



St. Joseph College of Teacher Education for Women Ernakulam



CRITERION II

2.4.2 Students go through a set of activities as preparatory to school-based practice teaching and internship. Pre practice teaching/internship orientation/training encompasses certain significant skills and competencies

(Documentary evidence in support of selected activities)

Submitted to

**National Assessment and Accreditation Council (NAAC)
3rd Cycle of Assessment**



2.4.2: Evolving ICT Based Learning Situations

Sl.No	Documentary Evidence	Page No.
1	Report on Orientation of creation of Blog	1-2
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Kovilvattom Road, Ernakulam, Kochi, Pin – 682035, Kerala
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Workshop on creation of blog

Name of the Event	Workshop on creation of Blog
Objectives	1) To acquaint student teachers with creation of blogs. 2) To understand the relevance of blogs and various online tools in teaching and learning.
Details of Event Coordinators	St. Joseph College of Teacher Education for Women, Ernakulam
Dates	2022-23(18/11/2022 ,28/11/2022),2021-22(9/11/2021),2020-21(5/1/2021),2019-20(22/7/2019),2018-19(23/7/2018)
Beneficiaries	Student Teachers
Event Venue	St. Joseph College of Teacher Education for Women, Ernakulam

Programme Report

Day 1

A workshop on blog creation was organised by the college on 18th November 2022 from 8.00 PM to 9.30 PM. The workshop was conducted via Google meet. All the student teachers attended the meeting. The resource person for the workshop was Mrs Anu Cleetus, Assistant Professor, at the same college. The objective of the meeting was to familiarize the student teachers with creation of blog and uploading study material in the blog. The student teachers were also made aware of various online tools and their relevance in teaching and learning. The resource person explained about blogs and how they can be used in education. During the meeting, the presenter emphasised on various ways blogs can be utilized in teaching and learning. The detailed explanation about creation of programmed learning material and its uploading steps to a blog was helpful for the beginners. The discussion on various tools available to create a blog and quick demonstration of blog creation made the





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session fruitful. The student teachers made the session interactive by their relevant queries and of feedback.

Day 2

On 28th November 2022, the resource person gave a step by step demonstration on creation of blog to all the student teachers in the Multi-purpose hall of the college. All the students noted down the steps in their note book. Students put forward all the doubts they had regarding blog creation and uploading of materials. The resource person clarified all their doubts. Further assistance were given to every student teachers who had doubts via WhatsApp after class hours.





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Recognised by NCTE

Orientation on blog creation
date:18/11/2022 and 28/11/2022

Sl.No	Name of the student	SUBJECT	Signature
1	AKHILA M NAIR	EG	M Akhila
2	AKSHAYA T G	EG	Akshaya
3	AMALU K	EG	Amalu
4	ANAGHA R	EG	Anagha
5	ANARGHA MARY	EG	Anargha
6	DONA MARIA	EG	Dona
7	JEENA ELSA JOHN	EG	Jeena
8	JESNA JOSEPH	EG	Absent
9	LEENU MERIN THOMAS	EG	Leenu
10	MARGRET BENITTA V J	EG	Margret
11	MEGHA MADHU	EG	Megha
12	MINU MARY	EG	Absent
13	NEHA BABU	EG	Neha
14	NIMMY ELIZABETH GEORGE	EG	Nimmy
15	RACHEL BERKUMON	EG	Rachel
16	REMYA P . T	EG	Absent
17	SWATHI.M	EG	Swathi



Alice Joseph
Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam



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Orientation on blog creation
date:18/11/2022 and 28/11/2022

Sl.No	Name of the student	SUBJECT	Signature
1	ABINA K	ML	
2	AKHILA M GEORGE	ML	
3	ALEENA STEEPHEN	ML	
4	ANJU PRATHAP.P	ML	
5	APARNA JAIS	ML	
6	ARCHANA V N	ML	
7	JISA MARTIN	ML	
8	KAVYAMOL A B	ML	
9	LAKSHMI T S	ML	
10	NIDHIYA JOSEPH	ML	
11	PAVITHRA V	ML	
12	SHIJI.T.T.	ML	
13	SNEHAKAVYA	ML	
14	SWATHI.M	ML	
15	TREESA JOJAN	ML	
16	VRINDA SURESH	ML	



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Orientation on blog creation
date:18/11/2022 and 28/11/2022

Sl.No	Name of the student	SUBJECT	Signature
1	AMRUTHA A OMANAKUTTAN	MT	
2	ANJU PAUL P	MT	
3	APARNA SHAJI	MT	
4	ASHITHA BENNY	MT	
5	DIHANYA JOY	MT	
6	EMILIN K THOMAS	MT	
7	EMILIYA MERIN	MT	
8	INDHU . K	MT	
9	KABANI S	MT	
10	NANDITHA J	MT	
11	ROSEMOL V T	MT	
12	SANDRA ANTONY	MT	
13	SHARON ACHU ANISH	MT	
14	SNEHA PRINCE	MT	
15	STELLA CATHERINE FABER	MT	
16	VANDANA K P	MT	
17	ANUJA J NAIR	MT	Absent



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date:18/11/2022 and 28/11/2022

Sl.No	Name of the student	SUBJECT	Signature
1	ADELINE JOSEPH	NS	
2	ANNA ANANNYA K P	NS	
3	ANURADHA A PAI	NS	
4	ASHINA JOSEPH	NS	
5	AYSHA BEEVI C I	NS	
6	FEMY MARIYA JOSE	NS	
7	GOPIKA A G	NS	
8	JISMI MOHAN	NS	
9	MANEEHA S M	NS	
10	MEERA SANKAR A	NS	
11	MERIN K S	NS	
12	MRUDULA GIRISH	NS	
13	RAJALAKSHIMI R	NS	
14	SANDRA SOOSAN ABY	NS	
15	SNEHA P P	NS	
16	SREELAKSHIMI N	NS	
17	SREESHINA M	NS	



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Orientation on blog creation
date:18/11/2022 and 28/11/2022

Sl.No	Name of the student	SUBJECT	Signature
1	AISWARYA . A .K.	PS	
2	AISWARYA LAKSHMI S	PS	
3	ALKHA THOMAS	PS	
4	ANJUMOL PAUL	PS	
5	ANN SARA V ALIAS	PS	
6	ARUNIMA C . H	PS	
7	ASHNA K . J	PS	
8	ASWATHY AJI P	PS	
9	DILNA BIJU	PS	
10	DINSHA M SAJI	PS	
11	DIYA N C	PS	
12	KARTHIKA RAVEENDRAN	PS	
13	MUHZINA MUHAMMED BASHEER	PS	
14	ROSE MARY JOSE	PS	
15	SAHALA NAYEEM A A	PS	
16	TREESA TANIYA P A	PS	



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Orientation on blog creation
date:18/11/2022 and 28/11/2022

Sl.No	Name of the student	SUBJECT	Signature
1	ANAGHA MARY	SS	
2	ANITTA JOHNSON	SS	
3	ARYA T K	SS	
4	ASWATHY K S	SS	
5	CHINCHU K H	SS	
6	DEVIKA P S	SS	 19/11/2023
7	GEETHU SIVAN	SS	
8	LIYANTA IZABEL	SS	
9	NAIR K M SUMALAKSHMI	SS	
10	NANDHITHA C	SS	
11	RASEENA NASEER	SS	
12	RESHMA GEORGE P G	SS	
13	RIYA JAMES	SS	
14	SARAH MARIA	SS	
15	SNEHA M	SS	
16	SREELAKSHMI SUDHAKARAN	SS	
17	SUKRITHA S SHENOY	SS	



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PRACTICAL 107.1

(FOR EDU 103 -CREATION OF BLOG AND UPLOADING ANY LEARNING MATERIAL IN THE BLOG)



Submitted by:

DILNA BIJU

Physical Science (2022-2024)

Reg. No:

Submitted to:

Mrs. Anu Clectus

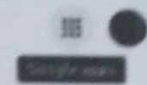
Assistant professor

St. Joseph College of Teacher Education for Women, Ernakulum

Date of submission : **04-11-2022**

Dina Eju

Edit Profile



View Full Size

On Blogger since
October 2022

Profile views 4

My blogs

Dina Eju

About me

Gender	FEMALE
Industry	Student
Location	Ernakulam kerala India
Interests	Singing, Dancing, Watching movies



Dilna Biju

+ NEW POST

Posts

Stats

Comments

Earnings

Pages

Layout

Theme

Settings

Reading List

View blog

more of Blogger - Privacy

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Search posts

All (1)



LEARNING MATERIAL- BRANCHED PROGRAMMED INSTRUCTION - PERIODIC TABLE

Published • Nov 2 | LEARNING MATERIAL


MANAGE

Dilna Biju

0 0

Browser tabs: WhatsApp, FARNING MATERIAL - SE, My Face - Google Drive, Prashant's...
Address bar: dilna1207.blogspot.com

← Dilna Biju


DILNA BIJU
VISIT PROFILE


SEARCH

LEARNING MATERIAL - BRANCHED PROGRAMMED INSTRUCTION - PERIODIC TABLE

November 02, 2022

LEARNING MATERIAL

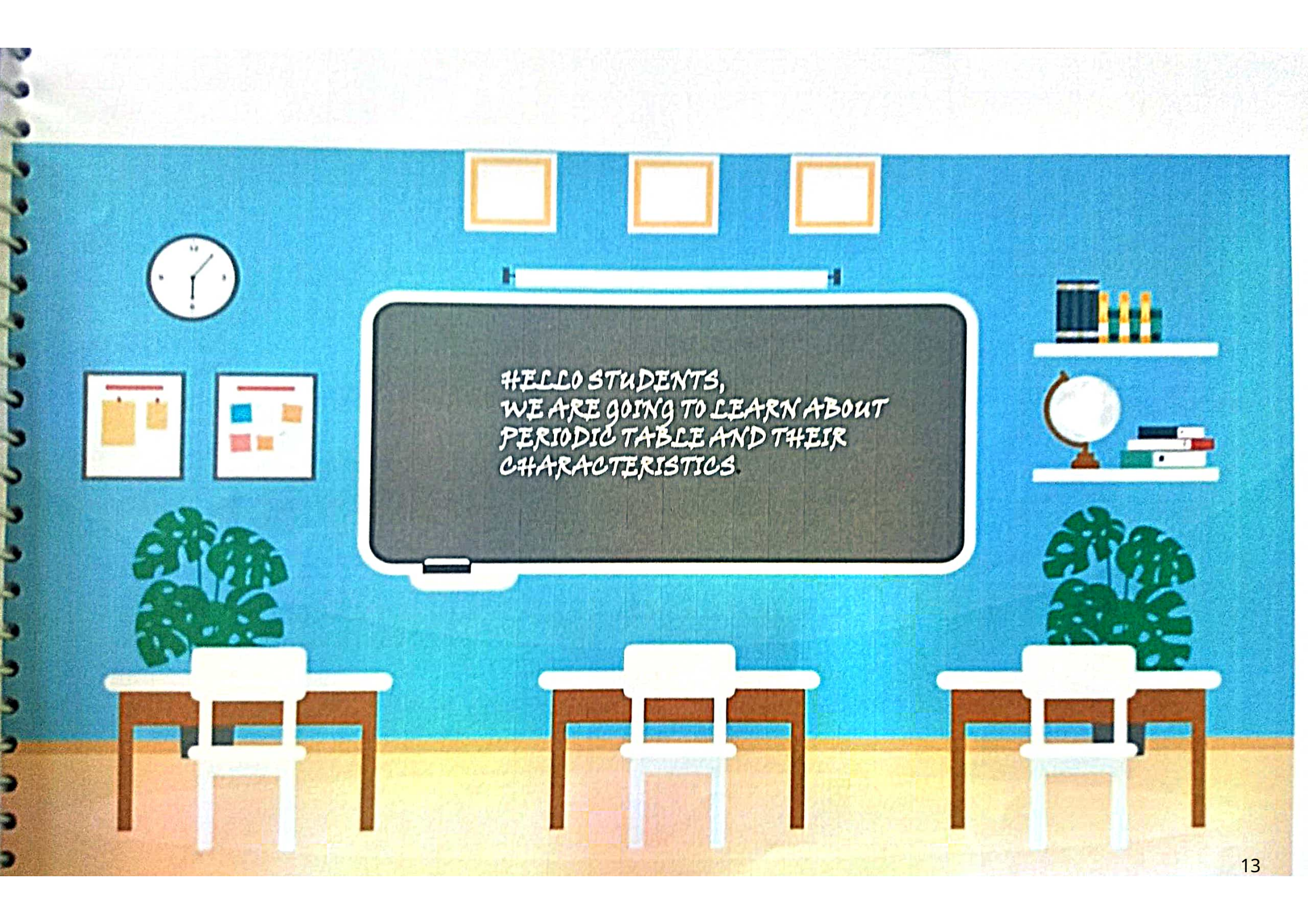
ST JOSEPH COLLEGE OF TEACHER EDUCATION FOR WOMEN, ERNAKULAM



PRACTICAL 107.1
(FOR EDU103 CREATION OF BLOG AND UPLOADING ANY LEARNING MATERIAL IN THE BLOG)

<i>Submitted To:</i>	<i>Submitted By:</i>
Mrs. ANU CLEETUS	DILNA BIJU
<i>Assistant Professor</i>	<i>ROLL NO:9</i>
St. Joseph College of Teacher Education for Women, Ernakulam	PHYSICAL SCIENCE (2022-24)

Taskbar: Windows, Search, File Explorer, Edge, Mail, WhatsApp, 20:59, 02/11/2022



HELLO STUDENTS,
WE ARE GOING TO LEARN ABOUT
PERIODIC TABLE AND THEIR
CHARACTERISTICS.

FRAME 1

Read the paragraph carefully

In the periodic table, elements of group 3-12 constitute 'd' block elements. The two horizontal rows of elements at the bottom of the table form 'f' block. 'd' block elements are called transition metals and 'f' block elements are called inner transition elements.

[Goes to slide 10](#)

Sorry, your answer is
wrong



Valency is the combining power of an element with other atoms generally with hydrogen atoms. Yes noble gases has zero valency because its combining capacity is zero

Goes to slide no 11 and try
again

FRAME 2

Read the paragraph carefully

Transition metals show variable oxidation states. There is only little difference between the energies of ns and $(n-1)d$ orbitals. The maximum oxidation state shown by any transition metal is 8

Goes to slide 15

Sorry, your answer is wrong



The atomic number of manganese is 25 and its electronic configuration is $3d^5 4s^2$, it is not completely filled.

Don't worry goes to slide 37
and try again

Sorry, your answer is
incorrect



Chromium,
named for its
many-colored
compounds,
exists in the
oxidation
states of -2 to
+6 inclusively.

Don't worry Keep trying
goes to slide5

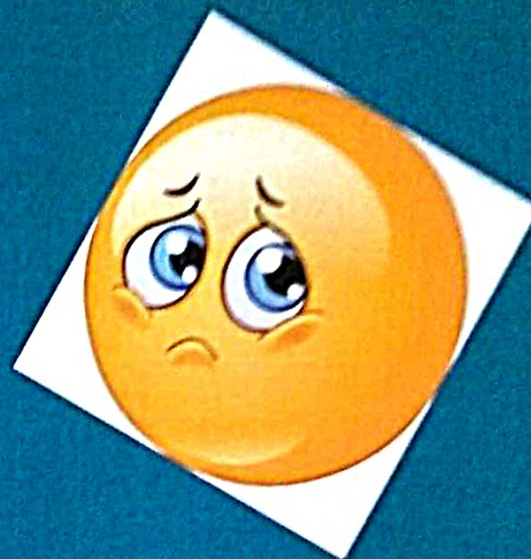
FRAME 6

Read the paragraph carefully

'd' block Elements have a general electronic configuration of $(n-1)d^{1-10}ns^{1-2}$. These elements **can find stability in half-filled orbitals and completely filled d orbitals**. An example of this would be the electronic configuration of chromium, which has half-filled d and s orbitals in its configuration – $3d^54s^1$.

Goes to slide 48

Sorry, your answer is wrong



*It is the general
electronic outer
configuration of f-block
element*

Don't worry goes to
slide 8 and try again

Try to answer the question



Q] 'd' block elements are commonly known as

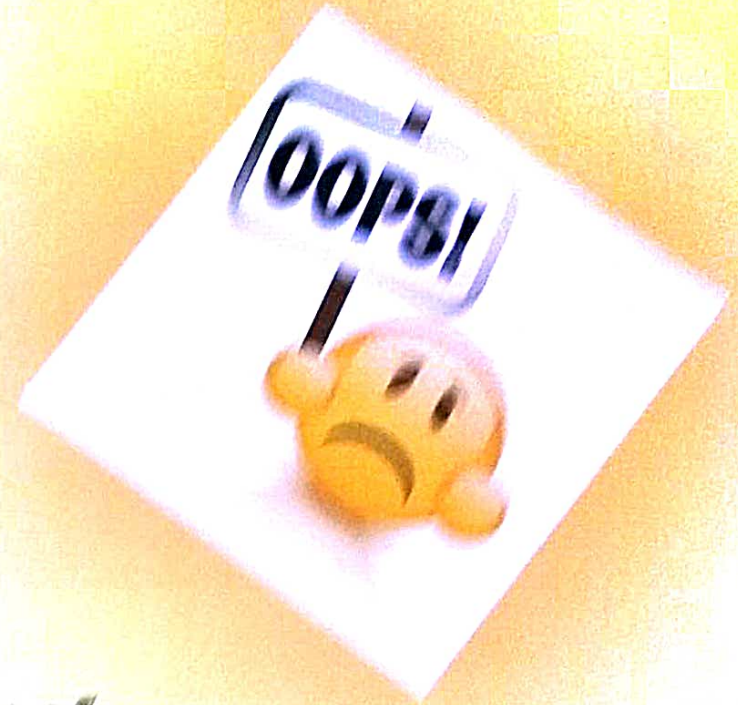
- a) Representative elements ([goes to slide 50](#))
- b) Transition elements ([goes to slide 45](#))
- c) Inner transition elements ([goes to slide 46](#))
- d) Noble gases ([goes to slide 47](#))

FRAME 7

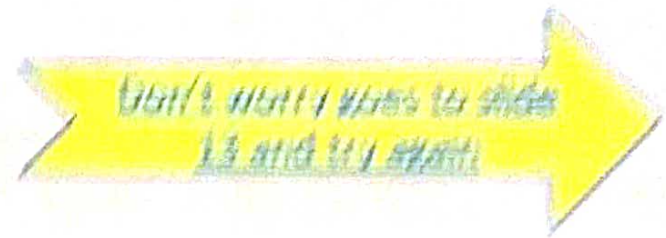
The transition metal ions have unpaired 'd' electrons which jump from one orbital to another. Thus the transition metals have variable valency.

Goes to slide 7

Sorry, your
answer is
wrong



***Lustrous is also the property of
transition element***



FRAME 8

Read the paragraph carefully

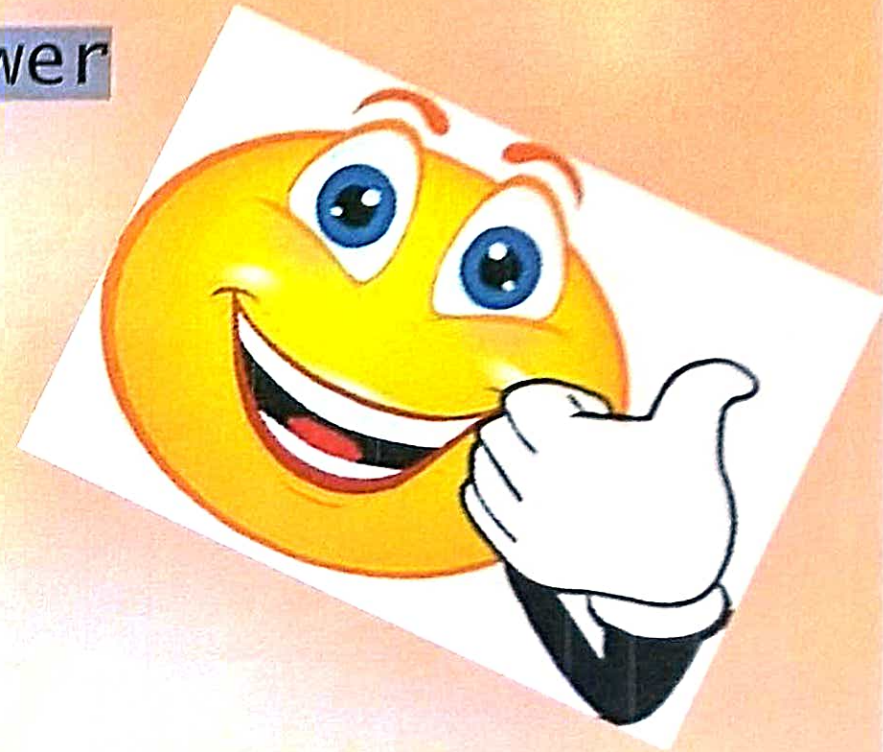
Properties of transition elements include:

- have large charge/radius ratio;*
- are hard and have high densities;*
- have high melting and boiling points;*
- form compounds which are often paramagnetic;*
- show variable oxidation states;*
- form coloured ions and compounds;*
- form compounds with profound catalytic activity;*

[Goes to slide 39](#)

congratulations, your answer
is correct

*Very good, great
job*



You can proceed to
slide 21



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Training on different applications for online classes

Name of the Event	Training on 'Different Applications for Online Classes'
Objectives	<ol style="list-style-type: none">1. To help student teachers learn about different application for online classes and thereby enhance their competence in ICT based skills2. To enhance the knowledge and competence of student teachers to help them excel academically and professionally
Details of Event Coordinators	St. Joseph College of Teacher Education for Women, Ernakulam
Details of Resource Person	Ms. Reshmi R.K Lecturer D.El.Ed. St. Joseph Teacher Training Institute for Women, Ernakulam
Date	10/11/2022
Time	9.00 AM - 11.00 AM
Duration	2 hours
Beneficiaries	Student teachers
Event Platform	Google Meet
Platform Link	https://meet.google.com/naz-hstp-uhx

Programme Report

Student teachers at St. Joseph College of Teacher Education for Women, Ernakulam, undergo a series of preparatory activities to equip them with essential skills and competencies for school-based practice. As part of this endeavor, the college organized a training session on 'Different Applications for Online Classes' on 10th November 2022, conducted via Google Meet. The primary objective of this orientation session was to familiarize student teachers with various applications and tools for online classes, with a focus on enhancing





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their competence in ICT-based skills. The session aimed to prepare them to excel academically and professionally, recognizing the increasing importance of digital education. This training was specifically for B.Ed. student teachers and was facilitated by Ms. Reshmi R. K, a lecturer in D.El.Ed. at St. Joseph Teacher Training Institute for Women in Ernakulam.

The resource person initiated the training session promptly at 9 AM through Google Meet, extending a warm welcome to all the student participants. The session encompassed an exploration of diverse applications and software designed for teaching and learning processes. It delved into the needs and uses of these applications and various online platforms, shedding light on their relevance to the teaching and learning processes.

The training session covered a wide array of topics, including the creation of e-mind maps, e-concept maps, simulated classroom environments, interactive simulated experiments, PDF flipbooks, digital learning resource materials, PPT flipbooks and digital lesson plans. Specific applications and software such as Flipping book and Flip PDF Plus were discussed in detail during the session.

A digital lesson plan, a crucial component of online teaching, was emphasized as a set of instructions for conducting digital lessons and educational activities. Planning digital lessons is the first step in applying thematic curriculum concepts, ensuring that learning objectives are clearly defined, goals for learning are established, and progress indicators are in place to monitor learners' advancement towards these goals. During the training session, the resource person provided hands-on guidance to the student teachers, helping them navigate and create various online tools to support their future teaching endeavors.





The training session concluded at 11 AM, marking the end of an enriching and informative experience. The 'Different Applications for Online Classes' workshop successfully imparted valuable knowledge to student participants about a variety of online tools and platforms designed for online classes. Moreover, it played a pivotal role in enhancing the ICT-based skills of the student teachers. Overall, the session was informative and beneficial, equipping the student teachers with essential competencies for the evolving landscape of digital education.



Event poster for the workshop on 'Different Applications for Online Classes'





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Training on different applications for online

Date 10-11-2022

Sl.No	Name of the student	SUBJECT	Signature
1	AMALA ANTONY	EN	
2	ANNA ROSHNI VARGHESE	EN	Absent
3	DEEPA P S	EN	
4	DEVIKA VENUGOPAL	EN	
5	DIVYA RADHAKRISHNAN	EN	
6	F.MERLINE RODRIGUES	EN	
7	GURUMAHIMA M V	EN	
8	HARSHA THERESA THOMAS	EN	
9	K A RABIA	EN	
10	LEATITIA JOSHY	EN	
11	LINET JOHN	EN	Absent
12	MEERA JOY	EN	
13	MERIZE BEN ALIAS	EN	
14	PRATIBHA S	EN	
15	SANDRA JOY	EN	Absent
16	SANTHI M S	EN	
17	VEENA C V	EN	



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Training on different applications for online
Date 10-11-2022

Sl.No	Name of the student	SUBJECT	Signature
1	ALEENA ANTONY	ML	
2	ANASWARA. P S	ML	
3	ANCE BABY	ML	
4	ANISHA T	ML	
5	DIVYA RAJAN	ML	
6	JAYALAKSHMI JAYAKUMAR	ML	
7	JOBITHA JOY	ML	
8	LIYA BABY	ML	
9	MARY AMALA R.	ML	
10	NITHA ALFRED	ML	
11	PRANAYA P M	ML	
12	RIYA SABU	ML	
13	SHILPA K	ML	
14	SNEHA M M	ML	
15	SREELAKSHMI K A	ML	
16	TEENA VINCENT	ML	



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Date 10-11-2022

Sl.No	Name of the student	SUBJECT	Signature
1	AKSHAYA SHAJU	MT	
2	ARYA K SURENDRAN	MT	
3	ASWATHI B A	MT	
4	FREEDA K F	MT	
5	JINU JOSEPH	MT	
6	JOMOL BABU	MT	
7	LEKSHMIPRIYA T S	MT	
8	MARIYA JESSNEELA	MT	
9	MELISSA XAVIER	MT	
10	PARVATHY M	MT	
11	AGATHA CYRIAC	PS	
12	RESHMA FRANCIS	MT	
13	ROSE MARIA JOHN	MT	
14	ROSY ROY	MT	
15	SONA PAUL	MT	
16	SREEJA SREENIVASAN	MT	



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Date 10-11-2022

Sl.No	Name of the student	SUBJECT	Signature
1	AKHITHA SEBASTIAN	NS	Absent
2	ALLAN FRANCIS	NS	
3	ANGITHA RAMACHANDRAN	NS	Absent
4	ANITA ABRAHAM	NS	
5	CAREN GRACE	NS	
6	DILHANA HUSSAIN	NS	
7	JESHMA DAS V S	NS	
8	KEERTHANA M S	NS	
9	MEERA SUSAN KURIAN	NS	
10	MERIN SHAJAN	NS	
11	POOJA MARIA JACOB	NS	
12	RANJIMA V	NS	
13	SANIYA SIMON	NS	
14	SHALINI P S	NS	
15	SHIMNA K	NS	
16	THERESA THANKACHAN	NS	
17	VYSHNAVIN SARMA	NS	



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Date 10-11-2022

Sl.No	Name of the student	SUBJECT	Signature
1	AGIYA COSMOS M C	PS	
2	AKSHAYA K S	PS	
3	ALIDA SAIJU	PS	Absent
4	ANILA SHAJU	PS	
5	ANU P.THOMAS	PS	
6	APARNA S	PS	
7	FATHIMATHUZUHRA	PS	
8	JESNA GEORGE	PS	
9	MARIYA DAS	PS	
10	NEETHU J A	PS	
11	RAVEENA K RAMESH	PS	Absent
12	ROSHNA RAHIM	PS	
13	VANDANA S	PS	
14	VINNY PAPPACHAN	PS	



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Training on different applications for online

Date 10-11-2022

Sl.No	Name of the student	SUBJECT	Signature
1	AKSHITHA BHASKARAN	SS	<i>Akshitha</i>
2	ANAGHA T	SS	<i>Absent</i>
3	ANCY ABRAHAM	SS	<i>Ancy</i>
4	ANJALY A C	SS	<i>Anjaly</i>
5	ANUPAMA SREEDHAR	SS	<i>Anupama</i>
6	CELENE PAUL	SS	<i>Absent</i>
7	DIVYAMOL P D	SS	<i>Divya</i>
8	DONA K JOSE	SS	<i>Dona</i>
9	KRISHNAPRIYA K	SS	<i>Absent</i>
10	MARY RINU K F	SS	<i>Mary Rinu</i>
11	MEREENA JOY	SS	<i>Mereena</i>
12	MINU JOY	SS	<i>Minu</i>
13	REGINA TEENA DCOSTA	SS	<i>Absent</i>
14	RIYA DAVIS	SS	<i>Riya</i>
15	ROSE MARY PAUL	SS	<i>Rose Mary</i>
16	VARSHA K V	SS	<i>Varsha</i>



Alice Joseph
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Ernakulam



ST JOSEPH COLLEGE OF TEACHER EDUCATION FOR WOMEN

Kovilvattom Road, Ernakulam, Kochi, Pin – 682035, Kerala
(Affiliated to Mahatma Gandhi University, Kottayam)

Training on different applications for online classes



Event poster for the workshop on ‘Different Applications for Online Classes’





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Workshop on ict resource material preparation

Name of the Event	Workshop on ICT Resource material
Objectives	<ol style="list-style-type: none">1) To understand the instructional objectives and curricular objectives2) To enable student teachers to analyze content /units for preparing resource material3) To explore the ideas in groups of discussion4) To practice the skills and strategies of resource material preparation5) To help student teachers in the preparation of resource material systematically
Details of Event Coordinators	St. Joseph College of Teacher Education for Women, Ernakulam
Dates	2022-23(6/12/2022),2021-22(17/11/2021),2020-21(12/1/2021),2019-20(25/7/2019),2018-19(6/8/2018)
Beneficiaries	Student Teachers (Total No.97)
Event Venue	St. Joseph College of Teacher Education for Women, Ernakulam

Programme Report

The college organized a workshop on the creation of ICT resource materials during the first semester of the academic year. Information and Communication Technology (ICT) plays a vital role in fostering motivation, enhancing student achievement and expanding learning opportunities. As part of the B.Ed. curriculum, specifically Edu107.2, the college tasked student teachers with developing and presenting learning resource materials for learners, with an emphasis on ICT-supported materials related to school-based topics. This initiative aimed to extend the scope of students' learning.

To facilitate this practical task, teacher educators provided comprehensive instructions on how to prepare ICT resource materials aligned with the high school syllabus.





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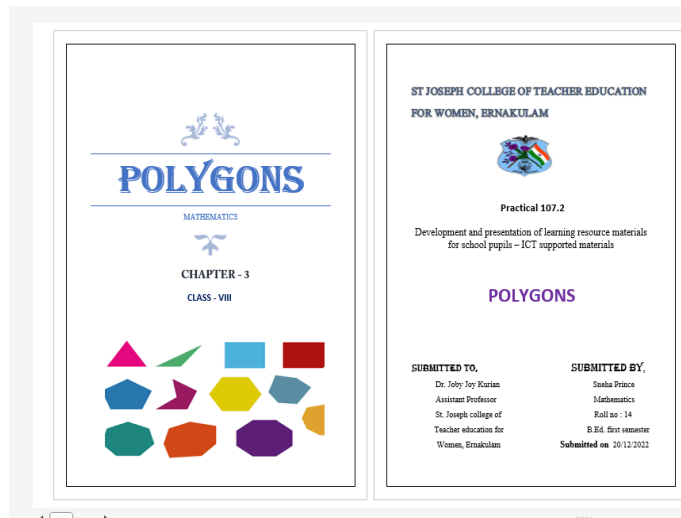
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Additionally, a value-added course led by Mrs. Reshmi, titled 'An Introduction to Technology-Enhanced Instructional Platforms,' played a significant role in helping student teachers prepare these resource materials. The course covered various aspects, including creating Google Forms for conducting quizzes in schools, using the Canva app to create engaging and diverse presentation styles, developing online flipbooks, and designing realistic book layouts using PowerPoint. Moreover, the course explored the creation of animated videos using video animation software, a valuable tool for conveying complex concepts and enhancing student understanding.

With the knowledge and guidance provided by the faculty, student teachers embarked on the task of creating their ICT resource materials. They selected topics from the 8th, 9th, or 10th standard SCERT textbooks and further broke down these topics into subtopics. Using a variety of ICT resources, they developed comprehensive materials, with a primary focus on PowerPoint presentations enriched with audio files, video clips, animations and other multimedia elements. These materials were thoughtfully designed to cater to the academic needs of students.

To ensure the authenticity and verification of their work, student teachers submitted their ICT resource materials along with CD proofs, adhering to the specified guidelines and requirements. This workshop provided student teachers with practical experience in ICT to create effective educational resources for their future teaching endeavors.







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Recognised by NCTE

Workshop on preparation of ICT learning material

Date: 06/12/2022

Sl.No	Name of the student	SUBJECT	Signature
1	AKHILA M NAIR	EG	
2	AKSHAYA T G	EG	
3	AMALU K	EG	
4	ANAGHA R	EG	
5	ANARGHA MARY	EG	
6	DONA MARIA	EG	
7	JEENA ELSA JOHN	EG	
8	JESNA JOSEPH	EG	
9	LEENU MERIN THOMAS	EG	
10	MARGRET BENITTA V J	EG	
11	MEGHA MADHU	EG	
12	MINU MARY	EG	Absent
13	NEHA BABU	EG	
14	NIMMY ELIZABETH GEORGE	EG	
15	RACHEL BERKUMON	EG	
16	REMYA P. T	EG	Absent
17	SWATHI.M	EG	



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Recognised by NCTE

Workshop on preparation of ICT learning material

Date: 06/12/2022

Sl.No	Name of the student	SUBJECT	Signature
1	ABINA K	ML	
2	AKHILA M GEORGE	ML	
3	ALEENA STEEPHEN	ML	
4	ANJU PRATHAP.P	ML	
5	APARNA JAIS	ML	
6	ARCHANA V N	ML	
7	JISA MARTIN	ML	
8	KAVYAMOL A B	ML	
9	LAKSHMI T S	ML	
10	NIDHIYA JOSEPH	ML	
11	PAVITHRA V	ML	
12	SHIJL.T.T.	ML	
13	SNEHAKAVYA	ML	
14	SWATHI.M	ML	
15	TREESA JOJAN	ML	
16	VRINDA SURESH	ML	



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Workshop on preparation of ICT learning material

Date: 06/12/2022

Sl.No	Name of the student	SUBJECT	Signature
1	AMRUTHA A OMANAKUTTAN	MT	
2	ANJU PAUL P	MT	
3	APARNA SHAJI	MT	
4	ASHITHA BENNY	MT	
5	DHANYA JOY	MT	
6	EMILIN K THOMAS	MT	
7	EMILIYA MERIN	MT	
8	INDHU . K	MT	
9	KABANI S	MT	
10	NANDITHA J	MT	
11	ROSEMOL V T	MT	
12	SANDRA ANTONY	MT	
13	SHARON ACHU ANISH	MT	
14	SNEHA PRINCE	MT	
15	STELLA CATHERINE FABER	MT	
16	VANDANA K P	MT	
17	ANUJA J NAIR	MT	Absent



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Date: 06/12/2022

Sl.No	Name of the student	SUBJECT	Signature
1	ADELINE JOSEPH	NS	
2	ANNA ANANNYA K P	NS	
3	ANURADHA A PAI	NS	
4	ASHNA JOSEPH	NS	
5	AYSHA BEEVI C I	NS	
6	FEMY MARIYA JOSE	NS	
7	GOPIKA A G	NS	
8	JISMI MOHAN	NS	
9	MANEEHA S M	NS	
10	MEERA SANKAR A	NS	
11	MERIN K S	NS	
12	MRUDULA GIRISH	NS	
13	RAJALAKSHIMI R	NS	
14	SANDRA SOOSAN ABY	NS	
15	SNEHA P P	NS	
16	SREELAKSHMI N	NS	
17	SREESHINA M	NS	



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Date: 06/12/2022

Sl.No	Name of the student	SUBJECT	Signature
1	AISWARYA . A .K.	PS	
2	AISWARYA LAKSHMI S	PS	
3	ALKHA THOMAS	PS	
4	ANJUMOL PAUL	PS	
5	ANN SARA V ALIAS	PS	
6	ARUNIMA C . H	PS	
7	ASHNA K . J	PS	
8	ASWATHY AJI P	PS	
9	DILNA BIJU	PS	
10	DINSHA M SAJI	PS	
11	DIYA N C	PS	
12	KARTHIKA RAVEENDRAN	PS	
13	MUHZINA MUHAMMED BASHEER	PS	
14	ROSE MARY JOSE	PS	
15	SAHALA NAYEEM A A	PS	
16	TREESA TANIYA P A	PS	



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Workshop on preparation of ICT learning material

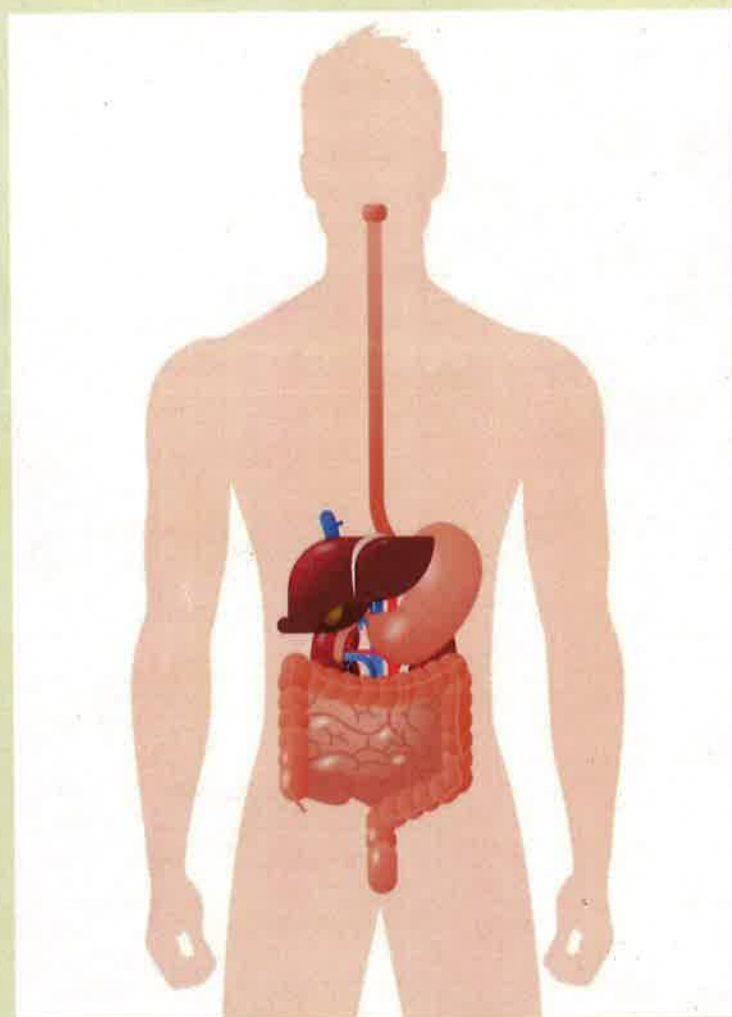
Date: 06/12/2022

Sl.No	Name of the student	SUBJECT	Signature
1	ANAGHA MARY	SS	
2	ANITTA JOHNSON	SS	
3	ARYA T K	SS	
4	ASWATHY K S	SS	
5	CHINCHU K H	SS	
6	DEVIKA P S	SS	
7	GEETHU SIVAN	SS	
8	LIYANTA IZABEL	SS	
9	NAIR K M SUMALAKSHMI	SS	
10	NANDHITHA C	SS	
11	RASEENA NASEER	SS	
12	RESHMA GEORGE P G	SS	
13	RIYA JAMES	SS	
14	SARAH MARIA	SS	
15	SNEHA M	SS	
16	SREELAKSHMI SUDHAKARAN	SS	
17	SUKRITHA S SHENOY	SS	



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LEARNING RESOURCE MATERIAL ON HUMAN DIGESTIVE SYSTEM



ST. JOSEPH COLLEGE OF TEACHER EDUCATION FOR WOMEN

ERNAKULAM



EDU 107.2

**DEVELOPMENT AND PRESENTATION OF LEARNING
RESOURCE MATERIAL FOR SCHOOL PUPILS**

**LEARNING RESOURCE MATERIAL ON
HUMAN DIGESTIVE SYSTEM**

Name of the student: Akhitha Sebastian

Optional subject: Natural science

Register Number: 213240112334

Submitted to,

Dinimol
30/8/2022

Ms. Dinimol Jacob

Assistant Professor

Natural Science Education

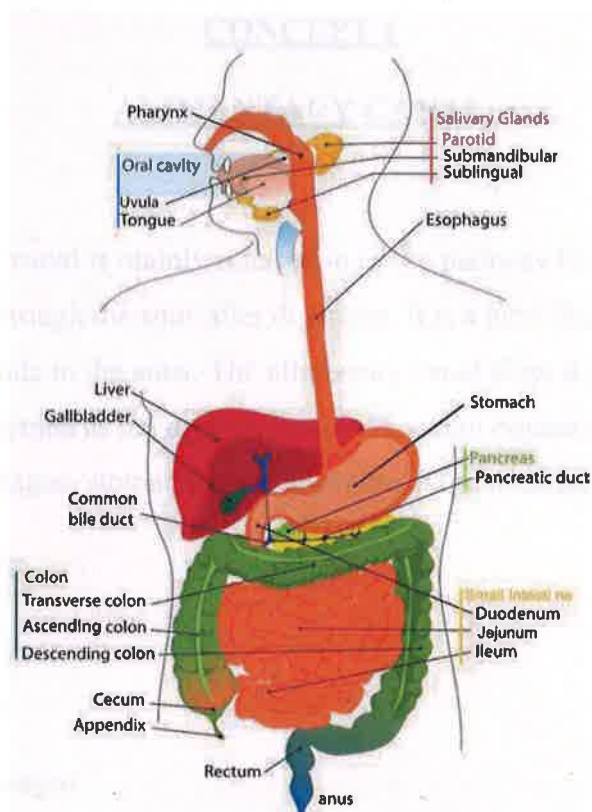
RESOURCE MATERIAL ON HUMAN DIGESTIVE SYSTEM

Introduction

The digestive system of the human body comprises a group of organs working together to convert food into energy for the body. It involves the intake of food by an organism and its utilization for energy. This is a vital process which helps living beings to obtain their energy from various sources. The food which we eat undergoes much processing before the nutrients present in them are utilized to generate energy. This processing is known as digestion. Humans and other animals have specialized organs and systems for this process. Digestive system is composed of accessory organs and alimentary canal.

The **alimentary canal** is the long tube through which the food that we eat is passed. It begins at the mouth (buccal or oral cavity), passes through the pharynx, oesophagus or food pipe, stomach, small intestine, large intestine, rectum and finally ends at the anus. The food particles gradually get digested as they travel through various compartments of the alimentary canal.

Accessory organs are organs which participate in the digestion process but are not actually a part of gastrointestinal tract. They stimulate the digestion by releasing certain enzymes that help in breaking down the food.



Concepts

Concept 1: Alimentary canal

Concept 2: Accessory organs

Concept 3: Digestion process

Concept 4: Disorders of human digestive system

Concept 5: Methods to improve digestion

Hope you will enjoy learning these concepts.

CONCEPT 1

ALIMENTARY CANAL

The alimentary canal is mainly referred to as the pathway by which food enters our body and moves out through the anus after digestion. It is a tube-like structure which starts from the mouth and ends in the anus. The alimentary canal plays a primary role in human digestion and is also termed as the digestive tract. The main organs of the alimentary canal include mouth, oesophagus, stomach, small intestine, large intestine and anus.

Sub-concepts

Sub-concept 1: Mouth

Sub-concept 2: Oesophagus

Sub-concept 3: Stomach

Sub-concept 4: Small intestine

Sub-concept 5: Large intestine

Sub-concept 6: Anus

Common objectives

- To know about different organs that make up the alimentary canal
- Role and function of each organ that helps in process of digestion
- To understand the location of each organ in the alimentary canal

Objectives of sub-concept 1: Mouth

- To identify different parts of the mouth that helps in digestion
- To understand about the mechanical and chemical digestion of food in mouth

Objectives of sub-concept 2: Oesophagus

- To learn the process by which food and liquid is carried from mouth to stomach
- To study the peristaltic mechanism

Objectives of sub-concept 3: Stomach

- To understand about the structure of the stomach
- To know the role of gastric juices in digestion

Objectives of sub-concept 4: Small intestine

- To study about different parts of small intestine
- To understand various chemical reactions that helps in digestion process

Objectives of sub-concept 5: Large intestine

- To identify different parts of large intestine
- To understand about the major functions of large intestine

Objective of sub-concept 6: Anus

- To understand the way by which waste formed after the process of digestion is expelled from the body

Learning materials prepared

1. A text material titled '**Digestion of food in mouth-word doc**' is included in '**Sub-concept 1**' in the **concept 1** folder. Mouth constitutes teeth, tongue and lips, which all together perform physical digestion by masticating food, and begins the digestion process. The material explains about the role of teeth and the different types of teeth, role of tongue, role of saliva and salivary glands in digestion.
2. A video material titled '**Digestion of food in mouth-video**' that explains the journey of food through the oral cavity is included in '**Sub-concept 1**' in the **concept 1** folder. There are many other parts that contribute to the digestion process, including teeth, salivary glands and tongue. Teeth are designed for grinding food particles into small pieces and are moistened with saliva before the tongue pushes the food into the pharynx.
3. A PowerPoint presentation titled '**Digestion of food in mouth-ppt**' is included '**Sub-concept 1**' in the **concept 1** folder. It mainly gives the diagrammatic representation and function of various components in the mouth that helps in the process of digestion.
4. A text material titled '**Structure of oesophagus-word doc**' is included in '**Sub-concept 2**' in the **concept 1** folder. The oesophagus, informally known as the food pipe or gullet, is an organ in vertebrates through which food passes, aided by peristaltic contractions, from the pharynx to the stomach. The oesophagus is a fibromuscular tube, about 25 cm long in adults, that travels behind the trachea and heart, passes through the diaphragm, and empties into the uppermost region of the stomach.

5. A **PowerPoint presentation** titled '**Food through oesophagus-ppt**' mainly deals with the peristaltic movement of food through the food pipe. It is included in '**Sub-concept 2**' in the **concept 1** folder. Peristalsis is a series of wave-like muscle contractions that are involuntary movements that helps to move food through the digestive tract. The strong wave-like motions of the smooth muscle move balls of swallowed food to the stomach.
6. A **text material** titled '**Digestion in stomach-word doc**' is included in '**Sub-concept 3**' in the **concept 1** folder. The stomach is a muscular sac that lies between the oesophagus and the small intestine in the upper abdomen. The stomach is a major part of the digestive system, and it is important for churning food into a consistency that is easier to digest for the rest of the intestines. The material also explains about the importance of gastric juices in digestion process.
7. A **video material** that explains the mechanical and chemical digestion of food in stomach is included in '**Sub-concept 3**' in the **concept 1** folder. The material is titled as '**Digestion in stomach- video**'. Food enters the stomach, that needs to get digested further. In the stomach, there are gastric glands that secrete gastric juices, which helps in the digestion of food further.
8. A **text material** titled '**Digestion in small intestine-word doc**' is included in '**Sub-concept 4**' in the **concept 1** folder. In the small intestine, further digestion takes place. Due to the various movements of this organ, the chyme is further mixed and churned. There are many enzymes that are secreted into the small intestine from organs such as pancreas, liver, apart from the intestinal juices. All these react with the food particles and digest them into smaller particles that can be absorbed into the bloodstream.

9. A **video material** titled '**Digestion in small intestine-video**' is included in '**Sub-concept 4**' in the **concept 1** folder. It clearly explains the entire process of digestion through animation and graphics that enables to understand the complete process of digestion in an easy manner.
10. A **PowerPoint presentation** titled '**Digestion in small intestine-ppt**' mainly deals with functions of small intestine and the structure of villi. It is included in '**Sub-concept 4**' in the **concept 1** folder. The tiny projections on the inner surface of the small intestine which help in absorbing the digested food are called villi. These helps to increase the surface area of intestinal walls.
11. A **text material** titled '**Digestion in large intestine-word doc**' is included in '**Sub-concept 5**' in the **concept 1** folder. The material deals with the different parts of the large intestine and its various functions that includes absorption of water, nutrients and salts and storing of faecal material until it gets eliminated from the body.
12. A **video material** on the '**Structure of large intestine**' is included in '**Sub-concept 5**' in the **concept 1** folder. The large intestine is one long tube, but slightly different things happen in different parts of it. Its three parts are the cecum, colon and rectum.
13. A **text material** titled '**Role of anus in digestion -word doc**' is included in '**Sub-concept 6**' in the **concept 1** folder. The anus is the opening where the gastrointestinal tract ends and exits the body. The anus starts at the bottom of the rectum, the last portion of the colon (large intestine).

14. A PowerPoint presentation titled 'Anus- the final part of alimentary canal-ppt' is included in 'Sub-concept 6' in the concept 1 folder. It deals with the process by which the wastes get expelled from the body.

Check your progress

Sub-concept 1: Mouth

1. Fill the boxes

SL NO	NAME OF TEETH	FUNCTIONS	NUMBER
1	Incisor		
2	Canine		
3	Premolar		
4	Molar		

2. Write down the role of teeth in the process of digestion?

3. Find the correct word

AELMNE

--	--	--	--	--	--	--

INEDTEN

--	--	--	--	--	--	--	--

4. Fill in the blanks

A. There are pairs of salivary glands in the mouth.

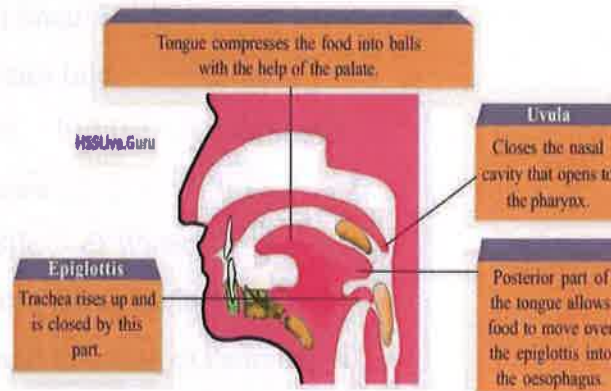
B. Salivary amylase partially convertsto....., a form of sugar.

C., to an extent, helps to destroy the germs that enter body through food.

5. Give a short description about tongue.

Sub-concept 2: Oesophagus

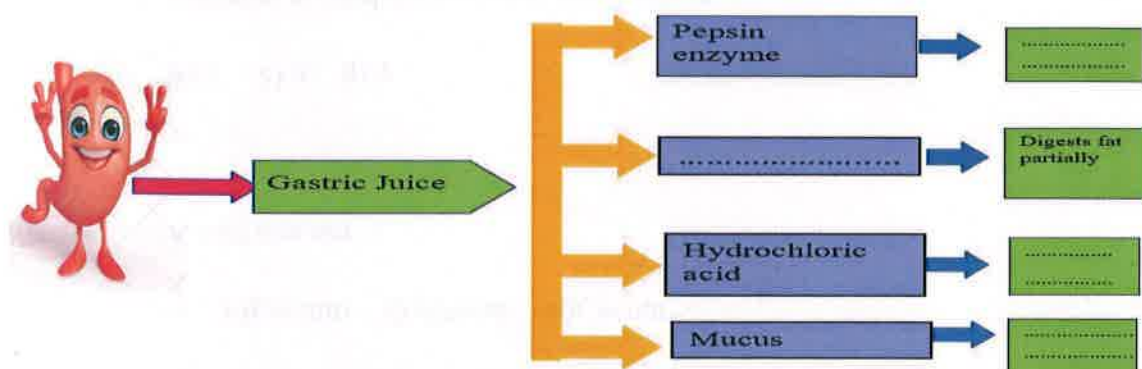
1. How does the food we swallow enter exactly into the oesophagus without entering the trachea? Analyze the below image and prepare a note on it.



2. Write a short description on peristaltic movement.
3. What are 4 different layers present in oesophagus?

Sub-concept 3: Stomach

1. Examine the flow chart and fill in the blanks



2. What is the role of muscles present in the stomach wall in digestion?
3. What is chyme?

Sub-concept 4: Small intestine

1. Choose the correct answer

- I. The beginning of absorption of food takes place in the
a) Mouth b) Small Intestine c) Liver
- II. secretes bile.
a) Gall bladder b) Liver c) Pancreas
- III. Gall Bladder store
a) Food b) Bile c) Water
- IV. secretes pancreatic juice
a) Liver b) Small Intestine c) Pancreas

2. Write a short note on different parts of small intestine.

3. Explain the absorption of nutrients in small intestine?

Sub-concept 5: Large intestine

1. Choose the correct answer

- I. Large intestine is composed of how many layers?
a) 1 b) 2 c) 3 d) 4
- II. Find the odd one out
a) Colon b) Rectum c) Jejunum d) Cecum

2. How does the structure of the small intestine help in increasing the surface area of absorption?

Sub-concept 6: Anus

1. What is meant by defecation?

2. How does wastes get expelled from the body?

CONCEPT 2

ACCESSORY ORGANS

Accessory organs are organs which participate in the digestion process but are not actually a part of gastrointestinal tract. They stimulate the digestion by releasing certain enzymes that help in breaking down the food. The four primary accessory organs of the digestive system are salivary glands, gall bladder, liver and pancreas.

Sub-concepts

Sub-concept 1: Salivary glands

Sub-concept 2: Pancreas

Sub-concept 3: Liver

Sub-concept 4: Gall bladder

Objectives of sub-concept 1: Salivary glands

- To understand major functions of salivary glands
- To know about the major and minor salivary glands

Objectives of sub-concept 2: Pancreas

- To understand about the endocrine and exocrine system of pancreas
- To learn about major hormones and enzymes that aids in digestion
- To know about the anatomy of pancreas

Objectives of sub-concept 3: Liver

- To understand about the structure and major functions of liver
- To learn about the importance of bile

Objectives of sub-concept 4: Gall bladder

- To study about the structure of gall bladder
- To understand the major functions and to understand the process that takes place in gall bladder

Learning materials prepared

1. A **text material** titled '**Salivary glands-word doc**' is included in '**Sub-concept 1**' in the **concept 2** folder. The salivary glands in mammals are exocrine glands that produce saliva through a system of ducts. Humans have three paired major salivary glands such as parotid, submandibular, and sublingual, as well as hundreds of minor salivary glands that aids in digestion. The material deals with various types of major salivary glands and its function.
2. A **video material** titled '**Salivary glands-video**' is included in '**Sub-concept 1**' in the **concept 2** folder. It clearly depicts different salivary glands and major functions of the gland that aids in digestion process.
3. A **PowerPoint presentation** titled '**Salivary glands-ppt**' is included in '**Sub-concept 1**' in the **concept 2** folder. It also explains about the classification of the salivary glands and its important characteristics.

4. A **text material** titled '**Pancreas-word doc**' is included in '**Sub-concept 2**' in the **concept 2** folder. Pancreas is a large gland present just behind the stomach. It is short with its anterior connected to the duodenum and posterior pointing towards the left part of the abdominal cavity. The pancreas releases digestive enzymes to complete the process of chemical digestion.
5. A **video material** titled '**Role and anatomy of pancreas-video**' is included in '**Sub concept-2**' in the **concept 2** folder. The video clearly shows the major functions of the pancreas and its structure.
6. A **PowerPoint presentation** titled '**Pancreatic enzymes and hormones-ppt**' is included in '**Sub-concept 2**' in the **concept 2** folder. Hormones that are secreted by the pancreas help in the exocrine and endocrine functions. The hormones are released by the pancreas directly into the blood whenever the need arises. Pancreas produces pancreatic juice that contains several enzymes. Lipolytic enzymes break down fats, amylolytic enzymes work on carbohydrates and proteolytic enzymes break down proteins.
7. A **text material** titled '**Liver-word doc**' is included in '**Sub-concept 3**' in the **concept 2** folder. The liver is the second largest organ and is an accessory digestive gland which plays a role in the body's metabolism. It is a roughly triangular, reddish-brown accessory organ of the digestive system located to the right of the stomach.
8. A **video material** titled '**Bile-video**' is included in '**Sub-concept 3**' in the **concept 2** folder. Liver produces bile, which helps in the digestion of fat in the small intestine. The bile is stored and recycled in the gall bladder. It is a small, pear-shaped

organ which is located just next to the liver and plays a significant role in digestion process.

9. A video material titled 'Gall bladder-video' is included in 'Sub-concept 4' in the concept 2 folder. It clearly demonstrates the structure of gall bladder and the delivery of the bile through the bile ducts into the intestine to help with digestion.

10. A PowerPoint presentation titled 'Gall bladder-ppt' is included in 'Sub-concept 4' in the concept 2 folder. Gallbladder is a small, pear-shaped organ in the upper right abdomen. It stores and releases bile to help the digestive system break down fats. The presentation mainly deals with the structure, location and functioning of gall bladder.

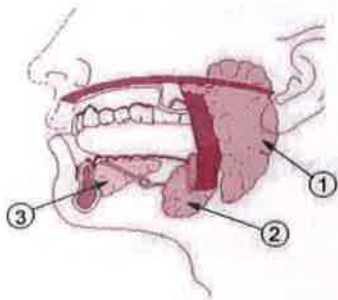
Check your progress

Sub-concept 1: Salivary glands

1. Choose the correct answer

- i. Which salivary gland is the largest contributor to the saliva in our oral cavity?
 - a) Mucosal b) Parotid c) Sublingual d) Submandibular
- ii. Which enzyme is the primary digestive enzyme in human saliva?
 - a) Lipase b) Amylase c) Pancreatin d) None of the above

2. Identify the structures



1.....
2.....
3.....

Sub-concept 2: Pancreas

1. Match the following

A	B
Insulin	Break down proteins
Amylolytic enzymes	Increase blood glucose when levels get too low.
lipolytic enzymes	Break down carbohydrates
Glucagon	Lower blood glucose when levels get too high.
Protease	Digests fats

2. Explain the different types of pancreatic hormones.

3. What is ampulla of Vater?

Sub-concept 3: Liver

1. Write a short note on various functions of liver?

2. What is Glisson's capsule?

3. Explain the role of bile in digestion?

Sub-concept 4: Gall bladder

1. What is biliary tract?

2. Explain the importance of gall bladder in detail.

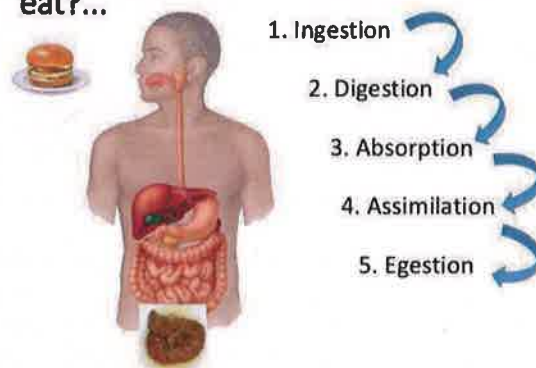
CONCEPT 3
DIGESTIVE PROCESSES

Objective

To understand about the five major steps that aids in digestive processes in human beings

- ❖ Ingestion
- ❖ Digestion
- ❖ Absorption
- ❖ Assimilation
- ❖ Egestion

What happens to the food that we eat?...



Learning materials prepared

1. A **detailed text material** titled '**Digestive processes-word doc**' is included in the **concept 3** folder.
2. A **video** titled '**Major processes of digestive system**' is included in the **concept 3** folder.
3. A **PowerPoint presentation** titled '**Digestive processes-word doc**' is included in the **concept 3** folder.

All the above learning materials deals with the five major steps in digestion such as ingestion, digestion, absorption, assimilation and egestion. Ingestion includes the

processes which takes place while the food is taken inside the mouth. Digestion is the process of breaking down of food into simpler substances that can be absorbed and assimilated into the tissues of the body. The process of absorption takes place in the small intestine with the help of villi which are minute finger-like processes lines against the walls of small intestine. Assimilation is the process of movement of digested food molecules into the cells of the body where they are used. The final process egestion is the removal of undigested food material from the body through anus.

Check your progress

1. Tick the correct answer
 - a. Egestion means intake of food
 - True
 - False
 - b. Oxyntic or parietal cells secrete HCL
 - True
 - False
 - c. Villi does not increase the surface area for absorption
 - True
 - False
2. Explain in detail about the mechanical and chemical digestion of food.
3. What do you mean by assimilation?
4. Explain the absorption process that takes place in small intestine?
5. What is ingestion?

CONCEPT 4

GASTROINTESTINAL DISORDERS

The human digestive system is an essential part of our body. It helps us to assimilate and absorb various nutrients. Therefore, it helps us to keep healthy and grow optimally. Hence, a healthy digestive system is essential for our gut health and consequently the overall well-being of our body. However, many people suffer from varying digestive or gastrointestinal disorders that can make normal functioning of the body a difficult task.

Gastrointestinal disorder is the term used to refer to any condition or disease that occurs within the gastrointestinal tract. The gastrointestinal tract (also called the GI tract) is a series of hollow organs that form a long continuous passage from our mouth to our anus. The organs that make up our GI tract are our mouth, oesophagus, stomach, small intestine, large intestine, and anus. The GI tract, together with the liver, pancreas, and gallbladder, makes up the digestive system. Some of the common GI disorders are discussed in the following sub-concepts.

Sub-concepts

Sub-concept 1: Celiac Disease

Sub-concept 2: Irritable Bowel Syndrome (IBS)

Sub-concept 3: Lactose Intolerance

Sub-concept 4: Gastroesophageal Reflux disease (GERD)

Sub-concept 5: Peptic Ulcer Disease

Sub-concept 6: Crohn's Disease

Sub-concept 7: Ulcerative Colitis

Sub-concept 8: Pancreatitis

Sub-concept 9: Gallstones

Objectives of Sub-concept 1: Celiac Disease

- To understand the cause of the disease
- To learn about the signs and symptoms of the disease
- To know about the various food items that must be avoided to prevent the disease condition

Objectives of Sub-concept 2: Irritable Bowel Syndrome (IBS)

- To know how the disease is caused
- To get an idea about the various factors that trigger the disease and its signs and symptoms

Objectives of Sub-concept 3: Lactose Intolerance

- To learn about lactose intolerance and the three types of lactose intolerance
- To understand the risk factors and symptoms associated with the disease

Objectives of Sub-concept 4: Gastroesophageal Reflux disease (GERD)

- To study about the acid regurgitation related to the disease
- To get an idea about the symptoms and the treatment procedure associated with the disease

causes inflammation of the small intestine and is induced when wheat protein (gluten) and its products are consumed. When people with celiac disease eat foods containing gluten their immune system responds by damaging the finger-like villi of the small intestine. The document also deals with various symptoms of the disease.

2. A PowerPoint presentation titled '**Foods to avoid for celiac disease-ppt**' is included in '**Sub-concept 1**' in the **concept 4** folder. The best treatment for celiac disease is a control on the diet.
3. A text material titled '**Irritable Bowel Syndrome-word doc**' is included in '**Sub-concept 2**' in the **concept 4** folder. Irritable Bowel Syndrome (IBS) is also referred to as nervous stomach, irritable colon, mucous colitis or spastic colon. IBS is a group of gastrointestinal conditions in which one experiences a combination of frequent abdominal pain, bloating and cramps associated with either diarrhoea or constipation.
4. A video material titled '**Signs and symptoms of IBS-video**' is included in '**Sub-concept 2**' in the **concept 4** folder. It clearly explains the about the major health problems related to IBS.
5. A video that deals with pathophysiology, causes, signs and symptoms and treatment of lactose intolerance is included in '**Sub-concept 3**' in the **concept 4** folder. The title of the video is '**Lactose intolerance-video**'.

6. A **PowerPoint presentation** titled '**Lactose intolerance-ppt**' is included in '**Sub-concept 3**' in the **concept 4** folder. Lactose intolerance is a disorder in which a person is unable to fully digest lactose, a simple carbohydrate present in all mammals' milk and in its derivatives. This is due to low levels of an enzyme called lactase that is responsible for digesting lactose. The presentation clearly explains the three types of lactose intolerances and the risk factors related with it.

7. A **text material** titled '**Gastroesophageal reflux disease-word doc**' is included in '**Sub-concept 4**' in the **concept 4** folder. Gastroesophageal reflux disease (GERD) is a chronic digestive disease where the liquid content of the stomach refluxes into the oesophagus, the tube connecting the mouth and stomach. Acid reflux or heartburn occurs when stomach contents and acids spill over into the oesophagus, causing a burning sensation and chest pain. This condition is sometimes also called acid regurgitation. The document explains about the symptoms and treatment.

8. A **video** titled '**GERD-video**' is included in '**Sub-concept 4**' in the **concept 4** folder. The video clearly illustrates the movement of food through oesophagus and how the improper closing of lower oesophageal sphincter leads to acid reflux.

9. A **video** titled '**Peptic ulcer-video**' is included in '**Sub-concept 5**' in the **concept 4** folder. It mainly deals with the three main causes of the ulcer formation.

10. A **PowerPoint presentation** titled '**Peptic ulcer-ppt**' is included in '**Sub-concept 5**' in the **concept 4** folder. Production of digestive juices in the stomach in excessive amount results in the gastric ulcer formation. However, gastric ulcers are quite rare

because the stomach is lined by a layer of epithelial cells which secrete alkaline mucosa. Most of the ulcers are duodenal ulcers. These are produced when acidic chyme, overproduced by the stomach, is delivered into the duodenum. The excessive amount of acidic chyme cannot be neutralized by the alkaline juice of intestine and pancreas. Infection by the bacterium *Helicobacter pylori* increases the susceptibility to ulcers.

11. A **text material** titled '**Crohn's disease-word doc**' is included in '**Sub-concept 6**' in the **concept 4** folder. Crohn's disease is a chronic inflammatory digestive disease that can affect any part of the GI tract, from the mouth to the anus. It most commonly however involves the ileum (the lower side of the small bowel) that becomes ulcerated and inflamed.
12. A **video** titled '**Crohn's disease-video**' is included in '**Sub-concept 6**' in the **concept 4** folder. It mainly deals with the inflammatory processes, factors that contribute to the disease and the symptoms.
13. A **video** titled '**Ulcerative colitis-video**' is included in '**Sub-concept 7**' in the **concept 4** folder. It mainly deals with the types of colitis, inflammatory processes, progression of the disease , factors that contribute to the disease and its symptoms.
14. A **PowerPoint presentation** titled '**Ulcerative colitis (UC)-ppt**' is included in '**Sub-concept 7**' in the **concept 4** folder. Ulcerative Colitis (UC) is an autoimmune disease that causes inflammation in the large intestine marked by remission and relapse. The inflammation affects the colon, causing it to become haemorrhagic

(bleeds) and ulcerated. The disease may involve only the rectum, the left side of the colon or the entire colon.

15. A **text material** titled '**Pancreatitis-word doc**' is included in '**Sub-concept 8**' in the **concept 4** folder. Pancreatitis is inflammation of the pancreas. The pancreas is a long, flat gland that sits tucked behind the stomach in the upper abdomen. The pancreas produces enzymes that help digestion and hormones that help regulate the way your body processes sugar (glucose). Pancreatitis can be of two types-acute and chronic pancreatitis. Acute pancreatitis appears suddenly and lasts for days. Some people develop chronic pancreatitis, which is pancreatitis that occurs over many years. Mild cases of pancreatitis improve with treatment, but severe cases can cause life-threatening complications.
16. A **video** titled '**Chronic pancreatitis-video**' is included in '**Sub-concept 8**' in the **concept 4** folder. **Chronic pancreatitis** is a long-standing inflammation of the pancreas that alters the organ's normal structure and functions. The video deals with the signs, symptoms and diagnostic procedures of chronic pancreatitis.
17. A **video** titled '**Gall bladder-video**' is included in '**Sub-concept 9**' in the **concept 4** folder. The video clearly explains causes, signs and symptoms and the treatment of the disease.
18. A **PowerPoint presentation** titled '**Gallstones-ppt**' is included in '**Sub-concept 9**' in the **concept 4** folder. The gallbladder is a pear-shaped pouch that sits just below the liver. It collects bile, a fluid made to help with digestion, as it flows from the liver to the intestine through the bile ducts. Gallstones are hardened bits of bile that

form inside the gallbladder. Gallstones form when cholesterol or bilirubin particles cluster together into a solid lump.

Check your progress

Objectives of Sub-concept 1: Celiac Disease

1) Choose the correct answer

i. What kind of food should people with celiac disease avoid?

A. Fruits

B. Nuts

C. Grains

D. None

ii. Due to an immunological reaction to _____, celiac disease is caused.

A. Globulin

B. Albumin

C. Gluten

D. None

2) Give a short note on celiac disease.

3) What are the symptoms of celiac disease?

4) Name the disease shown in the picture caused due to Glucose intolerance.



Answer:.....

Sub-concept 2: Irritable Bowel Syndrome (IBS)

- 1) Expand IBS and explain the following in detail.
 - a. Triggers of IBS
 - b. Causes of IBS
- 2) Give short note on signs and symptoms of IBS?

Sub-concept 3: Lactose Intolerance

- 1) Choose the correct answer
 - i. People with lactose intolerance do not have enough _____.
 - Lactose
 - Lactase
 - Glucose
 - Fructose
 - ii. Which of the following is not a symptom of lactose intolerance?
 - Cramps
 - Nausea
 - Fever
 - Bloating
- 2) What is meant by lactose intolerance?
- 3) Explain three types of lactose intolerance.

Sub-concept 4: Gastroesophageal Reflux disease (GERD)

- 1) What do you mean by acid regurgitation?
- 2) What are the symptoms of GERD?

Sub-concept 5: Peptic Ulcer Disease

- 1) What do you mean by the term peptic ulcer?
- 2) Differentiate between duodenal ulcers and gastric ulcers.
- 3) Name the bacteria that cause the peptic ulcers?

Sub-concept 6: Crohn's Disease

- 1) What is Crohn's disease?
- 2) What is meant by auto immune reaction?
- 3) What are the major symptoms of Crohn's disease?

Sub-concept 7: Ulcerative Colitis

- 1) Match the following

A	B
Proctosigmoiditis	Begins at the rectum and extends up to a bend in the colon near the spleen called the splenic flexure.
Pan-ulcerative colitis	Affects the entire colon
Left-sided colitis	Bowel inflammation is limited to the rectum
Ulcerative proctitis	Affects the rectum and the sigmoid colon

- 2) What is Ulcerative colitis ?
- 3) Name the various types of ulcerative colitis?
- 4) What are the symptoms of ulcerative colitis?

Sub-concept 8: Pancreatitis

- 1) Write a short note on acute pancreatitis and chronic pancreatitis.
- 2) Choose the correct answer
 - i. What causes pancreatitis?
 - Excessive alcohol consumption
 - Gall stones
 - Genetic disorders
 - All the above
 - ii. Acute pancreatitis is long lasting inflammation
 - True
 - False

Sub-concept 9: Gallstones

- 1) What are gallstones?
- 2) What are the two types of gallstones? Explain.

CONCEPT 5

METHODS TO IMPROVE DIGESTION

Everyone experiences occasional digestive symptoms such as upset stomach, gas, heartburn, nausea, constipation or diarrhoea. However, when these symptoms occur frequently, they can cause major disruptions to life. Fortunately, diet and lifestyle changes can have a positive impact on the gut health.

Objectives

- To know about different ways to follow for better digestive process
- To understand the foods and practices to avoid for good digestion

Learning materials prepared

1. A **word document** titled '**Methods to improve digestion-Word doc**' is included in the **concept 5** folder. Overall well-being and health depend on the food one consumes. An unhealthy diet or lifestyle can cause more regular digestive problems and lifestyle changes can often help to resolve these issues.
2. A **video material** titled '**Tips to improve digestion-video**' is included in the **concept 5** folder. Eating is not only one of the great pleasures in life, its also essential for health and wellness. The foods eat nourish the body, provides energy and enhance the function of all vital organs. That is why it's important to maintain a healthy digestive system by consuming the right food and adopting sensible eating habits.
3. A **PowerPoint presentation** titled '**Foods and practices to avoid for a good digestive system**' is included in the **concept 5** folder. The food and the lifestyle have a direct impact on the digestive health. While an unhealthy diet cause nothing

more than a few uncomfortable hours, eating the wrong food over a long time can lead to severe complications.

Check your progress

1. Why is it important to stay hydrated for a good digestion process?
2. What is the significance of consuming fibre rich food?
3. Mention the foods to consume and to avoid for maintaining a good digestive system.

CONCLUSION

The resource material is prepared on the topic **Human Digestive System**.

The main topic is divided into five major concepts such as **alimentary canal**, **accessory organs**, **digestive processes**, **gastrointestinal disorders** and **the methods to improve digestion**.

The first concept **alimentary canal** explains in detail about sub-concepts such as mouth, oesophagus, stomach, small intestine, large intestine and anus. Role and function of each organ that helps in process of digestion is discussed in this concept.

In the second concept, **accessory organs** of the digestive system such as salivary glands, pancreas, liver and gall bladder are included as the sub-concepts. The importance of each accessory organ is well explained in this concept.

The **digestive processes** in human beings such as ingestion, digestion, absorption, assimilation and egestion is dealt in the third concept.

The disease conditions and disorders that affect the digestive system are discussed in the fourth concept. The title of the concept is **gastrointestinal disorders**. Various gastrointestinal disorders discussed in the concept includes celiac disease, irritable bowel syndrome, lactose intolerance, gastroesophageal reflux disease, peptic ulcer disease, Crohn's disease, ulcerative colitis, pancreatitis and gallstones

The fifth concept is about various **methods to improve digestion** and it explains the ways that could help a person to attain good digestive system by the consumption of healthy food.

REPORT ON ICT PRESENTATION

As a part of B Ed programme, I presented my learning resource material on the topic 'Human Digestive System' on 14th of March, 2022.

The main topic was divided into five concepts. Each concept was divided into various sub-concepts according to the necessity. The first concept was about the alimentary canal and the main organs of the alimentary canal such as mouth, oesophagus, stomach, small intestine, large intestine and anus was considered as each sub-concept. For each content appropriate word document, video and PowerPoint presentation were also added.

In the second concept the four primary accessory organs of the digestive system such as salivary glands, pancreas, liver and gall bladder were discussed. Video materials, word documents and PowerPoint presentations were included to support various sub-concepts.

The title of the third concept was digestive processes and it was to understand about the five major steps that aids in digestive processes in human beings such as ingestion, digestion, absorption, assimilation and egestion. A detailed text material, video and a PowerPoint presentation were also included for the effective understanding of the concept.

The fourth concept is about various gastrointestinal disorders such as celiac disease, irritable bowel syndrome, lactose intolerance, gastroesophageal reflux disease, peptic ulcer disease, Crohn's disease, ulcerative colitis, pancreatitis and gallstones. Text materials, videos and PowerPoint presentations related to each sub-concept explain in detail about causes, signs and symptoms of each disease.

The last concept is about various methods to improve the process of digestion. Detailed text material, video and PowerPoint presentation related to the concept gives an idea about different ways that can be followed for better digestion process.

By completing this work, I understood how to prepare an interesting ICT enabled resource material that can encourage and stimulate the students to learn.



Dina
30/3/2022

