

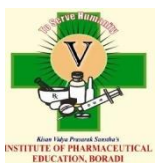


Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

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PROGRAMS FOR ADVANCED LEARNERS

- ✚ College has specific planned programs for advanced learners for encouraging them to participate in various competitions for research project, poster presentation, model making competition at University/State/National and International level.
- ✚ The advanced learners are encouraged to attend seminar, workshops, guest lectures and industrial visits.
- ✚ Arrangements are made for coaching for competitive exams like GPAT for higher studies.
- ✚ The academic achievers from each class are awarded with medal and certificate during Independence day and Republic day Celebration. Flag hosting is done by the academic achievers from each class during Independence day and Republic day Celebration
- ✚ The advance learners are encouraged to attend the certificate courses like CASI conducted by college.



Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

PARTICIPATION IN WEBINARS

REPORT OF ONE DAY NATIONAL WEBINAR

Title of activity: National Webinar on topic “Career opportunities in clinical research and future prospects”.

Date and Venue: 4th July 2020, K.V.P.S. Institute of Pharmaceutical education Boradi.

Online mode: Zoom app

Description of activity:

KVPS'S Institute of Pharmaceutical education organised National level seminar on “Career opportunities in clinical research and future prospects” on 4th July 2020. The main objective of this seminar is to give brief knowledge about the current Career opportunities in clinical research area to the final year student as well as to the post graduate student what are the future prospective, to update their knowledge, skill related to Clinical research of it during the pandemic covid 19 era. It is expected that this activity will act as a stimulus to discuss and channelize ideas for applicable for area of clinical research of students and faculty. Resource person for this webinar Miss Smita Saindarsing Director, Clinxion QCS.

No. of Student Participated: 90




Dr. Prakash H. Patil
Principal
Institute of Pharmaceutical
Education Boradi-425 428



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Institute of Pharmaceutical Education, Boradi

REPORT OF ONE DAY INTERNATIONAL WEBINAR

Title of activity: International Webinar “Professional licensing procedures and Scope of Pharmacy in GCC Countries”

Date and Venue: 18th July 2020, K.V.P.S. Institute of Pharmaceutical education Boradi.

Online mode: Zoom App

Description of activity:

KVPS'S Institute of Pharmaceutical education organised International level webinar on “Professional licensing procedures and Scope of Pharmacy in GCC Countries” on 18th July 2020. Hon. Principal Dr. P. H. Patil gives information about the achievements of our sansthas and institute to the eminent resource person. Mr. Anup M. Akarte introduced the resource person of the webinar Eminent Speaker Dr. Mohammed shaheer Ali Drug control officer, narcotics department, MOH, UAE & Hisham Khalid Managing director Middle East professional licensing center. Dr. Mohammed shaheer Ali share his knowledge to the student and faculty member regarding regulation aspects and perspectives in GCC countries. Dr. Hisham Khalid gives glimpse on Licensing procedure in GCC countries.

No. of Students Participated: 90




Dr. Prakash H. Patil
Principal
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Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

REPORT OF ONE DAY INTERNATIONAL WEBINAR

Title of activity: International Webinar “Introduction to Pharma Industry and Overseas Post-graduation opportunities ”

Date and Venue: 23th July 2020, K.V.P.S. Institute of Pharmaceutical education Boradi.

Online mode: Zoom App

Description of activity:

KVPS'S Institute of Pharmaceutical education organised International level webinar on “Introduction to Pharma Industry and Overseas Post-graduation opportunities ” on 23rd July 2020. Hon. Principal Dr.P.H.Patil gives information about the achievements of our sansthas and institute to the eminent resource person. Mr. Anup M. Akarte introduced the resource person of the webinar Eminent Speaker Mr Deepak Pardhi Co-founder Salutem Global, London, UK and Mr Aqib Ilyas Co-founder salutem global London. Dr. Deepak Pardhi shares his knowledge to the student and faculty member regarding status and job requirement needed in pharma industry in UK to the aspiring candidate. Mr Aqib Ilyas describes the educational qualification, entrance test competitive examination required for applying for jobs in UK countries.

The main objective of this seminar is to give brief knowledge about the current scenario and of Pharma industry in foreign countries to the final year student as well as to the post graduate student what are the future prospective, skill required to get the Job in UK .

No. of Student Participated: 56




Dr. Prakash H. Patil
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Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

REPORT OF TWO DAY ONLINE WEBINAR

Title of activity: TWO days Webinar on “Theoretical and Experimental Study for FT-IR & UV-VIS Spectroscopy”

Date and Venue: 08th & 09th October 2020 K.V.P.S. Institute of Pharmaceutical education Boradi.

Online mode: Zoom App

Description of activity:

KVPS'S Institute of Pharmaceutical education organised TWO days Webinar on “Theoretical and Experimental Study for FT-IR & UV-VIS Spectroscopy” on 08th & 09th October 2020. Hon. Principal Dr.P.H.Patil gives information about the achievements our sansthas and institute to the eminent resource person. Dr.Vikas V. Patil introduced the resource person of the webinar Eminent Speaker Dr.Girirajan R and Dr.Amol Bakre. Head consultant and Product support TOSHWIN analytical limited.

On 8th October 2020 Dr. Girirajan R explained share his experimental expertise related to the evaluation and characterisation of analysis of sample in FT-IR spectroscopy as per regulatory criteria in industry.

On 9th October 2020 Dr.Amol Bakre gives an idea about working principle and sample handling and industrial application of UV-VIS Spectroscopy

Mr.Anup Akarte gives the vote of thanks towards the successful completion of two days webinar.

No. of Student Participated: 60




Dr.Prakash H.Patil
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Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

REPORT OF ONE DAY ONLINE WEBINAR

Title of activity: one day Webinar on “Powerful Memorisation techniques” by Mr. Ashsish Kandalkar

Date and Venue: 08/05/2021

Online mode: Zoom App

Description of activity:

KVPS'S Institute of Pharmaceutical education organised one days Webinar on “Powerful Memorisation techniques” on **08/05/2021**. Hon. Principal Dr.P.H.Patil gives information about the achievements our sansthas and institute to the eminent resource person.

Mr. S.M. Mahajan sir introduced the resource person of the webinar Eminent Speaker Mr. Ashsish Kandalkar who is Principle at Akola institute of pharmacy and marketing executive of Herba life pvt ltd

On **08/05/2021** Mr. Ashsish Kandalkar explained share his expertise related to the memorisation technique and several psychological experiments how to increase or develop the grasping power during its preparation during any kind of examination

Mr.AnupAkarde gives the vote of thanks towards the successful completion of one days webinar.

No. of Student Participated: 56




Dr.Prakash H.Patil
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Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

PARTICIPATION IN WORKSHOPS

REPORT OF TWO DAY WORKSHOP ON HANDS ON TRAINING OF HPLC

Title of activity: TWO DAY WORKSHOP ON HANDS ON TRAINING OF HPLC in association with R.S.I.T.C Jalgaon

Date and Venue: 19/12/2021 and 20/12/2021

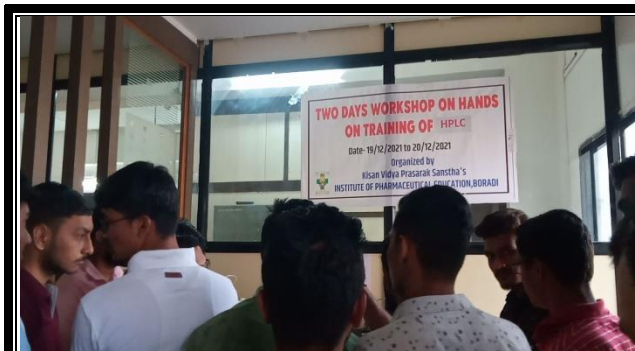
Description of activity:

KVPS'S Institute of Pharmaceutical education organised one TWO DAY WORKSHOP ON HANDS ON TRAINING OF HPLC in association with R.S.I.T.C Jalgaon. Hon. Principal Dr.P.H.Patil gives information about the achievements of our sansthas and institute to the eminent resource person Mr. Vispute Anil director of R.S.I.T.C Jalgaon.

Mr Anil Vispute sir on first day gives the detail theoretical information about the instrumentation and the parts of the instruments to the students of M. Pharm and B. Pharm. He shares his experience with the instrument to the student with the experimentation and also share how to overcome the various troubleshooting problems that arise during its operation.

On day two, their experiments are conducted on HPLC instrument and each student is trained for handling of the HPLC instruments.

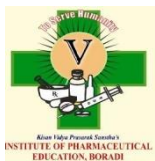
Mr. Pritam Pawara sir gives votes of thanks after concluding session.



TWO DAY WORKSHOP ON HANDS ON TRAINING OF HPLC dated 19 th and 20 th

Dec-2021

No. of Student Participated: 35

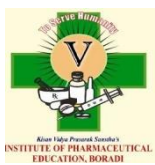


Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

HONOUR OF THE ACADEMIC ACIEVERS

The academic achievers from each class are awarded with medal and certificate during Independence day and Republic day Celebration. Flag hosting is done by the academic achievers from each class during Independence day and Republic day Celebration. Academic Achievers from first term are honored on Republic day and Academic Achievers from second term are honored on Independence day.



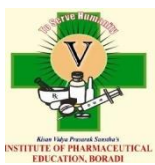


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SPECIAL PROGRAMS FOR SLOW LEARNERS

Slow learner will be given assignments; instructions and most importantly support to improve their performance.

1. Question banks are provided to the students containing important questions on the topic and frequently asked questions in the University examination.
2. Solved University examination question papers are given to the students.
3. Students are encouraged to watch videos/recorded lectures uploaded on Whats app groups of respective subjects for students. for better understanding of the subject.
4. Notes are provided in class room and uploaded on Whats app groups of respective subjects for students. The power point presentations are also uploaded Whats app groups of respective subjects for students..
5. Tutorial/Remedial Classes are organized for selected subjects.
6. Assignments are given to the students to enhance self-learning.
7. Students having poor performance in in-semester assessment tests/sessional examination are given an opportunity to appear for re-assessment/improvement sessional examination.
8. Individual attention is given to the students, where sessions are conducted to solve student's difficulties/doubts.
9. The institute organizes orientation programmes, communication workshop, personality development programmes for improvement of the soft skill of the students.



Kisan Vidya Prasarak Sanstha's
Institute of Pharmaceutical Education, Boradi

SAMPLE QUESTION BANK PROVIDED BY TEACHER

Subject :Human Anatomy and Physiology-II (BP201T)

Semister:II

Topic: Endocrine System

Name of Subject Teacher: Mr.Pankaj M.Chaudhari

Type of Question: M.C.Q.for 2 Marks each

1. Which of these is true of the endocrine system?
A. secretes hormones that are transported to target cells by blood
B. causes changes in metabolic activities
C. effects are prolonged
D. All of above are true.

2. Name the gland that is located at the base of the throat, just inferior to the laryngeal prominence (Adam's apple) .
A. Pituitary.
B. Pineal gland.
C. Hypothalamus.
D. Thyroid .

3. What gland is located just superior to the kidneys?
A. Pituitary.
B. Adrenal.
C. Pancreas.
D. ovaries

4. In the pancreas, which are the cells that secrete insulin, decrease the blood levels of glucose.
A. delta.
B. alpha.
C. gama.
D. beta.

5. The endocrine gland responsible for the body's circadian rhythm is the:
A. Thymus gland.
B. Pineal gland.
C. Parathyroid gland.
D. Pituitary gland.

6. Endocrine glands differ from exocrine glands in that:

A. Endocrine glands are ductless and exocrine glands release secretions at the body's surface or into ducts.

B. Endocrine glands release hormones, whereas exocrine glands release waste.

C. Endocrine glands are formed by epithelial tissue, but exocrine glands are primarily connective tissue.

D. Endocrine glands are all interconnected; whereas exocrine glands act completely independently.

7. Which of these is not an endocrine property?

A. hormones reach targets through the blood

B. effects are slow and cyclic

C. rapid acting effects

D. effects caused by chemicals.

8. The primary target of the releasing and inhibiting hormones of the hypothalamus is the:

A. Liver and adipose tissue

B. Gonads

C. Anterior pituitary

D. Bone marrow

9. Which of these is not an endocrine gland?

A. Pancreas.

B. Testes.

C. Salivary gland.

D. Parathyroid.

10. Which is not a function of the hypothalamus?

A. Affect heart rate

B. Control temperature

C. Affect water balance

D. Secrete FSH

11. Which if the following gland which can be classified as an endocrine and an exocrine gland?

A. Thyroid.

B. Thymus.

C. Pancreas.

D. Pituitary.

12. Which of these hormones is made by the posterior pituitary?

A. FSH

B. LH

C. ACTH

D. ADH

13. Which gland controls basal metabolic rate (BMR)?

A. Thyroid.

B. Parathyroid.

C. Testes.

D. Pancreas.

14. How do hormones from the thyroid and parathyroid regulate the calcium concentration of the blood?

- A. Calcitonin lowers blood calcium; parathyroid hormone raises blood calcium.**
- B. Parathyroid hormone lowers blood calcium; calcitonin raises blood calcium.
- C. Thyroxine and triiodothyronine together regulate calcium levels, as needs dictate.
- D. Both parathyroid hormone and the three thyroid hormones function to regulate blood calcium levels.

15. The posterior pituitary stores and releases:

- A. Growth hormone and prolactin.
- B. Prolactin and oxytocin.
- C. Oxytocin and antidiuretic hormone (ADH).**
- D. ADH and growth hormone.

16. Which of the following hormones are responsible for the "fight-or-flight" response?

- A. Epinephrine and norepinephrine.**
- B. Insulin and glucagon.
- C. Estrogen and progesterone.
- D. Thyroxine and melatonin.

17. The pituitary hormone that stimulates the male testes to produce sperm and stimulates the development of the follicle in the female on a monthly cycle is:

- A. growth hormone
- B. luteinizing hormone
- C. prolactin
- D. follicle-stimulating hormone**

18. Which hormones of the adrenal glands supplement the sex hormones from the gonads?

- A. Mineralocorticoids, such as aldosterone
- B. Glucocorticoids, such as cortisol
- C. Gnadocorticoids, such as the androgens**
- D. Epinephrine and norepinephrine.

19. The clusters of cells in the pancreas that produce hormones are the:

- A. Nodules.
- B. Islets of Langerhans.**
- C. Pancreatic medulla.
- D. Pancreatic cortex.

20. The Glucagon is:

- A. accelerates the conversion of glycogen into glucose.**
- B. slows down glucose formation from lactic acid.
- C. decreases the conversion of glycogen into glucose.
- D. speeds up protein synthesis within cells.

21. Most hormones of the endocrine system are regulated by a:

- A. Negative feedback mechanism.**
- B. Positive feedback mechanism.
- C. Hormone-receptor complex.

D. Hormone-gene complex.

22. Calcitonin is a hormone of which of following:

A. Adrenal cortex.

B. Thyroid gland.

C. Pituitary gland.

D. Thymus gland.

E. None of the above.

23. Calcium level in the blood is regulated by the:

A. Thyroid.

B. Parathyroid.

C. Posterior pituitary.

D. Adrenal medulla.

E. A and B.

24. All of the following are hormones of the anterior pituitary except:

A. Human growth hormone (GH).

B. Follicle-stimulating hormone (FSH).

C. Parathyroid hormone(PTH).

D. Thyroid-stimulating hormone (TSH).

25. The secretions from which of these glands differs between males and females?

A. Adrenal.

B. Parathyroid.

C. Gonadal.

D. Pancreas.




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SAMPLE NOTES PROVIDED BY TEACHER

* Adrenostimulants / catecholamines

- sympathomimetic / Adrenergic drugs

250- These are the drugs which produces responses similar to that of sympathetic nerve stimulation.

- many of these drug contains in their chemical structure aminogroup (NH_2). so they are called as sympathomimetic amines.

Classification-

A) chemical classification -

1) catecholamines:- They contain presence of OH group at the third & fourth position of benzene ring (catechol nucleus).

eg - Adrenaline

Noradrenaline

dopamine

Isoprenaline.

2) Non

catecholamines - They do not contain OH group at the 3rd & 4th position of benzene ring.

eg - Ephedrine

Amphetamine

B) Therapeutic classification -

1) Use to raise blood pressure -

eg - Noradrenaline

methoxamine.

2) Use as positive inotropic agents -

eg - Dopamine

Dobutamine

Xamoterol.

3) Smooth muscle relaxants -

eg - Adrenaline

4) Local Vaso Constrictor -

eg - Adrenaline
phenylephrine

5) Use in allergic conditions -

eg - Adrenaline
ephedrine

6) Use as CNS stimulant

eg - Amphetamine

7) Use as appetite suppressant

eg - Fenfluramine

Mechanism of Action -

Catecholamines directly combines with adrenergic receptors which are present on cell membrane.

There are 2 types of receptors for catecholamines
 α receptors & β receptors.

1) α receptors are of 2 types α_1 & α_2

2) β receptors are of 3 types β_1 , β_2 & β_3 .

1) α_1 receptors are present in -

- a) Blood vessels supplying to skin & mucous membrane.
- b) Radial muscle of iris
- c) male sex organs.

2) α_2 receptors are present in -

- a) Pancreatic B cells, platelets & certain blood vessels.

1) β_1 receptors are present in heart.

2) β_2 receptors are present in blood vessels supplying to skeletal muscles.

- smooth muscle of G.I.T, urinary tract, bronchi, uterus & eye.

BBB - semipermeable membrane. ^{basal} that separates the circulating blood from the brain & extracellular fluid. Adrenaline when injected after the use of α -blockers it mainly produces fall in BP instead of rise. eg - Esgotoxin.

1) Smooth muscles -

a) Bronchial smooth muscles - Adrenaline produces potent bronchodilation of smooth muscles.

b) G.I.T - Relaxation of smooth muscles of G.I.T.

c) Urinary bladder - Relaxation of muscles. The sphincter are constricted.

d) Uterus - Effect on uterus depends on species present at gestation.
- Rat uterus always relax
- On human pregnant uterus relax & non pregnant contracted.

3) Metabolism - On carbohydrate metabolism adrenaline increases blood sugar level (hyperglycemia) by accelerating glycogenolysis in liver.

- On lipid metabolism - increase FFA (Free fatty acid) level by increase lipolysis - breakdown of triglycerides in liver.

4) CNS - Catecholamine poorly cross blood brain barrier so no significant effect.

5) Respiration -

Improvement in respiration with adrenaline because of bronchodilation.

Antiallergic action - Adrenaline is a physiological antagonist of histamine & counter the bronchoconstriction & hypotension of anaphylactic shock.
 irregular heart beat " cause allergic reaction

Adverse effect - involuntary movement due to unopposed contraction of opposite muscle.
 palpitation, Tremors, severe hypertension, arrhythmia & acute pulmonary edema.
 abnormal rhythm caused by excess fluid in lungs, which is breath

Therapeutic uses -

- 1) In acute bronchial asthma by s.c injection of 0.5-1 ml in 1:1000 solⁿ
- 2) In acute anaphylaxis.
- 3) Cardiac resuscitation - adrenaline injected immediately 0.3 mg in heart chamber
- 4) Dental extraction - To control bleeding.
- 5) nasal decongestant.

nm - catecholamines -

Ephedrine - It is a alkaloid obtained from ephedra plant.

Pharmacological actions -

1) CVS -

Heart - it increases force of contraction of heart, ↑ cardiac output, BP ↑.

2) Smooth muscles -

- ① It relaxes bronchial smooth muscle.
- ② VBA smooth muscle relaxes.

3) CNS - It stimulates CNS & produces restlessness tremors, insomnia.

4) ... cytoplasmic loss of acorn cytoplasm. For ... release of ...

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 MY NOTE BOOK -
 5) metabolic effect - it increases the metabolic rate of oxygen consumption

Therapeutic uses -

- ① bronchial asthma
- ② Nasal congestion
- ③ Hypertension
- ④ Narcolepsy - Tendency to fall asleep
- ⑤ myasthenia gravis - weakening of skeletal muscle. ↓ (autoimmune disease)
- ⑥ Heart block - Stokes -

Adverse effect -

palpitation, tremors, severe hypertension,

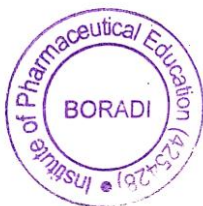
② Amphetamine -

- ① CVS - ↑ H.R. ↑ drug contraction
- ② CNS
- ③ Smooth muscles - contraction of vessel sphincter
- ④ Appetite suppressant - it reduces appetite probably by acting on hypothalamus area concerned with feeding.

⑤ miscellaneous - it has moderate anticonvulsant activity & useful in petit mal epilepsy. → occurrence of seizure
Absence seizure loss of consciousness

Therapeutic uses -

- ① Narcolepsy - sleep occurring in RT.
- ② As an anorexifant (reduce appetite).



(Signature)

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Education Boradi-425 428



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3. Classify anxiolytic drugs & ex.

• Benzodiazepines

Alprazolam (Xanax)

Bromazepam (Lectopam, Lectotan)

Chlordiazepoxide (Librium)

Chlondazepam (Klonopin, Rivotril)

Chlondazepam (transzene)

Diazepam (Valium)

Flurazepam (Dalmane)

Lorazepam (Ativan)

4. Give the drugs used in the treatment of parkinsonism.

The main types of drugs that are used to treat parkinson's are levodopa, Dopamine agonists, Glutamate antagonist.

5. Define & classify Antipsychotic.

Definition:

Antipsychotic drugs don't cure psychosis but they can help to reduce and control many psychotic symptoms including delusions & from feeling threatened.



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classification:

first Generation Antipsychotic.

- chlorpromazine
- prochlorperazine
- thioridazine.

second Generation Antipsychotic.

- aripiprazole
- quetiapine
- risperidone
- ziprasidone
- paliperidone.
- clozapine
- lurasidone



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Q-2. Any four.

e) Write a note on local anaesthetics.

Local anaesthetics (LAs) are drugs which upon topical application or local injection cause reversible loss of sensory perception, specially of pain in a restricted area of the body. They block generation and conduction of nerve impulse at all parts of the neurone where they come in contact, without causing any structural damage. Thus not only sensory but also motor impulses are interrupted when LA is applied to a mixed nerve control as well as.

Classification:

• Low potency, short duration

procaine

chlorprocaine.

• Intermediate potency and duration

lignocaine^s. (lido-caine)

prilocaine.



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- High potency, long duration.

tetracaine (Amethocaine)

Bupivacaine

Ropivacaine

Dibucaine (Chincona).

MOA:

The LA's block nerve conduction decreasing the entry of Na^+ ions during upstroke of a action potential (AP). As the concentration of the LA is increased, the rate of rise of AP and maximum depolarization decreases, causing slowing to reach of the threshold potential and conduction block ensues.

Local action:

The clinically used LA's have no minimal local irritant action & block sensory nerve endings, nerve trunk neuromuscular junction, ganglionic synapse and receptors (non-selectively).



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i.e. structures which function through increases Na^+ permeability. They also reduce release of acetylcholine from motor nerve endings. injected around a mixed nerve they cause anaesthesia of skin paralysis of Voluntary of muscle supplied by the nerve.



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 a) write a note on levodopa.

→. Levodopa has a specific salutary effect in PD. efficacy exceeding that of any other drug used alone. It is inactive by itself but is immediate precursor of the transmitter DA. more than 95% peripheral tissues (mainly gut and liver). DA thus formed as in heart blood vessel other peripheral organs and in CTZ (though located in the brain i.e. floor of IV ventricle) is not bound by blood vessels other peripheral about 1-2% of administered levodopa crosses the brain is taken up by the surviving dopaminergic neurones converted to DA which is stored and released as a transmitter. Brain of parkinson's patients treated with levodopa till death had DA levels higher than those not so treated. further, those patients who has responded well had.



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higher DA levels than those who had responded poorly.

Actions:

• CNS:

Levodopa hardly produces any effect in normal individuals or in patients with other neurological disease. Marked symptomatic improvement occurs in parkinsonian patients. Hypokinesia and rigidity resolve first. Letter tremor as well as secondary symptoms of posture, gait, handwriting, speech, facial expression, mood, self and interest in life are gradually.

• CVS:-

The peripherally formed DA can cause tachycardia acting on β adrenergic receptors. Though DA can stimulate vascular adrenergic receptors as well, rise in BP is not seen instead, postural hypotension



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is quite common. This may be a central action - DA and NA formed in brain decrease sympathetic outflow; also DA formed in autonomic ganglia can impede ganglionic transmission.

• CTZ :-

Dopaminergic receptors are present in this area and DA acts as an excitatory transmitter. Peripherally formed DA gains access to the CTZ without hindrance - elicits nausea and vomiting. Tolerance occurs to this action.

• Endocrine :

DA acts on pituitary mamatotropes to inhibit prolactin release and on somatotropes to increase GH release though prolactin levels in blood fall during levodopa therapy increased GH level are not noted in parkinson patients.

#



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pharmacokinetics :-

levodopa is rapidly absorbed from the small intestines by utilizing the active transport process meant for aromatic amino acids.

⇒ Gastric Emptying :- if slow, levodopa is exposed to degrading enzymes present in gut wall and liver for a longer time - less than is available to penetrate blood brain barrier.



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a) Describe in detail pharmacology of Benzodiazepines.

Benzodiazepines :-

• Flumazenil -

It is a BZD analogue which has little intrinsic activity (practically no effect on normal subjects) but competes with BZD agonists as well as well as inverse agonist for the BZD receptors. and reverses their depressant or stimulant effects respectively.

It abolishes the hypogenic, psychomotor, cognitive and EEG effects of BZD's

At higher doses it has some weak BZD antagonist like as well as inverse agonist like activity, but these are of no clinical significance.

Flumazenil is absorbed orally undergoes high first pass metabolism in liver: oral bioavailability is ~ 16% but is not only on i.v. injection action starts in second and lasts for 1-2 hr elimination $t_{1/2}$ is 1 hr.



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Uses :-

→ To reverse BZD anaesthesia
patient anaesthetized / sedated with
a BZD wakeup, get oriented and
regain motor control within 1 min
of an iv injection of 0.3-1 mg of flumazenil.

Resedation generally occurs after
1-2 hr (more with diazepam than
it will may be given it).

→ BZD overdose :-

Flumazenil 0.2 mg/min is injected
iv (max 5 mg) till the patient regains
consciousness. practically all patient
intoxicated with a BZD alone respond
within 5 min. in mixed CNS depressant
poisoning, whatever sedation is not
abolished by 5 mg of flumazenil
should be taken to be due to a
non BZD depressant. It helps in
differential diagnosis of such patients.



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3) It has been tried in hepatic coma and acute alcohol intoxication with equivocal results.

Adverse effect :-

Flumazenil is safe and well tolerated.

Agitation, discomfort, restlessness, anxiety, coldness and withdrawal seizures are the occasional side effect



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d) pharmacology of Alcohol :

1) Rubefacient and counterirritant to skin.

2) Irritant - soft skin and necrosis on injection.

3) pain, inflammation and necrosis on injection.

4) Astringent : Antiseptic (20-30%)
100% is dehydrating.

Effects of Alcohol :

Impaired performance, slowing of reflexes and fine discrimination impaired. Induces sleep but not ideal hypnotic. Analgesic but not ideal analgesic.

Mechanism :

GABA receptor mediated synaptic inhibition by chloride channel opening.

Inhibition of NDA excitatory amino acid receptor.



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Effects of Alcohol consumption :

CVS :-

small doses : cutaneous vasodilators . flushing

medium doses : tachycardia and mild rise in
BP .Large dose : vasodilation due to direct vascular
smooth muscle dilation & vasomotor centre

Respiration :

Stimulation of respiration - by irritation
of pharyngeal and buccal mucosa.

Central action : depression.



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Q.3 Any one:

a). Define & classify sedative & hypnotics
Give the pharmacology of any one
long acting barbiturates.

Sedative Defⁿ:-

→ drug that subdues excitement
and calms the subjects without inducing
sleep though drowsiness may be produced
Sedation refers to decreased respon-
siveness to any level of stimulation
is associated with some decrease
in motor activity in ideation.

Hypnotic:

→ drug that induces and/or main-
tains sleep, similar to normal
arousable sleep. This is not to be confused
with hypnosis meaning a trance like
state in which the subject becomes
passive and highly suggestible.



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Classification :1. Barbiturates :

Long acting.

Short acting

Ultra acting.

phenobarbitone

Barobarbitone

Thiopentone

Mephobarbitone

Secobarbitone

Methohexitone

pentobarbitone

Hexobarbitone.

2. Benzodiazepines :

Hypnotic

Anxiolytic

Diazepam

Diazepam

Flurazepam

Chlordiazepoxide

Nitrazepam

Oxazepam

Triazolam

Alprazolam

Midazolam.

Anticonvulsant.

3. Newer Nonbenzodiazepine hypnotics.

Zip. Zopiclone

Zolpidem.



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chloral hydrate, trichlorophos, paraldehyde
Glutethimide, methylpridone, methoqualone
and meprobamate are historical sedative
hypnotics no longer used. They are
described in earlier.

BARBITURATES :

Barbiturates have been popular hyp-
notics and sedatives of the last century
upto 1960s but are not preferred now.

However, they are described first as
they are the prototype of CNS depressants.

Barbiturates are substituted derivatives
of barbituric acid (malonyl urea). Barbituric
acid as such is not a hypnotic but compound
with alkyl or aryl substitution on CS are
Replacement of O with S at C2 yields
thiobarbiturates which are more lipid
soluble and more potent. Barbiturates
have variable lipid solubility the more
soluble ones are more potent and shorter
acting. They are insoluble in water
but their sodium salts dissolve
yielding highly alkaline solution.



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pharmacological Action :

Barbiturates are general depressants for all excitable cells, the CNS most sensitive where the effect is almost global but certain areas are more susceptible.

1) CNS :- Barbiturates produce dose dependent effects :

sedation $\rightarrow$ sleep $\rightarrow$ anaesthesia $\rightarrow$ coma.

Hypnotic dose (100-200 mg of a short acting barbiturate) shortens the time taken to fall asleep and increase sleep duration. The sleep is arousable but the subjects may feel confused and unsteady if waken early. Night awakenings are reduced and REM and stage 3,4 sleep are decreased. REM-NREM sleep cycle is disrupted. The effects on sleep become progressively less marked if the drug is given every night consecutively.



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Other system:

Respiration is depressed by relatively higher doses neurogenic, hypercapnic and hypoxic drives to respiratory centre are depressed in succession.

Barbiturates do not have selective antitussive action.

CVS Hypnotic doses of barbiturates produce a slight decrease in BP and heart rate: magnitude of change not differing from that during normal sleep. Toxic doses of barbiturates produce a slight decrease in BP and heart rate. magnitude blockade, vasomotor centre depression and direct decreases in cardiac contractility.

Skeletal Muscle. Hypnotic doses have little effect but anaesthetic doses reduce muscle contraction by depressing excitability of neuromuscular junction.

Smooth muscle. Tone and motility of bowel is decreased slightly by hypnotic doses, more profoundly during intoxication.



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Section - II.

Q.1. solve any ~~four~~ five.

b) Enlist male female sex hormones :

female sex hormones —

The ovaries of sexually mature females secrete

a mixture of estrogens of which 17 β estradiol is the most abundant (and most potent) and progesterone

c) Define uterine stimulants & Relaxant.

→ Uterine stimulants (uterotonics or oxytocics) are medication given to cause a woman's uterus to contract or to increase the frequency and intensity of the contraction. The three uterotonic drugs used most frequently are the oxytocins, prostaglandins and ergot alkaloids.

• Uterine Relaxant.

These are the drugs which decrease uterine motility.



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d) Explain Mucolytics Agent:

- carbocysteine, mecysteine
- water inhalation via an aerosol
- Bromhexine
- Ambroxol
- Dornase α

Mucolytics are medicines that make the mucus less thick and sticky and easier to cough up. They are helpful if you have a long-term (chronic) cough because they help you cough up mucus from your lungs. You may also see the term expectorant used to describe a type of cough medicine.

f) What is ligand binding Assay.

→ Ligand binding assay

LBA is an assay or an analytic procedure which realises on the binding of



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ligand molecules to receptors
antibodies or other macromolecules
This type of analytic test can be
used to test for the presence of
target molecules in a sample that
are known to bind to the receptor.

9> Define & classify Expectorants.

Expectorants are "drugs that help
in removing sputum from the respira-
tory tract either by
increasing the fluidity ~~or~~ reducing
the viscosity of sputum.

increasing the volume of fluids that have
to be expelled from the respiratory
tract by coughing.

Classification.

- 1) sedative expectorant
- 2) stimulant expectorant



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Q.2. Any four.

- a) Describe in detail physiological actions, uses & effects of oxytocin.

→ Oxytocin :-

Oxytocin is an octapeptide secreted by the posterior pituitary along with ADH. Pituitary extract was first used in labour in 1909 controversy as to whether the antidiuretic and uterine stimulating activities were due to one substance or two separate principles was finally resolved by du Vigneaud in 1953 when he separated oxytocin and ADH, determined their chemical structure and synthesized them.

Both oxytocin and ADH are synthesized within the nerve cell bodies in supraoptic and paraventricular nuclei of hypothalamus; are transported down the axon and stored in the nerve endings within the neurohypophysis.



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Actions :-

1) Uterus :- oxytocin increases the force and frequency of uterine contractions. With low doses full relaxation occurs in between contractions basal tone increases only with high doses. Increased contractility is due to heightened electrical activity of the myometrial cell membrane - burst discharges are initiated and accentuated.

Mechanism of action : Action of oxytocin is myometrium is independent of innervation

2) Breast :- oxytocin contracts myoepithelium of mammary alveoli and forces milk into the bigger milk sinusoids - milk ejection reflex (milk letdown in cattle) is initiated by the infant.

3) CVS :- conventional doses used in obstetrics have no effect, but higher doses cause vasodilation by direct action $\rightarrow$ brief fall in BP, reflex tachycardia and flushing.

4) Kidney :- oxytocin in high doses exerts and ADH like action - urine output is decreased pulmonary edema can occur



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b.)

Write a note on ELISA.

→

What is ELISA -

- Enzyme-linked immunosorbent Assay (ELISA) is biochemical assay technique used mainly in immunology.
- It is plate-based assays designed for detecting and quantifying substance such as peptides, proteins, antibodies and hormones.
- first and most basic test determine if an individual is positive for a selected pathogen, such as HIV.

ELISA :-

A sensitive immunoassay that uses an enzymes linked to an antibody or antigen as a marker for the detection of a specific protein, especially an antigen or antibody. ELISA involves detection of analyte in a liquid sample using liquid reagent (wet lab) or dry strips (dry lab).

In dry analysis, strip can be read in reflectrometry. The quantitative reading usually used on detection of intensity of transmitted light by



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spectrophotometry at specific wavelength.

The sensitivity of detection depends on amplification of signal generated by enzyme which are linked to the detection reagents in fixed proportions to allow accurate quantification (enzyme linked).

There are two main methods on ELISA.

ELISA can be used to detect the presence of antigens that are recognized by an antibody.





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c) Classify OHA. Discuss Metformin.

→ Oral Hypoglycaemic drugs.

These drugs lower blood glucose levels and are effective orally. The chief drawback of insulin is - it must be given by injection. Orally active drugs have always been searched.

The early sulfonamides tested in 1940s produced hypoglycaemia as a side effect. Taking this lead, the first clinically acceptable sulfonylurea tolbutamide was introduced in 1957. Others followed soon after. In the 1970s many so called second generation sulfonylureas have been developed which are 20-100 times more potent. A diuretic glibenclamide was found to be hypoglycaemic in the 1920s but was toxic.

Clinically useful biguanide phenformin was developed parallel to sulfonylureas in 1957.



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Classification :

sulfonylureas.

first generation

Tolbutamide

Chlorpropamide

second generation.

Glibenclamide

(Glyburide)

Gliclazide.

Biguanides.

phenformin

metformin.

Meglitinine Analogues.

Repaglinide

nateglinide.

thiazolidinediones.

Rosiglitazone

pioglitazone

 α Glucosidase Inhibitors.

Acarbose

miglitol.



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c) write a note on oral contraceptive.

→ Defn :- oral contraceptives are medicines taken by mouth to help prevent pregnancy. They are also known as birth control pills.

There are two types :-

① The combined pills :-

• formulation may be.

① Monophasic (each tablet contains a fixed amount of estrogen & progestin)

② Biphasic (each tablet contains a fixed amount of estrogen, while the amount of progestin increases in the second half of the cycle or.

③ Triphasic : (the amount of estrogen may be fixed or variable while the amount of progestin increases in 3 equal phases.)

The oestrogen in most combined preparations (second-generation pills) is ethinylestradiol, although a few preparations contain mestranol instead.



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The progestoon may be norethisterone levonorgestral, ethynodiol or in third genⁿ. pills desogestral or gestodene which are more potent have less androgenic action and cause less change in lipoprotein metabolism but which probably cause a greater risk of thromboembolism than do second genⁿ preparations:

The oestrogen content is generally 20-50 µg of ethinylestradiol or its equivalent, and a preparation is chosen with the lowest oestrogen & progestogen content that is well tolerated & gives good cycle control in the individual woman.

The combined pill is taken for 21 consecutive days followed by 7 pill-free days which causes a withdrawal bleed.



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solve any one.

a) Define Bioassay, describe in detail diff. types of Bioassay.

→ Defⁿ :-

Bioassays are procedures by which the potency or the nature of the substance is estimated by studying its effects on living matter. The basic principles of such assays is to compare how much of a sample being tested produces the same biological effects as a given quantity of a standard preparation.

principle :-

• Burn and Dale enunciated certain principle for conducting bioassays.

- All bioassays must be comparative & compared against a standard drug or preparation. This is to overcome errors due to biological variation.

- The standards and the new drug should be identical to each other so that either dose-response levels.

- The method for comparing the unknown and the standard should preferably test the therapeutic property of the drug.



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Ideally, an analgesic is tested for analgesic activity and an anti-convulsant for anticonvulsant activity. and as this is not always convenient or possible to do so. e.g. for estimating digitaloid drugs the cardiac arrest in pison pig used as the end point: which is the toxic effect of the drug but not the therapeutic effect.

- The method should eliminate all possible errors and allow an estimation of the error due to biological variation in different animals/persons at any one time and minimize errors due to biological variations. These include the selection of suitable animals/preparations and also then selection of the experimental conditions.

- The results of the should be subject to statistical analysis to minimize errors due to biological variation.

This type of assay give almost identical results.

- precision of assay demands
- quantity of the sample available
- availability of experimental animals.



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1) Matching Dose Bioassay:

- It is based on the assumption of dose-response relationship. At first the concentration response curve due to graded doses of a standard substance followed by the dose response curve of the due to graded doses of selected from the respective DRCs such that they lie on the linear portion of the DRC.

Advantages:

The assay does not depend on the assumption of a dose response relationship

Disadvantages

- purely subjective method.
- precision and reliability are poor.

2) Bracketting Dose Bioassay:

- It is also a simple assay procedure which is employed when the test sample is very small.



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The students are evaluated for their learning ability soon after getting admission to first year B.Pharm. Their results of previous examination HSC, CET, NEET etc. are used as base for their primary evaluation. The assessment of the learning ability of the student at earliest in the course is of great importance for the students because fast learners will get more opportunities to explore the knowledge also to improve their skill. Whereas, slow learner will be given assignment, instructions and most importantly support to improve their performance. The slow learners are also evaluated for language pattern, social behavior, difficulty in learning, poor memory etc..

Evaluation of Learning ability of students is based on

1. Continuous assessment of student in theory and practicals as per PCI Syllabus which includes Academic activities (Average of any 3 activities e.g. quiz, assignment, open book test, field work, group discussion and seminar)
2. Student – Teacher interaction
3. Regular unit test
4. Sessional examinations
5. Viva voce during practicals
6. Comparison of performance in different subject

7.

Sr.No	Criteria for classification	Measurable Parameters		
		Slow Learner	Medium Learner	Fast Learner
1	CET Examination marks	Less than 50 %	51- 60 %	More than 61 %
2	Performance in the Unit test and sessional examinations	Less than 50 %	51- 65 %	More than 66 %
3	Performance of student in University Examinations	Less than 50 %	51- 65 %	More than 66 %
4	Continuous assessment of student in theory	Less than 5 Marks	6-7 Marks	8-10 Marks
5	Continuous assessment of student in Practicals	Less than 2 Marks	3-4 Marks	5 Marks

Special Programs for Rapid Learners

- ✚ Rapid learners are encouraged to participate in various competitions for research project, poster presentation, model making competition at University/State/National and International level.
- ✚ The advanced learners are encouraged to attend seminar, workshops, guest lectures and industrial visits.
- ✚ Arrangements are made for coaching for competitive exams like GPAT for higher studies.
- ✚ The academic achievers from each class are awarded with medal and certificate during Independence day and Republic day Celebration. Flag hosting is done by the academic achievers from each class during Independence day and Republic day Celebration

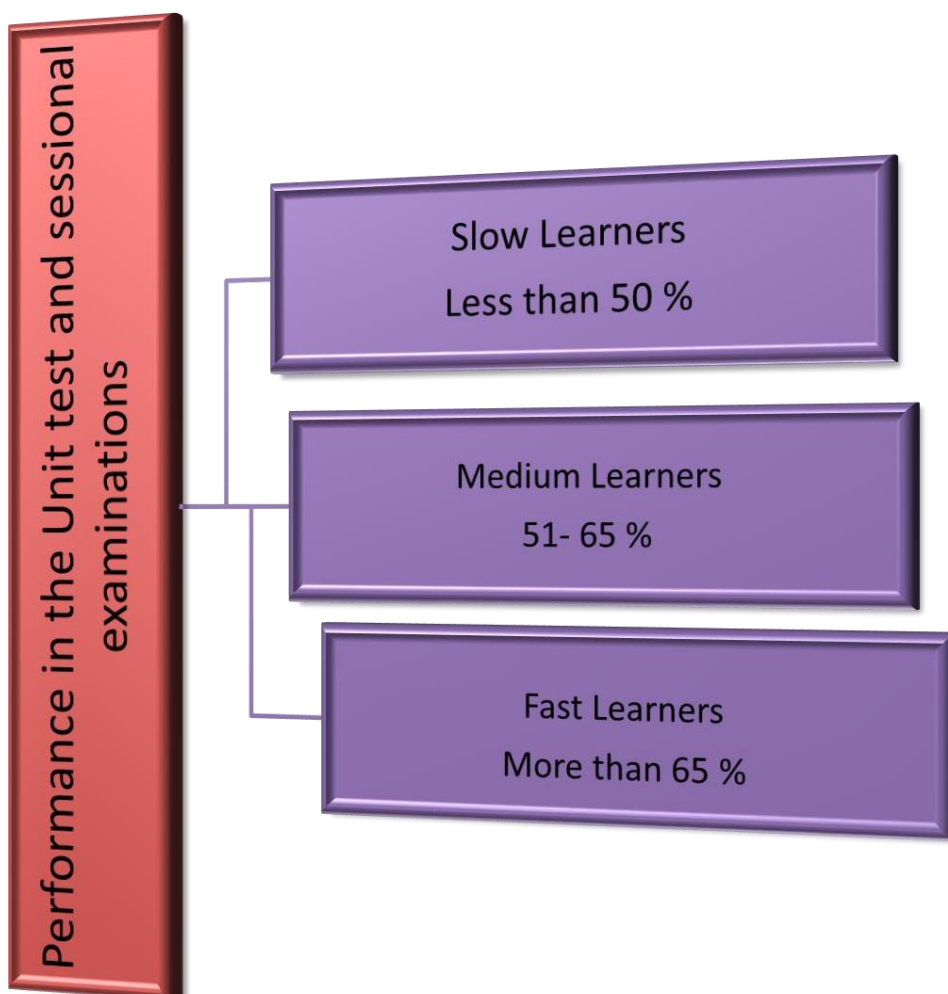
Programs for Slow Learners

- ✚ Question banks and Notes are provided to the students containing important questions on the topic
- ✚ Solved University examination question papers are given to the students.
- ✚ Tutorial/Remedial Classes are organized for selected subjects.
- ✚ Assignments are given to the students to enhance self-learning.
- ✚ The institute organizes orientation programs, communication workshop, personality development programs for improvement of the soft skill of the students.



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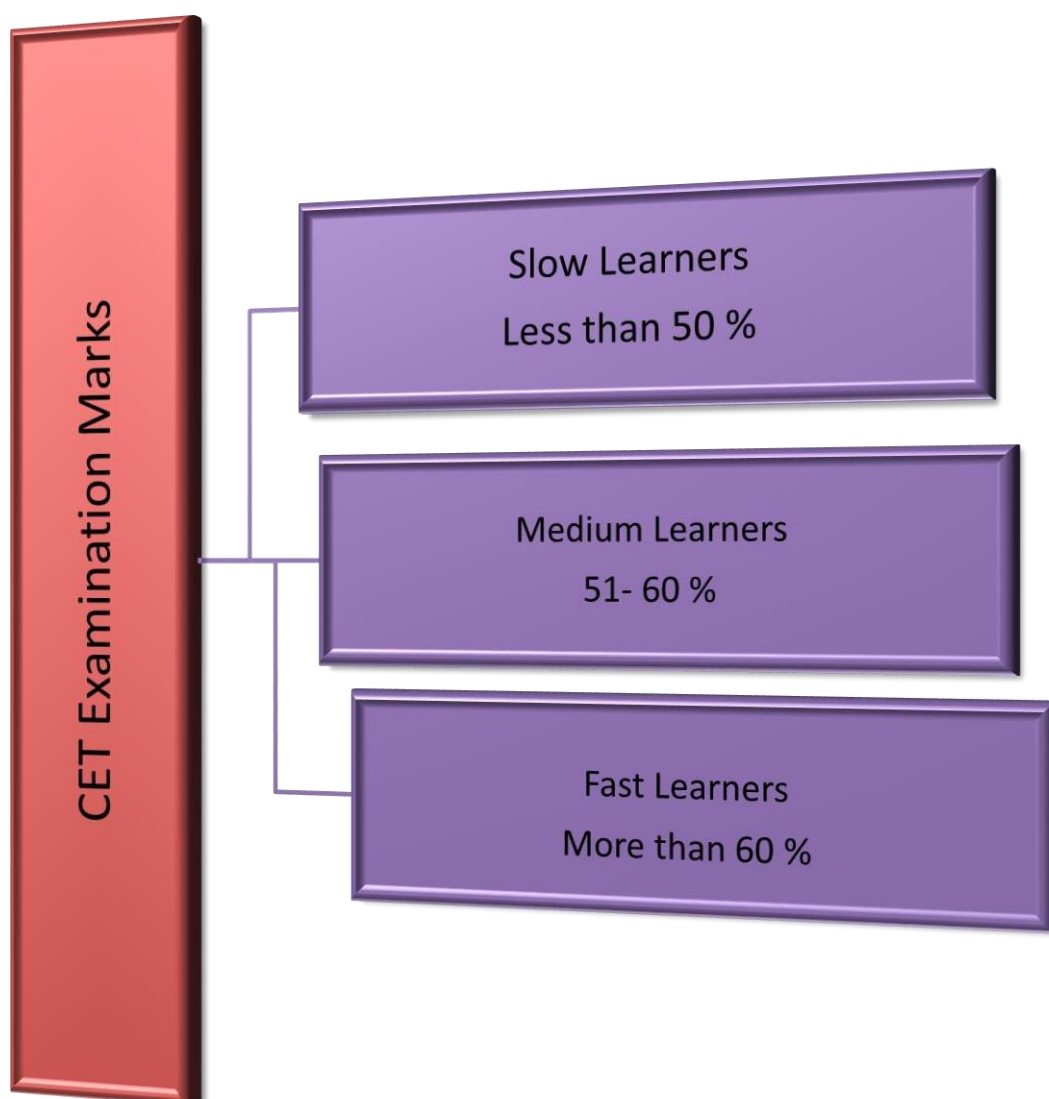
Measurable criteria for assessment of Learning Levels of Students





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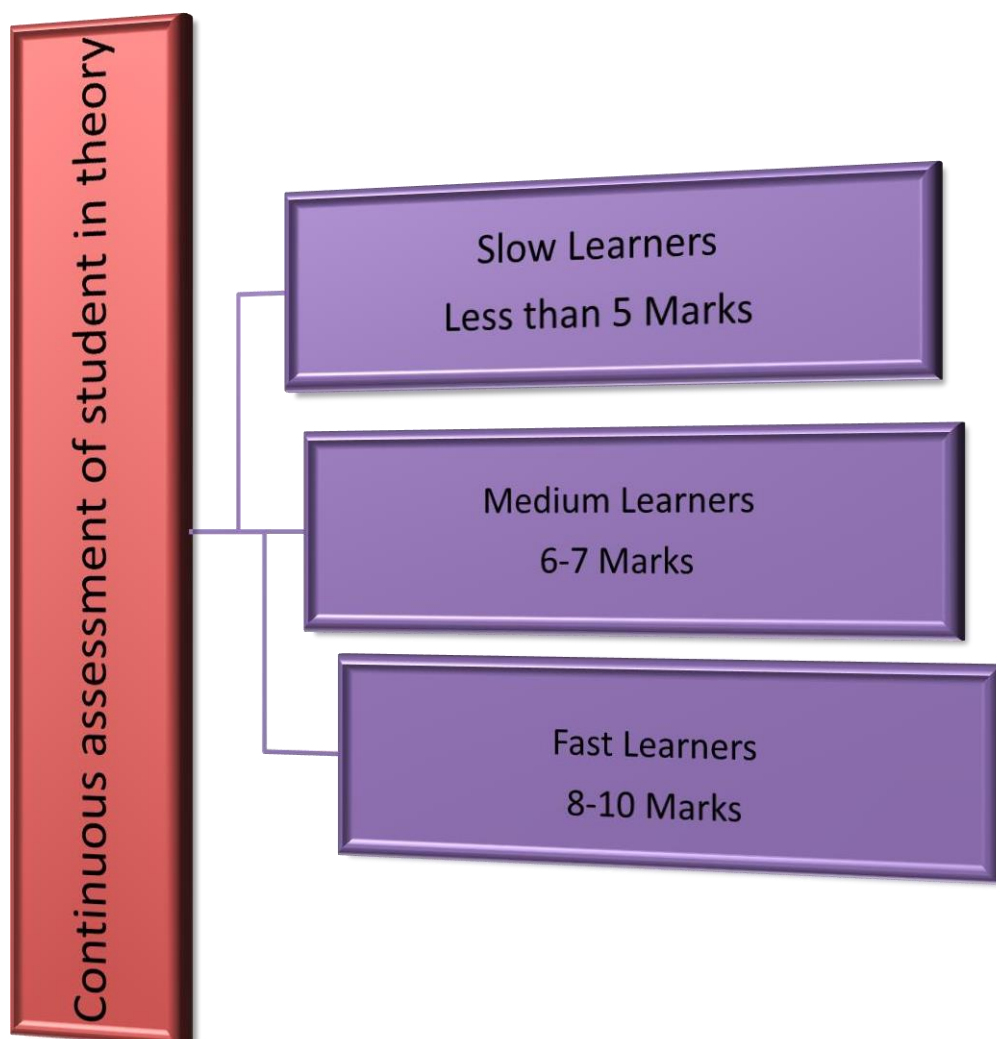
Measurable criteria for assessment of Learning Levels of Students





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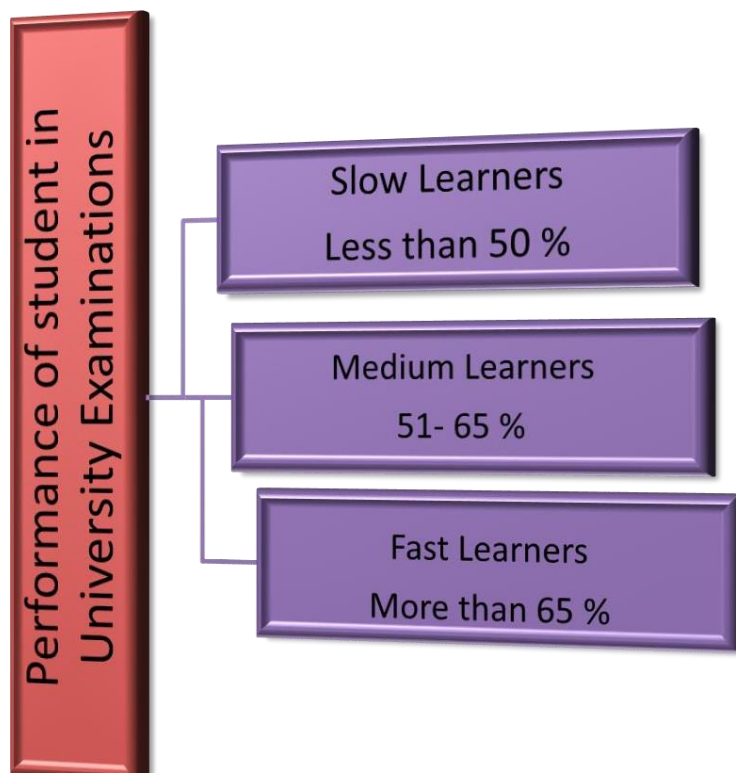
Measurable criteria for assessment of Learning Levels of Students





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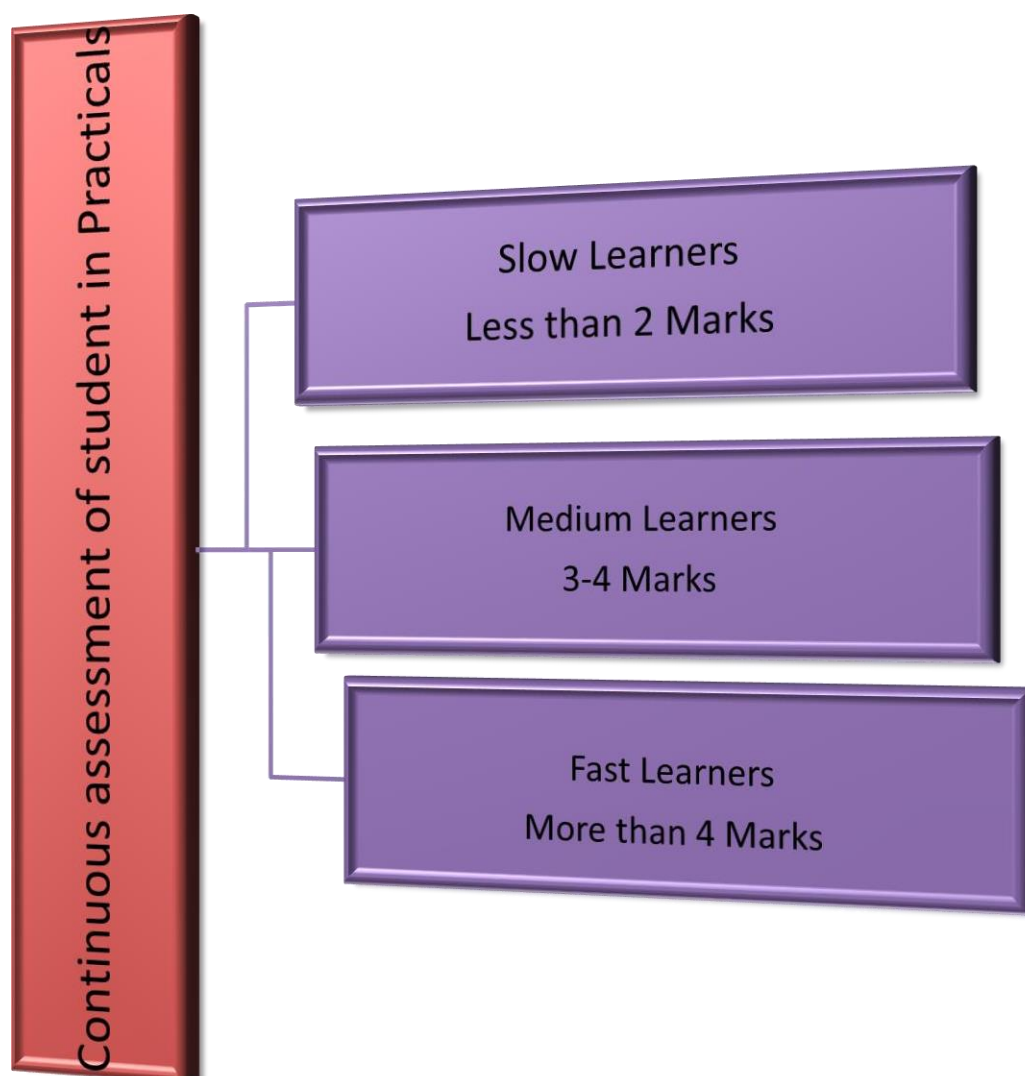
Measurable criteria for assessment of Learning Levels of Students





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Measurable criteria for assessment of Learning Levels of Students





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ASSESSMENT OF LEARNING LEVELS OF FIRST YEAR STUDENTS

Roll No	Name of Student	MHCET Marks	NEET Marks	HSC Marks
1	Ahire Khushal Kisan	53.53		60.
2	Ahire Rakesh Sunil	69.86		68.46
3	Bagad Sanket Ashok	33.34		71.38
4	Bawa Yash Devidas	69.15		60
5	Beldar Kalpesh Arun	70.64		75.85
6	Borase Lavkesh Raju	66.92		63.85
7	Borse Purushottam Rajendra	76.75		81
8	Chavan Kamlesh Ravindra	51.33	38	74.
9	Chavan Prerana Dharu	66.89		80.15
10	Deore Monudip Samadan	73.41		64.92
11	Dhangar Rushikesh jagan	70.72		68.31
12	Ghuge rushikesh Sudhakar	70.57		73.69
13	Girase Bhavesh Mohansing	62.24		71.23
14	Girnar Darshan Mahendra	75.89		78.62
15	Gosavi Sagar Kailash	26.60		63.23
16	Gujar Yash Pravin	70.08		78.15
17	Jadhav Nikita Ghanshyam	73.68		78.46
18	Jadhav Prathamesh Sanjeev	50.42		75.69
19	Jadhav Vaishnavi Dinesh	75.61		86.31
20	Jadiye Mohit Mohan	41.29		76.62
21	Joshi Harshal Sandip	61.82		61.54
22	Kadhare Vrushali Kiran	62.08		78.15
23	Kalbaile Purvesh Ravindra	46.50		56.62
24	Kankhare Sandesh Arun	18.72		70.15
25	Kantale Abhijit Prabhakar	41.89		60.
26	Khairnar Divyang Dattatray	74.95		75.85
27	Khairnar Viraj Pramod	69.15		53.23
28	Khakare Tushar Vijay	73.45		81.80
29	Khasawad Sachin Chattarsing	70.96		78.00
30	Kuvar Sonali Santosh	87.93		64.31
31	Mahajan Harshal Arjun	67.97		51.69
32	Mahale Shivani Ratnakar	73.45		63.85

33	Mali Pankaj Sahebarao	72.77		76.31
34	Marathe Gunjan Sunil	87.25		65.85
35	Marathe Hemant Santosh	75.90		81.69
36	Nikam Nikhil Chhotu	43.84		78.77
37	Nyahalde Sagar Nanabhau	34.68		73.38
38	Padavi Kisan Vangarya	60.00		63.23
39	Padvi Mayuri Sudam	50.30		69.23
40	Pagare Tushar Manohar	71.56		56.62
41	Pardeshi Chandansing Dipaksing	69.11		82
42	Patil Anurag Sanjay	5.61		80.15
43	Patil Bhagyashri Tapiram	71.22		63.38
44	Patil Bhanudas Machindra	64.70		67.69
45	Patil Darshana Rajendra	20.21	72	70
46	Patil Dinesh Dnyaneshwar	71.54		71.54
47	Patil Ganesh Pradeep	53.50		33.63
48	Patil Ganesh Subhash	64.49		68.31
49	Patil Gaurav Rajendra	78.55		65.69
50	Patil Gaurav Sanjeev	69.37		58.31
51	Patil Kaushal Anil	68.83		74.77
52	Patil Madhuri Bharat	64.09		84.46
53	Patil Mahesh Rajendra	71.32		72.92
54	Patil Meghraj Kailas	70.57		66.46
55	Patil Naresh Ananda	68.55		52.46
56	Patil Pavan Vilas	68.23		63.38
57	Patil Prachi Pravin	63.91		53.23
58	Patil Prashant Bhausaheb	78.81		64.31
59	Patil Rakesh Sopan	30.00		80.92
60	Patil Rohit Kailas	36.69		62.62
61	Patil Rushikesh Sanjay	50.10		61.38
62	Patil Tejas Bharat	74.13		77.00
63	Patil Umesh Sanjay	37.64		76.62
64	Patil Umesh Subhash	70.27		61.23
65	Patil Vikas Shantilal	84.39		75.69
66	Patil Yash Gulabrao	46.46		76.15
67	Pawar Gaurav Kailas	48.41		80.15
68	Pawar Raunak Manoj	55.62		80.46
69	Pawar Shruti Dipak	67.34		79.38
70	Pawara Pankaj Dinesh	37.64		71.23
71	Pawara Rina Jaysing	49.61		71.08
72	Pawara Vaijanta Sajan	62.76		56.15
73	Rajput Ganesh Dharamsing	40.16		67.69

74	Rajput Gopal Ramesh	70.96		74.15
75	Rajput Janavi Aaba	61.01		84.62
76	Rajput Rajpal Shashikant	60.27		72.46
77	Rajput Sopan Pratapsing	55.82		77.38
78	Rajput Vikramsing Premsing	37.64		76.31
79	Rathod Aakash Ramesh	73.94		58.31
80	Rathod Kamlesh Rasilal	29.72		44.31
81	Rathod Vikramsing Lalsing	64.86		80.15
82	Salunkhe Vaibhav Balasaheb	79.42		88.92
83	Satpute Pawan Satish	55.79		60.31
84	Shewale Kalyani Savkar	63.40		80
85	Shimpi Om Suresh	75.89		70.31
86	Shirsath Rushikesh Ashok	54.77		56.17
87	Shivade Aishwarya Ramchandra	66.70		74.15
88	Sonar Pankaj Ghansham	54.70		80.77
89	Sonawane Dhiraj Nitin	74.13		81.85
90	Tayde Aman Balu	85.87		71.49
91	Thakre Shubham Sandeep	68.55		73.54
92	Wagh Neha Prakash	64.70		58.92
93	Walhe Ayush Shailesh	38.36		56.92
94	Wani Nitin Sanjay	69.11		67.8


Anup M. Akarte
Academic co ordinator



Kisan Vidya Prasarak Sanstha's

Institute of Pharmaceutical Education, Boradi



LEARNER CLASSIFICATION FOR A.Y. 2020-2021

FIRST YEAR B.PHARM			
Roll no.	Slow learner	Roll no.	Fast learner
	BAGAD SANKET ASHOK		AHIRE RAKESH SUNIL
	GOSAVI SAGAR KAILAS		BAWA YASH DEVIDAS
	JADIYE MOHIT MOHAN		BELDAR KALPESH ARUN
	KALBAILE PURVESH RAVINDRA		BORASE LAVAKESH RAJU
	KANKHARE SANDESH ARUN		BORSE PURUSHOTTAM RAJENDRA
	KANTALE ABHIJIT PRABHAKAR		CHAVAN PRERANA DHARU
	KUVAR SONALI SANTOSH		DEORE MANUDIP SAMADHAN
	PATIL BHAGYASHRI TAPIRAM		DHANGAR RUSHIKESH JAGAN
	PATIL DINESH DNYANESHWAR		GHUGE RUSHIKESH SUDHAKAR
	PATIL ROHIT KAILAS		GIRASE BHAVESH MOHANSING
	PATIL RUSHIKESH SANJAY		GIRNAR DARSHAN MAHENDRA
	PATIL UMESH SUBHASH		GUJAR YASH PRAVIN
	PAWAR GAURAV KAILAS		JADHAV NIKITA GHANSHYAM
	PAWARA RINA JAYSING		KHAIRNAR DIVYANG DATTATRAY
	PAWARA VAIJANTA SAJAN		KHAIRNAR VIRAJ PRAMOD
	RAJPUT GOPAL RAMESH		KHAKARE TUSHAR VIJAY
	RAJPUT VIKRAMSING PREMSING		KHASAWAD SACHIN CHATTARSING
	RATHOD KAMLESH RASILAL		MAHAJAN HARSHALL ARJUN
	VALHE AAYUSH SHAILESH		MAHALE SHIVANI RATNAKAR
			MALI PANKAJ SAHEBRAO
			MARATHE GUNJN SUNIL
			MARATHE HEMANT SANTOSH
			PAGARE TUSHAR MANOHAR
			PARDESHI CHANDANSING DIPAKSING
			PATIL BHAGYASHRI TAPIRAM
			PATIL BHANUDAS MACHINDRA
			PATIL GANESH PRADEEP
			PATIL GANESH SUBHASH
			PATIL GAURAV RAJENDRA
			PATIL GAURAV SANJEEV
			PATIL KAUSHAL ANIL
			PATIL MADHURI BHARAT
			PATIL MAHESH RAJENDRA

			PATIL MEGHRAJ KAILAS
			PATIL NARESH ANANDA
			PATIL PAVAN VILAS
			PATIL PRACHI PRAVIN
			PATIL PRASHANT BHAUSAHEB
			RAJPUT GOPAL RAMESH
			RAJPUT JANAVI AABA
			TAYDE AMAN BALU
			THAKARE SUBHAM SANDEEP

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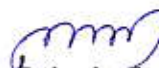
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LEARNER CLASSIFICATION FOR A.Y. 2020-2021

SECOND YEAR B.PHARM			
Roll no.	Slow learner	Roll no.	Fast learner
42	Pawar Pushpara jPravinsing	11	DhangarDarshanaPurushottam
46	Pawara Ranjana Kalusing	13	Dhole AtulBhagawan
74	Patil Bhavesh Satish	16	GiraseMohitsinghJitendrasingh
78	PatilHarshal Vijay	18	JadhavHarshadaManoj
79	Patil Jagdish Aaba	30	PathanFardeen Khan Abrar Khan
81	PatilLalitBalaji	49	Rajput DivyaDaryavsing
92	Walhe Sagar Uttam	59	SonawaneAshwini Vijay
		63	WarudeChetanPralhad
		66	BaviskarDipaliChandrakant
		82	PatilMinalSharad
		83	PatilPriyankaLaxman
		84	PatilRohitVinod
		85	PatilVishakhaManohar
		87	Pinjari Karina Ratif

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LEARNER CLASSIFICATION FOR A.Y. 2020-2021

THIRD YEAR B.PHARM			
Roll no.	Slow learner	Roll no.	Fast learner
3	Bagul Rohit Rajendra	1	Bahalkar Kunal Ravindra
14	Girase Rahul Rajendrasing	2	Badgujar Savita Yadav
16	Khare Rahul Vithoba	4	Bagul Shveta Bhatu
70	Patil Meghraj Gorakh	6	Borse Harshal Dipak
		7	Borse Khushal Hilal
		8	Chaudhari Prajot Dattaray
		10	Chitte Keshavnam Manohar
		15	Girase Savita Bhattesing
		17	Kumbhar Sadhana Pravin
		18	Kuwar Rahul Anil
		23	Mali Rameshwar Rohidas
		25	Musale Manish Mukund
		26	Nikam Tushar Manoj
		27	Nil Gaurav Ashok
		28	Ogale Harshda Vijay
		29	Patil Aniket Yadaorao
		30	Patil Bhagyashri Dnyaneshwar
		31	Patil Darshan Bharat
		32	Patil Gitanjali Nimabajirao
		33	Patil Ishwar Dilip
		36	Patil Lalit Dilip
		39	Patil Ravina Chandrabhan
		44	Patil Tushar Sanjay
		57	Wagh Rishikesh Pramod
		58	Waghmare Kajal Maroti
		59	Wankhede Hitesh Natthu
		60	Desale Madhuri Sudhir
		61	Koli Vaishali Satish
		63	Mali Vishal Sahebrao

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LEARNER CLASSIFICATION FOR A.Y. 2020-2021

FINAL YEAR B.PHARM			
Roll no.	Slow learner	Roll no.	Fast learner
5	Borse Manish Dongar.	1	Arote Kishor Somnath
6	Borse Nikhil Devendra	10	Chaudhari Kalyani Nagin
12	Chaudhari Sachin Rajendra	17	Chinchore Rohit Samadhan
16	Chavan Pravin Rupchand.	20	Gaikwad Chetan Pralhad
57	Pawar Suyash Sanjay	21	Gavale Varsha Dilip
		26	Kazi Sohaib Salimoddin
		29	Mahajan Swapnil Machhindra
		30	Mahale Umesh Mahendra
		31	Mali Ajay Ishwar
		32	Mali Mayuri Dadu
		33	More Harshal Suresh
		34	More Rahul Devidas
		38	Patel Wahed Bhaiyysahab
		44	Patil Mahesh Jagdish
		45	Patil Mayur Bhaskar
		67	Shirale Lavina Ravindra
		68	Shirsath Urmila Nimba

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