేకరణ

2021-22

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① అందని పూలు దేవునికి అర్పణ.

An offering to the deity of the  
flowers which cannot be reached.

② అభ్యాసము కఠినమును సులభము చేయును.

Practice [makes] art Easy.

Practice (makes) perfect.

Custom makes all things easy.

③ ఆ తండ్రికి కొడుకుకాదా?

Is he not son of that father?

Like father, like son

Such a father such a son. (portuguese.)

He is his father's son (Latin)

④ ఆవాల ముద్ద చేసినట్లు.

Making mustard seed into a ball.

An impossible combination

5 గొట్టో పెండ్లి అయితే, మాళ్లో కుకీలకు అడవుడి  
A marriage in the house is a fine thing  
for village dogs.

Men crowd to enjoy that for which they don't pay

6 దగ్గ కంటికి యీ పెప్పలు దూరము?  
Are these eyelids distant from this eye?  
Applied to anything which can easily be tested by  
actual observation.

7 ఉడత కేలరా మాళ్లో పెత్తనము.  
What has the squirrel to do with the  
management of the village.  
Presumptuous interference. Impertinent meddling.

8 ఊరకుంటే, అడివిలేడి.  
Lame in the village has one way,  
and the pig another.

9 ఋషి మూలము, నది మూలము, స్త్రీ మూలము విచారించకుడను.  
Enquire not into the origin of a  
Rishi, a river, or a woman.

⑩ ఎలక చావుకు పిల్లి మార్చబోయినా?  
Will the cat faint at the death of the rat.

⑪ ఏటివాడ్డు చేను.  
A field on the bank of the river.

A dangerous situation.

⑫ ఐశ్వర్యానికి అంతము లేదు?  
There is no limit to riches.

⑬ ఒక కన్ను కన్నా కాదు. ఒక కొడుకు కొడుకూ కాదు.  
One eye is no eye, one son is no son.

⑭ ఒకటై ఒరుగల్లు కట్టమవుతుంది.  
With patience, Orugallu will become a city.  
Rome was not built in a day.

⑮ ఔషధానకు ఔషకుల్లాసకు చెల్లు, రోగమువై వచ్చు.

(The benefit derived from) the medicine is to be deducted from (the harm done by) carelessness in diet, and the balance remaining is an increase of the disease.  
Diet cures more than the lancet.

The best physicians are Dr. Diet Dr. Quiet, and Dr. Messyman.

⑯ తొక కరుమంటి, గుండె రుట్లమంది.

When the crow caws, she starts.

(17) కుంత కరణము.

A karanam to talk.

(18) గుడ్డి మెద్దు బొవల చేసు పట్టు.

Like a blind bullock going into a field of millet.  
Not able to get much out of it.

(19) ఘంటకర్ణునికి అష్టాక్షరి వుపదేశము చెప్పుబోయెను.

Like attempting to teach Ghantakarna the Ashtakshari.  
Ghantakarna (Bell-eared) is the name of the attendant on siva. Ashtakshari is a sacred formula used in the worship of vishnu, composed, as the word denotes, of eight syllables.

\* (ఓం నమో నారాయణాయ.)

చరికింత వృద్ధుడు.

Grass like prosperity.

బొగ్గ బొగ్గ రామకౌంటే బూడిద రాలిందే.

When two jogis jostled against each other and fell (from their bodies)

Nothing is to be got out of the quarrel of the poor.

22) డబ్బుకు ప్రాణానకు లయె.

There is a link between money and life.

23) తన కాళ్ళకు బంధాలు తానే లెంచుకొన్నట్లు.

He brought fetters for his own legs.

24) తల్లి బాలు పిల్లకు తప్పకుందా?

Will the child (daughter) fail to follow in its mother's track?

she hath mark after her mother.

25) తెలివి తక్కువ, ఆకలి ఎక్కువ.

Little sense, great appetite.

26) దివటో కంది దొపడు

A lamp under a torch.

27) దొంగకు అందరినీ అనుమానమే.

The thief suspects everyone.

A thief thinks every man steal.

ధోరుడొంతు కావరె, దోనుడొంతు కువరె.

You must get a hero ora beggar (for husband)

- 30) నీరు నీరువంక నే పోరుచున్నది.  
water runs towards water.  
Men haste to help those of their own caste.
- 31) నెలెనున చేతులుని నిచ్చినయెడలనట్లు.  
Mounting a ladder with a jar of ghee in ones' ear
- 32) పెచ్చిక మొదల బ్రహ్మస్త్రము.  
Are you attack a sparrow with a Brahmastra?  
He takes a spear to kill a fly.
- 33) పులిని జూచి నీకే వాత వెట్టుకొనెట్లు.  
The jackal branded himself with spots like a  
Vulgar display.  
Aping ones superiors.
- 34) పోయిన చోట్లకు పోతా రాయన నెందుల రాయనము.  
If you go where you ought not, you will not  
escape scandal.
- 35) ప్రతితొ పెట్టినది పిడికదే చాలును.  
If given with love, a handful is sufficient.

36) బగబగమనువాని పంచ సుండవచ్చునుగాని, పాలమచ్చు నట్టిండు సుండ రాదు.

You may live in the verandah of a hot-tempered man's house but you should not dwell in the middle of the house of a man who conceals his resentment.

37) బావమరిది బ్రతుకు కోరును, దాయాది బావ కోరును.

Your wife's brother will wish you live, your paternal relatives will wish you die.

When a hindu dies his widow is supported by her relatives, and his portion of the family property goes to his relations on the father's side.

38) భక్తి లేని పూజ వ్రేలి చెడు.

Worship without faith is a mere waste of flowers.

39) మనోవ్యాధికి మందు లేదు.

There is no medicine for mental affliction.

Gold is no balm to a wounded spirit.

40) పేతకరణము

karanam to graze.

i.e. up to any amount of bribery and corruption.

41) మేక వనెడ పులి.

A goat-coloured tiger.

42) యుగాల నాటి యుద్ధిష్ఠిరుడు.

A Yudhishthira of the olden days.

Applied, ironically, to a great liar.

He shall have the king's horse.

43) రాజు చేసిన కార్యాలకు యమడు చేసిన కార్యాలకు  
యెనికెక లేదు.

There is no questioning the actions of a  
king or of Rama.

44) లేడికి లేచినదే ప్రయాణము.

The antelope has only to rise to be ready  
for a journey.

A man ready to go anywhere.

పచ్చిన దావనె పోతుందది.

It will go the way it came.  
so got, so gone.

Lightly come, lightly go  
All got, ill spent.

వేటుకు వేడు, మాడుకు మాడు ముండవలె.  
There must be a blow for a blow, a word  
for a word.

One word brings on another (Italian)

శివుని ఋజు లేక చామ అయినా కట్టదు.  
without the permission of siva, even an ant  
will not bite you.

సంతోషం సగం బలం  
Happiness is half (a man's) strength

సత్య హరిశ్చంద్రుడయ్యా.

As truth ful as Harish chandra  
Amically

② హాస్ గురికి తెలు కట్టినట్లు

Like a Scorpion stinging a jester.

No one believes it.

One may cry "wolf" too often.

③ భేదమెరిగి వత్తినాడు, పాత్ర పెరిగి దానాడు.

knowing the soil, [sow] seed knowing  
the worthiness, [give] gifts.



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## రామాయణం - నోట్

రామాయణం :-

రామాయణం జరిగిన చరిత్రానతి చరిత్ర పరిశోధకులు, గణిత శాస్త్రజ్ఞులు, భూగర్భ పరిశోధకులు, సామాజిక శాస్త్ర వేత్తలు, సాహితీకారుల వాటికి తన సమకాలిక చరిత్రను తాను చరిత్రలో ఒక భాగమై ప్రాశాదాని తీర్చారు. ఈ తీర్మానమునా ముఖ్య నాయక, నాయకుల పాత్రల దైవ సంభూతులుగా విశ్వాసం పెరిగి చచ్చుట వలన సామ్రాజ్యాధిపతులు, వామపక్ష భావజాలాలని వారు రామాయణం తిరస్కరించి ప్రమాదం ఎదుర్కొన్నారు. ఒక కత్తిత కథగానైనా చదవటం లేదు.

పరిశోధనల ప్రకారం శ్రీరాముడు క్రీ. పూ. 10-1-5114 తీదిన (నవమి - చైత్ర మాసం - శుక్లపక్షం) జన్మించాడు. క్రీ. పూ. 5-1-5089 వనవాసానికి వెళ్ళాడు. క్రీ. పూ. తీ. 12-9-5076 తీదిన హనుమంతుడు లంకలో నీలను దర్శించుకున్నాడు. క్రీ. పూ. 14-9-5076 తీదిన లంక నుండి తిరిగి వచ్చాడు. క్రీ. పూ. 4-12-5076 తీదిన రావణాసురుడు మరణించాడు. క్రీ. పూ. 2-1-5075 వ తీదిన రాముని వనవాసం ముగిసింది.

(చూ. Institution of Scientific Research on Vedas)

ఈ సమాచారం ప్రకారం క్రీ. పూ. 5114 నుండి నాటికి నాగరిక గల, శాస్త్ర విజ్ఞాన సంభూతమైన సమాజం ఉన్నది. సాధారణ ప్రాణి కీటి నష్టపోకుండా ఉండే రీతిలో ఉణువిస్త్రాలు, వాటి శక్తి సామర్థ్యాన్ని ప్రదర్శించాయి. శాస్త్ర పరిజ్ఞానం ప్రే చర్చ పెట్టింది. రామాయణంలో ప్రేమలు, అభిమానాలు, ఆదారాలు, సంప్రదాయాల కాక వాస్తవిక హక్కులు, పట్టుభిక్షాలు, సామాజిక ప్రగతి

పిత్తృ నామ్యం, పురుషాదికృత రాజలలో, ప్రజల్లో ఉన్నది. రాణులు, ప్రజల సంప్రదాయాలను అంగీకరించారు. బహుభార్యత్వం రాజుల్లో, ప్రజల్లో కూడా ఎక్కువ. రావణాసురునికి 80 మంది భార్యలున్నట్లు యాగికి సంతానమున్నట్లు దశరథునికి అత్యధికంగా 300 మంది భార్యలున్నట్లు యాగికి సంతానమున్నట్లు, చరిత్ర పరిశోధనలు తెలుపుతున్నాయి. రాణులు లే సంప్రదాయాన్ని అంగీకరించారు. రామడు మాత్రం ఎకవత్ని వ్రతుడి. అది లే రాజు తో సుకుమార నిర్ణయం. పురుషాధి సమాజానికి మల్ల దర్శకమైనారు. రామాయణ విషయం చదివానా చరిత్ర ఇది.

అసమాదం, లే సంప్రదాయాలన్నింటిని అధికారికంగానే ఆమోదించింది. అందుకు సందర్భాలలో ప్రాచీన విధి ఒక కారణం చేత అణచివేసిన ఫిర్యాదు లే సమాజంలో లేదు. ప్రాచీన మాత్రం ఒక ప్రాచీన ఒక పురుషుడి ఉన్న సంప్రదాయం ప్రస్తుతంగా అర్థమవుతుంది. రాజులలో ఒక లేబాం గానీ కాక ఒక జీవన విధానంగా సంస్కారంగా, ఆరోగ్యకరమైన మానవ సమాజానికి ముఖ్య విషయంగా భావించారు. ప్రాచీన కూడా పవిత్రంగానే భావించారు. అది ఇప్పటి సమాజంలో, వర్తమానంలో గమనించవచ్చు. అంతాకాక పరివ్రతకు మానవాళితో శక్తులున్నాయి. ఇప్పుడు పురాణాధిపత్యాల వల్ల తెలుసుకొనవచ్చు. ఎదుకలా ఉండాలి అని నీడు ప్రశ్నించలేము. ఇలాంటి వాదననూ లేవని వారు అని ప్రశ్నించవచ్చు.

రామాయణమంతా పాతివ్రత్తి కథలే. సీతాపహరణ సందర్భంలో రావణునికి ఉన్న భార్య మండోదరి "సీత సామంతిని కాదు. ఆమె మాత్రం పతివ్రత. ఆమె పట్ల నీవు తప్పు చేస్తున్నావని చెబుతుంది. ఆమెను వివరించు. యుద్ధంలో మరణిస్తాడు. అప్పుడు మండోదరి ముద్దభాషికి వచ్చి భర్త మృత్యువహిస్తాడని చూచి శ్రీ రామునితో ఆరోగ్యం పెట్టుకోవద్దు అని నీను ఎంతగా ప్రార్థించినా పెడచెవిని పెట్టలేదు. ....

దుర్మతి! నోతాదోప పాతివ్రత్యమున అరుంధతి కుంజను, గోహరి  
 కుంజను ఉత్తమరాలు. ఆమె జగజ్జనని. ఉట్టి మాన్యతాని  
 ఉపహరించుకొని వచ్చి నోపు తప్పు చాసితివి" అంటుంది  
 (చూ : యాత్రికి రామాయణం - యుద్ధకాండ). ఈ సంఘటనలో  
 పాతివ్రత్యమున వలన రావణుడంతటి యానికి మరణం  
 కలిగించడంతటి ఉత్తమ శక్తి స్త్రీకి కలుగుతుందన్న సందేశం తెలుస్తుంది.  
 పాతివ్రత్య వీరవస్త్రం—ఉత్తమ విలువనిచ్చురని ఉద్భవమౌతుంది. ఇది  
 నో స్వీచ్ఛను హరించటం కాదు. నిత్య శాశ్వతానికి ఉపాధి విలువంది.  
 తిరుగు రాజనీగం, భారతీయ శిక్షా స్మృతి (ప్రథమ సాక్ష్యం, హిందూ  
 వివాహపట్టం (ప్రత్యేక సాక్ష్యం, ఇతర మతాల చట్టాలూ అలా. ఆ  
 చట్టాలను రద్దు చేయమని మహిళా ప్రపంచం కోరటం లేదు.

రామాయణంలోని ఒక ముఖ్య సంఘటన చూద్దాం. శ్రీ రామడు  
 సద్వింశంతి పుట్టిన తొదప్పియైన యాడు అని చాలామంది విశ్వాసం.  
 పురుల ఇంట ఉండి వచ్చిన (స్త్రీ) ఎట్లు మక్కువ కలుగును, ఎట్లు  
 స్వీకరించను అన్న సందేహం తీర్చడానికి నీతను శపథం చేసి  
 ఉగ్గి (ప్రవేశం) చేసి పాతివ్రత్యాన్ని రుజువు చేసుకోమంటాడు.  
 మహారాణి యెలా నీత వ్రతానికిరావలసింది. తిరుగు బాట చేయలేదు.  
 తిరిగిరావలసింది. నిండు సభ శ్రీరాముని తప్పుపట్టలేదు. నీతను  
 మారించలేదు. నీత ఉగ్గి (ప్రవేశం) చేసింది. ఏ ప్రమాదం కాలేదు.  
 పాతివ్రత్యం రుజువు అని శ్రీరామడు మరియు నిండు సభ విశ్వసించారు.  
 తప్పుడు శ్రీరామడు తామ రావణునితో యుద్ధం చేయటానికి, నీతను  
 ఉగ్గి (ప్రవేశం) చేయమనటానికి మాడు కారణాలు చెబుతారు.  
 1) సదాచారమును పరిరక్షించుట కు (2) ఇచ్ఛావికు మోక్షమునకు  
 ఉపక్రింది ఆకుండా చేయుటకు (3) తన వంశ (ప్రతిష్ఠ)ను నిలుపుకొనుటకు  
 శి కారణాలతో నీత (మహిళ) జీవితం ఉన్నది కనుక ప్రస్తావనకొచ్చింది.  
 పట్టాభిషేకం జరిగింది. (శ్రీరామడు. నీత కాపురం చేశారు. నీత  
 గర్భవతి అయింది.

తేజావి సన్నివేశం. నీత పై అనామక వ్యక్తి ఉపవాదు వీశాడు  
 రాజు రాజ్యంలో ప్రజలందరికీ మార్గ దర్శకుగా ఉన్నాడని నమ్మకాన్ని  
 ప్రజల్లో కలిగించడానికి గర్భవతియైన నీతను కోసల రాజ్యపు  
 పాత్రవారిలో గంగానది తీరం తోరమున తమ సొనది బడ్డెన బాట్టికి  
 మహర్షి బ్రహ్మ సమీపమున నిర్జన ప్రదేశమునందు వదిలి రమ్మని  
 రాముడు లక్ష్మణుని శిష్యునిపాడు. లక్ష్మణుడు బాధ పడ్డాడే తాని  
 కన్నను సవరించ (ప్రయత్నం) చేయలేదు. నీతకే తెలియదు. తెలిసిన  
 తేజావి కూడా నిరాకరించాడు. రాముడు నీతతో కాపురు చేశాడు.  
 అనుమానం లేదు. భార్యను గర్భవతిని చేశాడు. అనుమానం లేనట్లే.  
 ప్రజల్లో ఏకరి నుండి వచ్చిన అపవాదును గురించి తెనలో తాని  
 తిరస్కరించుకున్నాడు. నిజానిబోలు తెలుసుకుని ప్రయత్నం చేయలేదు.  
 అంతకుముందు వీరు పరిష్కారం ఏదీని శ్రమించలేదు. ప్రజలందరూ ఈ  
 విధి మోగాన్ని సమర్థించలేదని (గతంపు) చేసుకొని ప్రయత్నం  
 చేయలేదు. అప్పుని మాటయే జనవాక్యమని మొందుట న్యాయ మా  
 త్రిని శ్రమించినట్లు (గంధలలో) లేదు. నీత మనసున్న మనిషిని వనవాసు  
 కలలో భ్రతలోని ఉండి అన్ని ఇబ్బందులు, పరాభవాలు పడిందని  
 రామునికి తెలియకపోయింది. రాముడు రాజని, దేవుడని. అలా  
 చేయడం వెనుక లోక కల్పణం ఎంతో ఉందని కొందరు  
 భావించారేమో. ఇది ప్రభుత్వం దిక్కుమని నీటి వాదన.  
 తాని నీత అలా అనుకొనింది. చివరకు కుశులవులు (రామ -  
 లక్ష్మణులు) పాశాతులం, చేసుకుంటూ వెళ్ళి (శ్రీ రాముని చూసివస్తాము  
 అనుమతి నిష్కాని ఉడిగినప్పుడు నీత పరవశించి "నా కళ్ళు కూడా  
 బిడ్డల కొని చూచింది నామనా" అని సంతోషంతో చెప్పి పంపుతుంది.  
 సంప్రదాయం పాటించింది. అది 7000 ఏండ్ల నాటి మహిళ భార్య -  
 కి కుమార్తెనిగా నీ సుసక్రూతి. సంప్రదాయం.

భారతీయ సంధర్భంలో జాతామయిలో కుశలవులు సంబాధం చేసి పుడు  
 నీతమ్మ తల్లిని కారడవులకు పంపిన నీకు ప్రేమతోం తెలుసునని  
 కుశలవులు ప్రశ్నించినట్లు కొన్ని గంధాలలో బ్రాహ్మణులది. నీత తంతునా  
 పతిభక్తిని ప్రదర్శించినా కొందరు ప్రజలు తప్పు బట్టారు. రామయణ  
 కావ్యకర్త బాల్మీకి, రామయి అభిప్రాయాన్ని గూర్చి చెప్పిస్తాడు. ఈ చర్చ  
 సందర్భాలను నీటి ప్ర జరిజ వీసుకున ప్రయత్నం చేయటం నీడు.  
 ఉత్తర రామాయణానికి మహిళ మంగింపు చెప్పింది. నీతను  
 రెండవసారి పరిక్షలకు పెడితే రామడు కళంకప్రా తుడైనను సత్యనిన్ని  
 ఈనాటికి ప్రజలకు గుర్తుండొనట్లు చేసింది.

లక్ష్మణునిచే ఉడవిలో విడువబడ్డ గర్భవతి నీతకు బాల్మీకి  
 తన శ్రమలలో శ్రమమెస్తాడు అక్కడ శ్రమ ప్రస విస్తరించి. కుశుడు,  
 వుడు జన్మించారు. పెరిగి పెద్దయ్యాడు. బాల్మీకికి రామయిని బుద్ధులు  
 వని రామనికి తెలుసును. ప్రజలకు తెలియదు. బాల్మీకి సకల విధాలు  
 నిర్మించాడు. కాబట్టి రాజులకు అవసరపడు నీపులన్ని నీపుతాడు.  
 రామకథను కూడా నీపుతాడు.

ఒకనాడు రామడు పంపిన దూతలు చెప్పినది విని నీతను  
 కుశలవులను అయిదానికు తోసుకొని వస్తాడు. నీత సాజీల్ని మను  
 త్తరించమని అంటాడు రామయిలో. బాల్మీకి తన స్థాయిని, స్థానాన్ని గూర్చి  
 మనిలో తాను వరుణాదేవుని కుమారులలో పదవ వాడనీకని, పెక్కువల  
 వత్సరాలు తపస్సు చేశానని, నీతాదేవి యాదు ఏ మాత్రము  
 ప్రమాదం లేన తప: ఫలము తీసుకు చెందకుండా వాళ్ళ గాక అని నిండు  
 రలో శపథం చేస్తాడు. అంతట రామడు సభా మధ్యస్థులకు చీరి  
 యాదేవుని నామకథలలో అబటికి చీరిన ఇందుడు, అల్పిని  
 తలుచు, గంధర్వులు వైరా పెద్దలు సమక్షంలో "నీతాదేవి ఈ నిండు  
 రలో తన పవిత్రతను ప్రకటించినచో నాకు ధైర్య కలుగును"  
 అంటాడు.

(బహు దీవుని నాయకత్వం వహించిన దేవ గంధర్వ గణం నాని, కుటుంబ సభ్యులు నాని, ప్రజలు నాని కిష్టమిది. రాజుజ్ఞులను కున్నాని, నీతాదేవి పతివ్రతయైనా మహిళ మహిళా సుకున్నాని వాళ్ళికి కూడా శపథం చేశాడని నాని విషయం చర్చ చేయలేదు.

[illegible]

శ్రీ జగ్గుకు నీత రామనికి చక్క లేదా. శ్రీసభకు  
 మెదపని పెద్దలందరికీ శ్రీశ్రీగౌరవం గామపదిన మహిళ మహిళ  
 రామాయణం (వాసుకొనుమని చెప్పి వెళ్ళినట్లుంది. నీత భర్తను  
 వద్దు అనుకుంది. చీరిన అంతరి గుండెలో గునపాలు నాటి తల్లితో  
 పుట్టింటకి వెళ్ళిపోయింది. నాకు తీగిన భర్తవు కాదని వెళ్ళిందని  
 నీటి మహిళల భావన; బాదం. ఇది రామాయణం మంగింపు  
 ఘటన.

ఈ సంఘటనలో సమాజంలో మహిళ దానియే నా? పురుషుని  
 అధికారిని? అంతేమీదగా శిష్ట పరాధవం వివరికి వివరు వ్రాశారు!  
 ఇందు మూలంగా సమాజానికి ఏం సందేశం వచ్చిందో ఇది అప్పటికి  
 అప్పటికి సమాధానాలు తెలుసుకొనవలసిన ప్రశ్నలే. 7000 సంవత్సరాల  
 నాటి సంస్కృతి సుప్రదామలును గూర్చి, ధర్మ సూత్రాలను గూర్చి వానియ  
 విధానాలను గూర్చి, మానవ విలువలు హక్కులను గూర్చి తెలియజేయడానికి  
 ఈనాటి కొలమానాలు, పాఠామానాలు ఉపయోగించవచ్చు. ఈనాటి  
 కళ్ళద్వారా చూచినా నీత ఈనాటి మహిళలకు మార్గం చూపిందని  
 భావించవచ్చు. రామాయణాన్ని సుప్రదామ (గంధమని ప్రాణికంబలెక్కు  
 అలా అనుకుంటే ఈనాటి ముఖ్యతలు, కైకలు, ముడోదరులు, నీతలు  
 ఈనాడు ఉన్నారు. నీత వాళ్ళమ్మను పిలుచుకొని వెళ్ళినట్లే ఈనాడు  
 ఆపత్సమయంగా పుట్టింటి వారి శ్రీశ్రీయబాధనీతలు గమనిస్తున్నాము.  
 శ్రీతర్వాతేనీ వరకట్న ఫిర్యాదులు గృహ హింస ఫిర్యాదులు  
 వస్తున్నాయి. ఇది 7000 సం॥ల నాటి నీత దారిలో ఇప్పటి

సమాజం.

గ్రామ నితీ తన భృతనిచ్చయన్ని (బహుదీవుడు,  
 ఇండాది దివతలు మదతన వారి సమక్షంలో తెలిపి మహిళామంసన  
 గౌరవం ఇచ్చినందున ఎంత పెద్దత్తైనా (పమాదకర పరిస్థితులుంటామని,  
 తిరుగుతాని నిర్ణయాలుంటాయని) సంతాపాన్నిచ్చి తేల్లిని పిలుచుకొని  
 వెళ్ళిపోయింది. ఇది పాతివ్రత్య సిద్ధాంతంతో కూడి బడ్డ సమస్య.  
 కావలసిన సమాజం ఏర్పి వీల సంవత్సరాలు నడిచి పోవాలని.  
 సరసనామ సంస్కృతి దీశు కావన్నాడు ఉడిసాధనం. ఒకనాటి సమాజం  
 పాతివ్రత్యానికి ఏమి వట్టవట్ట శుభాలు, పుష్కలాలలో ఉన్న "ఉహుని,  
 దొవడి, నీత, తల, మండోదరి, తథాపంచకనా స్మరించుతనం సర్వపాప  
 నివాణం" ఉన్న విశ్వాసం కూడా (పచ్చి ఉన్నది. పాతివ్రత్య నిష్ఠ  
 వలన వారికి దివ్యశక్తులు (ప్రాప్తించాయని) కొందరు ప్రజల ఉభిప్రాయం.  
 ఒక గుప్పెడు మహిళలు గ్రామం కావట్టి ఉడి బరితగింపు. పాతివ్రత్యాన్ని  
 పరమావధిగా పోషిస్తున్న నీతను వనహస సమయంలో త్రిమహామరి  
 శ్రేణులలో ఉనసూయ శ్రీశీర్షదించింది. ఉహుని పాతివ్రత్యాన్ని  
 మోహంలో భంగపరిచిన ఇంద్రుడు శాపగ్రస్తుడైనాడు. రావణునికి  
 యుద్ధంలో మరణం సంభవించింది. సావిత్రీ కూడా చివరి వరకూ తన  
 భర్తను ఉను సరించుమే తన భక్తిమని యమునిలో చెప్పింది. ఇవన్నీ  
 కథలైనా, చరిత్రలైనా, గత కాలపు స్త్రీ-పురుష సంబంధాలు, సామ్రాజ్యాలను  
 తెలుపుతున్నాయి. పాతివ్రత్య వనస్థ ఎంత బలంగా ఉండినదీ తెలుపుతున్నాయి.  
 ఒక స్త్రీకి ఒక పురుషుడు సిద్ధాంతాన్ని మహిళలూ శ్రమోదించారు. ఇందరి  
 వివాహ చట్టాలలో ఉట్టి పవిత్రత వివాహ నిధందనగా పొందుపరిచబడిన  
 వివాహ చట్టాలన్నింటిలో (స్త్రీ పవిత్రతను వివాహ ఉత్సాహంతో ఒత్తిగా  
 పొందుపరచ బడింది. పాతివ్రత్యానికి భంగం కలిగింది, నీటి భారతీయ  
 వివాహ చట్టం ప్రకారం వివాహ బంధం తగిపోతుంది. ఈ భారతీయ  
 చట్టాన్ని గౌరవించమా? భర్త నుండి భావి పొంది భృతి హక్కు భావి  
 వదులుకుంటుందా? ఇవన్నీ జవాబు రావలసిన ప్రశ్నలు.

చంద్రమణి ఉమ్మడు వావడానికి సిద్ధపడింది. ఉదేమని  
ప్రశ్నించలేదు. భర్త బాధానం నెరవేర్చడాన్ని జీవిత సహచారి  
సహకరించింది. భర్త బాధనైనా తన బాధనెలా కూడా  
స్వీకరించింది. ఉన్ని పొగొట్టుకుంది. నీవే వచ్చి తల్లిని పలుకుకొని  
వెళ్ళేదేమి. ఈ కాలక్రమాన్ని మనంగ్రహించగలం. ఇన్ని వీల  
సంవత్సరాల తరువాత ఇప్పటి తల్లిక, సామాజిక, విద్యక పరిస్థితుల  
కారణాల తరువాత ఉమ్మడు వారున్నారు. తిడపల్లెను తీసుకుని  
వారున్నారు. వీటిన్నీయక పురుషుణ్ణి బాధనెలా చూడటం వాస్తవాలు  
అంగీకరించే మనసు లేకనే ప్రతి బాధనైనా తీసుకునే చెప్పటం  
వాదన కోసం.

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Topic :- వనమండు ప్రభుత్వం యొక్క  
లక్ష్యాలు మరియు ప్రయోజనాలు,  
గీతాలు



1.

చార్లెమెంటు ప్రభుత్వము వెంట్ర ల్పకము, ప్రయోగము

మరియు గిరిజను వికరించుచు?

2.

సిద్ధుని ప్రభుత్వము ప్రభుత్వము, చార్లెమెంటు, అధిక  
ప్రభుత్వముగా పేరునవచ్చు. ఇట్టివిధమున గాని, గానన  
గొర్రు గాని మధ్యగల సంబంధమున బట్టి ప్రభుత్వము  
ప్రభుత్వము, చార్లెమెంటు ప్రభుత్వము - అధిక ప్రభుత్వము  
గాని వర్తించునట్టిదాని

చార్లెమెంటు ప్రభుత్వ విధానము:-

ఏ ప్రభుత్వ విధానము ఇట్టివిధమున గాని

చరిత్రను విషయముగా గానన సుఖము బాధ్యత వహిస్తుందా  
అందుము ప్రభుత్వము " చార్లెమెంటు ప్రభుత్వము" అని  
అంటారు. ఇది " బాధ్యతయుత ప్రభుత్వము" అనియు  
అంటారు. మరియు పేరునవచ్చు. ప్రభుత్వ విధానము

అట్లుగా నామకము అని చెప్పవచ్చు " ఏ ప్రభుత్వ  
విధానముగా ఇట్టివిధమున గాని, గానన విధానము గాని  
గిరిజను సంబంధము అని ప్రవహిస్తుందా అని చార్లెమెంటు  
ప్రభుత్వ విధానమును అని పేరునవచ్చు. అని ఇట్లు  
బాధ్యతయుతముగా చార్లెమెంటు ప్రభుత్వము అనియు

అని.

ప్రశ్నలు:-

1. సామమంత్ర - వాస్తవ ఇత్యసిర్వాహక వర్ణము:-

చార్లమెంటరి ప్రభుత్వ విధానముగి రెండు ఇత్యసిర్వాహక వర్ణములు. అవి 1) సామ మంత్రపు ఇత్యసిర్వాహక వర్ణము 2) వాస్తవ ఇత్య సిర్వాహక వర్ణము, రాజ్యాధిపతేత సామమంత్ర ఇత్యసిర్వాహక గురిగా ప్రవహరించును. ప్రధాన మంత్రే సామమంత్రముగి మంత్రముండెడి వాస్తవ ఇత్యసిర్వాహక గురిగా ప్రవహరించును. దేశ పరిపాలనా అంతరంగా రాజ్యాధి పతేత పేరు మేరగా మంత్రముండెడి నిర్వహించును. ఈ విధానముగి రాజ్యాధిపతేత బ్రెటెన్స్ రాజు యక పర్వో ఒన్నిక పద్ధతిగి ఎన్నిక కాండవచ్చు. బ్రెటెన్స్ రాజు తక రాగి భారతదేశముగి రాజ్యాధిపతేత సామమంత్రపు ఇత్య సిర్వాహకగురిగా ప్రవహరించెదరు. బ్రెటెన్స్, భారత్ ప్రధాన మంత్రులు వాస్తవ ఇత్య సిర్వాహకగురిగా ప్రవహరించెదరు

2. ప్రశ్నలు, చార్లమెంటర్ ప్రశ్నలు:- చార్లమెంటరి ప్రభుత్వ విధానముగి సాధారణ ఎన్నికల అనంతరం సాసన సభలై అత్యధిక పెరియెంట్ స్థానాలు గెలుచుకొన్న రాజకీయ పార్టీ ప్రభుత్వమును ఏర్పరచును. సాధారణముగా ఈ విధానం మంత్రులయరూ ఒకే పార్టీకి చెందిన వై ఎదురు.

3. పాల్లీ సుప్రీత్యము :- పార్లమెంటులో (పశుత్వ విధానంగా) మండలి మండలి అనంతర నాసన సభలు అత్యధిక మెజారిటీగా స్థానాలు గలచున్నా రాజ్యము పాల్లీ (పశుత్వ)యను విధిరచును. సాధారణంగా ఈ విధానముగా మండలిలందరూ ఓకే పాల్లీకి నాసన సభలు అత్యధిక మెజారిటీ ఆసక్తులు కాని పాల్లీలు క్లిసి యెడమ తీర సర్వోత్తమ ప్రభుత్వానికి ఏర్పడు చేయవచ్చు

4. మండలి మండలి :- పార్లమెంటులో విధానంగా మండలి మండలి సభలు ప్రతిగతం గాను, సమిష్టి గాను పార్లమెంటుకు బాధ్యత వహించును. ఈ విధానముగా పాలనాపరమైన క్రియలు సమిష్టిగా ఆమోదించబడవు. పార్లమెంటు సభలు మండలి వర్గ సమిష్టిగా ఆమోదించబడవు. పార్లమెంటు సభలు మండలి వర్గ సభలలో ఎవరినైనా అధికారిక ఆరాధనమును ప్రతిపాదింప జరిపించినా మెరు మండలి వర్గము రాజ్య నామా చేయవలసి ముందు

5. అన్వేషిత పదవి కులము :- పార్లమెంటులో (పశుత్వ విధానంగా) మండలి మండలి పదవికాలం అన్వేషితంగా ముందు. మండలి మండలి పార్లమెంటు అధికారికమునంత వరకు అధికారికంగా అనుసరించును. ఏ క్షణమైనా పార్లమెంటు అధికారిక ఆరాధనా కార్యం మండలి మండలి పదవి అధ్యక్షులను చేయవచ్చు.

6. పేదాన మండల నాయకత్వము :- పార్లమెంటు ప్రభుత్వ విధానం  
 61 మండల మండల పేదానమండల నాయకత్వాల పేర్లకి పసి  
 కేసుయి. పేదానమండల ప్రభుత్వాధికారత హస్తవ కార్యనిర్వాహక  
 కార్యకర్త పేదానమండల మండలవర్గమునకు నాయకుడిగా  
 ప్రవహిస్తారు. మండలవర్గ పరిషత్తులు, మనుగర్తుల సమితి  
 బాధ్యతలు పేదాని మూలము

7. పత్రికంగా ప్రజల బాధ్యత :- ఈ విధానం కార్యనిర్వాహక  
 వర్గం పార్లమెంటు బాధ్యత వహిస్తుంది. అనగా అది  
 పత్రికంగా ప్రజల బాధ్యత వహిస్తుంది

( ప్రయోజనాలు ) :-

1. నానన, కార్యనిర్వాహక నాజుల మధ్య సహకారం :-  
 పార్లమెంటు ప్రభుత్వ విధానం నానన, కార్యనిర్వాహక  
 నాజుల మధ్య గల సహకారం, సమన్వయం నెలకొని  
 ఉంటుంది. మండలమండల నాననసభలకి అంతర్దాగపి. కిరెయూ  
 మూలము పార్లమెంటు కిరెయూ
2. ప్రభుత్వ నియంత్రణకొరకు ఉత్తరం క్రింద :- ఈ విధానం  
 బాధ్యతాయుత ప్రభుత్వం నెలకొల్పబడుతుంది. మండలమండల  
 ప్రభుత్వంగా పార్లమెంటు, పత్రికంగా ప్రజల పేర్ల నిర్వహణ  
 బాధ్యతవహిస్తుంది. ప్రజల ఆర్థికంగా ప్రజలవెట్టుతం నానన  
 పార్లమెంటు మండలవర్గాన్ని అదుపుగా ఉంచుతుంది

3. ఉధియాల యోజితరూః:- పార్లమెంటులో విధానం ఉధియాల  
యోజితరూః ప్రాత్యహస్తుంది. ఈ విధానం కార్యకర్తలకు  
ఉధియాల ఏ ఒకటి కలిగినా కేంద్రీకృతం కాదు. మంత్రుల  
ఉధియాల పంజీకి కేంద్రీకృతం

4. ప్రతిపక్షాల ప్రభుత్వాన్ని పోషించడం (కొరిక):- ఈ  
విధానం కార్యకర్తల పరిష్కార విధానం ఉధియాల ఉధియాల  
ప్రభుత్వం ఎటువంటి మార్పులైనా ఏ ఇచ్చి తీసుకొని  
ప్రతిపక్షాలకు ఉధియాల.

5. ఉధియాల ప్రాతిపక్షీయత:- ఈ విధానం ద్వారా  
ఉధియాల వారికి, ఉధియాల వారికి సులభతరమైన  
ప్రతిపక్షీయత లభిస్తుంది

6. కార్యకర్తల రైతన్నీయత:- ఈ విధానం కార్యకర్తల  
ప్రతిపక్షీయత లభిస్తుంది. సాంసకృతికంగా బిగిని కర్మల  
కార్యకర్తల ప్రభుత్వం పరిచయ విధానాన్ని సామాన్య ప్రజల  
ఉధియాల కేంద్రీకృతం ఉధియాల ఉధియాల

గ్రామీణ:-

1. ఉధియాల ఉధియాల సిద్ధాంతానికి ప్రతిపక్షీయత:- ఈ విధానం  
మంత్రుల ప్రతిపక్షీయత ఉధియాల ఉధియాల సిద్ధాంతానికి  
ప్రతిపక్షీయత ఉధియాల ఉధియాల ఉధియాల, కార్యకర్తలకు  
సామాన్య ఉధియాల ఉధియాల ఉధియాల ఉధియాల ఉధియాల

2. ఉద్ధర ప్రభుత్వం:- ఈ విధానాన్ని ప్రభుత్వం ఏకాగ్రత  
మరియు వరకు వరకు ఇచ్చితంగా ఉంచుదన్న సమ్మతం  
లేదు.

3. ముంతివర్గ నియంత్రాత్మకము:- ఈ విధానం ముంతివర్గ  
నియంత్రాత్మకానికి దూరం ఉన్నది. వర్గమొందని మొదటి  
క్షణ ముంతివర్గ సహజీవీకరణలను పెంచుతుంది. మొదటి  
స్థాయిల మధ్య వలస ముంతివర్గం వర్గమొందని వేత తన  
ఇష్టం వచ్చిన సాధనలను తయారుచేసుకుంటుంది. ఇంక  
వృత్తి ఈ వర్గ - ఉద్ధరంగా, ఇంక (ప్రధానముంతి వర్గమున)నే  
వర్గమొందని తొలుతముగా తీరించి నియంతంగా పెంచు  
ఉత్పత్తు

4. ముంతివర్గ నియంత్రాత్మకము:- ఈ విధానాన్ని ముంతి  
వర్గ నియంత్రాత్మక ఉద్ధర (వయాసత) ఉద్ధరంగా ఉంచు  
(ప్రధానముంతి ముంతులను ఎంపిక చేసేటప్పుడు ఈ  
తొలుతను ఉంచు తొలు, మత, భాష ప్రాంతాలను ఉంచును,  
తొలుతను ఉంచు ఉద్ధర ఉద్ధర ఉద్ధర ఉద్ధర ఉద్ధర ఉద్ధర  
తొలుతను ఉంచు ఉద్ధర ఉద్ధర ఉద్ధర ఉద్ధర ఉద్ధర ఉద్ధర  
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A Project Report  
On  
**ISOLATION OF NATURAL PRODUCTS**

*Submitted to*  
**DEPARTMENT OF CHEMISTRY**

Under the guidance of  
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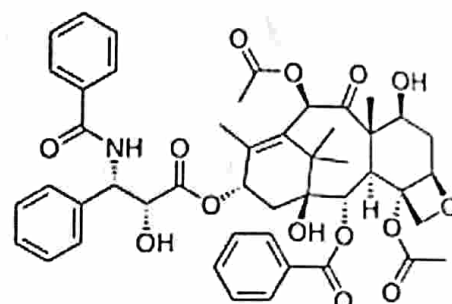
# **CHAPTER 1**

## **Brief discussion about Natural Products**

## NATURAL PRODUCTS

### INTRODUCTION:

A **natural product** is a chemical compound or substance produced by a living organism—that is, found in nature.<sup>[2][3]</sup> In the broadest sense, natural products include any substance produced by life.<sup>[4][5]</sup> Natural products can also be prepared by chemical synthesis (both semi synthesis and total synthesis) and have played a central role in the development of the field of organic chemistry by providing challenging synthetic targets. The term natural product has also been extended for commercial purposes to refer to cosmetics, dietary supplements, and foods produced from natural sources without added artificial ingredients.<sup>[6]</sup>



Paclitaxel (Taxol) is a natural product derived from the yew tree.<sup>[1]</sup>

Within the field of organic chemistry, the definition of natural products is usually restricted to mean purified organic compounds isolated from natural sources that are produced by the pathways of primary

or secondary metabolism.<sup>[7]</sup> Within the field of medicinal chemistry, the definition is often further restricted to secondary metabolites.<sup>[8][9]</sup> Secondary metabolites are not essential for survival, but nevertheless provide organisms that produce them an evolutionary advantage.<sup>[10]</sup> Many secondary metabolites are cytotoxic and have been selected and optimized through evolution for use as "chemical

warfare" agents against prey, predators, and competing organisms.<sup>[11]</sup>

Natural products sometimes have therapeutic benefit as traditional medicines for treating diseases,

yielding knowledge to derive active components as lead compounds for drug discovery.<sup>[12]</sup>

Although natural products have inspired numerous U.S. Food and Drug Administration-approved drugs, drug development from natural sources has received declining attention by pharmaceutical companies, partly due to unreliable access and supply, intellectual property concerns, seasonal or environmental

variability of composition, and loss of sources due to rising extinction rates.<sup>[12]</sup>

### CLASSES

The broadest definition of natural product is anything that is produced by life,<sup>[4][13]</sup> and includes the likes of biotic materials (e.g. wood, silk), bio-based materials (e.g. bioplastics, cornstarch), bodily fluids (e.g. milk, plant exudates), and other natural materials (e.g. soil, coal). A more restrictive definition of a

natural product is an organic compound that is synthesized by a living organism.<sup>[7]</sup> The remainder of this article restricts itself to this more narrow definition.

# ISOLATIONS OF NATURAL PRODUCTS

## FUNCTION:

Following Albrecht Kossel's original proposal in 1891,<sup>[14]</sup> natural products are often divided into two major classes, the primary and secondary metabolites.<sup>[15][16]</sup> Primary metabolites have an intrinsic function that is essential to the survival of the organism that produces them. Secondary metabolites in contrast have an extrinsic function that mainly affects other organisms. Secondary metabolites are not essential to survival but do increase the competitiveness of the organism within its environment. Because of their ability to modulate biochemical and signal transduction pathways, some secondary metabolites have useful medicinal properties.

Natural products especially within the field of organic chemistry are often defined as primary and secondary metabolites. A more restrictive definition limiting natural products to secondary metabolites is commonly used within the fields of medicinal chemistry and pharmacognosy.<sup>[13]</sup>

## Primary metabolites

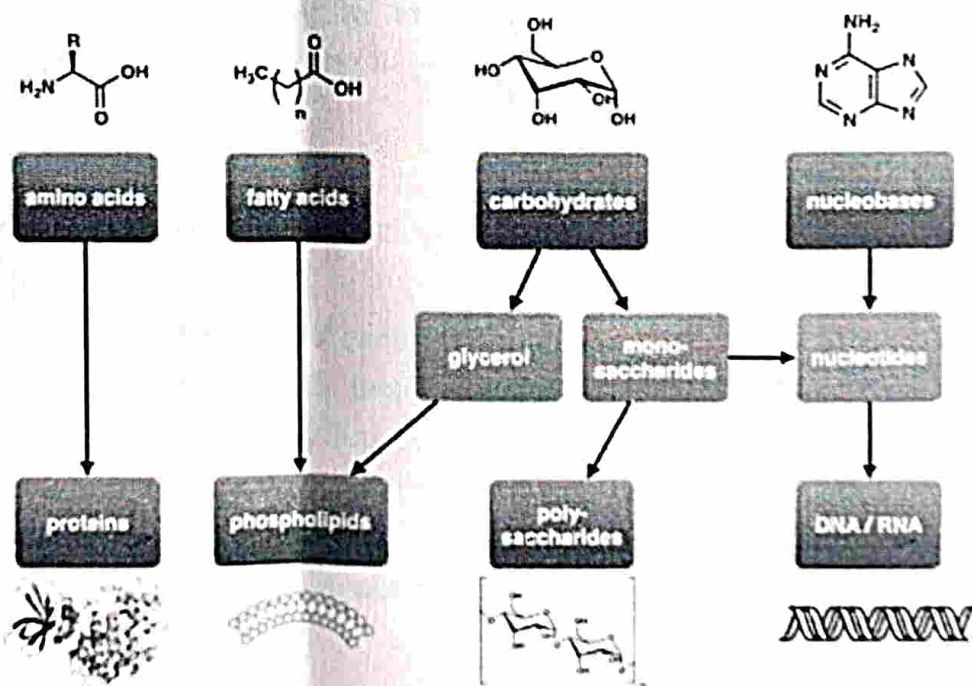
Primary metabolites as defined by Kossel are components of basic metabolic pathways that are required for life. They are associated with essential cellular functions such as nutrient assimilation, energy production, and growth/development. They have a wide species distribution that span many phyla and frequently more than one kingdom.

Primary metabolites

include carbohydrates, lipids, amino acids, and

nucleic acids<sup>[15][16]</sup> which are the basic building blocks of life.<sup>[17]</sup>

Primary metabolites that are involved with energy production include respiratory and photosynthetic enzymes. Enzymes in turn are composed of amino acids and often non-peptidic cofactors that are



Molecular building blocks of life

## **CHAPTER 2**

### **Isolations of Hesperidin from Orange peels**

# ISOLATIONS OF NATURAL PRODUCTS

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## HESPIRIDINS

### Isolation of Hesperidins from Orange peels

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#### INTRODUCTION

Throughout the ages, plants have been used by humans as a source of food, cosmetics, medicine, clothing and even shelter. Plant products also play an important role in the health care systems of the remaining 20% of the population who mainly reside in developed countries [1]. The plants of the genus citrus (Rutaceae) are widely distributed in most tropical and subtropical countries.

Hesperidin, flavanone-type polyphenolic bioflavonoid, is found abundant in the peel and membranous parts of orange peel and other citrus fruits. Hesperidin is an antioxidant that enhances the action of vitamin C (ascorbic acid) to lower cholesterol levels. Hesperidin is comprised of the flavanone hesperitin and the disaccharide rutinose and has been reported to have many biologically important properties, including anti-inflammatory, antimicrobial, anticarcinogenic, antioxidant and capillary strengthening effects it is also known to have pharmacological action as an anti-inflammatory, anti-histaminic, and antiviral agent<sup>[2-5]</sup> as well as flavoring agent.

The flavanones, a type of flavonoids, are various aromatic, colorless ketones derived from flavone that often occur in plants as glycosides. Hesperidin is a flavone-on glycoside found in citrus fruits. Its aglycone form is called hesperetin. Its name is derived from the word "hesperidium", means a fruit with sectioned pulp inside a separable rind, e.g. an orange or grapefruit.

Hesperidin is a flavanone glycoside found abundantly in citrus fruits and possesses antioxidant activity. Hesperidin alone or in combination with other citrus bioflavonoids is used for blood vessel conditions such as hemorrhoids, varicose veins and poor circulation (venous stasis). It is also used to treat lymphedema, a condition involving fluid retention that can be a complication of breast cancer surgery. The antiallergic activity of hesperidin is activated by intestinal microflora. Hesperidin has anti-inflammatory and analgesic effects. In addition, the results revealed that hesperidin exhibited pronounced anticancer activity against the selected cell lines. In literature, several analytical methods for the determination of hesperidin have been reported. Several high performance liquid chromatography (HPLC) methods were developed for the estimation of hesperidin either alone or in mixture with other flavonoids in plant juices and pharmaceutical formulations. A liquid chromatography tandem mass spectrometry (LC-MS/MS) method was developed for the simultaneous determination of naringin, hesperidin, neohesperidin, naringenin and hesperetin in rat plasma, using liquiritin as the internal standard.

Natural products are organic compound that are formed by living system. The elucidation of their structure, chemistry, synthesis and biosynthesis are major areas of chemistry. Phytochemistry or the chemistry of natural products may be strategically placed somewhere in between natural product, organic chemistry and plant biochemistry. In fact it is intimately related to the above two discipline. However, in a border sense phytochemistry essentially deals with the enormous different type of organic substances that not only elaborated but also accumulated by plant. It is also solely concerned with the following various aspects namely

## ISOLATIONS OF NATURAL PRODUCTS

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Natural distribution, Chemical structure, Biosynthetic structure, Biosynthesis (biogenesis), Metabolism and Biochemical function. Hesperidin is a flavanone glycoside (flavonoid) ( $C_{28}H_{34}O_{15}$ ) found abundantly in citrus fruits.

### IMPORTANCE OF HESPERIDINS:

Hesperidin, an abundant and inexpensive bioflavonoid in Penggan (*Citrus reticulata*) peel, has been reported to possess a wide range of pharmacological properties like antioxidant, anti-inflammatory, hypolipidemic, vasoprotective and anticarcinogenic and cholesterol lowering actions. Hesperidin is also an enzyme inhibitor and inhibits phospholipase A<sub>2</sub>, lipoxygenase, HMG-CoA reductase and cyclo-oxygenase.<sup>[6]</sup>

Hesperidin improves the health of capillaries by reducing the capillary permeability. Hesperidin is used to reduce hay fever and other allergic conditions by inhibiting the release of histamine from mast cells. The possible anti-cancer activity of hesperidin could be explained by the inhibition of polyamine synthesis. Sources of hesperidin include citrus fruits, berries, onions, parsley and green tea. Hesperidin has been extracted from a variety of sources using both analytical as well as preparative techniques. Waste orange peel from the citrus industry has been used as the raw material using styrene-divinylbenzene (SDVB) resin followed by desorption in much reduced volume of alkaline eluents. By this procedure good yield and high purity after acidification of the concentrated solutions, thus overcoming disadvantages due to the high dilution. Hesperidin was extracted from peel with an aqueous saturated  $Ca(OH)_2$  solution, allowing precipitation of calcium pectates from colloidal pectins that can interfere in the subsequent phases of adsorption and separation of hesperidin. The clear extracts were neutralized to optimize adsorption on resin. The most effective eluent was 0.5 N NaOH solution containing 10% ethanol.<sup>[7]</sup>

### SOURCES:

#### Rutaceae

700 - 2,500 ppm in fruit of *Citrus aurantium* L- Bitter Orange, Petit grain in orange juice (*Citrus sinensis*)



- in *Zanthoxylum gillettii*
- in lemon
- in leaves of *Agathosma serratifolia*

## ISOLATIONS OF NATURAL PRODUCTS

### Lamiaceae

- Peppermint contains hesperidin

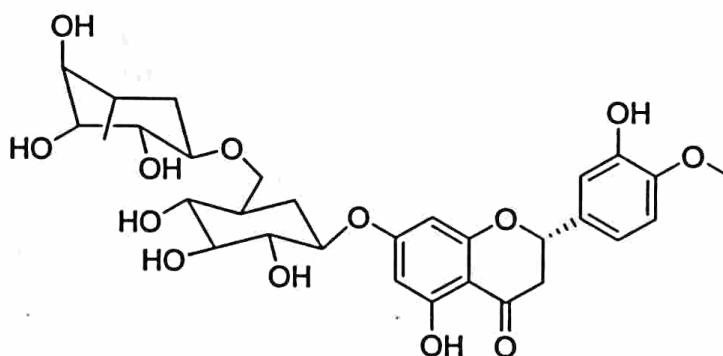
### CONTENT IN FOODS :

Approximate hesperidin contents per 100 gram

- 481 mgs peppermint, dried
- 44 mgs blood orange, pure juice
- 26 mgs orange, pure juice
- 18 mgs lemon, pure juice
- 14 mgs lime, pure juice
- 1 mgs grapefruit, pure juice

### Research : /

As a flavanone found in citrus fruits (such as oranges, lemons or pummelo fruits), hesperidin is under laboratory research for possible biological properties. One area of research is focused on the possible chemopreventive effects of hesperidin, but there is no current proof that hesperidin has this role in human cancer mechanisms.



### USES OF HESPIDIN:

These uses have been tested in humans or animals. Safety and effectiveness have not always been proven. Some of these conditions are potentially serious, and should be evaluated by a qualified healthcare provider.

A. Combination products containing hesperidin, hesperidin methyl chalcone (HMG), ascorbic acid, diosmin, and other ingredients may improve the symptoms of CVI. Additional research on the effect of hesperidin alone is needed before a firm conclusion may be drawn.

B. The combination product micronized purified flavonoid fraction (MPFF), which contains hesperidin and the flavonoid diosmin, may improve symptoms of hemorrhoids. Additional research on the effect of hesperidin alone is needed.

C. The combination product micronized purified flavonoid fraction (MPFF), which contains hesperidin and the flavonoid diosmin, may improve symptoms of venous leg ulcers when used

## ISOLATIONS OF NATURAL PRODUCTS

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together with routine ulcer care. Additional research on the effect of hesperidin alone is needed before a firm conclusion may be drawn.

D. In the earlier studies, a hesperidin derivative was found to improve symptoms of arthritis. Additional research is needed before a conclusion can be made.

E. Micronized purified flavonoid fraction (MPFF), which contains the flavonoid diosmin in addition to hesperidin, may help lower blood sugar in women with type-2 diabetes. Additional research on the effect of hesperidin alone is needed before a firm conclusion may be drawn.

F.A combination product (Cyclo-3 Fort) containing *Ruscus aculeatus* root extract, hesperidin methyl chalcone (HMC), and ascorbic acid may help reduce swelling of the arm in women who have been treated for breast cancer. Additional research on the effect of hesperidin alone is needed.

### Interactions:

#### Interaction with drugs:

Hesperidin may lower blood sugar levels. Caution is advised when using medications that may also lower blood sugar. Patients taking drugs for diabetes by mouth or insulin should be monitored closely by a qualified healthcare professional, including a pharmacist. Medication adjustments may be necessary.

Hesperidin may increase the risk of bleeding when taken with drugs that increase the risk of bleeding. Some examples include aspirin, anticoagulants (blood thinners) such as warfarin (Coumadin®) or heparin, antiplatelet drugs such as clopidogrel (Plavix) and nonsteroidal anti-inflammatory drugs such as ibuprofen (Motrin®, Advil®) or naproxen (Naprosyn, Aleve).

Hesperidin may cause low blood pressure. Caution is advised in patients taking drugs that lower blood pressure.

Hesperidin may increase the amount of drowsiness caused by some drugs. Examples include benzodiazepines such as lorazepam (Ativan®) or diazepam (Valium®), barbiturates such as phenobarbital, narcotics such as codeine, some antidepressants, CNS depressants, sedatives, and alcohol. Caution is advised while driving or operating machinery.

Hesperidin may interfere with the way the body processes certain drugs using the liver's cytochrome P450 enzyme system. As a result, the levels of these drugs may change in the blood and may cause increased or decreased effects or potentially serious adverse reactions. Patients taking any medication should check the package insert and speak with a qualified healthcare professional, including a pharmacist, about possible interactions.

Hesperidin may also interact with antacids, anti-anxiety agents, antibiotics, anticancer agents, antihistamines, anti-inflammatory agents, antiseizure agents, antiviral agents, beta-blockers, calcium channel blockers, celiprolol, cholesterol-lowering agents, cyclophosphamide, drugs regulated by p-glycoprotein, drugs that affect the cardiovascular system, drugs that affect the gastrointestinal system, drugs that affect the nervous system, drugs that may damage the kidney, drugs that may damage the liver, drugs that protect against the harmful effects of radiation, drugs

## ISOLATIONS OF NATURAL PRODUCTS

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that treat osteoporosis, drugs used to treat conditions of the teeth and gums, methotrexate, opiate antagonists, and painkillers.<sup>[8-11]</sup>

### ISOLATION PROCESS OF HESPERIDINS FROM DRIED ORANGE PEELS

#### EXPERIMENTAL INFORMATION:

Time	3-4hours through SOXHLET EXTRACTION
Reagents	Dried orange peels; Methanol
Equipment	500 mL round bottomed flask, Soxhlet apparatus, condenser, Water heater, 250 mL Erlen-meyer flask, Funnel.
Cautions	Do not breathe vapors of organic solvents. Do not burn yourself when handling the burner and hot glassware. Be careful when working with base and acid solutions. Rinse spills with large amounts of water.
Product	Pure Hesperidin is a pale yellow colour solid, completely soluble in water.

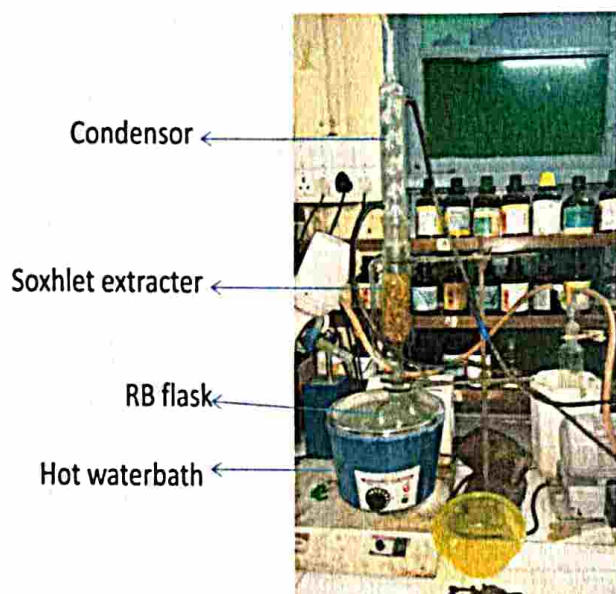
#### PRESENT WORK :

#### ISOLATION :

To the 1000 mL round bottomed flask 200 mL methanol (40 – 60°C) is filled. Around 250gms of dried and powdered orange peel are placed in the extraction sleeve of a Soxhlet extractor and covered with a little glass wool or cotton. A reflux condenser is put on the Soxhlet extraction unit, and then the reaction mixture is stirred and heated for 9 hours under strong reflux (fig. 2). The methanol extract is discarded. Methanol is evaporated from the round bottomed flask. The evaporated methanol are condensed through condenser and again fall in to the soxhlet. This process is called siphoning. This process was repeated untill orange peels turns to colourless[about 12 siphoning].

## ISOLATIONS OF NATURAL PRODUCTS

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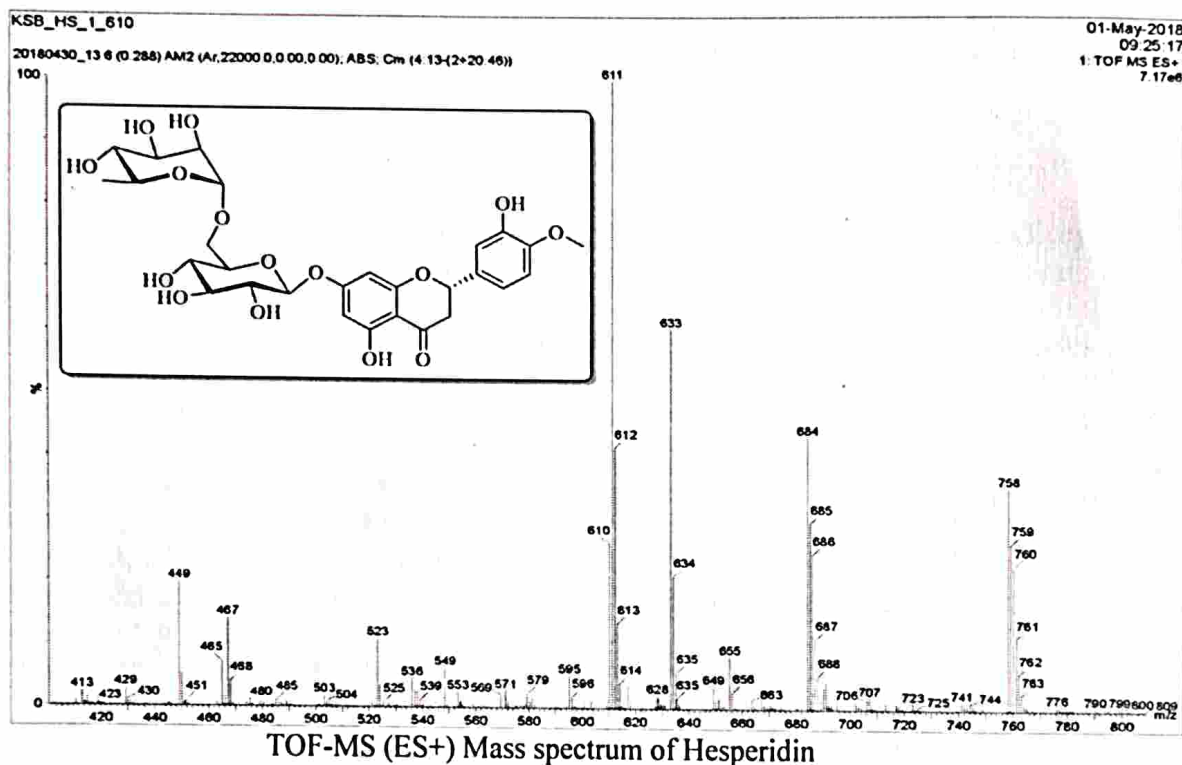
### EXTRACTION :

The crude was collected in the conical flask. To the Crude 10 mL of methanol was added and boiled on water bath with constant stirring. The crude is filtered and the collected residue was washed 3 to 4 times with methanol. The TLC was checked to the filtrate and residue in 10% TLC solution[hexane & ethyl acetate].





## ISOLATIONS OF NATURAL PRODUCTS



### Results and Discussions:

The IR spectrum as KBr disk showed a strong band of OH at 3541 and 3470  $\text{cm}^{-1}$ , CH (aliphatic) at 3077, 2973, 2935 and 2913  $\text{cm}^{-1}$ , C=C (aromatic) at 1601, 1514, 1465 and 1443  $\text{cm}^{-1}$  and of C=O at 1651  $\text{cm}^{-1}$ , C-O at 1280, 1203  $\text{cm}^{-1}$ . The pattern of the spectrum was the same as standard.

**Hesperidins** :  $^1\text{H-NMR}$  (DMSO- $d_6$ , 400 MHz)  $\delta$  12.01 (1H, br s, 5-OH), 6.97 (1H, d,  $J = 2.0$  Hz, H-2'), 6.88 (1H,  $J = 8.0$  Hz, H-5'), 6.83 (1H, dd,  $J = 8.0, 2.0$  Hz, H-6'), 6.14 (1H, d,  $J = 2.0$  Hz, H-8), 6.13 (1H, d,  $J = 2.0$  Hz, H-6), 5.50 (1H, dd,  $J = 11.0, 5.0$  Hz, H-2), 4.97 (1H, d,  $J = 7.2$  Hz, H-1''), 4.54 (1H, br s, H-1), 3.78 (3H, s, 4-OCH<sub>3</sub>), 3.20–3.60 (6H, m, H-2'' to H-6''), 3.20–3.60 (3H, m, H-2 to H-6), 3.11 (1H, dd,  $J = 17.0, 11.0$  Hz, H-3a), 2.78 (1H, dd,  $J = 17.0, 5.0$  Hz, H-3b), 2.51 (1H, d,  $J = 6.0$  Hz, H-5), 1.09 (3H, d,  $J = 6.0$  Hz, H-6);  $^{13}\text{C NMR}$  (DMSO- $d_6$ , 100 MHz)  $\delta$  197.2 (s, C-4), 165.5 (s, C-7), 163.2 (s, C-5), 162.7 (s, C-9), 148.1 (s, C-4'), 146.6 (s, C-3'), 131.1 (s, C-1'), 118.1 (s, C-6'), 114.3 (d, C-2'), 112.2 (d, C-5'), 103.5 (s, C-10), 100.8 (d, C-1), 99.6 (d, C-1''), 96.5 (d, C-6), 95.7 (d, C-8), 78.6 (d, C-2), 76.5 (d, C-5''),

## ISOLATIONS OF NATURAL PRODUCTS

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75.7 (d, C-3''), 73.2 (d, C-4), 72.2 (d, C-2''), 70.9 (d, C-4''), 70.5 (d, C-3), 69.7 (d, C-2), 68.5 (d, C-5), 66.2 (t, C-6''), 55.8 (q, 4-OCH<sub>3</sub>), 42.2 (t, C-3), 18.1 (q, C-6).

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**CHAPTER 3**  
**Isolations of Eugenol**

# ISOLATIONS OF NATURAL PRODUCTS

## EUGENOL

### EXTRACTION OF EUGENOL FROM CLOVES

In this experiment, you will extract the essential oil of cloves, which is mostly eugenol. The procedure used is typical for isolating products from natural sources.

**Eugenol** is a phenylpropene, an allyl chain-substituted guaiacol. Eugenol is a member of the phenylpropanoids class of chemical compounds. It is a colourless to pale yellow, aromatic oily liquid extracted from certain essential oils from clove oil, nutmeg, cinnamon, basil and bay leaf. It is present in concentrations of 80–90% in clove bud oil and at 82–88% in clove leaf oil.

#### Contents

IUPAC name : 2-Methoxy-4-(prop-2-en-1-yl)phenol

1.Modern uses

2.Toxicity **OTHER NAMES**

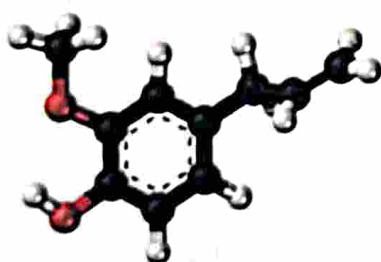
3.Allergy 4-allyl-2-methoxy phenol

4.Natural occurrence

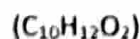
5.isolation process

#### Names

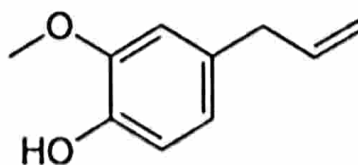
2-methoxy-4-(2-propenyl)phenol  
1-allyl-3-methoxy-4-hydroxy benzene



3D-Structure



CLOVES



EUGENOL

2D-structure

## ISOLATIONS OF NATURAL PRODUCTS

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### Modern Uses:

Eugenol is used in perfumes, flavorings, and essential oils. local antiseptic and anaesthetic. Eugenol can be combined with zinc oxide to form zinc oxide eugenol which has restorative and prosthodontic applications in dentistry. For example, zinc oxide eugenol is used for root canal sealing

Attempts have been made to develop eugenol derivatives as intravenous anesthetics, as an alternative to propanidid which produces unacceptable side effects around the site of injection in many patients.

It can be used to reduce the presence of *Listeria monocytogenes* and *Lactobacillus sakei* in food.

It is also used in manufacturing stabilizers and antioxidants for plastics and rubbers.

It is one of many compounds that is attractive to males of various species of orchid bees, which apparently gather the chemical to synthesize pheromones; it is commonly used as bait to attract and collect these bees for study. It also attracts female cucumber beetle. It was recently discovered that eugenol and isoeugenol, floral volatile scent compounds, are catalyzed by a single type of enzyme in the *Gymnadenia* genus and gene encoding for this enzyme is the first functionally characterized gene in these species so far.

Clove oil is growing in popularity as an anaesthetic for use on aquarium fish as well as on wild fish when sampled for research and management purposes. Where readily available, it presents a humane method to euthanise sick and diseased fish either by direct overdose or to induce sleep before an overdose of eugenol.

### Toxicity:

Eugenol is hepatotoxic, meaning it may cause damage to the liver. Overdose is possible, causing a wide range of symptoms from blood in the patient's urine, to convulsions, diarrhoea, nausea, unconsciousness, dizziness, or rapid heartbeat. According to a published 1993 report, a 2-year-old boy nearly died after taking between 5 and 10 ml. In context, this would represent a toxic dose in the range of 500–1000 mg/kg, approximately one third that of table salt.

### Allergy:

Eugenol is subject to restrictions on its use in perfumery as some people may become sensitised to it, however, the degree to which eugenol can cause an allergic reaction in humans is disputed.

Eugenol is a component of balsam of Peru, to which some people are allergic. When eugenol is used in dental preparations such as surgical pastes, dental packing, and dental cement, it may cause contact stomatitis and allergic cheilitis. The allergy can be discovered via a patch test.

## ISOLATIONS OF NATURAL PRODUCTS

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### Natural Occurrence:

Eugenol naturally occurs in several plants, including the following:

- Cloves (*Syzygium aromaticum*)
- Wormwood
- Cinnamon
- *Cinnamomum tamala*
- Nutmeg (*Myristica fragrans*)
- *Ocimum basilicum* (sweet basil)
- *Ocimum gratissimum* (African basil)
- *Ocimum tenuiflorum* (syn. *Ocimum sanctum*, tulsi or holy basil)
- Japanese star anise
- Lemon balm
- Dill
- *Pimenta racemosa*
- Vanilla
- Bay laurel
- Ginger

### Isolation Process:

#### Experiment Information

Time 2–2.5 hr (60 min gap during steamdistillation)

Reagents Whole cloves; 10% sodium hydroxide NaOH, solution, 10% hydrochloric acid, HCl solution, distilled water, H<sub>2</sub>O; granular anhydrous sodium sulfate, Na<sub>2</sub>SO<sub>4</sub>.

Equipment Organic kit with regular condenser and 1000-mL round-bottom flask, 250-mL Erlenmeyer flask and 125-mL Erlenmeyer flask, 250-mL separatory funnels, burner with stand, T-Joint, L-Joint, Condenser and asbestos gauze, glass rod.

Cautions Do not breathe vapors of organic solvents. Do not burn yourself when handling the burner and hot glassware. Be careful when working with base and acid solutions. Rinse spills with large amounts of water.

## ISOLATIONS OF NATURAL PRODUCTS

- Waste**
- Cloves residue goes into the trash.
  - Aqueous distillate goes into the Aqueous Waste container.
  - Sodium sulfate may be dumped into the trash
  - Eugenol ( product ) goes into organic waste container.

**Product** Pure eugenol is a colorless liquid, B.P.  $253^{\circ}\text{C}$ , slightly soluble in water. Oil of cloves is a yellow volatile liquid, b.p.  $243^{\circ}\text{C}$ .

### ISOLATION PROCEDURE:

To the 1000 mL round bottomed flask 150gms of cloves powder is taken. To this distilled water is added until it's drained. The round bottomed flask is attached to steam distillation apparatus. Continuous heating is given to the RB flask. Vapours from the RB flask are condensed through the condenser. The condensation process is continued until the extraction appears as no oily layer solution. The extraction from the above process is collected in the 250mL erlen-meyer flask.



## ISOLATIONS OF NATURAL PRODUCTS

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### EXTRACTIONS:

Position the separator funnel in a ring clamp. Drain the organic layer into a 250-mL Erlenmeyer flask.\*

Extract the remaining aqueous solution twice more with 20-mL portions of ether layers.

Transfer the ether solution to a 125-mL separatory funnel and add 30 mL of 5% potassium hydroxide solution. The solution is likely to warm up as the reaction generates heat. Transfer the distillate to a 250-mL separator funnel and add 25 mL of dry ether

Save the aqueous layer into a 125-mL Erlenmeyer flask and return the ether layer to the separator funnel.

Extract the ether solution twice more with fresh 25-mL portions of 10% sodium hydroxide. Combine the aqueous layers.

Pour the combined aqueous solution back into the 125-mL separatory funnel and wash it with a fresh 15-mL portion of ether.

Transfer the aqueous solution to a 250-mL beaker and slowly acidify to pH 1 using 10% hydrochloric acid. Add the acid drop wise while stirring. Test the pH using universal pH paper. You should have to add anywhere from 20 to 50 mL of acid. You will notice that heat is evolved and that the solution turns cloudy when the pH becomes acidic.

Transfer the acidified aqueous solution back to the separator funnel and add 20 mL of fresh ether.

Save the ether layer. Extract again with a 25-mL portion of . Make sure that there is no water contaminating the organic solution.

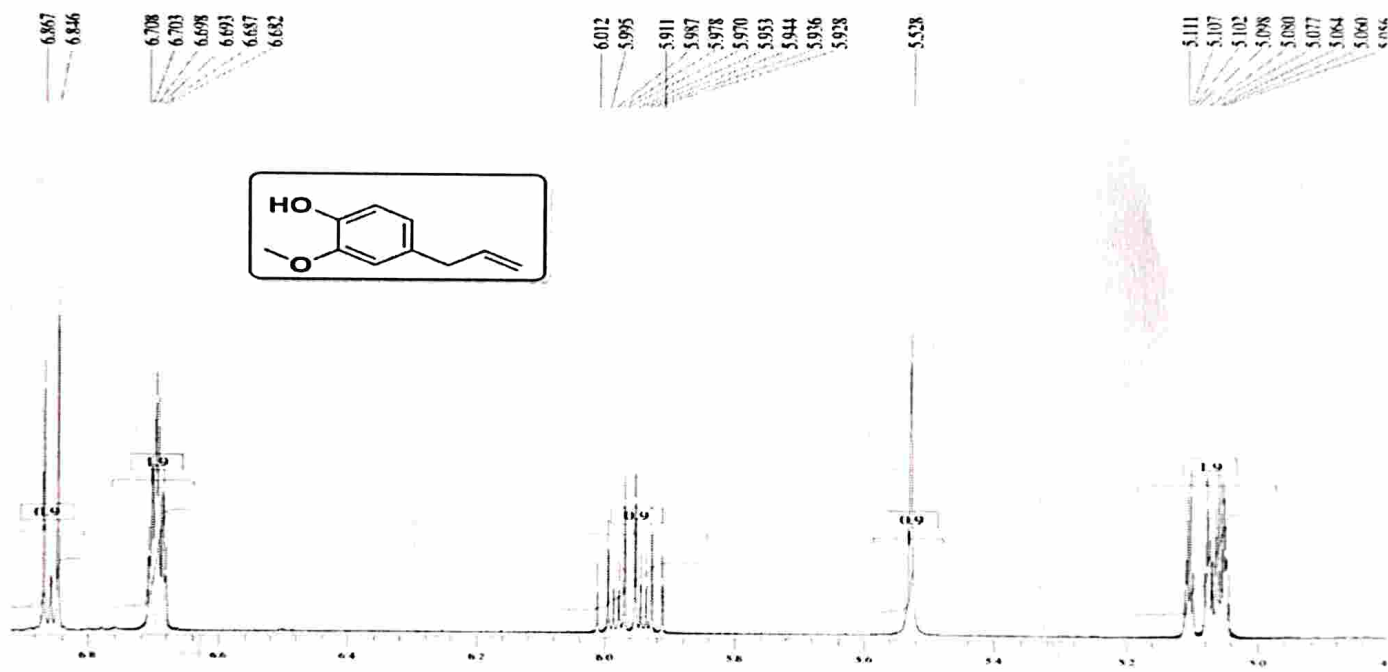
Transfer the ether solution to a clean and dry 125-mL Erlenmeyer flask or beaker. Add 15 g of granular anhydrous sodium sulfate to the flask in order to dry the organic solution. Anhydrous sodium sulfate binds any traces of water. Swirl the solution gently for about 5 minutes.

If the solution remains cloudy, repeat the drying step with a fresh portion of anhydrous sodium sulfate. If sodium sulfate dissolves or cakes, you might be working with an aqueous (not an organic) solution.

The collected Organic layer containing ether is evaporated by placing the Erlenmeyer flask on hot water bath and Eugenol is completely isolated.

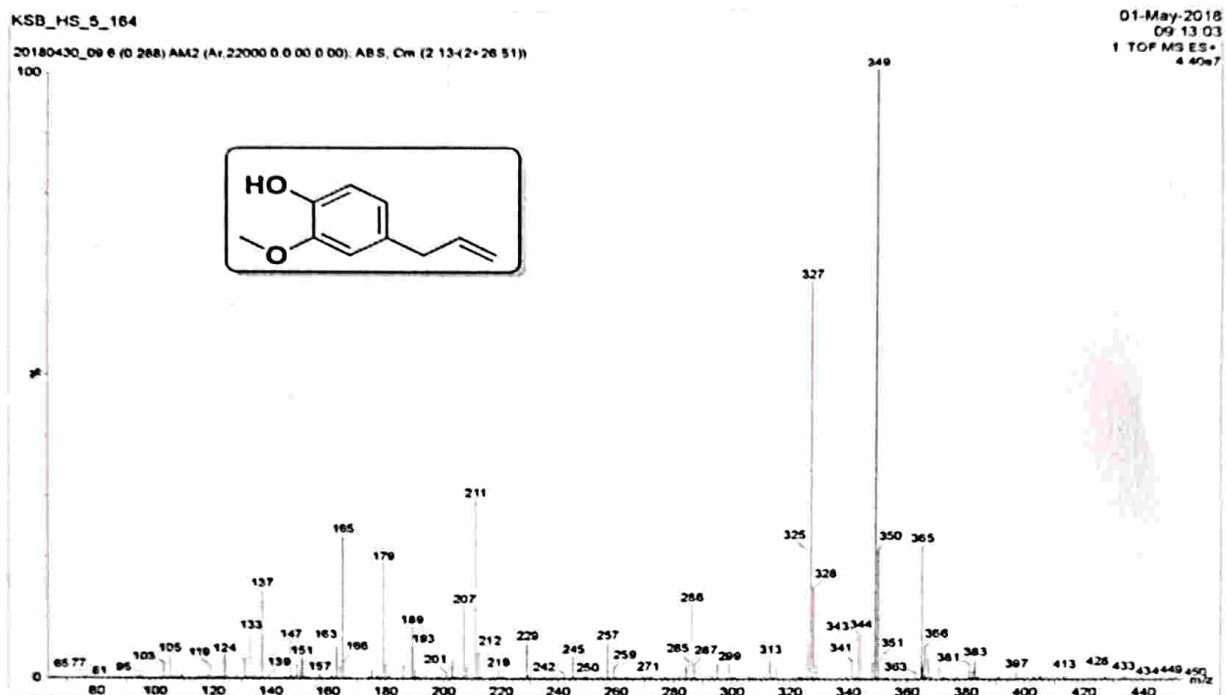
## ISOLATIONS OF NATURAL PRODUCTS

### SPECTRA:

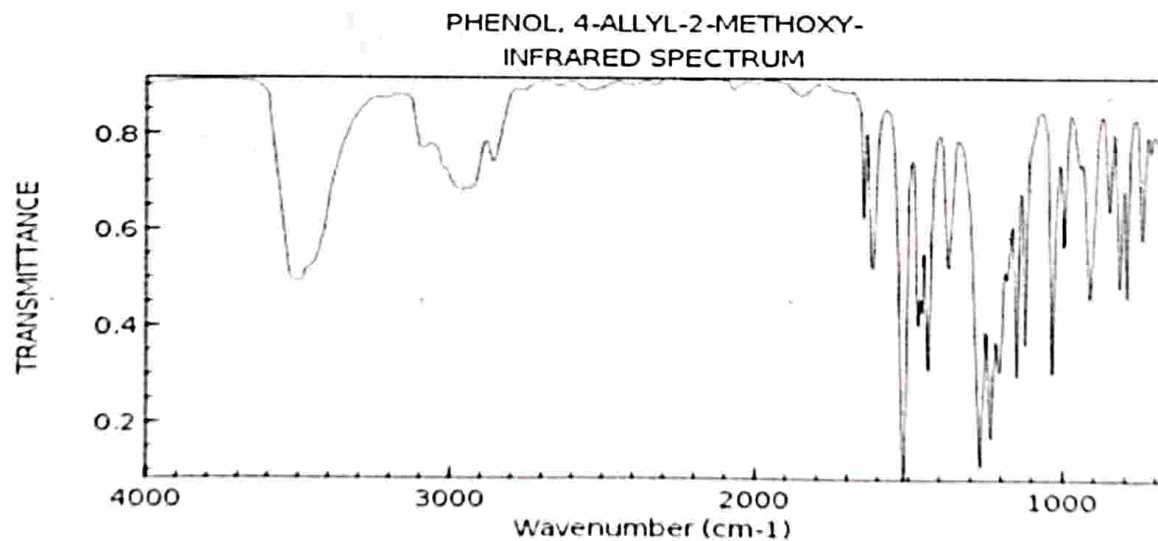


$^1\text{H}$ -NMR (400 MHz) Aliphatic region expansion spectrum of Eugenol

# ISOLATIONS OF NATURAL PRODUCTS



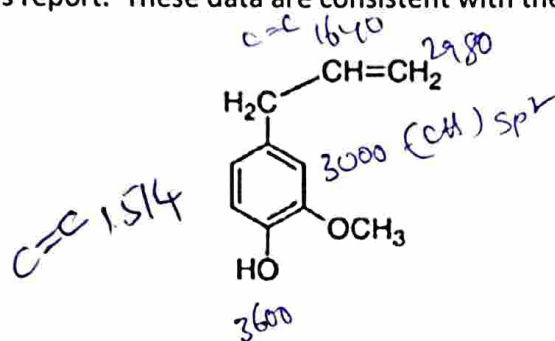
TOF-MS (ES+) Mass spectrum of Eugenol



## ISOLATIONS OF NATURAL PRODUCTS

### RESULTS AND DISCUSSION:

Steam distillation of cloves produced 0.0770 g of an oil which contained in its IR spectrum the functional groups O-H (at  $3560\text{ cm}^{-1}$ ),  $\text{sp}^2$  C-H ( $3080 - 3000\text{ cm}^{-1}$ ), aliphatic C-H ( $2980 - 2940\text{ cm}^{-1}$ ), and both alkene C=C (at  $1640\text{ cm}^{-1}$ ) and aromatic C=C (at  $1514\text{ cm}^{-1}$ ). The IR spectrum is attached to this report. These data are consistent with the structure of Eugenol.



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# **CHAPTER 4**

## **Isolations of Piperine**

## ISOLATIONS OF NATURAL PRODUCTS

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### PIPERINE ISOLATION FROM BLACK PEPPER

- INTRODUCTION



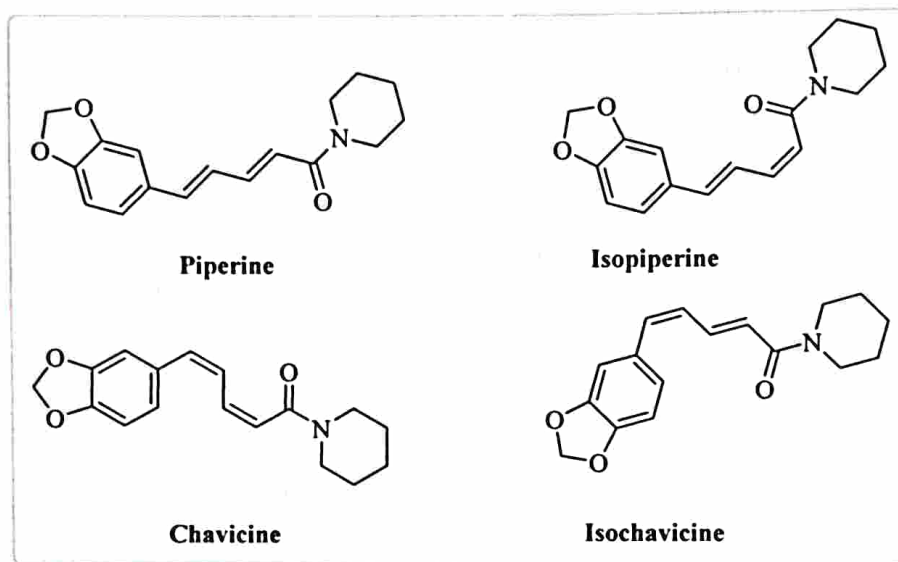
Piperine is an alkaloid that gives black pepper (*Piper nigrum*) its pungency. It is slightly soluble in water and highly soluble in alcohol, chloroform and ether. Piperine has a long history of use in some types of traditional medicine. Its primary commercial use is in modern herbal medicine.

The commercial production of piperine generally consists of chemical extraction from black pepper seeds, which contains 2 to 7.4 % piperine. The seeds of the long pepper (*Piper longum*) contain 1 to 2 % piperine and may also be used in piperine production. Some reports pointed to higher piperine content of black pepper up to 9%,<sup>[1,2]</sup> 4% of long pepper (*Piper longum* L.) fruits, and 4.5% of Balinese long pepper fruits (*Piper retrofractum* Vahl; <sup>[1]</sup>). The piperine content of pepper can be influenced by many environmental factors including climate, growing conditions, and its place of origin. <sup>[3]</sup>

The Danish chemist Hans Christian Orsted first isolated piperine from black pepper in 1819. It was later discovered in other *Piper* species such as long pepper and West African pepper (*Piper guineense*.) Piperine was first synthesized in 1882 by mixing piperidine and piperoyl chloride. As illustrated in Figure-1, 1-Piperoylpiperidine (piperine) exists as 4 isomeric structures: piperine (trans-trans isomer), isopiperine (cis-trans isomer), chavicine (cis-cis isomer), and isochavicine (trans-cis isomer). <sup>[4]</sup> Normally Piperine is a tasteless, out of 4 isomeric forms, three forms are weakly pungent only. Chavicine, a stereo isomer delivers property of pungency to

## ISOLATIONS OF NATURAL PRODUCTS

Black pepper. Practically, due to its highly sensitivity to light so direct exposure avoided. Piperidine & chavicine (a piperine & its allied components) exhibits pungency to black pepper. [5]



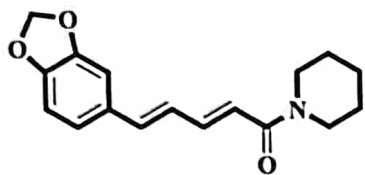
**Figure-1** Structures of piperine and its isomers

The primary value of piperine in health supplements is its ability to enhance the bioavailability of some other vitamins and minerals. This mechanism is still being studied, but piperine is known to inhibit the enzymes P-glycoprotein and CYP3A4 in humans. These enzymes are involved in the metabolism and transport of various metabolites. Animal studies also show that piperine inhibits CYP 450 enzymes that metabolize many drugs. In particular, piperine may increase the bioavailability of curcumin by a factor of 20.

## ISOLATIONS OF NATURAL PRODUCTS

### Biological activities

Piperine, an active constituent found in *Piper nigrum* shows a numerous biological activities.



(2E,4E)-5-(benzo[d][1,3]dioxol-5-yl)-1-(piperidin-1-yl)penta-2,4-dien-1-one (Piperine)



Antidepressant

Antiasthmatics

Antibacterial

Antioxidant

Antitumor

Analgesic

Antipyretic

Antimetastatic

Hepatoprotective

Anti-inflammatory

Ref

## ISOLATIONS OF NATURAL PRODUCTS

### USES OF PIPERINE

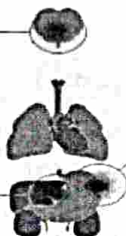
Piperine may help to increase the availability of key nutrients. It may also be useful for additional purposes such as support for weight and stress management.

#### Stress management support

Piperine increases the production of adrenalin and other catecholamines, which could make it useful for managing temporary stress. This use of piperine is often combined with buffered vitamin C.

#### Weight management support

Piperine may have thermogenic properties that increase the body's basal metabolic rate. These properties may be useful in helping you to maintain a healthy weight.



#### Increase bioavailability

Key nutrients that piperine may make easier to assimilate include beta-carotene, curcumin, selenium and vitamin B6. It may also enhance the assimilation of amino acids.

#### Additional benefits

Piperine may provide other benefits such as supporting the digestive system and maintaining healthy breathing patterns. It may also help to manage joint conditions and stomach ulcers.

Piperine helps vital chemicals from other food products reach the body by protecting against break down in the intestine and then protecting against oxidative damage in the bloodstream. Piperine also helps to reduce cancerous tumor growth by inhibiting pro-inflammatory cytokines which in turn stops communication between cancer cells.

### Signs You May Need Piperine

You may want to take piperine if you need to increase the effect of other nutrients, such as curcumin, vitamin B6, beta-carotene and selenium. You may also benefit from piperine if you need help in maintaining a healthy weight or are experiencing short-term stress. Additional reasons to take piperine include breathing difficulties, problems with digestion, joint discomfort and low moods.

### PRESENT WORK ISOLATION

Extraction from natural products is an important practice in chemistry because it is the source of many medicinal and pharmaceutical compounds. It is estimated 60% of all drugs currently on the market were derived from natural products. Along with having a direct effect on the body, natural sources are also an important inspiration for new drugs. Modern techniques can easily

## ISOLATIONS OF NATURAL PRODUCTS

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determine the chemical components of a natural product and determine their various effects on the body. As many natural sources have yet to be explored, it is important to continue to study extraction from natural products and the medicinal effects of natural compounds. The extraction of piperine from black pepper is one such natural extraction. Black pepper itself has many important biological properties including analgesic effects and anti-cancer effects. To gain a better understanding of these effects, it is necessary to study the components which make up black pepper. GC-MS analysis shows black pepper is composed of lignans, alkaloids, flavonoids, and oils. One particularly active compound is the alkaloid piperine.

Various methods have been successfully used to extract piperine from black pepper. The most common method involves reflux or soaking of black pepper with ethanol followed by an overnight precipitation of piperine using 10% potassium hydroxide in ethanol. An alternative method involving reflux with dichloromethane also results in a good yield of piperine. These two methods are quite similar; the main difference is the time it takes to complete the procedure. The quicker method is dichloromethane, involving a 20 minute reflux and immediate precipitation of product using ether. The ethanol method is more time consuming, involving a 90 min reflux and overnight precipitation.

Since both methods produce similar yields of piperine, neither method is necessarily superior. The ethanol method was chosen for this experiment. Piperine makes up a small fraction of black pepper. In order to successfully extract piperine, all the lignans, flavonoids, and additional alkaloids must be removed. The isolation begins with 5 days of soaking with ethanol. Since piperine is soluble in ethanol, this soaking served to pull the piperine from the pepper grounds into solution. Many other components of black pepper, such as the lignans and flavonoids are less polar than piperine and do not move into the ethanol solution. Following soaking, these less polar compounds were removed by vacuum filtration. The piperine will be purified by recrystallization using 3:2 acetone/hexanes. The identity of the product can then be determined using melting point, NMR, MS analyses.

## ISOLATIONS OF NATURAL PRODUCTS

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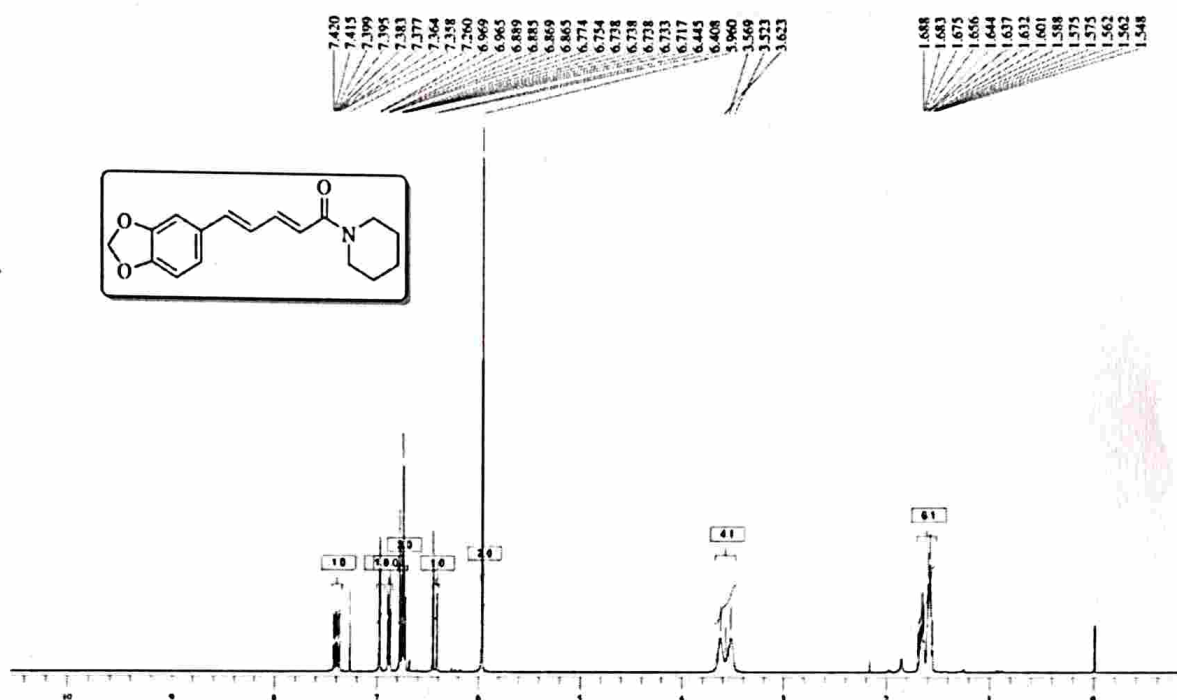
### PROCEDURE:

200 g of ground black pepper powder was taken in a 2 liter round bottomed flask and 1 liter of 95% ethanol is added and allowed to stand for 5 days. Then, filtered the mixture and concentrated by rotator evaporator to reach the 100 ml thick, dark oil. To the 100 ml crude mixture, 20 mL of 10% ethanolic KOH solution was added. The resulting solution is stirred for ten minutes at rt and filtered through the sintered funnel to remove the unwanted material. After that, cold water is added drop wise, a yellow precipitate separated out. The precipitate was collected by vacuum filtration and washed several times with cold water (3 × 30 ml), cold ether (20 mL). Recrystallization (3:2 acetone/hexane) afforded piperine as flaky, golden crystals (6.272 g, 2.17%), m.p. 127-132 Celcius;

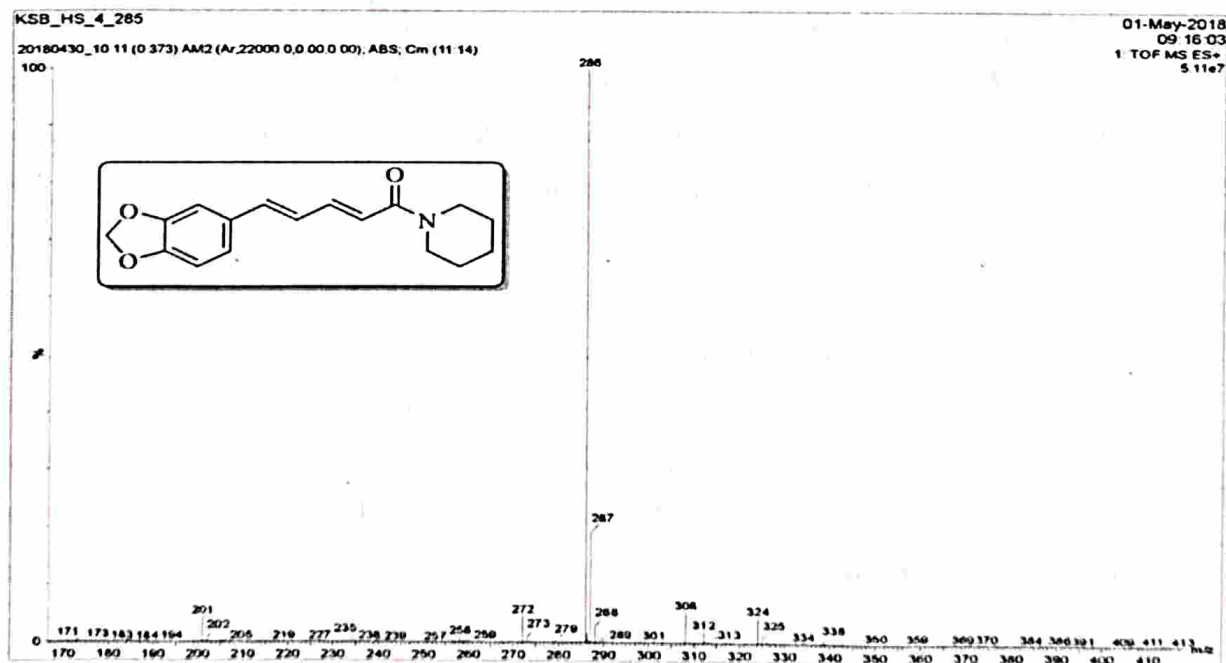
### EXPERIMENTAL SECTION

Yield : 92%  
Color : (Light yellow color needles)  
m.p : 219-221 °C  
<sup>1</sup>H NMR : (CDCl<sub>3</sub>, 400 MHz, δ ppm) 7.42-7.35 (m, 1H, - C=CH), 6.96 (d, J = 1.6 Hz, 1H, Ar-H), 6.87 (dd, J = 8.0 Hz, 1.6 Hz, 1H, Ar-H), 6.77-6.71 (m, 3H, Ar-H, 2 × -C=CH), 6.42 (d, J = 14.8 Hz, 1H, -C=CH), 5.96 (s, 2H, -O-CH<sub>2</sub>-O-), 3.62-3.52 (m, 4H, [-N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>CH<sub>2</sub>]), 1.68-1.54 (m, 6H, [-N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>CH<sub>2</sub>]).

TOF-MS (ES+) m/z : 286 (M+H)<sup>+</sup> for C<sub>17</sub>H<sub>19</sub>NO<sub>3</sub>.

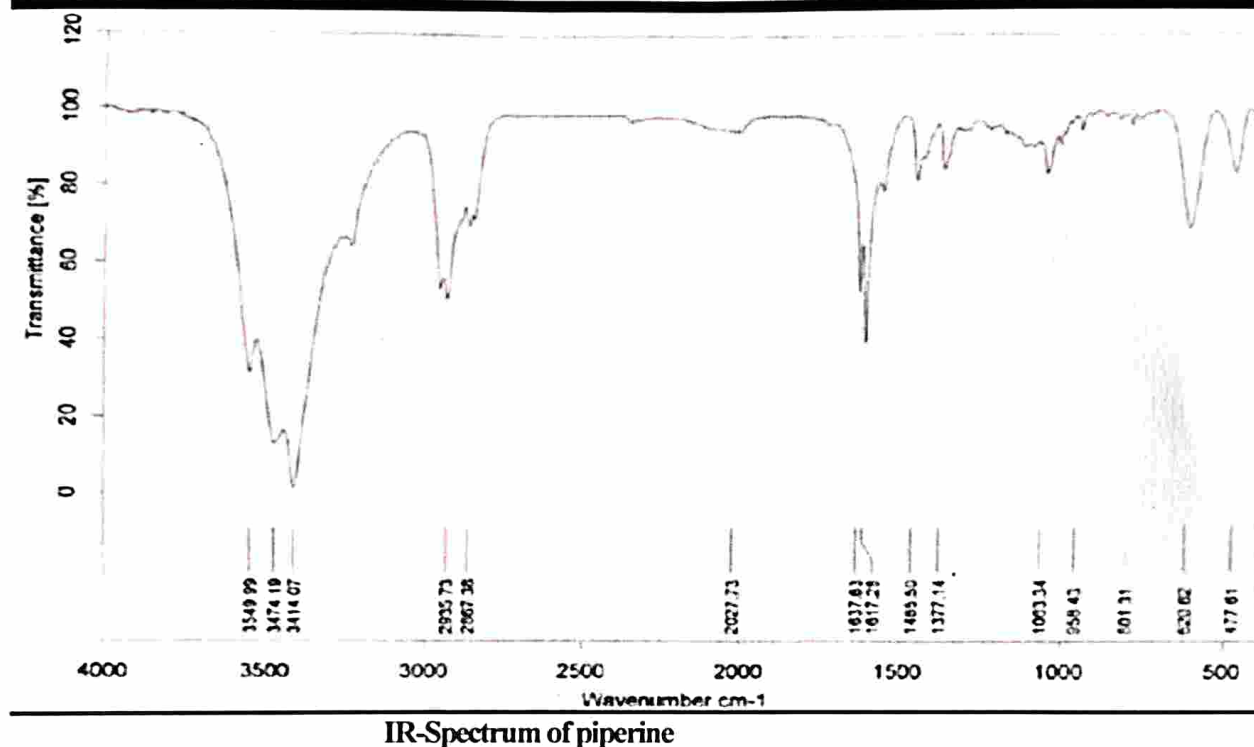


### <sup>1</sup>H-NMR (400 MHz) Spectrum of Piperine



TOF-MS (ES+) Mass spectrum of piperine

## ISOLATIONS OF NATURAL PRODUCTS



### RESULTS AND DISCUSSION

Piperine extracted from black pepper was further analyzed by m.p., <sup>1</sup>H NMR, MS analyses. The mass spectrometry result also suggests the presence of piperine. According to MS, the molecular weight of the product is 285 atm. This result is consistent with the known molecular weight of piperine. Furthermore, this shows that the product cannot be piperanine or piperettine, two other alkaloids found in black pepper, as they each have a molecular weight higher than 285 atm. The final analysis performed was 400 MHz <sup>1</sup>H NMR (CDCl<sub>3</sub>). The ten hydrogens in the nitrogen containing ring (peperidine) absorb the furthest upfield in the spectrum. The four hydrogens closest to the nitrogen can be observed as a multiplet from δ 3.62-3.52 ppm. The other six hydrogens on the ring absorb even further upfield; they are present as a multiplet around δ 1.62 ppm. The two hydrogens attached to the 5 membered ring on the opposite end of the molecule can be seen as a singlet at δ 5.96 ppm. The seven vinylic and aromatic hydrogens, which can be observed in a variety of splitting patterns from δ 6.40-7.42 ppm. These vinylic and aromatic hydrogens prove that piperine was the alkaloid isolated. Differing from piperine, piperettine has two additional vinylic hydrogens, so its NMR would have a total of 9 hydrogens in the ~ 6.4-7.4 ppm region. Piperanine on the other hand has two less vinylic hydrogens than piperine and

## ISOLATIONS OF NATURAL PRODUCTS

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thus its NMR would only have 5 hydrogens in the ~ 6.4-7.4 ppm region along with an additional four hydrogens further upfield. The presence of 7 vinylic and aromatic hydrogens shows the presence of piperine.

Furthermore, MS and  $^1\text{H}$  NMR data exclude the possibility of other alkanoids, proving the product is pure. The percent recovery of piperine was 2.17%. This is only slightly lower than the typical results of 2.5-10%.

### CONCLUSION

In this study, Piperine was isolated from black pepper using ethanol and it was further characterized by using spectroscopic techniques.

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**A Study on the Medicinal plants used in the Lord  
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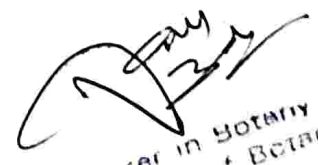
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***A Study on the Medicinal plants used in the  
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**Pröject wörk V-Semester 11B.Sc(B.Zc)**

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**Dissertation submitted to**

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**SCNR GOVT DEGREE COLLEGE - PRODDATUR**

**Guided by**

**C.SUGUNA**

**LECTURER IN BOTANY**

**Valued by**

C. Suguna

**SCNR GOVT DEGREE COLLEGE**

**PRODDATUR**

***A Study on the Medicinal plants used in the  
Lörd***

***Ganesh Pöőja in Pröddatur ,Kadapa District.***

**Pröject wörk V-Semester 11B.Sc(B.Zc)**

**SUBMITTED BY :** C. Mohan Rao

**HALL TICKET NO:** 180090633008

**Dissertation Submitted to**

**DEPARTMENT OF BOTANY**

**SCNR GOVT DEGREE COLLEGE-Pröddatur**

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**LECTURER IN BOTANY**

**SCNR GOVT DEGREE COLLEGE**

**PRODDATUR .**

*C Suguna*

**A Study on the Medical Plants used in the Lord  
Ganesh Pooja in Proddatur , Kadapa District.**

**Project work V-Semester IIIB.Sc(B.Zc)**

**Submitted by :- G. SUBHASH**

**Hall ticket no :- 180090 63300 1**

**Dissertation submitted to**

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**Guided by**

**C.SUGUNA**

**LECTURER IN BOTANY**

**Valued by**

*C Suguna*

**SCNR GOVT DEGREE COLLEGE  
PRODDATUR**

Preparation of  
**MURASHIGE- SKOOG NUTRIENT MEDIUM**  
( MS MEDIUM)

Project work

Submitted by

*P. Suvartha Pooja*

Final B.sc ( BZC)

SEMISTER - VI

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To

*D. Vasu Babu Sir*  
Department of botany

SCNR GOVERNMENT DEGREE COLLEGE

PRODDUTUR

2018-2019

Ph. 08564-251034



## **S.C.N.R GOVT. DEGREE COLLEGE**

UNDER u/s 2(f) & 12(B) OF UGC ACT, 1956  
PRODDATUR, KADAPA DISTRICT, ANDHRA PRADESH – 516360



INSTITUTE ACCREDITED BY NAAC AT 'B' LEVEL

AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA [proddatur.jkc@gmail.com](mailto:proddatur.jkc@gmail.com)

## **STUDENT PROJECT WORK**

### **Protozoan Parasites of Humans**

STUDENT NAME : V Sasikala  
C Jaswitha  
B Venkata Veeramma  
GROUP: B.Sc (BZC)  
ACADEMIC YEAR : 2021 - 2022

### **DEPARTMENT OF ZOOLOGY**

SCNR GOVT DEGREE COLLEGE PRODDATUR

### Certificate

This is to certify that **V Sasikala, C Jaswita** and **B Venkata Veeramma**, the students of Class III BSc (BZC), have satisfactorily completed the zoology study project on **Protozoan Parasites of Humans** under the guidance of **Sri K Chandra mohan**, Lecturer in Zoology, during the academic year 2021-2022.



Signature of lecturer

Lecturer in Zoology  
**SCNR Govt. Degree College**  
**PRODDUTUR.**  
**KADAPA District**

## Title: Protozoan Parasites of Humans:

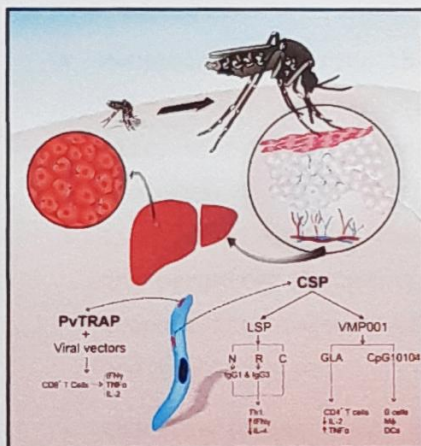
**Introduction:** Protozoan parasites are single-celled organisms that can cause diseases in humans. These microscopic organisms have complex life cycles and can be transmitted through various routes, including contaminated water, food, and insect vectors. This project work aims to provide an in-depth study of selected protozoan parasites that affect humans, focusing on their characteristics, transmission, associated diseases, and control measures.

### Project Objectives:

1. To understand the biology and life cycle of selected protozoan parasites.
2. To examine the modes of transmission of these parasites to humans.
3. To investigate the diseases caused by these protozoan parasites and their impact on human health.
4. To explore preventive measures and control strategies for the management of protozoan parasite infections.

Selected Protozoan Parasites:

### 1. Plasmodium spp. (Malaria):



- **Characteristics:** Briefly describe the morphology, life cycle, and different species of Plasmodium.

- **Plasmodium spp. (Malaria):** Project Work

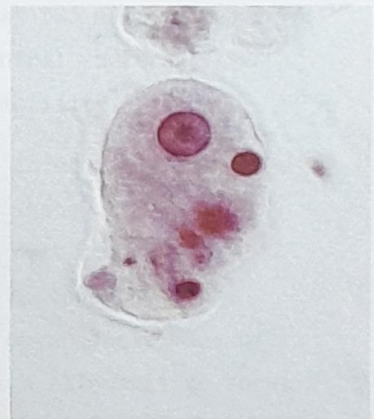
- **Introduction:** Malaria is a life-threatening disease caused by the protozoan parasites of the genus Plasmodium. This project work

focuses on understanding the characteristics of Plasmodium spp., its transmission, associated diseases, and control strategies.

- **Morphology:** Describe the morphology of *Plasmodium* spp., including its different stages. *Plasmodium* parasites have complex life cycles involving both human and mosquito hosts. The parasites exist in different forms, including sporozoites, merozoites, gametocytes, and ookinetes.
- **Life Cycle:** Explain the life cycle of *Plasmodium* spp., which involves the transmission of the parasite from an infected female *Anopheles* mosquito to a human host. The life cycle consists of two phases: the sporogonic cycle in the mosquito and the asexual and sexual reproductive cycles in humans.
- **Transmission:** Explain how *Plasmodium* is transmitted to humans through the bite of infected female *Anopheles* mosquitoes.
- **Diseases:** Discuss the various forms of malaria caused by *Plasmodium*, including symptoms, complications, and geographic distribution.
- **Prevention and Control:** Explore preventive measures such as insecticide-treated bed nets, indoor residual spraying, and antimalarial drugs. Highlight ongoing research on malaria vaccines.

## 2. *Entamoeba histolytica* (Amoebiasis):

- **Morphology:** Describe the morphology of *Entamoeba histolytica*, including its size, shape, and distinguishing features.
- **Life Cycle:** Explain the life cycle of the parasite, including the cyst and trophozoite stages, and the conditions required for survival and transmission.
- **Characteristics:** Describe the morphology and life cycle of *Entamoeba histolytica*.
- **Transmission:** Explain how *E. histolytica* is transmitted through the ingestion of contaminated food or water.



- **Diseases:** Discuss the clinical manifestations of amoebiasis, including intestinal and extraintestinal amoebiasis, and their associated symptoms.
- **Prevention and Control:** Explore strategies for preventing amoebiasis, including improved sanitation, safe water supply, and hygiene practices.

### 3. *Giardia lamblia* (Giardiasis):

- **Characteristics:** Describe the morphology and life cycle of *Giardia lamblia*.
- **Morphology:** *Giardia lamblia*, also known as *Giardia intestinalis* or *Giardia duodenalis*, is a flagellated protozoan parasite that causes the disease giardiasis. It has the following morphological characteristics:
  - **Trophozoite Stage:** The trophozoite is the active feeding and reproducing stage of *Giardia lamblia*. It is pear-shaped, measuring about 10-20 micrometers in length and 5-15 micrometers in width. The trophozoite has two nuclei, adhesive disks on its ventral surface (called ventral suckers), and four pairs of flagella that enable its motility.
  - **Cyst Stage:** The cyst is the dormant and infective stage of *Giardia lamblia*. It is round or oval in shape and measures about 8-12 micrometers in diameter. The cyst contains four

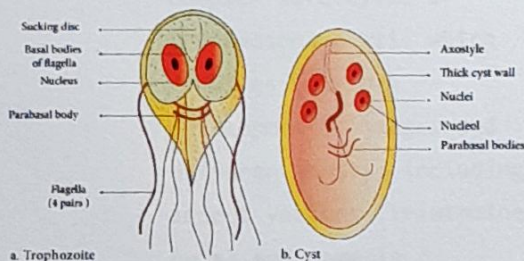


Figure 8.6: Trophozoite and cyst of *Giardia*

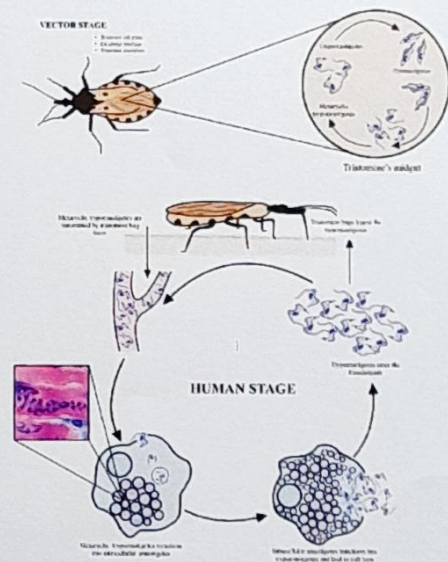
nuclei and is covered by a protective outer shell made of chitin, which allows it to survive outside the host in harsh environmental condition

- **Transmission:** Explain how *Giardia* is transmitted through the ingestion of cysts in contaminated water or food.

- **Diseases:** Discuss the symptoms and clinical presentation of giardiasis, including acute and chronic infections.
- **Prevention and Control:** Highlight preventive measures such as water treatment, personal hygiene practices, and public health interventions.

#### 4. *Trypanosoma cruzi* (Chagas disease):

- **Characteristics:** Describe the morphology and life cycle of *Trypanosoma cruzi*.
- **Introduction:** Chagas disease, also known as American trypanosomiasis, is caused by the protozoan parasite *Trypanosoma cruzi*. This project work focuses on understanding the characteristics of *Trypanosoma cruzi*, its transmission, associated diseases, and control strategies.
- **Characteristics:**
- **Morphology:** Describe the morphology of *Trypanosoma cruzi*, including its size, shape, and distinguishing features. It is an elongated, flagellated protozoan parasite measuring approximately 15-30 micrometers in length. It has a single nucleus and a distinctive kinetoplast located near the posterior end.
- **Life Cycle:** Explain the complex life cycle of *Trypanosoma cruzi*, which involves multiple developmental stages and different hosts, including insect vectors (triatomine bugs) and mammals, including humans.
- **Transmission:** Explain the various modes of



transmission, including the bite of infected triatomine bugs, blood transfusion, organ transplantation, and congenital transmission.

- **Diseases:** Discuss the acute and chronic phases of Chagas disease, including cardiac and gastrointestinal complications.
- **Prevention and Control:** Explore strategies for vector control, blood screening, improved housing conditions, and public awareness campaigns.

### **Conclusion:**

Protozoan parasites pose significant health risks to human populations worldwide. Through this project work, students can gain a comprehensive understanding of selected protozoan parasites, their transmission, associated diseases, and control measures. By studying these parasites and raising awareness about preventive measures, students can contribute to the efforts aimed at reducing the burden of protozoan parasite infections and improving human health.

Ph. 08564-251034



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### PROJECT WORK

VITAMINS: FUNCTIONS, SOURCES, AND DEFICIENCY DISORDERS

STUDENT NAME : K Swarna

Ch Aravind

P Rajeswari

GROUP: B.Sc (BZC)


ACADEMIC YEAR : 2021 - 2022

### DEPARTMENT OF ZOOLOGY

SCNR GOVT DEGREE COLLEGE PRODDATUR

## Certificate

This is to certify that **K Swarna, C Arvind** and **P Rajeswari**, the students of Class III BSc (BZC), have satisfactorily completed the zoology study project on **VITAMINS: FUNCTIONS, SOURCES, AND DEFICIENCY DISORDERS** under the guidance of **Sri G Damodara Rao**, Lecturer in Zoology, during the academic year 2021-2022.

  
Lecturer in Zoology  
SCNR Govt. Degree College  
PRODDUTUR.  
KADAPA DISTRICT

## **PROJECT TITLE: VITAMINS: FUNCTIONS, SOURCES, AND DEFICIENCY DISORDERS**

**Abstract:** The project aims to explore the world of vitamins, essential organic compounds required for normal growth, development, and overall well-being. Vitamins play crucial roles in various physiological processes, acting as coenzymes, antioxidants, and regulators of gene expression. This project will delve into the functions, sources, and deficiency disorders associated with different vitamins. By understanding the importance of vitamins in maintaining optimal health, the project seeks to highlight their significance in nutrition and promote awareness of the potential consequences of vitamin deficiencies.

### **Objectives:**

1. To investigate the functions and roles of different vitamins in the body.
2. To explore the food sources of vitamins and understand dietary requirements.
3. To examine the effects of vitamin deficiencies on human health.
4. To analyze the impact of cooking, processing, and storage on vitamin content in food.
5. To propose strategies for ensuring adequate vitamin intake and preventing deficiencies.

### **Methodology:**

1. **Literature Review:** Conduct a comprehensive review of scientific literature to gather information on different vitamins, their functions, and dietary sources.
2. **Vitamin Classification:** Classify vitamins based on their solubility (fat-soluble vs. water-soluble) and investigate their unique characteristics and roles.
3. **Nutrient Analysis:** Analyze the nutritional content of various foods to identify rich sources of specific vitamins.
4. **Deficiency Disorders:** Study the symptoms, mechanisms, and health consequences of vitamin deficiencies, such as scurvy, rickets, beriberi, and night blindness.
5. **Impact of Food Processing:** Investigate the effects of cooking, processing, and storage on vitamin stability and retention in foods.

6. **Dietary Recommendations:** Analyze dietary guidelines and recommendations regarding vitamin intake for different age groups and specific populations.
7. **Case Studies:** Examine real-life case studies illustrating the consequences of vitamin deficiencies and the importance of proper nutrition.
8. **Awareness Campaign:** Develop educational materials or campaigns to raise awareness about the importance of vitamins and strategies for maintaining adequate intake.

#### **Expected Outcomes:**

1. Comprehensive understanding of different vitamins, their functions, and dietary sources.
2. Identification of vitamin deficiency disorders and their impact on human health.
3. Insights into the effects of cooking, processing, and storage on vitamin content in food.
4. Knowledge of dietary recommendations and strategies to prevent vitamin deficiencies.
5. Development of educational materials or campaigns to promote awareness of the importance of vitamins and proper nutrition.

This literature review aims to provide a comprehensive overview of scientific research on vitamins, their functions, and dietary sources. Vitamins are essential organic compounds that play crucial roles in various physiological processes, including metabolism, growth, and immunity. Understanding the functions and dietary sources of vitamins is fundamental for maintaining optimal health and preventing vitamin deficiencies. This review will explore the scientific literature to gather information on the functions, recommended dietary allowances (RDAs), and food sources of different vitamins, providing valuable insights into their importance in human nutrition.

## **Vitamin Classification Based on Solubility: Fat-Soluble vs. Water-Soluble**

### **Introduction:**

Vitamins are classified into two main categories based on their solubility in different mediums: fat-soluble vitamins and water-soluble vitamins. This classification is important as it influences their absorption, storage, and excretion within the body. Understanding the unique characteristics and roles of each vitamin group is essential for maintaining a balanced diet and ensuring adequate vitamin intake. The following classification provides an overview of fat-soluble and water-soluble vitamins, their sources, and their distinct functions.

### **Fat-Soluble Vitamins:**

#### **1. Vitamin A (Retinol):**

- Sources: Liver, fish oil, eggs, dairy products, orange and yellow fruits and vegetables.
- Functions: Essential for vision, growth and development, immune function, and maintenance of epithelial tissues.

#### **2. Vitamin D (Calciferol):**

- Sources: Sunlight exposure, fatty fish, cod liver oil, fortified dairy products.
- Functions: Facilitates calcium absorption, promotes bone health, supports immune function.

#### **3. Vitamin E (Tocopherol):**

- Sources: Vegetable oils, nuts, seeds, green leafy vegetables.
- Functions: Antioxidant properties, protects cell membranes, supports immune function.

#### **4. Vitamin K:**

- Sources: Green leafy vegetables, broccoli, Brussels sprouts, liver.
- Functions: Essential for blood clotting, bone health, and proper calcium metabolism.

## **Water-Soluble Vitamins:**

### **1. Vitamin C (Ascorbic Acid):**

Sources: Citrus fruits, strawberries, kiwi, bell peppers, broccoli.

Functions: Antioxidant, collagen synthesis, immune support, enhances iron absorption.

### **2. B Vitamins:**

- **B1 (Thiamin):** Sources include whole grains, legumes, pork, and enriched foods. Functions include energy metabolism, nervous system function.
- **B2 (Riboflavin):** Sources include milk, dairy products, leafy greens, and fortified cereals. Functions include energy production, antioxidant activity.
- **B3 (Niacin):** Sources include meat, fish, poultry, whole grains, and legumes. Functions include energy metabolism, DNA repair, and skin health.
- **B5 (Pantothenic Acid):** Sources include meat, eggs, whole grains, and legumes. Functions include energy production, hormone synthesis.
- **B6 (Pyridoxine):** Sources include poultry, fish, potatoes, bananas, and fortified cereals. Functions include amino acid metabolism, neurotransmitter synthesis.
- **B7 (Biotin):** Sources include eggs, nuts, seeds, and certain vegetables. Functions include metabolism of carbohydrates, fats, and proteins.
- **B9 (Folate/Folic Acid):** Sources include leafy greens, legumes, citrus fruits, and fortified grains. Functions include DNA synthesis, cell division, and red blood cell formation.
- **B12 (Cobalamin):** Sources include animal products, fortified



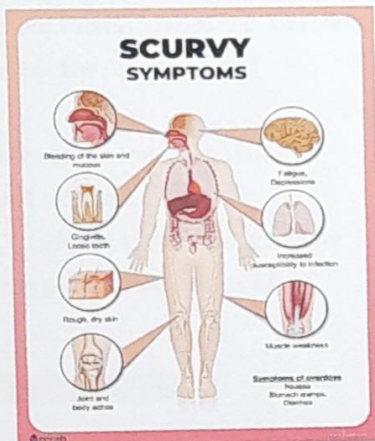
### **Deficiency Disorders of Vitamins: Symptoms, Mechanisms, and Health Consequences**

Introduction: Vitamin deficiencies occur when the body does not receive an adequate amount of a specific vitamin, leading to a range of health problems. Several well-known deficiency disorders are associated with specific vitamins, including scurvy (vitamin C deficiency), rickets (vitamin D deficiency), beriberi (vitamin B1 deficiency), and night blindness (vitamin A deficiency). Understanding the symptoms, mechanisms,

and health consequences of these deficiency disorders is crucial for identifying and addressing nutritional deficiencies.

### Scurvy (Vitamin C Deficiency):

- **Symptoms:** Weakness, fatigue, swollen and bleeding gums, joint pain, poor wound healing, skin discoloration, and eventually, organ damage.
- **Mechanisms:** Vitamin C is essential for collagen synthesis, which helps maintain the integrity of blood vessels, gums, skin, and connective tissues.
- **Health Consequences:** Without sufficient vitamin C, collagen synthesis is impaired, leading to the breakdown of connective tissues and blood vessel fragility.



### Rickets (Vitamin D Deficiency):



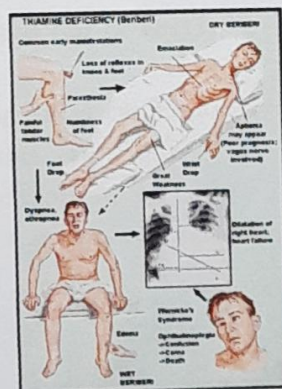
- **Symptoms:** Softening and weakening of bones, delayed growth, bone pain, skeletal deformities (bow legs, knock knees), muscle weakness, and increased risk of fractures.
- **Mechanisms:** Vitamin D is crucial for calcium and phosphate absorption, promoting bone

mineralization and growth.

- **Health Consequences:** Insufficient vitamin D leads to impaired calcium and phosphate homeostasis, resulting in weakened bones and improper skeletal development.

### Beriberi (Vitamin B1 Deficiency):

- **Symptoms:** Fatigue, muscle weakness, difficulty walking, loss of appetite, weight loss, tingling or numbness in limbs, and eventually, cardiovascular and nervous system dysfunction.
- **Mechanisms:** Vitamin B1 (thiamin) is involved in energy metabolism and nerve signal transmission.



- **Health Consequences:** Inadequate thiamin leads to impaired energy production and nerve function, affecting multiple organ systems, particularly the cardiovascular and nervous systems.

#### **Night Blindness (Vitamin A Deficiency):**

- **Symptoms:** Difficulty seeing in low-light conditions, impaired vision adaptation to darkness, dryness and damage to the cornea, and increased susceptibility to infections.
- **Mechanisms:** Vitamin A is essential for the production of visual pigments in the retina, necessary for normal vision.
- **Health Consequences:** Insufficient vitamin A affects the functioning of the retina and can lead to night blindness and other visual impairments.

#### **Impact of Food Processing on Vitamin Stability and Retention**

##### **Introduction:**

Food processing techniques, including cooking, processing, and storage, can have significant effects on the stability and retention of vitamins in foods. Vitamins are vulnerable to various factors such as heat, light, oxygen, and pH, which can lead to their degradation or loss during food processing. Understanding the impact of these processing methods on vitamin stability is crucial for optimizing nutritional quality and informing dietary recommendations. The following investigation explores the effects of cooking, processing, and storage on the stability and retention of vitamins in foods.

##### **Cooking:**

- **Heat Sensitivity:** Vitamins, particularly water-soluble vitamins (e.g., vitamin C, B vitamins), are heat-sensitive and can be easily degraded during cooking.
- **Losses and Retention:** Boiling and prolonged cooking times can result in significant vitamin losses. Water-soluble vitamins leach into cooking water, while fat-soluble vitamins (e.g., vitamin A, D, E, K) are more resistant to heat and can be retained to a greater extent.

##### **Processing Techniques:**

- ✓ **Blanching:** Brief exposure to boiling water or steam can cause vitamin losses, particularly water-soluble vitamins. However, blanching is often used to preserve color, texture, and flavor before further processing or freezing.
- ✓ **Canning:** Vitamins may be affected during the canning process due to heat exposure. Water-soluble vitamins are generally more susceptible to losses, while some fat-soluble vitamins may be better retained.
- ✓ **Freezing:** Freezing can help preserve vitamins to a certain extent, as it slows down enzymatic reactions and microbial activity. However, vitamin losses can occur during storage if foods are exposed to air and light.

### **Storage:**

- ✚ **Light and Oxygen Exposure:** Vitamins, especially those sensitive to oxidation (e.g., vitamin C, B vitamins), can degrade when exposed to light and oxygen during storage. Proper packaging and storage conditions can help minimize vitamin losses.
- ✚ **Temperature:** Vitamin stability can be influenced by storage temperature. For example, higher temperatures can accelerate vitamin degradation, while refrigeration or freezing can help preserve vitamin content.
- ✚ **Duration of Storage:** Longer storage durations can lead to greater vitamin losses. Therefore, consuming fresh foods and minimizing storage time is ideal for maximizing vitamin retention.

### **Awareness Campaign: Importance of Vitamins and Strategies for Adequate Intake**

**Objective:** The objective of this awareness campaign is to educate individuals about the importance of vitamins in maintaining overall health and well-being. The campaign will also provide strategies and practical tips for ensuring an adequate intake of vitamins through a balanced diet. By raising awareness, the campaign aims to empower individuals to make informed dietary choices and promote a healthier lifestyle.

### Key Messages:

1. Vitamins are essential for numerous physiological functions, including metabolism, growth, immunity, and maintenance of bodily tissues.
2. Insufficient intake of vitamins can lead to deficiency disorders and compromise overall health.
3. A balanced diet that includes a variety of nutrient-rich foods is crucial for obtaining adequate amounts of vitamins.
4. Food processing, cooking methods, and storage practices can affect the stability and retention of vitamins in foods.
5. Awareness of vitamin-rich food sources and cooking techniques that preserve vitamin content can help individuals optimize their vitamin intake.

### Campaign Materials and Strategies:

#### 1. Infographics and Posters:

- Create visually appealing infographics and posters highlighting the importance of vitamins and their roles in the body.
- Include information on vitamin-rich foods, their health benefits, and recommended daily intake.
- Provide tips on meal planning, food preparation, and cooking methods that preserve vitamin content.

#### 2. Educational Videos:

- Produce short educational videos featuring experts discussing the importance of vitamins and strategies for maintaining adequate intake.
- Demonstrate cooking techniques that retain vitamin content, such as steaming vegetables or using minimal water during cooking.

- Share success stories of individuals who have improved their health through balanced vitamin intake.

### **3. Social Media Campaign:**

- Utilize social media platforms to share informative posts, tips, and facts about vitamins.
- Encourage followers to share their favorite vitamin-rich recipes or meal ideas.
- Collaborate with influencers or nutrition experts to reach a wider audience.

### **4. Workshops and Webinars:**

- Organize workshops or webinars to provide in-depth information about vitamins, their functions, and dietary sources.
- Include interactive sessions, cooking demonstrations, and Q&A segments to engage participants.
- Provide participants with resources like recipe booklets, meal planning guides, and vitamin-rich food lists.

### **5. Collaboration with Schools and Community Centers:**

- Partner with schools, colleges, and community centers to conduct nutrition-focused sessions or guest lectures.
- Engage students and community members in interactive activities, such as vitamin-rich food tasting or cooking competitions.
- Distribute educational materials and resources to participants.

### **6. Public Service Announcements (PSAs):**

- Collaborate with local radio stations, television networks, or print media to create PSAs promoting the importance of vitamins and strategies for adequate intake.
- Highlight the health consequences of vitamin deficiencies and the benefits of a balanced diet.

- Provide contact information for local nutritionists or dietitians for personalized guidance.



**Conclusion:** An awareness campaign focused on the importance of vitamins and strategies for maintaining adequate intake can have a significant impact on individuals' dietary choices and overall health. By providing educational materials, engaging the community, and utilizing various media platforms, the campaign aims to empower individuals to prioritize their vitamin intake and make informed decisions about their nutrition.

yvu bcde

*the members of 2 month Short Term  
Spoken Hindi*

Dear sir/Madam

Wed, 4 Jan, 15:29 (2  
days ago)

Greetings!

It is to Submit that kindly send CSP/Short Term  
Internship records/Program Books( With Students Handwriting) along with  
Marksheet to DEAN CDC office immediately as it was already communicated number  
off times but still only a very few colleges are submitted .And in that the best two to  
five CSP/Short term records/program books and students names can  
communicate us from each college . As well college's can send small thirty seconds  
feedback videos on CSP and two months Short internships

Thanks & Regards  
SamPATH Kumar V.C

Records of our course

Date: 16-12-2022.

To,  
The CDC Dean,  
Yogi Vemana University,  
Kadapa.

Sir,

Sub:-SCNR GDC, Proddatur - CSP Records of I, II year students (academic year 2020-21 and 2021-22) - submitted - request - regarding.

Ref:- email received from your office on 10-12-2022.

I am herewith submitting CSP records (88+48=136) and award marks sheets (hard copies) of I year BA, BCom, BSc (admitted batch 2021-22) and II year BA, BCom, BSc (admitted batch 2020-21) of our college students. In according to your request, I have included herewith FIVE best CSP records of our college students. I have also sent a video recording on Internship with 1.5 min duration regarding 2 months Internship to your email id. Softcopies of award marksheets of CSP's sent to your email id [yvubcdc@gmail.com](mailto:yvubcdc@gmail.com) on 16-12-2022.

  
18/12/22

PRINCIPAL  
PRINCIPAL -  
SCNR Govt., Degree College,  
PRODDATUR.

Encl:- 1. CSP records (88+48=136)

2. Annexure -I (five best CSP's)

# **S.C.N.R GOVT. DEGREE COLLEGE**

**PRODDATUR, KADAPA (Dt.), A.P- 516 360**

UNDER UGC ACT 1956 OF u/s 2(f) & 12(B)

REACCREDITED BY NAAC AT 'B' GRADE

AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA.

Principal: Dr.G. Chandra Sekhar, M.Sc., M.Phil., Ph.D.

Date: 16-12-2022.

To,  
The CDC Dean,  
Yogi Vemana University,  
Kadapa.

Sir,

Sub:-SCNR GDC, Proddatur -FIVE best CSP records of I, II year students (academic year 2020-21 and 2021-22) – submitted – request – regarding.

Ref:- email received from your office on 10-12-2022.

In according to your request, I have included herewith FIVE best CSP records of our college students. I have also sent a video recording on Internship with 1.5 min duration regarding 2 months Internship to your email id.

| S.No.<br>(priority wise) | Name of the student | Class and Group | Hall.Tkt.No. | CSP topic.                           |
|--------------------------|---------------------|-----------------|--------------|--------------------------------------|
| 1                        | Kum.K.Rajeswari     | BSc (BZC)       | 206009049004 | Socio Economic survey                |
| 2                        | Sri.K.Manohar       | BSc(MPCs)       | 216009050004 | Health and Hygiene                   |
| 3                        | Sri.M.Sahan Kumar   | BA(HEP)         | 211009036018 | Awareness on life insurance policies |
| 4                        | Kum.U.Divya Teja    | BA (HPT)        | 201007524004 | Women empowerment                    |
| 5                        | Kum.S.Suryamani     | BA(HEP)         | 201009036017 | Awareness on life insurance policies |



# PRODDATUR, KADAPA (Dt.), A.P- 516 360

UNDER UGC ACT 1956 OF u/s 2(f) & 12(B)

REACCREDITED BY NAAC AT 'B' GRADE

AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA.

Principal: Dr.G. Chandra Sekhar, M.Sc., M.Phil., Ph.D.

Date: 16-12-2022.

To,  
The CDC Dean,  
Yogi Vemana University,  
Kadapa.

Sir,

Sub:- SCNR GDC, Proddatur -FIVE best CSP records of I, II year students (academic year 2020-21 and 2021-22) – submitted – request – regarding.

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| 5                        | Kum.S.Suryamani     | BA(HEP)         | 201009036017 | Awareness on life insurance policies |



  
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SCNR Govt., Degree Co  
PRODDATUR

# **S.C.N.R GOVT. DEGREE COLLEGE**

**PRODDATUR, KADAPA (Dt.), A.P- 516 360**

**UNDER UGC ACT 1956 OF u/s 2(f) & 12(B)**

**REACCREDITED BY NAAC AT 'B' GRADE**

**AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA.**

**Principal: Dr.G. Chandra Sekhar, M.Sc., M.Phil., Ph.D.**

Date: 16-12-2022.

To,  
The CDC Dean,  
Yogi Vemana University,  
Kadapa.

Sir,


Sub:-SCNR GDC, Proddatur – CSP Records of I, II year students (academic year 2020-21 and 2021-22) – submitted – request – regarding.

Ref:- email received from your office on 10-12-2022.

I am herewith submitting CSP records (88+48=136) and award marks sheets (hard copies) of I year BA, BCom, BSc (admitted batch 2021-22) and II year BA, BCom, BSc (admitted batch 2020-21) of our college students. In according to your request, I have included herewith FIVE best CSP records of our college students. I have also sent a video recording on Internship with 1.5 min duration regarding 2 months Internship to your email id. Softcopies of award marksheets of CSP's sent to your email id [yvubcde@gmail.com](mailto:yvubcde@gmail.com) on 16-12-2022.

Encl:- 1. CSP records (88+48=136)

2. Annexure –I (five best CSP's)

  
PRINCIPAL  
PRINCIPAL  
SCNR Govt., Degree College,  
PRODDATUR.



# S.C.N.R GOVT. DEGREE COLLEGE

PRODDATUR, KADAPA (Dt.), A.P- 516 360

UNDER UGC ACT 1956 OF u/s 2(f) & 12(B)

REACCREDITED BY NAAC AT 'B' GRADE

AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA.

Principal: Dr.G. Chandra Sekhar, M.Sc., M.Phil., Ph.D.

Date: 16-12-2022.

To,  
The CDC Dean,  
Yogi Vemana University,  
Kadapa.

Sir,


Sub:-SCNR GDC, Proddatur -FIVE best CSP records of I, II year students (academic year 2020-21 and 2021-22) – submitted – request – regarding.

Ref:- email received from your office on 10-12-2022.

In according to your request, I have included herewith FIVE best CSP records of our college students. I have also sent a video recording on Internship with 1.5 min duration regarding 2 months Internship to your email id.

| S.No.<br>(priority wise) | Name of the student | Class and Group | Hall.Tkt.No. | CSP topic.                           |
|--------------------------|---------------------|-----------------|--------------|--------------------------------------|
| 1                        | Kum.K.Rajeswari     | BSc (BZC)       | 206009049004 | Socio Economic survey                |
| 2                        | Sri.K.Manohar       | BSc(MPCs)       | 216009050004 | Health and Hygiene                   |
| 3                        | Sri.M.Sahan Kumar   | BA(HEP)         | 211009036018 | Awareness on life insurance policies |
| 4                        | Kum.U.Divya Teja    | BA (HPT)        | 201007524004 | Women empowerment                    |
| 5                        | Kum.S.Suryamani     | BA(HEP)         | 201009036017 | Awareness on life insurance policies |



  
PRINCIPAL  
PRINCIPAL  
SCNR Govt., Degree College  
PRODDATUR.

## ASSESSMENT ON CSP

ur

District: Kadapa

Title of the CSP: Awareness on Insurance policies

la Devi

TM/EM: EM Academic Year: 2020-2021

### Members List:

Lec. in Commerce)  
ndi)

relugul)

| Weightage            |                                    |                            |                       |    | Total<br>(100M) |
|----------------------|------------------------------------|----------------------------|-----------------------|----|-----------------|
| Project<br>log (20M) | Project<br>implementation<br>(30M) | Project<br>Report<br>(25M) | Presentation<br>(25M) |    |                 |
|                      | 20                                 | 25                         | 20                    | 20 | 85              |
|                      | 20                                 | 25                         | 20                    | 20 | 85              |
| 2                    | 20                                 | 20                         | 15                    | 15 | 70              |
| 3                    | Not submitted records              |                            |                       |    |                 |
| 01                   | 20                                 | 25                         | 20                    | 20 | 85              |
| 02                   | 20                                 | 20                         | 15                    | 15 | 70              |
| 03                   | 20                                 | 20                         | 15                    | 15 | 70              |

Signature(s)

1. C. Nimmala
2. A. Sivapriya
- 3.

Title of the CSP: Food adulteration

Name of the Teacher Mentor: Dr.P.Suresh

Class/Group: III BZC

TM/EM: EM Academic Year: 2020-2021

No. of students: 03

Internal Evaluation viva committee Members List:

- 1) P. Suresh
- 2) K. C. M.
- 3) D. Van Bala

| S.No | Name of the student   | Hall.Tct. No | Weightage         |                              |                      |                    | Total (100M) |
|------|-----------------------|--------------|-------------------|------------------------------|----------------------|--------------------|--------------|
|      |                       |              | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentation (25M) |              |
| 1.   | P.Srilakshmi          | 206009049010 | 18                | 28                           | 23                   | 23                 | 92           |
| 2.   | K.Saileela            | 206009049006 | 18                | 28                           | 22                   | 23                 | 91           |
| 3.   | L.Lakshmi Swarupadevi | 206009049007 | 16                | 24                           | 20                   | 20                 | 80           |
| 4    | M.Kedareswari         | dr 9008      | 15                | 23                           | 22                   | 20                 | 80           |
| 5    | G. Suresh             | No Records   | Submitted         |                              |                      |                    | ABSENT       |

Signature(s)

1. P. Suresh
2. K. C. M.
3. D. Van Bala

**Note: Internal viva committee:**


An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members;

Academic Year: 2020-2021

List:

| Project<br>(M) | Weightage                          |                            |                           | Total<br>(100M) |
|----------------|------------------------------------|----------------------------|---------------------------|-----------------|
|                | Project<br>implementation<br>(30M) | Project<br>Report<br>(25M) | Presentat<br>ion<br>(25M) |                 |
|                | 26                                 | 21                         | 20                        | 85              |
|                | 25                                 | 20                         | 20                        | 81              |

Discontinued — ABSEN  
 Discontinued — ABSEN  
 Signature(s)

1. N. Jegal
2. K. K.
3. 

ed by the principal of the college. The

# ASSESSMENT ON CSP

District: Kadapa

Name of the College: SCNR GDC, Proddatur

Name of the Department: Commerce

Title of the CSP: Awareness on Insurance policies

Name of the Teacher Mentor: Sri.B.Obulasubba Reddy

Class/Group: II B.Com (CA&G)

TM/EM: EM Academic Year: 2021-2022



No. of students: 07

Internal Evaluation viva committee Members List:

- 1) B. Obule Subba Reddy Lec in Commerce
- 2) Dr K N Sundararajan Rao
- 3) S. Manjanna (Guest faculty in Commerce)

| S.No | Name of the student | Hall.Tct. No | Weightage         |                              |                      |                    | Total (100M) |
|------|---------------------|--------------|-------------------|------------------------------|----------------------|--------------------|--------------|
|      |                     |              | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentation (25M) |              |
| 1.   | S.Sameer            | 214009066018 | 20                | 25                           | 20                   | 20                 | 85           |
| 2.   | P.Jhansi            | 214009066020 | 20                | 25                           | 20                   | 20                 | 85           |
| 3.   | T.Hariprasad        | 214009066021 | 20                | 15                           | 15                   | 15                 | 65           |
| 4.   | P.Sivalakshmi Devi  | 214009066022 | 20                | 25                           | 20                   | 20                 | 85           |
| 5.   | Y.Abhinaya          | 214009066023 | 20                | 25                           | 20                   | 20                 | 85           |
| 6.   | C.Revanth           | 214009067001 | 20                | 20                           | 15                   | 15                 | 70           |
| 7.   | C.Suvarna           | 214009067002 | 20                | 25                           | 20                   | 20                 | 85           |

Signature(s)

1. 
2. 
3. S. Manjanna

**Note: Internal viva committee:**

An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall

## ASSESSMENT ON CSP

Name of the College: SCNR GDC, Proddatur  
Kadapa

District:

Name of the Department: Commerce  
habits

Title of the CSP: Banking service and

Name of the Teacher Mentor: Sri.S.Manikanth

Class/Group: II B.Com (General)  
2022

TM/EM: EM

Academic Year: 2021-

No. of students: 07

**Internal Evaluation viva committee Members List:**

- 1) S. MANIKANTH (Guest faculty in COMMERCE)
- 2) V. BHASKAR (Lecturer in Telugu)
- 3) B. OBULA SUBBA REDDY (Lecturer in COMMERCE)

| S.No | Name of the student   | Hall.Tct. No | Weightage         |                              |                      |                    | Total (100M) |
|------|-----------------------|--------------|-------------------|------------------------------|----------------------|--------------------|--------------|
|      |                       |              | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentation (25M) |              |
| 1.   | D.Sneha               | 214009067004 | 20                | 25                           | 20                   | 20                 | 85           |
| 2.   | D.Tejaswini           | 214009067005 | 20                | 25                           | 20                   | 20                 | 85           |
| 3.   | J.Nagasugandhar       | 214009067006 | 20                | 20                           | 15                   | 15                 | 70           |
| 4.   | K.Gangaraju           | 214009067007 | 20                | 20                           | 15                   | 15                 | 70           |
| 5.   | N.Akhila              | 214009067008 | 20                | 25                           | 20                   | 20                 | 85           |
| 6.   | O.Chandra Obula Reddy | 214009067009 | 20                | 20                           | 15                   | 15                 | 70           |
| 7.   | S.Nasar               | 214009067010 | 20                | 20                           | 15                   | 15                 | 70           |

Signature(s)

1. S. Manikanth
2. B. Obula Subba Reddy
3. V. Bhaskar

**Note: Internal viva committee:**

An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members;

1. Mentor/ faculty in-charge of CSP
2. One faculty member from other departments within the same course combination

Name of the College: SCNR GDC, Proddatur

Name of the Department: Arts

Name of the Teacher Mentor: Sri.C.Baba Fakardhin

Class/Group: III B.A (HEP & HPT)

No. of students: 08

Internal Evaluation viva committee Members List:

- 1) C. Baba Fakardhin
- 2) S.B. Sreerama Naik
- 3) Dr K.V. Sundareswara Rao

District: Kadapa  
Title of the CSP: Women Empowerment

TM/EM: TM

Academic Year: 2020-2021

| S.No |                | Hall.Tct. No | Weightage               |                                    |                            |                       | Total<br>(100M) |
|------|----------------|--------------|-------------------------|------------------------------------|----------------------------|-----------------------|-----------------|
|      |                |              | Project<br>log<br>(20M) | Project<br>implementation<br>(30M) | Project<br>Report<br>(25M) | Presentation<br>(25M) |                 |
| 1.   | T.Chandrika    | 201009524003 | 18                      | 25                                 | 20                         | 22                    | 85              |
| 2.   | M.Prameela     | 201009524001 | 18                      | 26                                 | 21                         | 20                    | 85              |
| 3.   | C.Govardhan    | 201009036005 | 19                      | 25                                 | 20                         | 22                    | 86              |
| 4.   | D.Y.Bramhaiah  | 201009036008 | 19                      | 25                                 | 20                         | 22                    | 85              |
| 5.   | K.Sai          | 201009036010 | 19                      | 24                                 | 21                         | 22                    | 86              |
| 6.   | P.Sumalatha    | 201009524002 | 19                      | 25                                 | 20                         | 22                    | 86              |
| 7.   | U.Nagapragathi | 201009524005 | 19                      | 25                                 | 22                         | 22                    | 88              |
| 8.   | U.Divyateja    | 201009524004 | 19                      | 25                                 | 22                         | 22                    | 88              |

9) D.Ramadevi 201009036007 - Records Not Submitted -

10) V.Veeranna 201009036022 - do -

11) S.Kullayee 201009036018 - do -

P.Gangabharani 201009036014 16 20

Signature(s)

1. C. Baba Fakardhin

2. S.B. Sreerama Naik 72

3. Dr K.V. Sundareswara Rao

Note: Internal viva committee:

An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members;

Mentor/ faculty in-charge of CSP

One faculty member from other departments within the same course combination

Name of the College: SCNR GDC, Proddatur  
Name of the Department: Arts

District: Kadapa  
Title of the CSP: Healthcare system and its effectiveness

Name of the Teacher Mentor: Sri.S.B.Sreerama Naik

Class/Group: II B.A (HEP)

No. of students: 08

TM/EM: EM

Academic Year: 2021-2022

Internal Evaluation viva committee Members List:

- 1) S.B.Sreerama Naik
- 2) C. Babafakandhin
- 3) Dr. T. SasiKanth Reddy

| S.No | Name of the student | Hall.Tct. No | Weightage         |                              |                      |                    | Total (100M) |
|------|---------------------|--------------|-------------------|------------------------------|----------------------|--------------------|--------------|
|      |                     |              | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentation (25M) |              |
| 1.   | K.Venkateswarlu     | 211009036013 | 18                | 21                           | 21                   | 20                 | 81           |
| 2.   | B.Narasimha         | 211009036004 | 18                | 20                           | 20                   | 21                 | 79           |
| 3.   | B.Sobharani         | 211009036001 | 16                | 19                           | 20                   | 19                 | 74           |
| 4.   | R.Adinarayana       | 211009036022 | 16                | 18                           | 19                   | 18                 | 71           |
| 5.   | K.Lakshminaresh     | 211009036011 | 18                | 21                           | 21                   | 21                 | 82           |
| 6.   | Y.Raju              | 211009036027 | 16                | 19                           | 20                   | 19                 | 74           |
| 7.   | C.Venkatadeep       | 211009036006 | 18                | 20                           | 20                   | 20                 | 78           |
| 8.   | S.Nafisa            | 211009036024 | 19                | 24                           | 20                   | 20                 | 83           |

Signature(s)

1. S.B.Sreerama Naik

2. C. Babafakandhin

3. Dr. T. SasiKanth Reddy

Internal viva committee:

The committee constituted by the principal of the college. The commi

Name of the Teacher Mentor: Sri.S.B.Sreerama Naik

Class/Group: II B.A (HEP)

TM/EM: EM

Academic Year: 2021-2022

No. of students: 07

Internal Evaluation viva committee Members List:

- 1) S.B.Sreerama Naik
- 2) C. Bala Lakshmi
- 3) Dr. Subekanta Reddy

| S.No | Name of the student | Hall.Tct. No | Weightage         |                              |                      |                    | Total (100M) |
|------|---------------------|--------------|-------------------|------------------------------|----------------------|--------------------|--------------|
|      |                     |              | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentation (25M) |              |
| 1.   | P.Surendra          | 211009036021 | 19                | 24                           | 19                   | 21                 | 83           |
| 2.   | B.Divakar Reddy     | 211009036003 | 19                | 24                           | 18                   | 20                 | 81           |
| 3.   | I.Suryaprakash      | 211009036009 | 16                | 17                           | 18                   | 19                 | 70           |
| 4.   | M.Sahankumar        | 211009036018 | 18                | 25                           | 20                   | 20                 | 83           |
| 5.   | M.Srinivasulu       | 211009036016 | 18                | 26                           | 21                   | 21                 | 86           |
| 6.   | C.Om Kumar          | 211009036005 | 18                | 17                           | 18                   | 20                 | 71           |
| 7.   | K.Bhavana           | 211009036015 | 18                | 24                           | 19                   | 20                 | 81           |

Signature(s)

1. S.B.Sreerama Naik

2. C. Bala Lakshmi

3. Dr. Subekanta Reddy



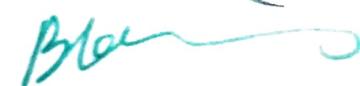
te: Internal viva committee:

The internal Viva shall be conducted by a committee constituted by the principal of M. ...

|     |                  |              |                      |    |    |    |    |
|-----|------------------|--------------|----------------------|----|----|----|----|
| 4.  | K.Harinath       | 201009036011 | 15                   | 20 | 16 | 15 | 67 |
| 5.  | O.Narasimha      | 201009036013 | 16                   | 16 | 15 | 15 | 61 |
| 6.  | P.Prasanth Kumar | 201009036015 | 15                   | 21 | 17 | 15 | 68 |
| 7.  | S.Suryamani      | 201009036017 | 15                   | 18 | 15 | 15 | 62 |
| 8.  | V.Bhanu Prakash  | 201009036021 | 14                   |    |    |    |    |
| 9.  | P.Praveen        | 201009036016 | Record not submitted |    |    |    |    |
| 10. | T.Surendra       | 201009036020 | Record not submitted |    |    |    |    |

1) M. Venkatesh Siva - No Records Found  
 2) B. Vijaya Kumari - 201009036024  
 3) B. Subhash - do 36003  
 4) Sreerama Chandra - do 36019

No Records Submitted  
Signature(s)

1.  (V. Bhaskar)
2.  (A. C. V. Ramu)
3. 

**Internal viva committee:**

An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members:

## ASSESSMENT ON CSP

Name of the College: SCNR GDC, Proddatur

District: Kadapa

Name of the Department: Commerce

Title of the CSP: awareness on life insurance policies.

Name of the Teacher Mentor: Dr.K.N.Sundareswara Rao

Class/Group: II B.Com (CA)

TM/EM: EM

Academic Year: 2021-2022

No. of students: 09

Internal Evaluation viva committee Members List:

- 1) Dr. K.N. Sundareswara Rao
- 2) Sri V. Bhaskar
- 3) Dr. A.C. Venkate Ramudu

| S.No | Name of the student | Hall.Tct. No | Weightage            |                                     |                            |                           | Total<br>(100M) |
|------|---------------------|--------------|----------------------|-------------------------------------|----------------------------|---------------------------|-----------------|
|      |                     |              | Project<br>log (20M) | Project<br>implementati<br>on (30M) | Project<br>Report<br>(25M) | Presenta<br>tion<br>(25M) |                 |
| 1.   | K.Guruvamsi         | 214009066009 | 12                   | 16                                  | 12                         | 13                        | 53              |
| 2.   | K.Veeraj            | 214009066010 | 13                   | 12                                  | 14                         | 16                        | 55              |
| 3.   | K.Kumar             | 214009066011 | 11                   | 14                                  | 13                         | 14                        | 52              |
| 4.   | K.Arunkumar         | 214009066012 | 12                   | 16                                  | 12                         | 12                        | 52              |
| 5.   | K.Subhash           | 214009066013 | 14                   | 16                                  | 15                         | 15                        | 60              |
| 6.   | P.Venkatasubbamma   | 214009066014 | 12                   | 14                                  | 18                         | 16                        | 62              |
| 7.   | P.Narasimhulu       | 214009066015 | 12                   | 13                                  | 13                         | 12                        | 50              |
| 8.   | P.Sivakumar         | 214009066016 | 12                   | 13                                  | 12                         | 13                        | 50              |
| 9.   | S.Ishaq Hameem      | 214009066017 | 13                   | 18                                  | 14                         | 18                        | 63              |

Signature(s)

1.  Rao.

Name of the College: SCNR GDC, Proddatur

Name of the Department: Science

Title of the CSP: Community service project on digital literacy

Name of the Teacher Mentor: Dr.A.C.Venkataramudu

TM/EM: EM

Academic Year: 2020-2021

Class/Group: III MPCs and MPC

No. of students: 08

Internal Evaluation viva committee Members List:

- 1) G. Damodara Rao
- 2) Dr.A.C.Venkataramudu, C Mentor
- 3) V. Bhaskar

| S.No | Name of the student | Hall.Tct. No | Weightage            |                                     |                            |                           | Total<br>(100M) |
|------|---------------------|--------------|----------------------|-------------------------------------|----------------------------|---------------------------|-----------------|
|      |                     |              | Project<br>log (20M) | Project<br>implementati<br>on (30M) | Project<br>Report<br>(25M) | Presenta<br>tion<br>(25M) |                 |
| 1.   | A.Venkata Sumanth   | 206009050001 | 20                   | 25                                  | 20                         | 20                        | 85              |
| 2.   | D.Manoj Kumar       | 206009050002 | 20                   | 26                                  | 22                         | 22                        | 90              |
| 3.   | G.Bhavana           | 206009050003 | 20                   | 28                                  | 24                         | 24                        | 96              |

# ASSESSMENT ON CSP

Name of the College: SCNR GDC, Proddatur

District: Kadapa

Name of the Department: Commerce

Title of the CSP: awareness on life insurance policies.

Name of the Teacher Mentor: Sri.A.Sivarami Reddy

Class/Group: III B.Com (CA)

TM/EM: EM

Academic Year: 2020-2021

No. of students: 08

Internal Evaluation viva committee Members List:

- 1) A.Sivarami Reddy
- 2) S.B. Sreeramalak
- 3) V. Bhuvar

| S.No | Name of the student | Hall.Tct. No | Weightage         |                              |                      |                     | Total (100M) |
|------|---------------------|--------------|-------------------|------------------------------|----------------------|---------------------|--------------|
|      |                     |              | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentati on (25M) |              |
| 1.   | M.Venkatesh         | 204009066005 | 20                | 25                           | 20                   | 20                  | 85           |
| 2.   | S.Yousuf            | 204009067008 | 20                | 20                           | 15                   | 15                  | 70           |
| 3.   | D.Yesupadam         | 204009066002 | 20                | 25                           | 15                   | 15                  | 75           |
| 4.   | N.Swarupa           | 204009067005 | 20                | 25                           | 20                   | 20                  | 85           |
| 5.   | O.Nagatulasi        | 204009067006 | 20                | 20                           | 15                   | 15                  | 70           |
| 6.   | P.Baba Farid        | 204009067007 | 20                | 15                           | 15                   | 15                  | 65           |
| 7.   | M.Jakeer            | 204009067004 | 20                | 15                           | 15                   | 15                  | 65           |
| 8.   | S.Saifunnisa        | 204009067009 | 20                | 25                           | 20                   | 20                  | 85           |

Signature(s)

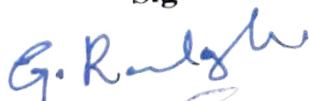
1. A.Sivarami Reddy

2. S.B. Sreeramalak

3.

|    |                 |              |    |    |    |    |    |
|----|-----------------|--------------|----|----|----|----|----|
| 2. | N.Ajay          | 216009050011 | 14 | 21 | 15 | 13 | 62 |
| 3. | N.Akhil         | 216009050012 | 13 | 20 | 16 | 13 | 63 |
| 4. | P.Arun Kumar    | 216009050013 | 14 | 19 | 15 | 14 | 61 |
| 5. | P.Nagavignesh   | 216009050001 | 13 | 21 | 15 | 13 | 63 |
| 6. | B.Kishore Kumar | 216009050002 | 14 | 22 | 16 | 16 | 68 |
| 7. | G.Nagasai       | 216009050003 | 14 | 21 | 16 | 16 | 67 |
| 8. | G.Farooq        | 216009050004 | 14 |    |    |    |    |
| 9. | K.Manohar       |              |    |    |    |    |    |

Signature(s)

1. 

2. 

3. 

**Note: Internal viva committee:**  
An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members;

1. Faculty in-charge of CSP

2. Faculty in the same course combination

# ASSESSMENT ON CSP

District: Kadapa

Name of the College: SCNR GDC, Proddatur

Name of the Department: Science

Title of the CSP: Health & Hygiene.

Name of the Teacher Mentor: Dr.G.Pakardin

Class/Group: I -MPCS

TM/EM:EM

Academic Year: 2021-2022

No. of students: 04

Internal Evaluation viva committee Members List:

- 1) Dr. G. Pakardin
- 2) Dr. G. Ramalingaiah
- 3) Dr K N Sundarawan Rao

| S.No | Name of the student | Hall.Tct. No | Weightage            |                                     |                            |                           | Total<br>(100M) |
|------|---------------------|--------------|----------------------|-------------------------------------|----------------------------|---------------------------|-----------------|
|      |                     |              | Project<br>log (20M) | Project<br>implementati<br>on (30M) | Project<br>Report<br>(25M) | Presentat<br>ion<br>(25M) |                 |
| 1.   | K.Ravi              | 216009050005 | 14                   | 20                                  | 17                         | 14                        | 65              |
| 2.   | B.Vijaya Bharathi   | 216009050006 | 13                   | 19                                  | 16                         | 12                        | 60              |
| 3.   | M.Jaya Prakash      | 216009050007 | 13                   | 18                                  | 16                         | 16                        | 63              |
| 4.   | M.Jayapal           | 216009050008 | 14                   | 19                                  | 17                         | 14                        | 64              |

Signature(s)

1. G. Pakardin
2. G. R. -
3. K. N. -

**Note:** Internal viva committee:

An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members;

1. Mentor/ faculty in-charge of CSP
2. One faculty member from other departments within the same course combination
3. One faculty member from Languages/ other courses

## ASSESSMENT ON CSP

District: Kadapa

Name of the College: SCNR GDC, Proddatur

Title of the CSP: online purchase

Name of the Department: Arts

Name of the Teacher Mentor: Sri.N.V.L.Durga Pradeep

Class/Group: II B.A (HEP)

TM/EM: EM

Academic Year: 2021-2022

No. of students: 12

Internal Evaluation viva committee Members List:

- 1) Dr. M. PRAMOD KUMAR
- 2) G. Damadara Rao
- 3) S.B. Sreeramalakshik

| S.No | Name of the student       | Hall.Tct. No | Weightage               |                                    |                            |                       | Total<br>(100M) |
|------|---------------------------|--------------|-------------------------|------------------------------------|----------------------------|-----------------------|-----------------|
|      |                           |              | Project<br>log<br>(20M) | Project<br>implementation<br>(30M) | Project<br>Report<br>(25M) | Presentation<br>(25M) |                 |
| 1.   | N.Kulayappa               | 211009036019 | 18                      | 28                                 | 22                         | 22                    | 90              |
| 2.   | V.Pavankrishna            | 211009036028 | 17                      | 28                                 | 20                         | 22                    | 87              |
| 3.   | S.Imam Hussain            | 211009036023 | 16                      | 28                                 | 20                         | 21                    | 85              |
| 4.   | B.Anil                    | 211009036002 | 18                      | 28                                 | 22                         | 22                    | 90              |
| 5.   | V.Sreeramulu              | 211009036026 | 18                      | 28                                 | 22                         | 22                    | 90              |
| 6.   | K.Suresh Babu             | 211009036012 | 18                      | 28                                 | 20                         | 20                    | 86              |
| 7.   | K.Venkateswarlu           | 211009036013 | 17                      | 28                                 | 20                         | 23                    | 88              |
| 8.   | C.Srinivasulu             | 211009036006 | 18                      | 28                                 | 22                         | 22                    | 90              |
| 9.   | M.Venkatakrishna<br>Kumar | 211009036017 | 17                      | 28                                 | 20                         | 22                    | 87              |
| 10.  | D.Bhagyalakshmi           | 211009036008 | 17                      | 28                                 | 20                         | 22                    | 87              |
| 11.  | S.Sonia sultana           | 211009036025 | 18                      | 28                                 | 22                         | 22                    | 90              |
| 12.  | K.Srihari                 | 211009036009 | 17                      | 28                                 | 20                         | 21                    | 86              |
| 13   | K.Harsha Vardhan          | 211009036014 | 18                      | 28                                 | 22                         | 22                    | 90              |

Signature(s)

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Note: Internal viva committee:

|    |                         |              |    |    |    |    |    |
|----|-------------------------|--------------|----|----|----|----|----|
| 1. | B.Pavan                 | 214009066001 | 18 | 25 | 24 | 23 | 90 |
| 2. | B.V.Mohan Krishna       | 214009066002 | 15 | 25 | 23 | 18 | 81 |
| 3. | C.Vishnuvardhan         | 214009066003 | 18 | 25 | 24 | 23 | 90 |
| 4. | C.Naveen Harsha Vardhan | 214009066004 | 18 | 25 | 23 | 21 | 87 |
| 5. | D.Rukshana              | 214009066005 | 19 | 25 | 24 | 23 | 91 |
| 6. | G.Shambavi              | 214009066006 | 15 | 20 | 20 | 20 | 75 |
| 7. | K.Hemalatha             | 214009066007 | 17 | 25 | 24 | 23 | 89 |
| 8. | K.Srivedhu              | 214009066008 | 17 | 24 | 24 | 23 | 88 |

Signature(s)

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committee:

initiated by the principal of the college. The

is survey 4.crop rotation.

**proddatur**

College: **SCNR Science**

2020-2021

# Journal of Organic Farming

**Teacher Mentor: Sri.D. Vasudevan**

Title of the Teacher: BZC

**Name:** \_\_\_\_\_ **Group:** **II, BLO**

Class/Groom: 04

...of students. ...nation viva C

... Evaluation

D. Van Buren

W. V. L. D. Pradecp

3) W.V.C.D.J.p  
the student

Hall. Tct. No

| Sl. No. | Name of the student | Hall. Tct. No | Weightage         |                              |                      |                    | Total (100M) |
|---------|---------------------|---------------|-------------------|------------------------------|----------------------|--------------------|--------------|
|         |                     |               | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentation (25M) |              |
| 1.      | B. Rehaman          | 206009049001  | 15                | 25                           | 23                   | 20                 | 80           |
| 2.      | Ch. Hemanth Kumar   | 206009049002  | 18                | 28                           | 25                   | 25                 | 100          |
| 3.      | K. Rajeswari        | 206009049004  | 20                | 30                           | 15                   | 10                 | 60           |
| 4.      | K. Bharathi         | 206009049005  | 15                | 20                           |                      |                    |              |

DISCONTINUED

Signature(s)

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ॐ

**Notes: Internal viva committee:**

...the principal of the college. The

ASSESSMENT ON CSP

College: SCNR GDC, Proddatur

District: Kadapa

(the Department: Science

(the CSP: Computer Literacy Survey

(the Teacher Mentor: Sri. D. Manoj Prabhakar

TM/EM: EM

Academic Year: 2021-2022

Group: I - MPCS

Students: 05

**Evaluation viva committee Members List:**

Manoj Prabhakar Dasti

G. V. RAMANA

G. Ramalingaiah

| Name of the student | Hall. Tct. No | Weightage            |                                     |                            |                           | Total<br>(100M) |
|---------------------|---------------|----------------------|-------------------------------------|----------------------------|---------------------------|-----------------|
|                     |               | Project<br>log (20M) | Project<br>implementati<br>on (30M) | Project<br>Report<br>(25M) | Presentat<br>ion<br>(25M) |                 |
| Pratap P            | 216009050014  | 15                   | 20                                  | 20                         | 15                        | 70              |
| Guru Pratap P       | 216009050015  | 15                   | 20                                  | 20                         | 15                        | 70              |
| T.Chenrayudu        | 216009050016  | 15                   | 20                                  | 20                         | 20                        | 75              |
| V.Sindhu            | 216009050017  | 18                   | 27                                  | 23                         | 22                        | 90              |
| Y.Rama Rao          | 216009050018  | 15                   | 20                                  | 20                         | 18                        | 73              |

Signature(s)

1. *ASPD*

2. *Rama*

3. *DR. R. L. S.*

**Note: Internal viva committee:**

An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members;

1. Mentor/ faculty in-charge of CSP
2. One faculty member from other departments within the same course combination
3. One faculty member from Languages/ other courses

ASSESSMENT ON CSP

District: Kadapa

Name of the College: SCNR GDC, Proddatur

Name of the Department: Science  
Title of the CSP: Health and Hygiene

Name of the Teacher Mentor: Sri.G.Damodara Rao

TN/EM: EM Academic Year: 2021-2022

Class/Group: I BZC

No. of students: ~~Not~~ *(88 only)*  
Internal Evaluation viva committee Members List:

- 1) *Dr. D. V. R. Babu*
- 2) *N. V. L. D. Pradeep*
- 3) *N. M. P. S. M. D. R. M. R.*

| S.No | Name of the student | Hall. Tct. No | Weightage            |                                     |                            |                           | Total<br>(100M) |
|------|---------------------|---------------|----------------------|-------------------------------------|----------------------------|---------------------------|-----------------|
|      |                     |               | Project<br>log (20M) | Project<br>implementati<br>on (30M) | Project<br>Report<br>(25M) | Presentat<br>ion<br>(25M) |                 |
| 1.   | A.Sailaja           | 216009049001  | 18                   | 26                                  | 22                         | 22                        | 88              |
| 2.   | B.Vijaya Bharathi   | 216009049002  | 18                   | 27                                  | 22                         | 22                        | 89              |
| 3.   | D.Vijayakumar       | 216009049003  | 18                   | 27                                  | 22                         | 23                        | 90              |
| 4.   | G.Nagendra          | 216009049004  | 15                   | 17                                  | 13                         | 16                        | 61              |
| 5    | G. Vasundara        | 216009049005  | 15                   | 16                                  | 13                         | 16                        | 60              |
| 6    | K.Sainath Reddy     | 216009049006  | 17                   | 27                                  | 23                         | 23                        | 90              |

Signature(s)

1. *Dr. D. V. R. Babu*
2. *N. V. L. D. Pradeep*
3. *N. M. P. S. M. D. R. M. R.*

**Note:** Internal viva committee:

An internal Viva shall be conducted by a committee constituted by the principal of the college. The committee shall consist of the following members;

1. Mentor/ faculty in-charge of CSP
2. One faculty member from other departments within the same course combination

Name of the College: SCNR GDC, Proddatur

Name of the Department: Science

Name of the CSP: Health and Hygiene

Title of the Teacher Mentor: Sri.K.Chandra mohan

TM/EM: EM Academic Year: 2021-2022

Class/Group: I BZC

No. of students: 05 (five only)

Internal Evaluation viva committee Members List:

Internal

1) D. Sankar Babu

2) N.V.L. D. Pradeep

3) Dr. M. PRANAY KUMAR

| S.No | Name of the student | Hall. Tct. No | Weightage            |                                    |                            |                           | Total<br>(100M) |
|------|---------------------|---------------|----------------------|------------------------------------|----------------------------|---------------------------|-----------------|
|      |                     |               | Project<br>log (20M) | Project<br>implementation<br>(30M) | Project<br>Report<br>(25M) | Presentat<br>ion<br>(25M) |                 |
| 1.   | K.Kesava            | 216009049007  | 17                   | 25                                 | 21                         | 22                        | 85              |
| 2.   | K.Syamala           | 216009049008  | 18                   | 26                                 | 23                         | 23                        | 90              |
| 3.   | M.Pranay Kumar      | 216009049009  | 15                   | 17                                 | 15                         | 16                        | 63              |
| 4.   | M.Lavanya           | 216009049010  | 17                   | 27                                 | 22                         | 22                        | 88              |
| 5    | S.Sagar             | 216009049011  | 18                   | 27                                 | 22                         | 23                        | 90              |

Signature(s)

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2.

3.

# ASSESSMENT ON CSP

District: Kadapa

Name of the College: SCNR GDC, Proddatur

Name of the Department: Commerce

Name of the CSP: Computer literacy to rural People & Online Purchase

Title of the Teacher Mentor: Dr. M. Pramod Kumar

Name of the Teacher Mentor: Dr. M. Pramod Kumar

Name of the Teacher Mentor: Dr. M. Pramod Kumar

Academic Year: 2020-2021

Name of the Teacher Mentor: Dr. M. Pramod Kumar

Class/Group: II B.Com (CA) TM/EM: EM

No. of students: 06

Internal Evaluation viva committee Members List:

1) N.V.C.D. Pradeep

2) Manoj Babbar Das

3) G. Damodara Rao

| S.No | Name of the student | Hall.Tct. No | Weightage         |                              |                      |                    | Total (100M) |
|------|---------------------|--------------|-------------------|------------------------------|----------------------|--------------------|--------------|
|      |                     |              | Project log (20M) | Project implementation (30M) | Project Report (25M) | Presentation (25M) |              |
| 1.   | D.Venkatalakshmi    | 204009066001 | 20                | 20                           | 20                   | 18                 | 78           |
| 2.   | B.Vijayachandu      | 204009066003 | 20                | 20                           | 20                   | 19                 | 79           |
| 3.   | M.Bharathi          | 204009066006 | 20                | 20                           | 20                   | 19                 | 79           |
| 4.   | N.M.D.Asif          | 204009066007 | 20                | 30                           | 20                   | 20                 | 90           |
| 5.   | P.Fazullakhan       | 204009066008 | 20                | 30                           | 20                   | 20                 | 90           |
| 6.   | P.Sunil             | 204009066009 | 20                | 20                           | 20                   | 19                 | 79           |

Signature(s)

1.

N.V.C.D. Pradeep

# ASSESSMENT ON CSP

District: Kadapa

Name of the College: SCNR GDC, Proddatur

Name of the Department: Commerce

Title of the CSP: awareness on life insurance policies.

Name of the Teacher Mentor: Dr.K.N.Sundareswara Rao

Class/Group: II B.Com (CA) TM/EM: EM Academic Year: 2021-2022

No. of students: 09

Internal Evaluation viva committee Members List:

- 1) Dr K N Sundareswara Rao
- 2) Sri V. Bhasakar
- 3) Dr A C. Venkate Ramulu

| S.No | Name of the student | Hall.Tct. No | Weightage            |                                     |                            |                           | Total<br>(100M) |
|------|---------------------|--------------|----------------------|-------------------------------------|----------------------------|---------------------------|-----------------|
|      |                     |              | Project<br>log (20M) | Project<br>implementati<br>on (30M) | Project<br>Report<br>(25M) | Presenta<br>tion<br>(25M) |                 |
| 1.   | K.Guruvamsi         | 214009066009 | 12                   | 16                                  | 12                         | 13                        | 53              |
| 2.   | K.Veeraj            | 214009066010 | 13                   | 12                                  | 14                         | 16                        | 55              |
| 3.   | K.Kumar             | 214009066011 | 11                   | 14                                  | 13                         | 14                        | 52              |
| 4.   | K.Arunkumar         | 214009066012 | 12                   | 16                                  | 12                         | 12                        | 52              |
| 5.   | K.Subhash           | 214009066013 | 14                   | 16                                  | 15                         | 15                        | 60              |
| 6.   | P.Venkatasubbamma   | 214009066014 | 12                   | 14                                  | 18                         | 16                        | 62              |
| 7.   | P.Narasimhulu       | 214009066015 | 12                   | 13                                  | 13                         | 12                        | 50              |
| 8.   | P.Sivakumar         | 214009066016 | 12                   | 13                                  | 12                         | 13                        | 50              |
| 9.   | S.Ishaq Hameem      | 214009066017 | 13                   | 18                                  | 14                         | 15                        | 50              |

S.C.N.R. GOVT. DEGREE COLLEGE  
PRODDATUR  
DEPARTMENT OF COMMERCE

TO,

22/01/2021

The Principal,  
S.C.N.R. Govt. Degree College,  
Proddatur,  
Kadapa (Dist).


Sir,

Sub: Permission to the field trip of B.Com  
Students to Sai Korshra Plastic Industry  
on 25-01-2021 - Request - regarding.

We are very happy to inform you that  
planning to arrange an industrial visit on 25/01/2021  
for the following all years B.Com (CA) and (CI)  
Students to Sai Sai Korshra Plastic Industry,  
Dorasani Palle (vi) Proddatur, YSR Kadapa (Dist).

Hence, herewith submitting you to provide  
an opportunity for B.Com students to visit Sai  
Sai Korshra Plastic, Industry, Dorasani Palle (vi),  
Proddatur, YSR Kadapa (Dist) on 25-01-2021.

Thanking you Sir,

Yours faithfully,  


Lecturer in charge Dept. of Commerce  
S.C.N.R. Govt. Degree College  
PRODDATUR-516 300  
Kadapa (Dist)

## INDUSTRIAL VISIT

SRI SAI VASISHA PLASTICS

DODDANAPALLE, PRODDUTUR

ON 22/01/2021

The Department of Commerce conducted industrial visit on 22/01/2021 to Sri Vasishtha Plastics at Doddanapalle. Nearly 17 B.Com students and three lecturers started from the college at 10:30 AM.

Students spent one hour from 11 AM to 12 AM in the industry. The owner, managers and workers of industry explained about Production Plastic. Worker can, turnbolas etc. from raw-material stage to finished product.

Students observe the process of plastic products. The factory manager told the plastic raw material input from Chennai, Bangalore and Hyderabad. The waste material again recycle and can be again used for the production.

Learning out comes:-

1. opportunity to interact with industry managers & workers.
2. Learning the students to understand better their skills.
3. Students know Division of work
4. Students know method of process cleaning
5. Students developed time management and

# Name of the students

- 1) N. Veni
- 2) P. Kumar
- 3) S. Rathi
- 4) C. Harmanth
- 5) S. Hussain Bashra
- 6) Y. Uday Kumar
- 7) J. Pavan Kumar
- 8) J. Siva
- 9) R. Venu
- 10) H. Ansi
- 11) D. Naaneta
- 12) V. Venkata Sai
- 13) C. Chandana Mohan
- 14) D. Chandana Kala
- 15) A. Mohan Granthi
- 16) S. Mahabub Hussain
- 17) V. Laxshmi
- 1) G. Shekar
- 2) A. Siva Rama Kishore
- 3) S. Hanikant
- 1) N. Veni
- 2) P. Kumar
- 3) S. Rathi
- 4) C. Harmanth
- 5) S. Hussain Bashra
- 6) Y. Uday Kumar
- 7) J. Pavan Kumar
- 8) J. Siva
- 9) R. Venu
- 10) H. Ansi
- 11) D. Naaneta
- 12) V. Venkata Sai
- 13) C. Chandana Mohan
- 14) D. Chandana Kala
- 15) A. Mohan Granthi
- 16) S. Mahabub Hussain
- 17) V. Laxshmi
- 1) G. Shekar
- 2) A. Siva Rama Kishore
- 3) S. Hanikant
- 1) N. Veni
- 2) P. Kumar
- 3) S. Rathi
- 4) C. Harmanth
- 5) S. Hussain Bashra
- 6) Y. Uday Kumar
- 7) J. Pavan Kumar
- 8) J. Siva
- 9) R. Venu
- 10) H. Ansi
- 11) D. Naaneta
- 12) V. Venkata Sai
- 13) C. Chandana Mohan
- 14) D. Chandana Kala
- 15) A. Mohan Granthi
- 16) S. Mahabub Hussain
- 17) V. Laxshmi
- 1) G. Shekar
- 2) A. Siva Rama Kishore
- 3) S. Hanikant

name of the students

- ① N. VENU
- ② P. KUMAR
- ③ S. RABBANI
- ④ C. JIANDHANTH
- ⑤ S. HUSSAIN BASHA
- ⑥ Y. UDHAY KUMAR
- ⑦ I. PARWAN KAHYAN
- ⑧ Y. SIVA
- ⑨ M. ANJI
- ⑩ J. NAGENDRA
- ⑪ U. VENKATA SAI
- ⑫ C. CHANDRA MOHAN
- ⑬ D. CHANDRAKALA
- ⑭ A. MDHAN GANDI
- ⑮ S. MATTABOOD HUSSAIN
- ⑯ R. VENU
- ⑰ B. LAKSHMI



**S.C.N.R GOVT. DEGREE COLLEGE**  
PRODDATUR, YADABA(Dt) A.P. 522 202  
proddatur.jkr@gmail.com, [www.scnrcollege.ac.in](http://www.scnrcollege.ac.in)

UNDER UGC ACT 1956 OF u/s 2(f) & 12(B)  
REACCREDITED BY NAAC AT 'B' GRADE  
AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA.  
Principal: Dr.G. Chandra Sekhar, M.Sc., M.Phil., Ph.D.

Proddatur,  
Date: 22-01-2021.

To,  
The Manager,  
Sri Sai Krishna Plastic Industry,  
Dorasanipalle (village),  
Proddatur-516360,  
YSR Kadapa (Dt.)

Dear sir,

Sub:- Request for permission to visit your organization-regarding.

張家祥

We are very happy to inform you that SCNR Govt. Degree College, Proddatur is successfully running with B.Com (CA) and B.Com (G) programmes starting from the inception of the college i.e from 1966. Department of commerce is planning to organize an industrial visit for all B.Com students. Hence, Principal SCNR Govt. Degree College is requesting you to provide an opportunity for B.Com students to visit on 25-01-2021 your esteemed organization and observe various activities.

Thanking you sir,

You are Permitted to visit

Yours faithfully,

Quasi Company on 22-1-2021

G. Shekhar

from 11:00 AM

PRINCIPAL  
S.C.N.R. Govt. Degree College  
PRODDATUR-516360

B. 2056700000

SRI. KOP 09 U 4094  
SRI KRISHNA PLASTICS (New Firm)  
Dorasampalli Road,  
PRODURATUR-516360. (A.P.)





March 28, 2023

10:27



# History Project Work

S.C.N.R Degree College

"కడప జిల్లాలో కనుమరుగవుతున్న  
చరిత్ర భస్మం"  
- షక పరిశీలన

2016-2017

This project work is done by

J. Vishala

1<sup>st</sup> Year B.A. (Hep)

Roll No: 12

S.C.N.R Degree College.

**SCNR GOVERNMENT DEGREE COLLEGE,  
PRODUTOUR,  
KADAPA DIST.**

**DEPARTMENT OF HISTORY**

**STUDENT PROJECT WORK**

**TOPIC:- WOODROW WILSON**

**ACADEMIC YEAR:-2021-2022**

**PRESENTED BY:- HARSHAVARDHAN,  
SURESH BABU**  
**GROUP:- II BA (HEP)**  
**SUBJECT:- HISTORY**

**GUIDED BY:- C.BABA FAKKRUDDIN**  
**LECTURER IN:- HISTORY**

2021-2022

SCNR Govt.  
Degree College

Product:-  
student Project Work

Topic:- Ancient India History

M. sahan Kumar I<sup>st</sup> B.A (H.E.P)

V. SreeRamulu I<sup>st</sup> B.A (H.E.P)

K. suresh Babu I<sup>st</sup> B.A (H.E.P)

Guided by:- "C. Baba Lakardhin"

**SCNR GOVERNMENT DEGREE COLLEGE,  
PRODUTOUR,  
KADAPA DIST.**

**DEPARTMENT OF HISTORY**

**STUDENT PROJECT WORK**

**TOPIC:- ADMINISTRATION OF SHER SHAH**

**ACADEMIC YEAR:-2021-2022**

**PRESENTED BY:-** A.BHARATHI ,  
K.SHAHBAZ  
**GROUP:-** I BA (HEP), II SEMESTER  
**SUBJECT:-** HISTORY

**GUIDED BY:-** C.BABA FAKKRUDDIN  
**LECTURER IN:-** HISTORY

**SCNR GOVERNMENT DEGREE COLLEGE,  
PRODUTOUR,  
KADAPA DIST.**

**DEPARTMENT OF HISTORY**

**STUDENT PROJECT WORK**

**TOPIC:- MOHAMMAD AKBUR**

**ACADEMIC YEAR:-2021-2022**

**PRESENTED BY:-** SAMPATH,  
S.MD AFRID  
**GROUP:-** I BA (HEP), II SEMESTER  
**SUBJECT:-** HISTORY

**GUIDED BY:-** C.BABA FAKKRUDIN  
**LECTURER IN:-** HISTORY

**SCNR GOVERNMENT DEGREE COLLEGE,  
PRODUTOUR,  
KADAPA DIST.**

**DEPARTMENT OF HISTORY**

**STUDENT PROJECT WORK**

**TOPIC:-REDDY KINGDOM**

**ACADEMIC YEAR:-2021-2022**

**PRESENTED BY:-** V.SRIRAMULU,  
C.SRINIVASULU  
**GROUP:-** II BA (HEP)  
**SUBJECT:-** HISTORY

**GUIDED BY:-** C.BABA FAKKRUDDIN  
**LECTURER IN:-** HISTORY

**S. C. N. R. GOVERNMENT DEGREE COLLEGE**  
**PRODDATUR, Y.S.R. KADAPA DIST.**



**DEPARTMENT OF ECONOMICS**

**PROJECT WORK**

**TOPIC:**

సంప్రదించు ఎకనమిక్స్ పరిస్థితి

**SUBMITTED BY:**

J. Sree devi      III BA (HEP)

T. Jaya lakshmi      III BA (HEP)

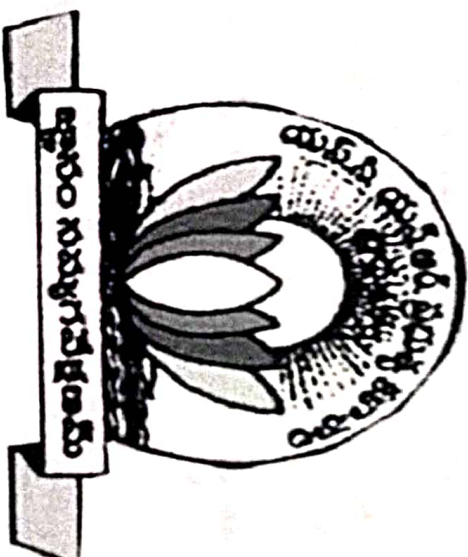
2016-17

G. Suresh Reddy,

Lecturer in Economics  
S.C.N.R. Govt. Degree College  
PRODDATUR-516 360.  
Kadapa (Dist.)

# S. C. N. R. GOVERNMENT DEGREE COLLEGE

PRODDATUR, Y.S.R. KADAPA DIST.



## PROJECT REPORT

2017-18

## DEPT. OF ECONOMICS

M. Sandeep - III B A H & P  
C. Ravichandra Ti B A

**S. C. N. R.**  
**GOVT DEGREE COLLEGE**  
**PRODDATUR, Y.S.R. KADAPA DIST.**



**STUDENT STUDY PROJECT**  
**DEPT. OF ECONOMICS**

**TOPIC**

**INCOME AND CONSUMPTION ESTIMATION IN**  
**PRODDATUR TOWN**

S. Suryamani - IBA  
Nagamma - IBA

year - 2020-21

**S. C. N. R. GOVERNMENT DEGREE COLLEGE**  
**PRODDATUR, Y.S.R. KADAPA DIST.**



**DEPARTMENT OF ECONOMICS**  
**PROJECT WORK**

**TOPIC:** జిదాయ , టిసియన్ , య్జు  
అనగ్నె

**SUBMITTED BY:** P. Lakshmi Manika II BA (H.E.P)  
J. Vishala II BA (H.E.P)  
R. Sriyani II BA (H.E.P)  
G. Swathi II BA (H.E.P)  
G. Sumathi II BA (H.E.P)

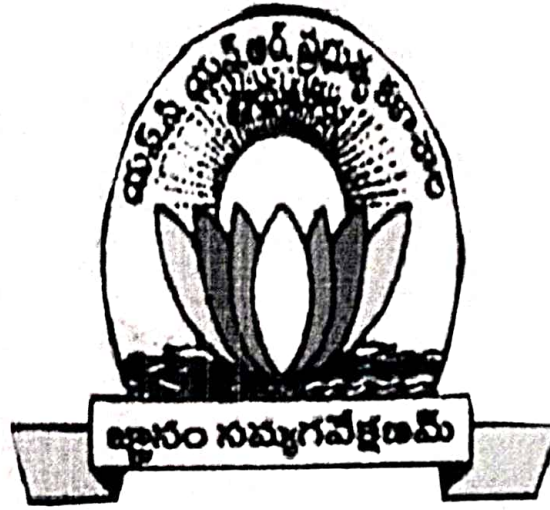
2016-17

G. S. S. S. S.

Lecturer in Economics  
S.C.N.R. Govt. Degree College  
PRODDATUR-516 360.  
Kadapa (Dist.)

**S. C. N. R. GOVERNMENT DEGREE COLLEGE**

**PRODDATUR, Y.S.R. KADAPA DIST.**



**DEPARTMENT OF ECONOMICS**

**PROJECT WORK**

**TOPIC:**

*CELLPHONE and SIM USERS*

**SUBMITTED BY:**

*V. Subraja* - III B.A. (HEP)

*P. Mary* III B.A. (HEP)

*T. Jayalakshmi* III B.A. (HEN)

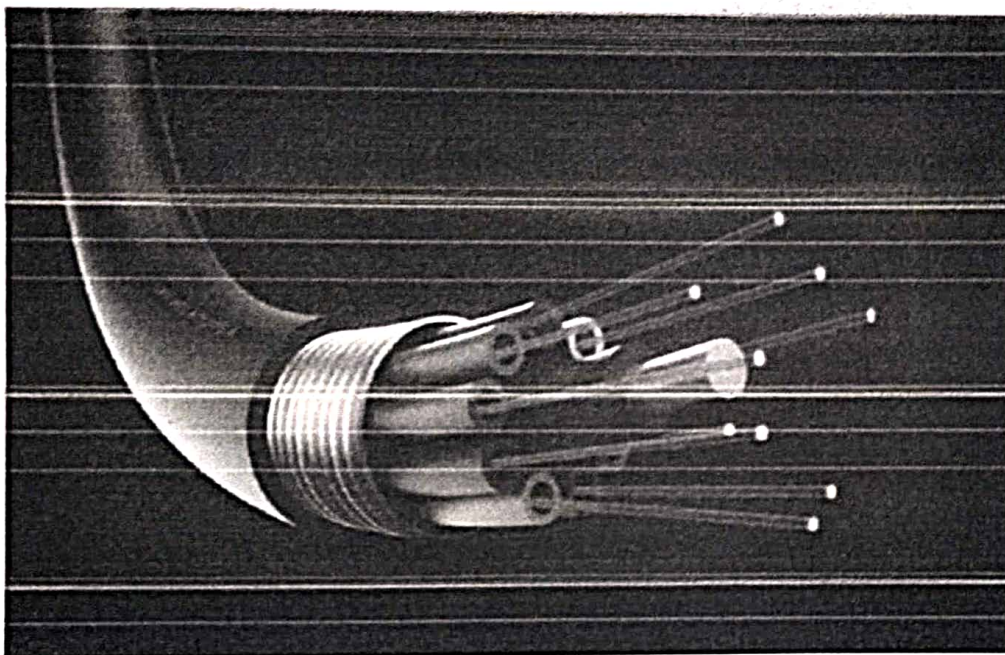
*2016-17*

*S. C. N. R. Govt. Degree College*  
Lecturer in Economics  
S.C.N.R. Govt. Degree College  
PRODDATUR-516 360.  
Kadapa (Dist.)

physics

**Students Study Project**

# **OPTICAL FIBRE AND ITS APPLICATIONS**



**Project work submitted by**

**K.Kalyani and P.Nagamani**

**2018-19**

**SCNR Govt Degree College**

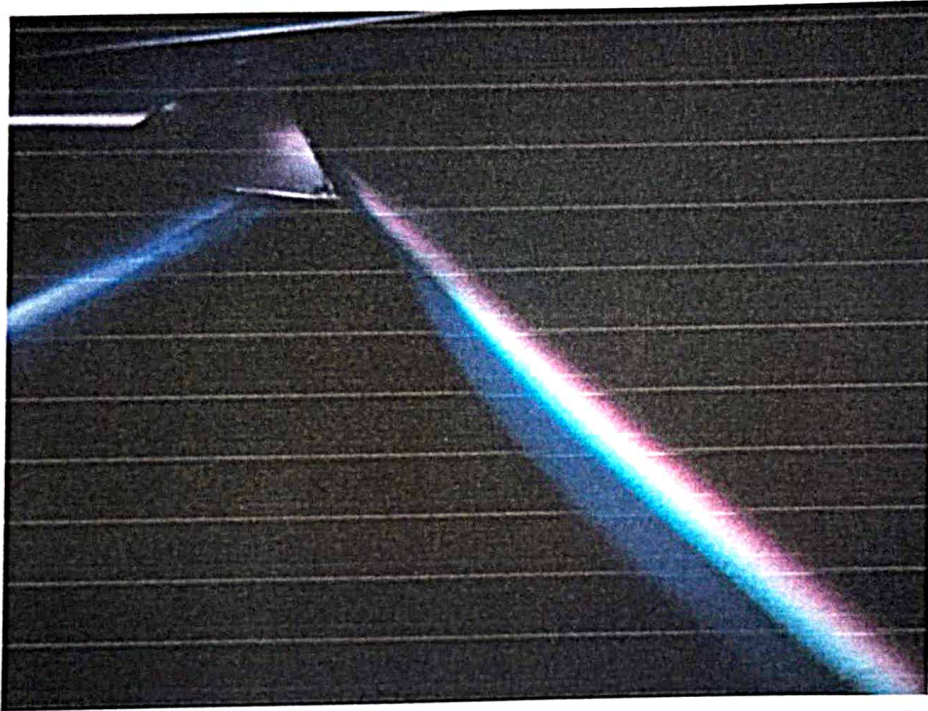
**Proddatur**

**YSR Dt**

physics

**Students Study Project**

# **Spectroscopy and its applications**



**Project work submitted by**

**C Venkata murali and Sri.Malleswarlu**

**2019-20**

**SCNR Govt Degree College**

**Proddatur**

**YSR Dt**

physics

**SCNR GOVT DEGREE COLLEGE**

**PRODDATUR**

**STUDENTS STUDY PROJECT**

**HERTZIAN WAVE**

**2016-17**

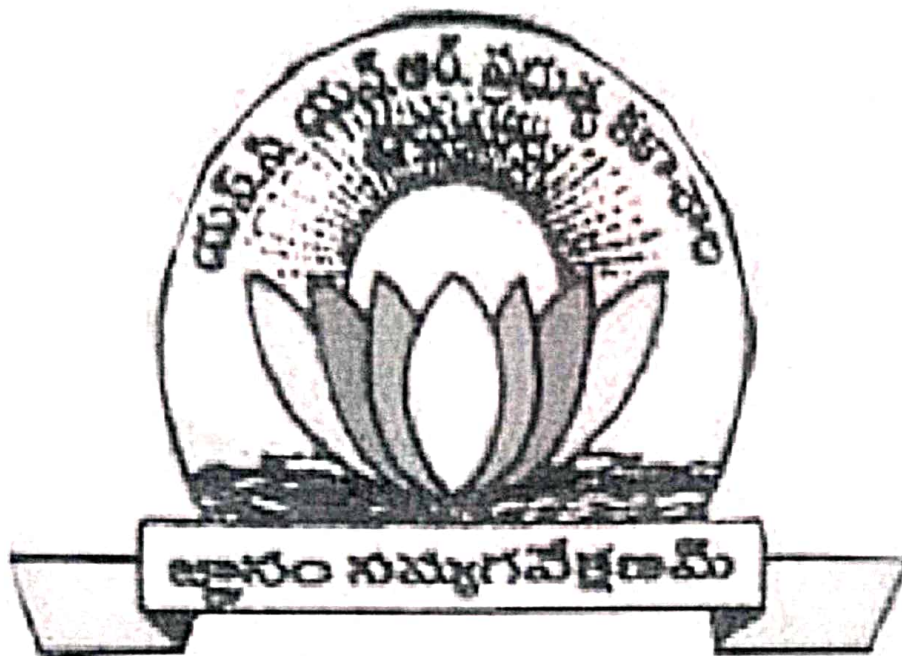
**NAME OF THE STUDENT: Y. KAMBI REDDY**

**III B.Sc MPCs**

**LECTURER GUIDE: SRI . G. V. LOKESWAR REDDY**

**Lec. In Physics**

**S.C.N.R. GOVERNMENT DEGREE COLLEGE**  
**PRODDATUR, Y.S.R. KADAPA DIST.**



**RECORD OF FIELD VISITS/TRIPS**

- |                              |   |                    |
|------------------------------|---|--------------------|
| 1. Kaladhi Pushpagiri Temple | } | Kadapa<br>District |
| 2. Sangameswaram Temple      |   |                    |
| 3. Mukthi Rameswaram Temple  |   |                    |

Name of the Lecturer :- **S. VIJAY BHASKAR RAO**

Name of the Department :- **HISTORY**

## SCNR Govt Degree College, Proddatur

### Field Trip to WELSPUN GLASS PRIVATE LIMITED

Visit date : 23-10-2021 (oneday)

Number of students: 15

**Lecturers: P.Narayana Reddy, GV Lokeswara reddy, Sri Siva Rama Rami Reddy**

Welspun Group is one of India's fastest-growing global conglomerates with businesses in Line Pipes, Home Textile Products, Infrastructure, Warehousing, Steel, Oil & Gas, Advanced textiles and Flooring solutions. *At Welspun, we yearn to be the most comprehensive strategic partner and solution provider, keeping our consumers at the core. We have 360-degree capabilities from Farm to Shelf, supported by our vertically integrated facilities. These facilities include vertically integrated composite mills, worker's colony in the factory vicinity, cotton warehouse, ancillary*



*vendor units in the same premises, and locations close to the ports. Being one of the leading premium bed sheet brands in India, we make sure our collection is recognized by the quality and variety we offer. Our collection encompasses a vast range of bed linen, bath linen, and home furnishing textiles and accessories. Staunch in our dedication to making lives better, easier and more comfortable, we marry contemporary design sensibilities with a plush, luxurious feel for each product.*

## Utility Bedding

Welspun bedsheets, pillow fillers, mattress pads, and down-alternative filled comforters are manufactured at its Anjar facility in Gujarat. The range also includes fashion core comforters in solid and stripes.

Welspun's Bath Towels and Bathrobes are available in solid, yarn-dyed, dobby and jacquard designs across various GSM. We are using Indian cotton and premium Egyptian, Supima, and Turkish cotton along with various other blends. We also have the capability for jacquard and digitally printed beach towels. Integrated Manufacturing



customer centricity is guided as much by innovative products and solutions as by process efficiencies, an agile supply chain, advanced systems, etc. In line with this belief, we are making significant investments in Industry 4.0 technologies to improve our process efficiency through digitization and automation of business processes and RPA (Robotics Process Automation), to handle a high volume of repetitive activities, such as accounts payable and PO to SO process. Our

relentless focus on precise execution with 100% quality OTIF and lean, but agile supply chain, is helping to improve the turnaround time from factory to shelf. To ensure 'First-Time Right' quality products and to avoid delays, Welspun has invested in specialized equipment on the shop floor.

Our facilities conform to the highest quality standards and compliance norms. Welspun has achieved a series of awards and accreditations for quality and service from customers as well as independent bodies.

Welspun is steadily expanding into flooring solutions, advanced textiles, e-commerce, hospitality, and wellness, which offer significant future growth opportunities. Along with continuous strengthening of our export leadership, we have moved aggressively to capture the emerging opportunities led by consumer-driven growth in the domestic market. With our proclivity to innovate, we aim to revolutionize the home textiles and floorings industry with unique products.

At Welspun, driven to be the most comprehensive strategic partner and solution provider for the retailers, by keeping consumers at the core. Welspun has a complete suite of products and services for home textiles, with a distribution reach across the globe.

Welspun caters to some of the best-known names in the hospitality industry with a suite of innovative products focusing on guest satisfaction. Welspun supplies high-quality towels and home textiles to hotels, vacation rentals, spas/ resorts, gyms, and health clubs. We are in almost 1 million rooms in the U.S. and abroad.



Ph. 08564-251034



## S.C.N.R GOVT. DEGREE COLLEGE

UNDER u/s 2(f) & 12(B) OF UGC ACT, 1956  
PRODDATUR, KADAPA DISTRICT, ANDHRA PRADESH - 516360



INSTITUTE ACCREDITED BY NAAC AT 'B' LEVEL

AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA [proddatur.jkc@gmail.com](mailto:proddatur.jkc@gmail.com)

### FIELD TRIP – 2021- 22


#### Dept.of Botany & Zoology

By the instructions of the principal following students and lecturer are visit to Sri Venkateshwara Veterinary University at gopavaram , proddatur

| S.No | Name of the student |
|------|---------------------|
| 1    | V.SASIKALA          |
| 2    | B.VENKATA VEERAMMA  |
| 3    | K.SWARNA            |
| 4    | CH.JASWITHA         |
| 5    | N SUPRYA            |
| 6    | K.RAJESWARI         |
| 7    | D RAMA RAO          |
| 8    | CH.ARAVIND          |
| 9    | V.SIDDARTHA         |
| 10   | B.RAHIMAN           |
| 11   | CH.HEMENTH KUMAR    |
| 12   | G.SURESH            |
| 13   | K.RAJESWARI         |
| 14   | K. BHARATHI         |
| 15   | K. SAILEELA         |
| 16   | L. LAKSMI SWAROOPA  |
| 17   | M.KEDHARESWARI      |
| 18   | P.ADILAKSHMI        |
| 19   | P.SRILAKSHMI        |
| 20   | S.RAJESWARI         |
| 21   | S. ARUN             |

|    |               |
|----|---------------|
| 22 | S.JAHEERBASHA |
| 23 | S.RAHENA      |
| 24 | V.MEGHANA     |
| 25 | Y.KEERTHI     |

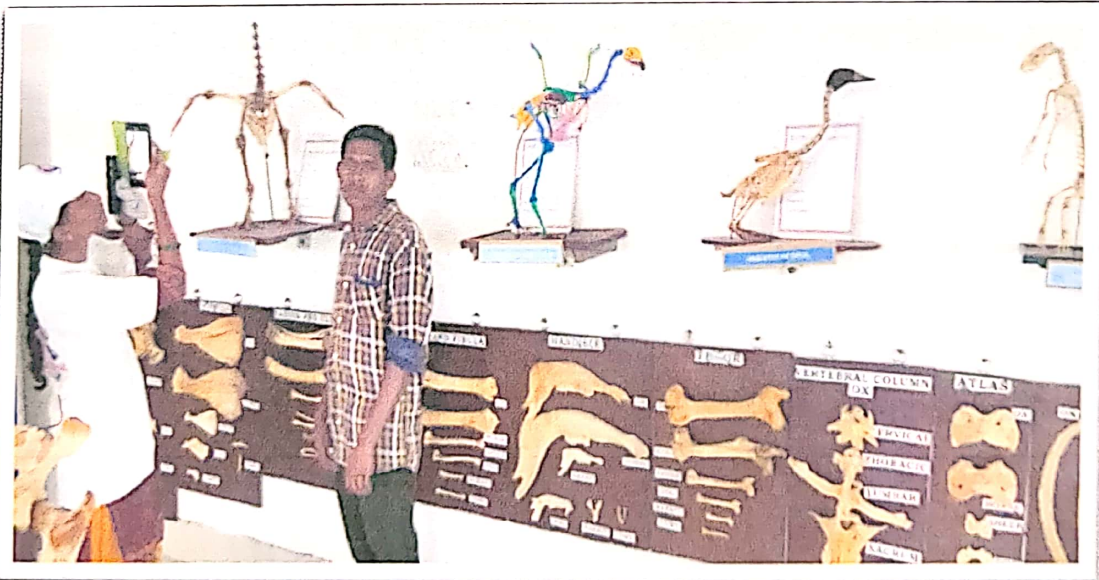
  
Signature of Dept in-charges

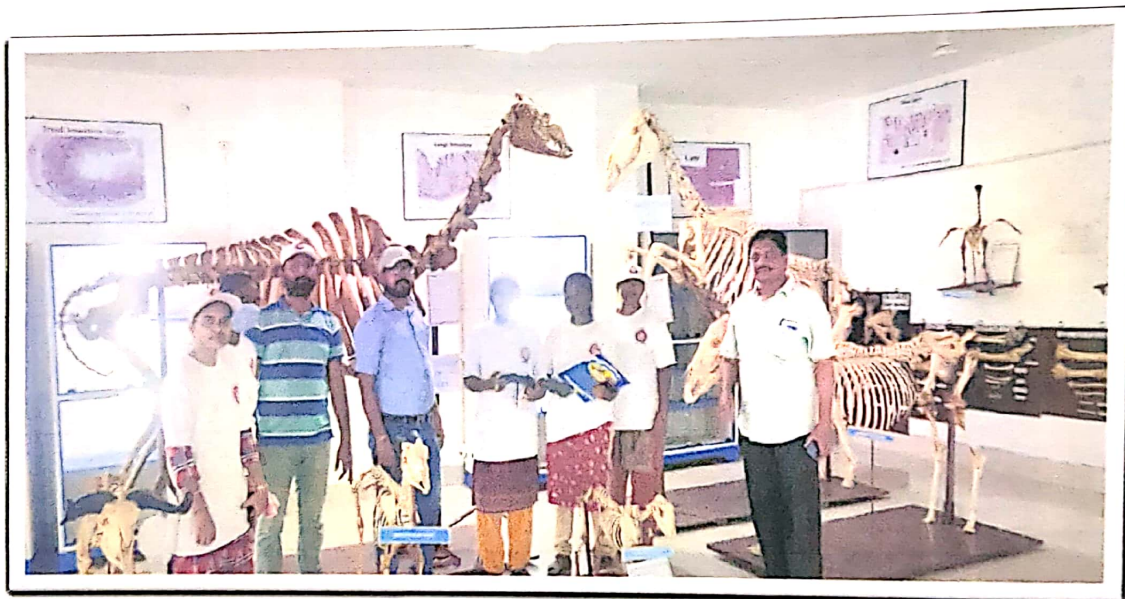
  
Signature of Principal  
PRINCIPAL  
SCNR Govt., Degree College,  
PRODDATUR,













A STUDY PROJECT ON  
Scientific names and Common  
names of Economically and  
medicinally important.

By

C. Mohan Rao

P. Rajesh

P. Hymavathi

D. Gurus Lalitha

S. Uma.


29-24

Guided By

DEPARTMENT OF BOTANY

S.C.N.R. GOVT DEGREE COLLEGE

PRODDATUR

  
Lecturer in Botany  
Department of Botany  
S.C.N.R. Government Degree College  
PRODDATUR 516363

## Scientific names and common names of economically and medicinally important plants

### 1. Names of various Grains :

| Sl.no | Scientific name              | Common name | Family  |
|-------|------------------------------|-------------|---------|
| 1.    | <i>Oryza sativa</i>          | Vari        | Poaceae |
| 2.    | <i>Triticum aestivum</i>     | Goduma      | Poaceae |
| 3.    | <i>Sorghum vulgare</i>       | Jonna       | Poaceae |
| 4.    | <i>Pennisetum typhoidium</i> | Sajja       | Poaceae |
| 5.    | <i>Avena sativa</i>          | Oats        | Poaceae |
| 6.    | <i>Hordeum vulgare</i>       | Barley      | Poaceae |
| 7.    | <i>Eleusine coracana</i>     | ragulu      | Poaceae |
| 8.    | <i>Zea mays</i>              | Mokka jonna | Poaceae |

### 2. Names of various pulses :

|     |                           |            |          |
|-----|---------------------------|------------|----------|
| 9.  | <i>Cicer arietinum</i>    | Sanagalu   | Fabaceae |
| 10. | <i>Cajanus cajan</i>      | kandulu    | Fabaceae |
| 11. | <i>Phaseolus radiatus</i> | Pesalu     | Fabaceae |
| 12. | <i>Arachis hypogea</i>    | Verusanaga | Fabaceae |

|     |                                        |          |          |
|-----|----------------------------------------|----------|----------|
| 13. | <i>Trigonella foenum -<br/>graceum</i> | menthulu | Fabaceae |
| 14. | <i>Pisum sativum</i>                   | Bataani  | Fabaceae |
| 15. | <i>Phaseolus mungo</i>                 | minumulu | Fabaceae |

### **3. Names of vegetables :**

|     |                                |                    |               |
|-----|--------------------------------|--------------------|---------------|
| 16. | <i>Benincasa hipsida</i>       | Bhudida<br>gummadi | cucurbitacea  |
| 17. | <i>Coccinea grandis</i>        | Donda              | cucurbitacea  |
| 18. | <i>Cucumis sativus</i>         | Dosa kaaya         | cucurbitacea  |
| 19. | <i>Luffa acutangula</i>        | Beera kaaya        | cucurbitacea  |
| 20. | <i>Momardica charantia</i>     | kakara             | cucurbitacea  |
| 21. | <i>Lagenaria vulgaris</i>      | Sora kaaya         | cucurbitacea  |
| 22. | <i>Dolichos lab lab</i>        | Chikkudu           | Fabaceae      |
| 23. | <i>Ablemoschus esculentus</i>  | Benda              | Malvaceae     |
| 24. | <i>Trichosanthes anguina</i>   | potla              | cucurbitaceae |
| 25. | <i>Lycopersicon esculentum</i> | tomato             | Solanaceae    |
| 26. | <i>Solanum tuberosum</i>       | potato             | Solanaceae    |
| 27. | <i>Moringa oleifera</i>        | Munaga             | Moringaceae.  |
| 28. | <i>Spinacia oleracea</i>       | Paala kura         | Amaranthaceae |
| 29. | <i>Hibiscus cannabinus</i>     | gongura            | Malvaceae     |
| 30. | <i>Daucus carota</i>           | carrot             | Apiaceae      |
| 31. | <i>Capsicum annuam</i>         | Mirapakaaya        | Solanaceae    |

|     |                           |                         |                |
|-----|---------------------------|-------------------------|----------------|
| 32. | <i>Amaranthus viridis</i> | Thota kura              | Amaranthaceae  |
| 33. | <i>Murraya koenigii</i> ) | karivepaaku             | Rutaceae       |
| 34. | <i>Brassica oleracea</i>  | Cabbage,<br>cauliflower | Brassicaceae   |
| 35. | <i>Beta vulgaris</i>      | Beet root               | Chenopodiaceae |
| 36. | <i>Allium cepa</i>        | onion                   | Liliaceae      |
| 37. | <i>Allium sativum</i>     | vellulli                | Liliaceae      |
| 38. | <i>Raphanus sativus</i> ) | mullangi                | Brassicaceae   |

#### 4. Names of spices :

|     |                             |                 |               |
|-----|-----------------------------|-----------------|---------------|
| 39. | <i>Coriandrum sativum</i>   | daniyaalu       | Umbelliferae  |
| 40. | <i>Foeniculum vulgare</i>   | sompu           | Umbelliferae  |
| 41. | <i>Carum carvi</i>          | Vaamu           | Umbelliferae  |
| 42. | <i>Ferula asafoetida</i>    | inguva          | Umbelliferae  |
| 43. | <i>Cuminum cyminum</i>      | Jeelakara       | Umbelliferae  |
| 44. | <i>Zingiber officinale</i>  | Allam           | Zingiberaceae |
| 45. | <i>Curcuma longa</i>        | pasupu          | Zingiberaceae |
| 46. | <i>Eugenia caryophyllus</i> | lavangalu       | Myrtaceae     |
| 47. | <i>Piper nigrum</i>         | Miriyalu        | piperaceae    |
| 48. | <i>Cinnamomum zeylanica</i> | Dalchina chekka | Lauraceae     |

5. Names of medicinal plants :

|     |                               |                |               |
|-----|-------------------------------|----------------|---------------|
| 49. | Aloe vera                     | Kalabandha     | Liliaceae     |
| 50. | Datura stramonium             | ummetha        | Solanaceae    |
| 51. | <i>Ocimum sanctum</i>         | tulasi         | Lamiaceae     |
| 52. | <i>Vinca rosea</i>            | Billa ganneru  | Apocyanaceae  |
| 53. | <i>Rauwolfia serpentina</i>   | Sarpa gandha   | Apocyanaceae  |
| 54. | <i>Pterocarpus santalinus</i> | Erra chandanum | Fabaceae      |
| 55. | <i>Emblica officinalis</i>    | Usiri          | Euphorbiaceae |



# S.C.N.R GOVT. DEGREE COLLEGE

UNDER u/s 2(f) & 12(B) OF UGC ACT, 1956

PRODDATUR, KADAPA DISTRICT, ANDHRA PRADESH – 516360

INSTITUTE ACCREDITED BY NAAC AT 'B' LEVEL

AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA [proddatur.jkc@gmail.com](mailto:proddatur.jkc@gmail.com)

Principal : Dr.G. Chandra Sekhar, M.Sc., M.Phil., Ph.D.,

To,  
M/S SRI VENKATA SAI MARUTHI PLASTIC PIPES,  
Proddatur, YSR Kadapa (Dt.).

Sir,

Sub:- SCNR GDC, Proddatur – request for permission of students internship (2 months)  
– submitted – reg.

Ref:- As per the instructions received from YVU, Kadapa and CCE, AP, Vijayawada.

@@@

As per the instructions of the Commissioner of Collegiate Education, AP, Vijayawada and the registrar, Yogi Vemana University, Kadapa, we have already taken permission from your esteemed industry regarding student internship last month. Now I request your good offices to kindly allow our college B.A (HEP & HPT) students (22 in number) for internship (2 months ) in your esteemed industry from 17-10-2022 i.e., from Monday.

I request you sir, kindly give your valuable suggestions, guidance, work culture, habit of doing hard work, handling of instruments, learning of new knowledge, computer skills and other information to our students. Kindly maintain log book for our students attendance.

Thanking you sir,

Name of the Mentor : 1. Sri.N.V.L.Durga Pradeep, Lecturer in Political Science for BA(HPT).

Cell number: 8074018521

2. Sri. S.B.Sreerama Naik, Lecturer in Economics for BA (HEP).

Cell number:9502975376

Encl:- students/ mentors list.

Yours faithfully,

For Sri Venkata Sai Maruthi Plastic Pipes

P.Hari

PARTNER.

PRINCIPAL  
S.C.N.R. Govt. Degree College  
PRODDATUR-516360.

SCNR GOVERNMENT DEGREE COLLEGE, PRODDATUR, YSR KADAPA DISTRICT.

INTERNSHIP DATA (2 MONTHS) FROM 17-10-22 TO 31-12-2022

NAME OF THE MENTORS : SRI.N.V.L.DURGA PRADEEP, SRI.S.B.SREERAMA NAIK

INDUSTRY NAME : SRI VENKATA SAI MARUTHI PLASTIC PIPES

| S.No. | Phase | A.Y. of Admission | A.Y. of Batch | Programme | Specialization | Student Name                 | cell number |
|-------|-------|-------------------|---------------|-----------|----------------|------------------------------|-------------|
| 1     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | ANUMANTHUGARI MAMATHA        | 7032350718  |
| 2     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | ARABOLU ISWARYA              | 7842830713  |
| 3     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | BANDELA SUBHASH              | 9985223161  |
| 4     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | BANDELA VIJAYAKUMARI         | 7671852059  |
| 5     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | C GOVARDHAN                  | 8208369950  |
| 6     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | CHINTHALA NAGAMMA            | 7780168801  |
| 7     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | DANDE RAMADEVI               | 9160138826  |
| 8     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | DONTI YUSHWESHWARA BRAMHAIAH | 7702373975  |
| 9     | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | KOMERLAKALVA SAI             | 8186914764  |
| 10    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | KORRAPADU HARINATH           | 8341484742  |
| 11    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | OBULAMPALLE NARASIMHA        | 7601020182  |
| 12    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | PARLAPATI GANGABHAVANI       | 9121651671  |
| 13    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | PATTHURU PRASANTH KUMAR      | 9390734316  |
| 14    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | PIKKILI PRAVEEN              | 6302190567  |
| 15    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | SADHU SURYAMANI              | 9505699678  |
| 16    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | SHAIK KULLAYEE BEE           | 7995544160  |
| 17    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | SREERAMA OBULESU             | 7569954289  |
| 18    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | TAPPETA SURENDRA             | 8247699708  |
| 19    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | VARAKALA BHANU PRAKASH       | 7993384675  |
| 20    | 2     | 2020-21           | 2020-21       | BA        | BA (HEP)       | VISHWA VEERANNA              | 7569954289  |
| 21    | 2     | 2020-21           | 2020-21       | BA        | BA (HPT)       | MUCHUMARRI PRAMEELA          | 6302530810  |
| 22    | 2     | 2020-21           | 2020-21       | BA        | BA (HPT)       | POTLADURTI SUMALATHA         | 9030790923  |
| 23    | 2     | 2020-21           | 2020-21       | BA        | BA (HPT)       | THELLAKULA CHANDRIKA         | 8466856241  |
| 24    | 2     | 2020-21           | 2020-21       | BA        | BA (HPT)       | U DIVYA TEJA                 | 8919012144  |
| 25    | 2     | 2020-21           | 2020-21       | BA        | BA (HPT)       | UPPU NAGA PRAGATHI           | 8978247303  |

for Sri Venkata Sai Maruthi Plastic Pipe  
P. Hari  
PARTNER.

PRINCIPAL  
S.C.N.R. Govt. Degree College  
PRODDATUR-516360.



# S.C.N.R GOVT. DEGREE COLLEGE

UNDER u/s 2(f) & 12(B) OF UGC ACT, 1956

PRODDATUR, KADAPA DISTRICT, ANDHRA PRADESH – 516360

INSTITUTE ACCREDITED BY NAAC AT 'B' LEVEL

AFFILIATED TO YOGI VEMANA UNIVERSITY, KADAPA [proddatur.jkc@gmail.com](mailto:proddatur.jkc@gmail.com)

Principal : Dr.G. Chandra Sekhar, M.Sc., M.Phil., Ph.D.,

To,  
M/S Lalitha Paper Products,  
Proddatur, YSR Kadapa (Dt.).

Sir,

Sub:- SCNR GDC, Proddatur – request for permission of students internship (2 months)  
– submitted – reg.

Ref:- As per the instructions received from YVU, Kadapa and CCE, AP, Vijayawada.

@@@

As per the instructions of the Commissioner of Collegiate Education, AP, Vijayawada and the registrar, Yogi Vemana University, Kadapa, we have already taken permission from your esteemed industry regarding student internship last month. Now I request your good offices to kindly allow our college B.Com (Gen & CA) and B.Sc (BZC, MPC and MPCs) students (48 in number) for internship (2 months) in your esteemed industry from 17-10-2022 i.e., from Monday.

I request you sir, kindly give your valuable suggestions, guidance, work culture, habit of doing hard work, handling of instruments, learning of new knowledge, computer skills and other information to our students. Kindly maintain log book for our students attendance.

Thanking you sir,

Name of the Mentor : 1. Sri.B.Obula Subba Reddy, Lecturer in Commerce for B.Com(CA).

Cell number: 9441825619

2. Smt.C.Nirmala Devi, Lecturer in Commerce(CF) for B.Com(G).

Cell number: 8008668822

3. Dr.G.Venkata Ramana, Lecturer in Physics for MPC and MPCs.

Cell number: 9966948849

4. Sri.G.Damodara Rao, Lecturer in Zoology for BZC.

Cell number: 9398692858

Received

Encl:- students and mentors list.

For Lalitha Paper Products

*[Signature]*

Yours faithfully,

*[Signature]*  
**PRINCIPAL**  
S.C.N.R. Govt. Degree College  
PRODDATUR-516 360.

SCNR GOVERNMENT DEGREE COLLEGE, PRODDATUR, YSR KADAPA DISTRICT.

INTERNSHIP DATA (2 MONTHS) 17-10-2022 To 31-12-2022

NAME OF THE MENTORS :Dr.G.VENKATA RAMANA, SRI.G.DAMODARA RAO

INDUSTRY NAME : LALITHA PAPER PRODUCTS.

| S.No. | Phase | A.Y. of Admission | A.Y. of Batch | Programme | Specialization | Student Name                           | cell number |
|-------|-------|-------------------|---------------|-----------|----------------|----------------------------------------|-------------|
| 1     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | BONTHALA RAHIMAN                       | 9381995803  |
| 2     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | CHINTHAKOMMADINNE HEMANTH KUMAR        | 7095752003  |
| 3     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | GULLELA SURESH 003 - dis -             | 9396524744  |
| 4     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | KANCHAM RAJESWARI                      | 9704445285  |
| 5     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | KORIVI BHARATHI                        | 6281140135  |
| 6     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | KOULUTLLA SAILEELA                     | 9606502318  |
| 7     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | LEKKALA LAKSHMI SWAROOPA DEVI          | 9505550846  |
| 8     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | MALAKANI KEDHARESWARI 008              | 6281152490  |
| 9     | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | PALAGIRI ADI LAKSHMI 009 - dis         | 9963640115  |
| 10    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | PALLA SRI LAKSHMI                      | 9704602005  |
| 11    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | SANGATI RAJESWARI 011 - dis -          | 9573292241  |
| 12    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | SEGARI ARUN                            | 7095699014  |
| 13    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | SHAIK JAHEER BASHA 013 -               | 9592753378  |
| 14    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | SHAIK REHANA 014 - dis                 | 9515586814  |
| 15    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (BZC)     | YERRAMASU KEERTHI                      | 7661062607  |
| 16    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPC)     | BAIRAGANI KUMAR                        | 9398148949  |
| 17    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPC)     | BUDDANGARI UGRANARASIMHULU 003 - dis - | 7995464244  |
| 18    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPC)     | VARADA VENKATESWARLU 004 - dis         | 7995464244  |
| 19    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPC)     | YEDDULA CHINNA LINGAMIAH               | 9391742528  |
| 20    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPCs)    | AVVURU VENKATA SUMANTH                 | 9030891424  |
| 21    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPCs)    | DULLA MANOJ KUMAR                      | 7569109190  |
| 22    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPCs)    | GUNDLA BHAVANA                         | 7993419496  |
| 23    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPCs)    | KACHANA NAGESWAR REDDY - dis           | 9010553319  |
| 24    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPCs)    | KANCHANI GANESH                        | 9154314207  |
| 25    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPCs)    | PASUPULETI SUBBARAYUDU                 | 7330833020  |
| 26    | 2     | 2020-21           | 2020-21       | B.Sc.     | B.SC (MPCs)    | RAMAJI MERINDRA BABU                   | 9390892329  |

  
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**SCNR GOVERNMENT DEGREE COLLEGE, PRODDATUR, YSR KADAPA DISTRICT.**

**INTERNSHIP DATA (2 MONTHS)**

**NAME OF THE MENTORS : SRI.B.OBULA SUBBA REDDY, SMT.C.NIRMALA DEVI**

**INDUSTRY NAME : LALITHA PAPER PRODUCTS.**

| No. | Phase | A.Y. of Admission | A.Y. of Batch | Program me | Specialization        | Student Name                 | cell number |
|-----|-------|-------------------|---------------|------------|-----------------------|------------------------------|-------------|
| 1   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | D VENKATA LAKSHMI            | 9160138826  |
| 2   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | D YESUPADAM                  | 9989464075  |
| 3   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | DIYYA VIJAYA CHANDU          | 9573193700  |
| 4   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | DUVVUR ABUBAKAR              | 6302538067  |
| 5   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | MALAYATHI VENKATESH          | 9618290899  |
| 6   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | MOOLAKANI BHARATHI           | 9390940784  |
| 7   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | NANDYALAMPETA MAHAMMAD ASIF  | 8919091630  |
| 8   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | PATAN FAZULLA KHAN           | 7671864887  |
| 9   | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | POLANKI SUNIL                | 9014573115  |
| 10  | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | SAYYED NASEER                | 9493185701  |
| 11  | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | SHAIK GOUSEPEER              | 9398266607  |
| 12  | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | SYED IMAM PEER               | 9182240115  |
| 13  | 2     | 2020-21           | 2020-21       | B.Com.     | COMPUTER APPLICATIONS | VANIPENTA MOHAMMAD SALAUDDIN | 7993973321  |
| 14  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | BATHALA SUBBA RAMESH         | 7396551308  |
| 15  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | CHAPILLA VASU                | 6303725220  |
| 16  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | DUDEKULA RESHMA BANU         | 8919889573  |
| 17  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | MEERAM SAHEBGARI JAKEER      | 6281376263  |
| 18  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | NOSSAM SWARUPA               | 9652164268  |
| 19  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | OREDDY NAGATHULASI           | 7670997075  |
| 20  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | PEERLA BABA FARID            | 7780632281  |
| 21  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | SHAIK YUSUF                  | 8464851574  |
| 22  | 2     | 2020-21           | 2020-21       | B.Com.     | GENERAL               | SYED SHAFIUNNISA             | 6302587536  |

  
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