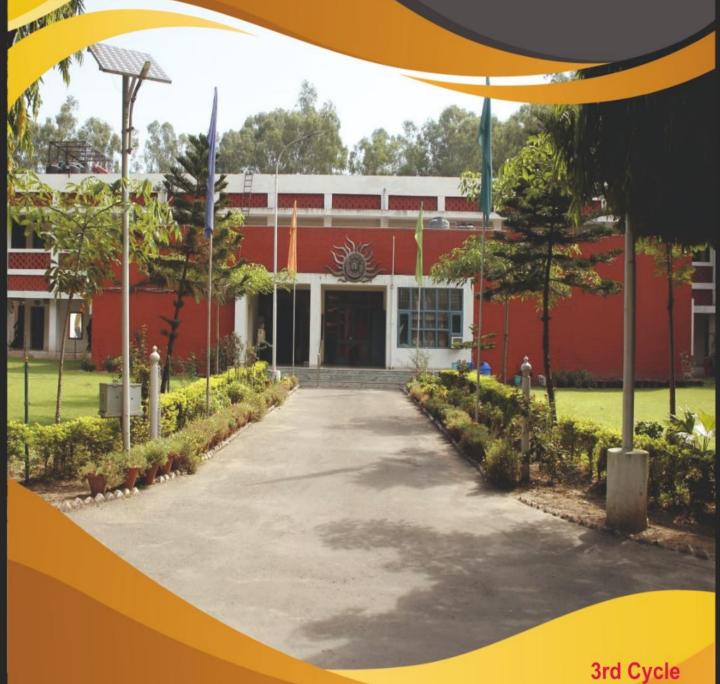


GOVERNMENT COLLEGE OF EDUCATION SECTOR 20-D, CHANDIGARH

NAAC ACCREDITED GRADE 'A'



Assessment and Accreditation by NAAC
CRITERION-II
TEACHING LEARNING AND EVALUATION

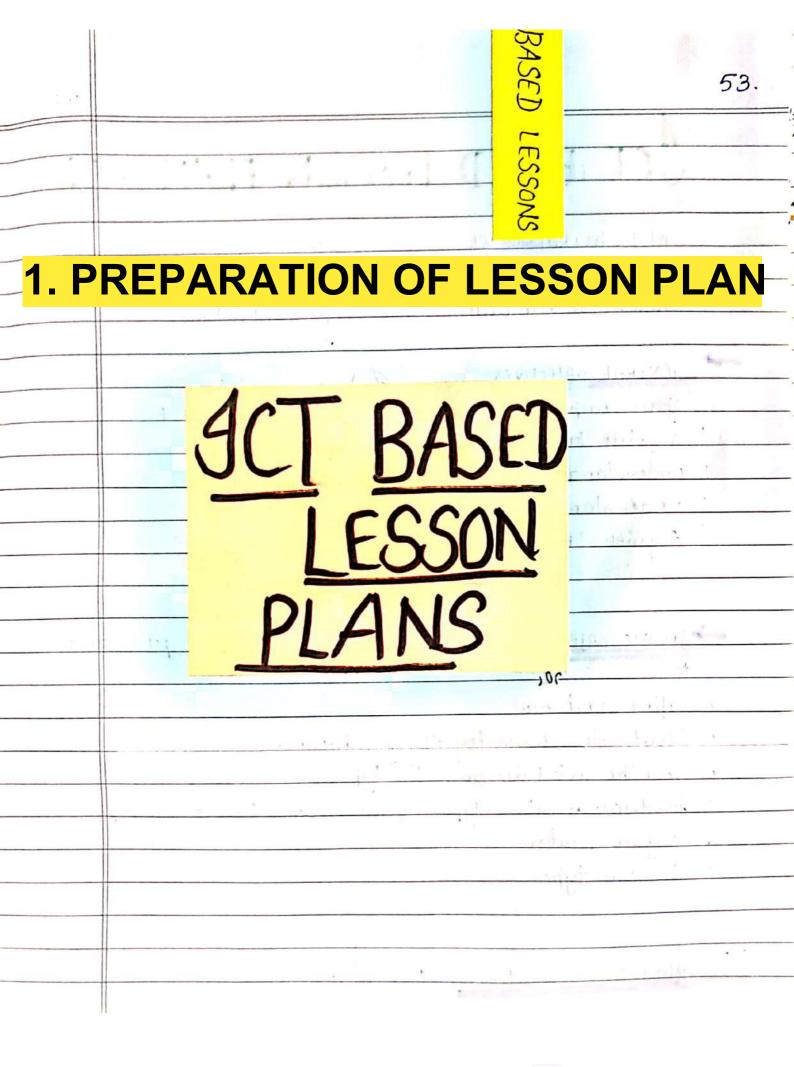


KEY INDICATOR- 2.4 Competency and Skill Development

2.4.5 – Skills developed in students for effective use of ICT for teaching Learning Process

INDEX

Sr. No	Content	Page No.
1	Samples of various tasks carried out for effective use of ICT in teaching learning	1-40
	process:-	
	Preparation of lesson plans	1-7
	Developing assessment tools	8-19
	Effective use of learning apps	20-27
	Identifying and selecting online learning	28-40
	resources	
	Evolving learning sequences	



JCT BASED LESSON PLAN - 01

Pupil teacher Roll No. + 81 Date : 2-9-22

class : Txth

Duration : 30.35 minutes

Topic : Mixture

CENERAL ORTECTIVES

After completion of this topic, pupil will be able to:

acquire knowledge of mixture:

understand about both types of mixtures

understand about volutions

Acquire knowledge of Solution in daily life

specific oriectnes: At the end of the lesson, pubil will be able to:

Define aubstance

· Illustrate characteristics of substance

· Describe mixture and its types.

· smust nate various types of mixture with its example.

· Define Golution.

Explain types.

INSTRUCTIONAL MATERIAL+ Inecotation

- Previous Knowledge Assumed:

et is assumed that pubil are aware of mixing augus into water, matter etc.

- Parevious knowledge Testing :

Question what do you mean by matter?

Expected Response: Anything that occupies space

Ouestion: Hove you even prepared sugar solution?

Expected Response: when making Lemonade.

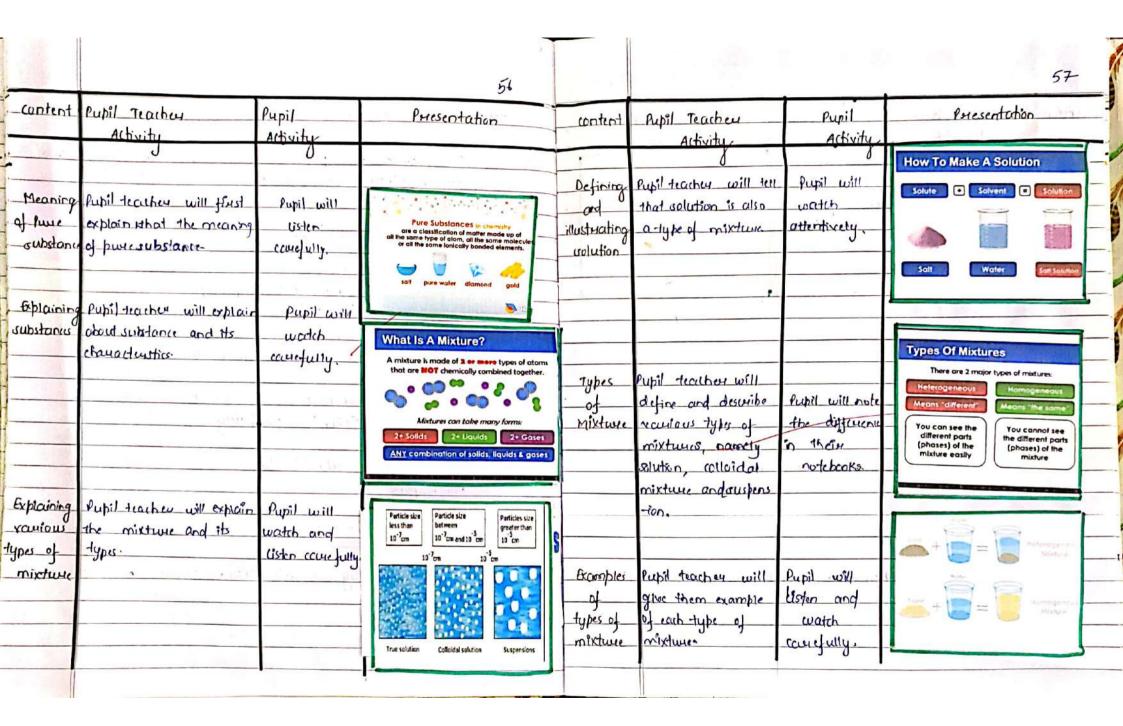
Question: what happens when you add sugar to water of Expected Response: It disappears completely.

Question: How will you define mixture?

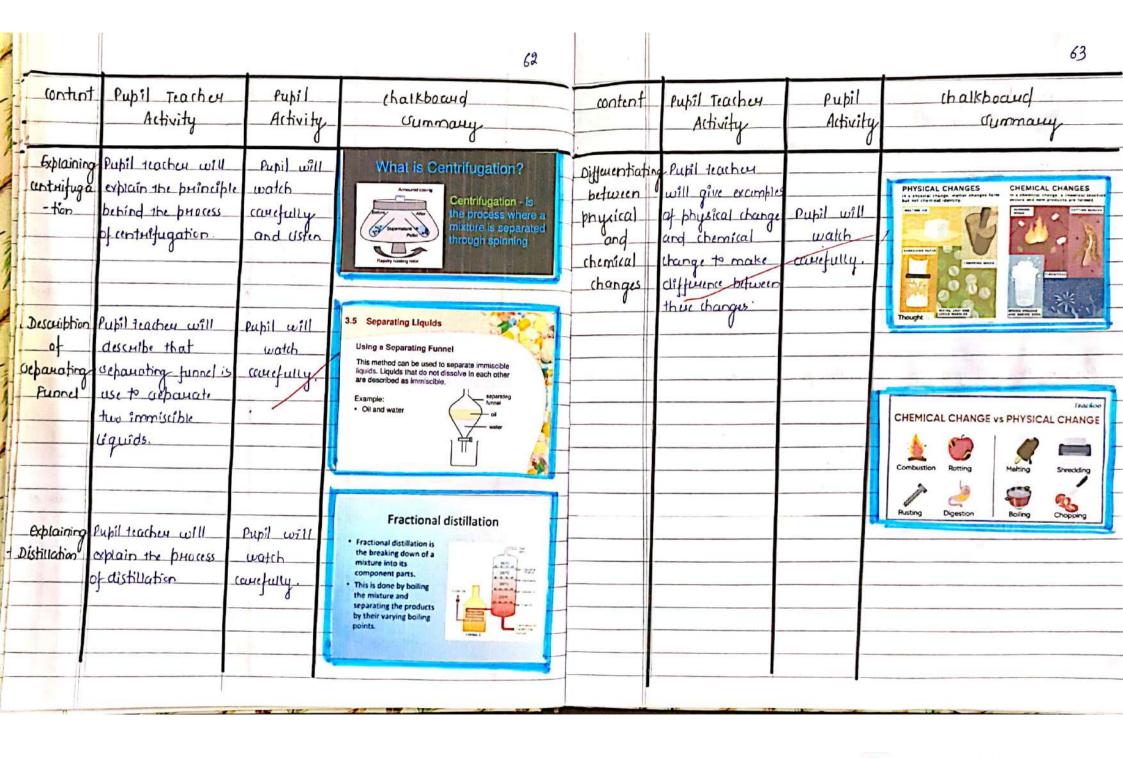
- ANNOUNCEMENT OF THE TOPIC:

ooutudents! roday we will leave about mixture and its types.

- PRESENTATION:



58	59
Content Pupil Teacher Pupil Persentation Activity Activity Activity Activity Pupil Persentation Activity Activity Pupil will Pupil produce Solution Colloid Suspens Limit Beam Not visual will Example: Will pupil The Tympall Effect Dught markeds of a Colloid on Businesson.	- 41 the end of lessur pupil will be able to -
Recapitulation: O:1 Define substance O:2 Mixture 1s of types. O:3 The particle of colloidal solution are in size	Acquire knowledge about different method of separating mixture: understand the concept of various methods understand the use of separating techniques: Apply the knowledge of separation in daily life vituations Specific objectives: At the end of lesson, ofudents will be able to:
Homework: Dirtjentiate between homogeneous and heteuegeneous volutions	define separation of techniques explain the importance of separation describe about filteration illustracte the use of contribugation fxplain the use of process of distillation. Instruction Aids = Presentation.



64 Recapitulation= Question: By which method you can separate the leaves from tco. Question: How will you reparate salt from valturation? Austion: How will you separate oil and water Homework: Duestion: How will you separate butter from milk. Oueston: Differentiate between physical and chemical change

2. DEVELOPNIG ASSESSMENT TOOLS FOR BOTH ONLINE AND OFFLINE LEARNING

SCHOOL INTERNSHIP PROGRAMME

Pedagogy Of Mathematics

ASSESSMENT RECORD FILE

Submitted To:-

Dr. Upasana

Associate Professor

GCE-20D,Chd

Submitted By:-

Prince Bansal

73/21

B.Ed. Sem - 3

Government College Of Education Sector 20-D, CHANDIGARH

Class - 8th

Test

ALGEBRAIC EXPRESSION

Max. Marks: 30 marks Max. Time: 40 mins.

- All ques
- See

LGABRAIC EXPRESSIONS

- 5. Using
 - (i) 71^2
- (ii) 78
- 6. Simplify (i) $(2x + 5)^2 (2x 5)^2$
 - (ii) $(5x^2 + \frac{3}{4}y^2) (5x^2 \frac{3}{4}y^2)$

Class - 8th

Test

ALGEBRAIC EXPRESSION

Max. Marks: 30 marks Max. Time: 40 mins.

· All questions are compulsory.

- Section A contains 5 questions. Each question carries 1 marks.
- Section B contains 5 questions. Each question carries 3 marks.
- Section C contains 2 questions. Each question carries 5 marks.

Section - A

- 1. Coefficient of x^2 in $5xyz + 6x^2$
 - a. 5

b.6

 $c.6x^2$

- 2. Which of the following is monomial:
 - a. 2p + 2q
 - b. 2pq
 - c. $2p^2 + 2q$
- 3. Product of x and x4 is:
 - a. X⁵

b.X4

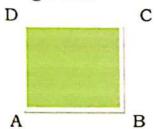
c.X3

Find the product: (i) a, - a², a³
 (ii) 0, 3x, -2x, -4x²

Section - B

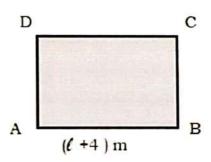
- 5. Using identity, find
 - (i) 71^2
- (ii) 78 X 82
- (ii) $51^2 49^2$
- 6. Simplify (i) $(2x + 5)^2 (2x 5)^2$
 - (ii) $(5x^2 + \frac{3}{4}y^2) (5x^2 \frac{3}{4}y^2)$

- 7. (i) Add p(p-q), q(q-r), r(r-p)
 - (ii) Subtract $3\ell (\ell 4m + 5n)$ from $4\ell (10n 3m + 2\ell)$
- 8. (i) Simplify $(10x 25) \div (2x 5)$
 - (ii) Simplify $5pq (p^2 q^2) \div 2p (p + q)$
- Rahim has garden of square shape with side (2x +5) m. Find the area of his garden.



Section - C

10.



Area of rectangle = $(\ell^2 + 6\ell + 8)$ m²

one side =
$$(l + 4)$$
 m other side = ?

11.



$$Cost = Rs. x^2 - xy - y^2$$

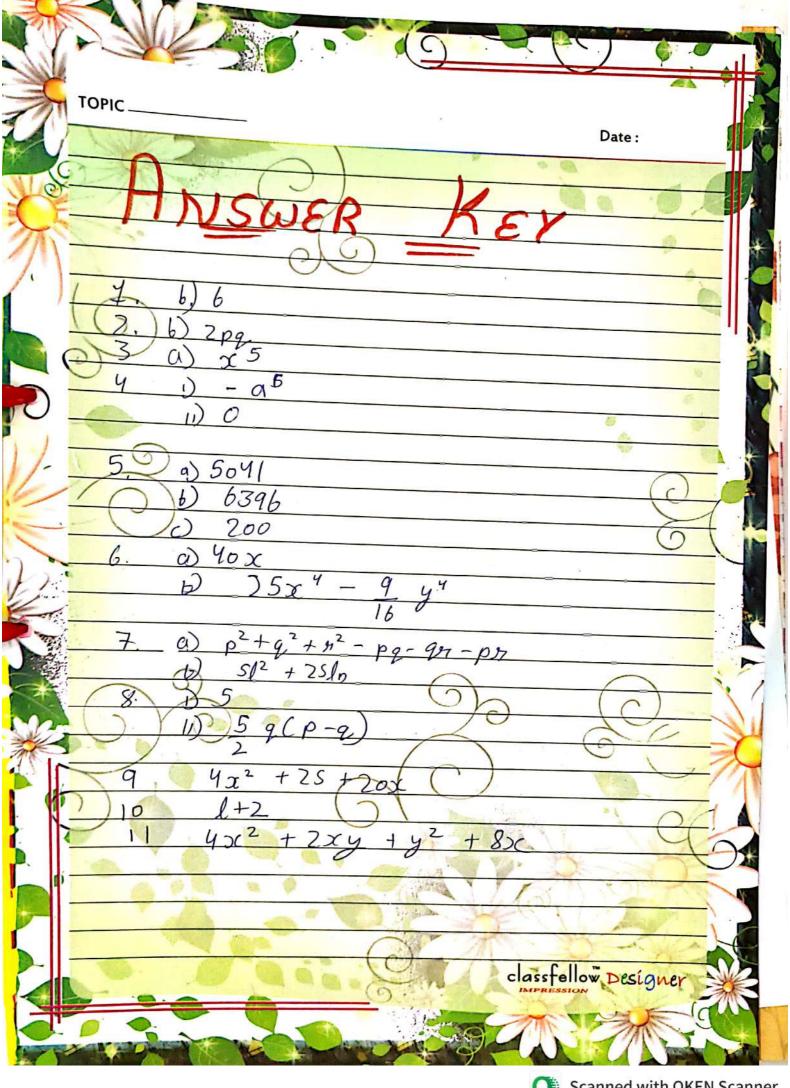


Cost = Rs.
$$2x^2 + 8x - 2y^2$$



$$Cost = Rs. x^2 + 3xy + 4y^2$$

How much amount Reena should pay to buy all these items?



Class - 8th

Test

ENTS & POWERS

Max. Marks: 30 marks Max. Time: 40 mins.

UNIT TEST EXPONENTS B POWERS

Class - 8th

Test

EXPONENTS & POWERS

Max. Marks: 30 marks Max. Time: 40 mins.

- All questions are compulsory.
- Section A contains 5 questions. Each question carries 1 marks.
- Section B contains 5 questions. Each question carries 3 marks.
- Section C contains 2 questions. Each question carries 5 marks.

Section - A

1. Value of 2^{-3}

a.
$$\frac{1}{8}$$

b.-6

c.8

2.
$$(a^m)^n = ?$$

a.
$$a^{m+n}$$

b.
$$a^{m-n}$$

c. a^{mn}

3.
$$a^m X a^n = ?$$

a.
$$a^{m+n}$$

b.
$$a^{m-n}$$

c. a^{mn}

4.
$$-4^5 \div -4^8 = ?$$

a.
$$-4^{13}$$

b.
$$-4^3$$

c.
$$-4^{-3}$$

5.
$$-3^4 X \left(\frac{5}{3}\right)^4 = ?$$

a.
$$-5^4$$

b.
$$-15^4$$

Section - B

6. Find the value of (i)
$$(3^0 + 4^{-1}) \times 2^2$$

(ii)
$$(3^{\cdot 1} + 4^{\cdot 1} + 5^{\cdot 1})^0$$

7. Simplify (i)
$$\left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{3}\right)^{-2}$$

(ii)
$$\left(\left(\frac{-2}{3}\right)^{-2}\right)^3 \times \left(\frac{1}{4}\right)^{-4} \times 3^{-1} \times \frac{1}{6}$$

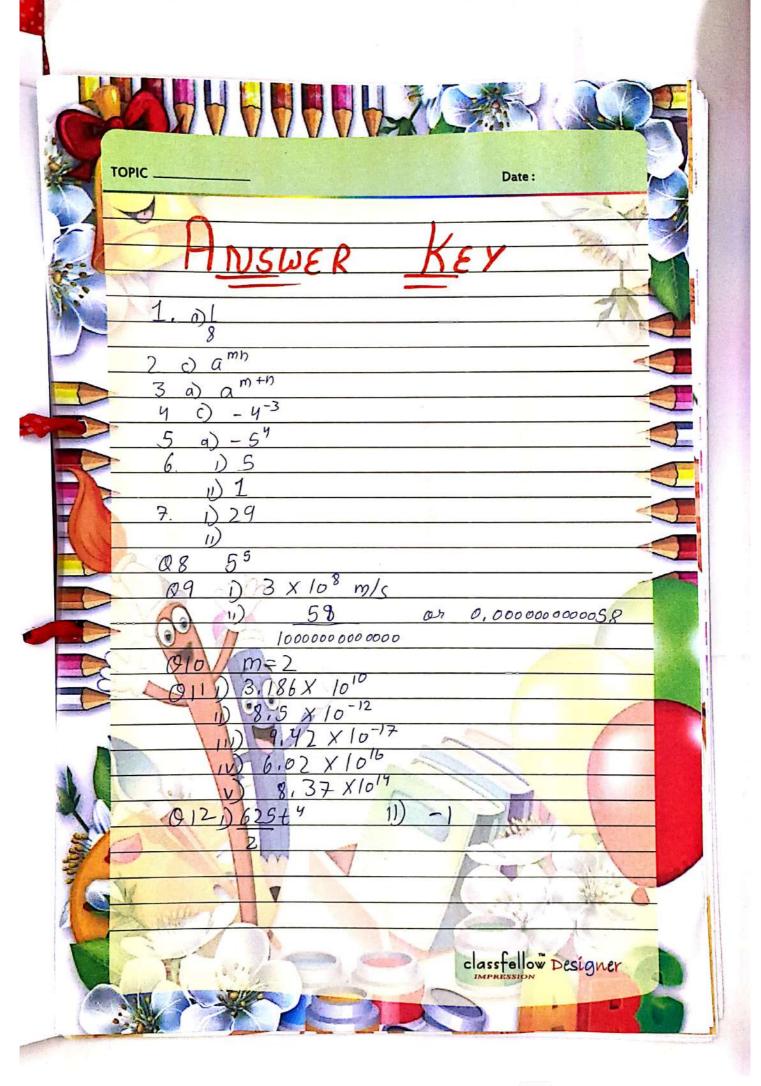
- 8. Simplify $\frac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$
- 9. (i) Speed of light is 300,000,000 m/sec. Convert this expression
 - (ii) Express 5.8 X 10⁻¹² in usual form.
- 10. Find the value of m if $5^{m} + 5^{-3} = 5^{5}$

Section - C

- 11. Express the following in standard form:
 - a. 31860000000
 - b. 0.0000000000085
 - c. 0.000000000000000942
 - d. 60200000000000000
 - e. 0.000000000000837
- 12. Simplify:

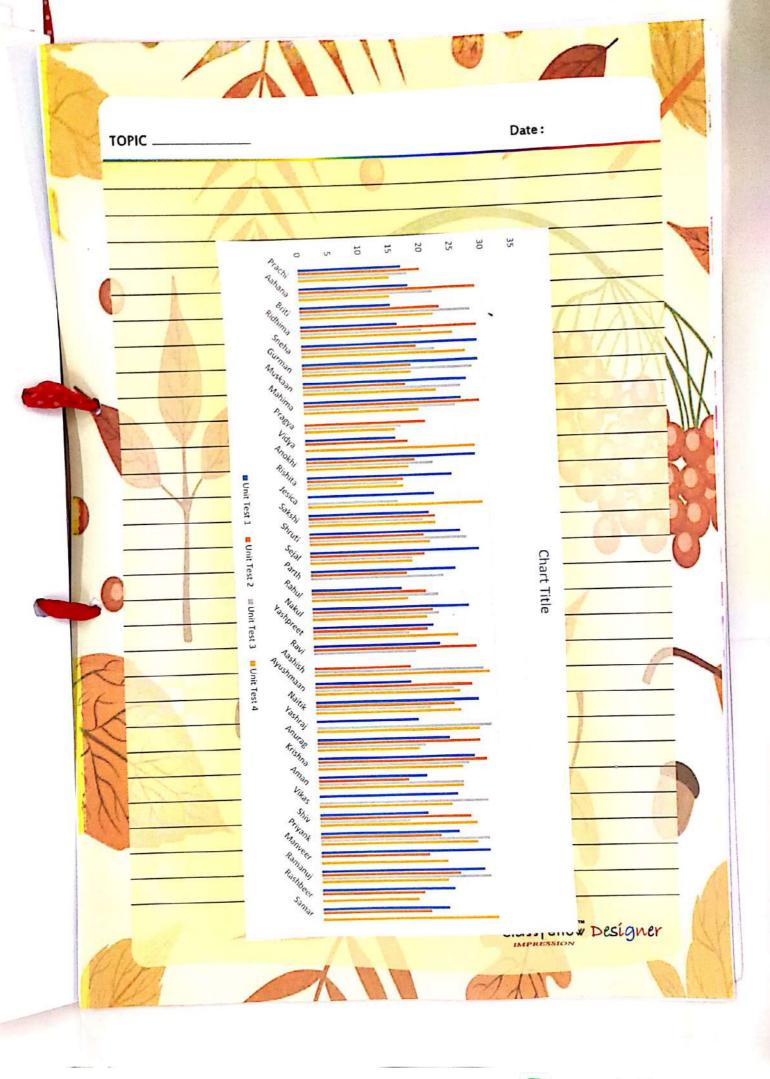
a.
$$\frac{25 \times t^{-4}}{5^{-3} \times 10 \times t^{-8}}$$

b.
$$\left\{ \left(\frac{1}{3} \right)^{-1} - \left(\frac{1}{4} \right)^{-1} \right\}^{-1}$$



Class - 8th							
	Maths						
Roll No	Name	Unit Test 1	Unit Test 2	Unit Test 3	Unit Test 4		
	Prachi	17	20	18	15		
2	Aahana	18	29	22	15		
3	Briti	15	23	28	22		
4	Ridhima	16	29	20	25		
5	Sneha	29	19	22	27		
6	Gurman	29	18	28	18		
7	Muskaan	27	17	26	22		
8	Mahima	26	29	25	19		
9	Pragya		20	16	15		
10	Vidya	15	17		28		
11	Anokhi	28	18	21	17		
12	Rishita	24	16	15	16		
13	Jesica	21		15	29		
14	Sakshi	20	21	19	21		
15	Shruti	25	19	26	20		
16	Sejal	28	19	17	17		
17	Parth	24	16	22			

15	19	21	16
26	20	21	19
20	19	16	24
21	27	17	
	16	28	29
16	26	23	24
27	23	19	24
17		29	27
22	27	18	17
26	28	25	24
18	15	24	24
23		28	22
18	25	15	26
23	20	28	26
28	18		21
27	23	28	21
22	17		16
21	18		29
35	35	35	35
33	32	31	33
2	3	4	2
	26 20 21 16 27 17 22 26 18 23 18 23 28 27 22 21	26 20 20 19 21 27 16 16 27 23 17 22 26 28 18 15 23 18 23 20 28 18 27 23 22 17 21 18 35 35 33 32	26 20 21 20 19 16 21 27 17 16 28 16 26 23 27 23 19 17 29 22 27 18 26 28 25 18 15 24 23 28 18 25 15 23 20 28 28 18 27 23 28 22 17 21 18 35 35 35 33 32 31



3. EFFECTIVE USE OF SOCIAL MEDIA/ LEARNING APPS / ADAPTIVE DEVICES FOR LEARNING

DISCUSSION LESSON

Pupil Teacher's Roll No:73/21 Subject: Pedagogy of Computer Science

Date: 18-08-2022 **Class:** 9th

Duration: 40 minutes **Topic:** Operating System and its types

INSTRUCTIONAL OBJECTIVES:

After completion of the topic, students will be able to:

1. Remembering

- a. Define operating system
- b. Name different types of operating system as CUI, GUI, Multiprocessing, Multitasking and Multiuser.
- c. Define different types of operating system

2. Understanding

- a. Explain the purpose of operating system
- b. Differentiate between CUI and GUI

3. Applying

- **a.** Use a GUI Operating system.
- 4. Analyzing
 - a. Classify different operating systems according to their types
 - b. Distinguish between different types of operating system
- 5. Evaluating
 - a. Evaluate which type of operating system they are using at the time of working on computing device

INSTRUCTION AIDS

➤ PowerPoint presentation, White Board & Marker

PREVIOUS KNOWLEDGE ASSUMED

> Pupil teacher assumed that pupils have basic knowledge of hardware and software and some idea about difference between application software and system software.

PREVIOUS KNOWLEDGE TESTING

Pupil teacher will ask the following questions to the pupils to test previous knowledge:

Questions	Expected Answers
A) Do you know different types of computer software?	Yes
B) Can you name any one of them?	System Software & Application Software
C) Name a major system software present in computer?	Operating System
D) Define Operating System?	-

ANNOUNCEMENT OF TOPIC

After not getting expected response from pupils, teacher will say "Well Students! Operating System is a system software that enables the computer hardware to communicate with the computer software. Now let's study in detail about operating system"

PRESENTATION:

Teaching Point	Pupil Teacher Activity	Pupil's Activity	Teaching Aid/ Whiteboard
Introduction of Operating System	Pupil teacher will explain briefly about Operating system	Pupils will be listening carefully	
Definition of Operating System	Pupil teacher will write definition of operating system on the White board.	Pupils will write the definition in their notebook.	"Operating System is a system software that enables the computer hardware to communicate and operate with the computer software."
Functioning of Operating System	Pupil teacher will show a flow diagram on Multimedia Board related to the functioning of Operating System and explain it	Pupils will be listening carefully and write the important points in their notebook	User Application Software Operating System Hardware Hardware

			Application Software Operating System Hardware
	Pupil teacher will ask some general question from what have they discussed in the class for informal evaluation Q1 Read the definition of operating system from your notebook Q2 Which makes a link between application software & hardware?	Student 1: He/ She will read the definition from his/her notebook. Student 2: Operating System	
Types of Operating System	Pupil teacher will enlist various types on white board.	Pupils will write the same in notebook.	Different types of operating systems are: A) Command User Interface(CUI) B) Graphic User Interface(GUI) C) Multitasking D) Multiuser E) Multiprocessing

Introduction of Command User Interface	Pupil teacher will show a window MS-DOS operating system on Multimedia Board And show how to create a new folder using MS-DOS.	Pupils will be listening carefully	Pairwooff Windows (Version 10.0.22000.856) (c) Microsoff Corporation, All rights reserved. C: Whersaprines
Definition of CUI	Pupil teacher will write the definition on Whiteboard.	Pupils will write the definition in their notebook.	"CUI operating system allows a user to work on the computer by typing external commands in a command prompt"
Introduction to GUI	Pupil teacher will show a window of MS-Windows and show how to create a new folder using GUI.	Pupils will be listening carefully.	TK. Mark to according to the second s
Definition of GUI	Pupil teacher will write the definition on White Board	Pupils will write the same in their notebook.	"A GUI contains graphics and icons and is commonly navigated by using a Computer mouse."
	Pupil teacher will ask	Student 1: Command	

Multipear Operating	some general questions from the above teaching point: Q1 Name the type of operating system in which we perform task using commands. Q2 Read the definition of GUI from notebook	Student 2: He/ She will read the definition from his/her notebook.	
Multiuser Operating System	Pupil teacher will explain about Multiuser operating system using a PowerPoint slide	Pupils will be listening carefully.	Multius er Operating Sys tem User 1 User 2 User 4
Definition of Multiuser Operating System	Pupil teacher will write the definition of Multiuser operating system on Whiteboard	Pupils will write the same in their notebook.	"A multi-user operating system allows for multiple users to use a computer at a same time."

Multitasking Operating System	Pupil teacher will explain about Multitasking operating system using a PowerPoint slide	Pupils will be listening carefully.	Multitas king Operating Sys tem W
	Pupil teacher will write the definition of Multitasking operating system on Whiteboard	Pupils will write the same in their notebook.	"An operating system that is capable of allowing multiple software processes to run at the same time."
Multiprocessing Operating System	Pupil teacher will explain about Multiprocessing operating system using a PowerPoint slide	Pupils will be listening carefully.	Multitas king Operating Sys tem W

Pupil teacher will write the definition of Multiprocessing operating system on	_	"An operating system that is capable of supporting and utilizing more than one computer processors is known as Multiprocessing Operating System"
Whiteboard		

RECAPITULATION

Pupil teacher will recapitulate the subject matter as:

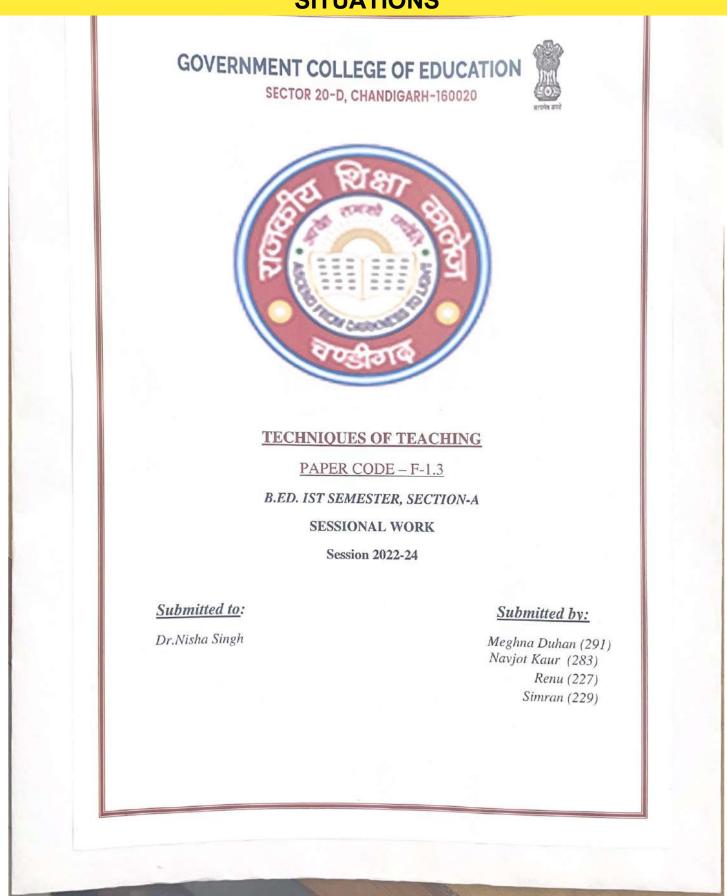
- > Suppose, a student is listening a music and also typing a letter in Microsoft word at a same time, which type of operating system he is using?
- ➤ Which device is used to navigate in GUI operating system?
- ➤ Which acts as a bridge between User and Hardware?

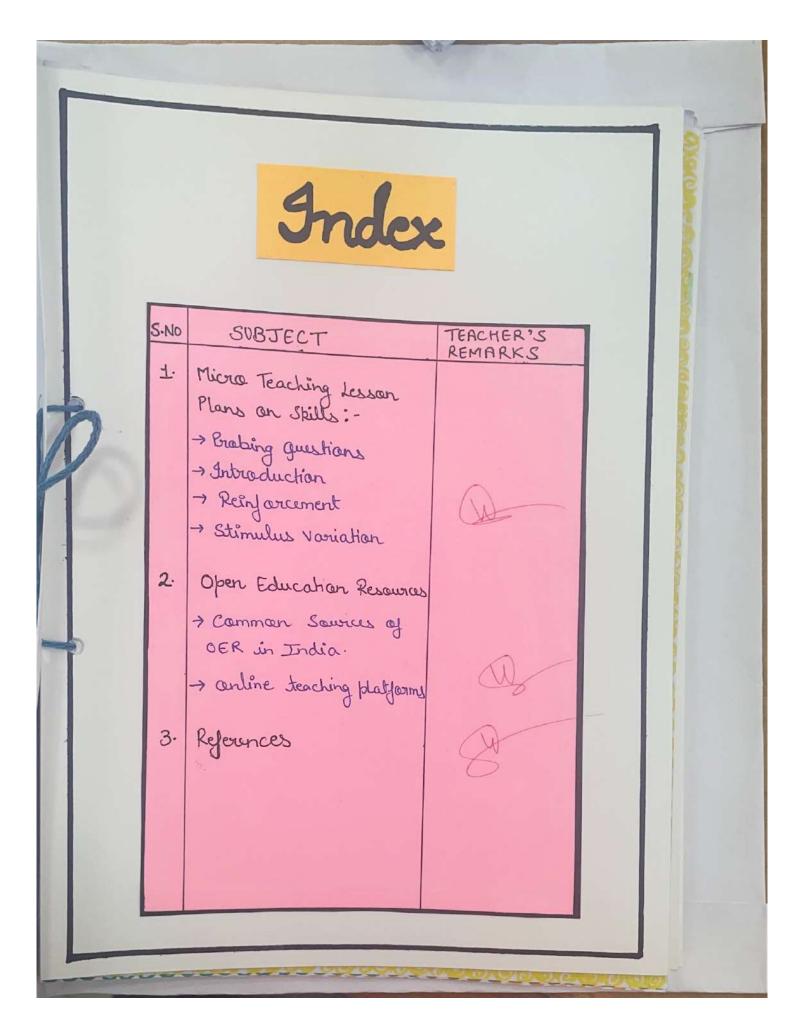
HOME ASSIGNMENT

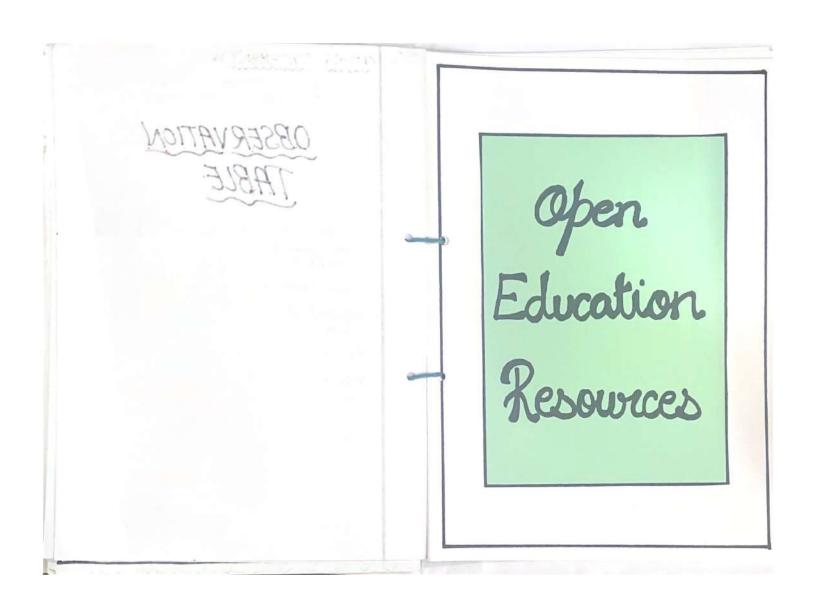
Pupil teacher will assign homework to students as:

> Write some examples of each type of Operating System.

4. INDENTIFYING AND SELECTING / DEVELOPING ONLINE LEARNING RESOURCES & 5. EVOLVING LEARNING SEQUENCES (LEARNING ACTIVITIES) FOR ONLINE AS WELL AS FACE TO FACE LEARNING SITUATIONS









Open Education Resources

Introduction

Open Educational Resources (OER) are learning, teaching and research materials in any farmat and medium that reside in the public domain are are under copyright that have been released under an open license, that permit no-cost occess, ru-use, ru-purpose, adaptation and rudistribution by others:

Open Education Resources in India

An Open Education Resources are puly accessible arline learning materials in the form of texts, videas, and other digital format suscences.

general viewing, teaching, and suscench purpose, for from

Same Papular OER Sources in India

Open Education Resources are mainly stared in repartaness available through websites. These repositioness are responsible for staring and handling the contents. An CER source can be classified based on the type of resources and the type of responsitioness.

Let us look at the type of resources.

→ Digital library of India

This is a callaborative project by 21 institutions in India and surrently handled by 115C, Bargalare It aims to provide occess to a digitized callection of various more non-copyrighted books by multiple authors callected from librories across India

> National Digital Library

This is an IIT Kharagpur initiative to bring fru access to content in english and other original languages on a public network

→ Shadhganga

This is a digital supersitary of theses and journals submitted by doctorates and susearch students

NPTEL

This is a joint initiative by 7 IITs in India supported by the MHRD. It aims to impraise the engineering sector in the country by conducting free courses and certified exams. The courses are in video formats taught by IIT professors in various fields of engin-evening and science.

-> Braject OSCAR

This is an enterprise of 11T-Bombay which contains a massive repository of animations and simulations

based on science and technology. It aims to teach va-science concepts to undergraduate and Post-graduate students, thereby shaping their conurs. NCERT This is an open resource available on the web, meant for school students and institutions. This is an attempt made by the CBSE body of India, Resources on this website came in three languages; Hindi, English and Wider. +N105 NIOS is an open university that started its own OER project to proude educational materials for the vacational streams -> Agropedia This is the much needed OER of secent times It has all the knowledge resources about agriculture and its related topics. This OER is directly approved and sun under the guidance of the Andran Council of Agricultural Research. It contains the materials in text, audio and video formats for easy vicining.

> Wizlo This is another well-known online tutoring website This platform has been a favorite chaice among trackers for live and an demand webiners. It has features including slides, screen sharing, video and audio wiele is particularly popular among academic course content creators → Send Pulse Edu Initially, the company started out as a marketing automatter playform. Eurther expansion is funch--arality allowed to add new useful features and tools like a chatbat builder, a CRM system or a landing page builder -) RUZUKU This is probably one of the easiest tools for instru--ctars to use as instructors are not seguered to be technologically project to use it. The creators of the platform have made it a powerity to simplify the creation of courses as easy as passible for tutors. -> Learnwards This is the ga-to tool if you are looking for a platform that can complement course content with social learning and high level of interaction This is a premium offering and has worked wandery. -ully for years. at supports the creation of the

Content formats, including video, eBooks, audia, PDFs " guisses, etc. et even has a "Certificate of campletian" Jeature.

> Thinkipic

The platform hests awn 35,000-course creators and is a great aption if you want to grow your audience rapidly. The platform is very beginner-friendly in turns of case of creation on course content and also marketing and selling them to the night audience. Thinkific also supports such multimedia carter like video, quizzes, live discussions, etc.

-> Academy of Mine

The name is self-explanatory, and as it says, it lets you create an academy of your own. Its features are far from complex-usors can simply drag and drap to create course content some of its most notable Jeahures include on-demand oil-paced bearing, withat classrooms, composhersive suparting and analytics, and personalized course / academy branding

-> Course Graft

This platform is extremely flixible, simple, and pawer-ful to create the course in different formats to suit the learning style of students at can also efforthesty integrate with third-party taals, includ--ing strips and Pay Pal.



GOVERNMENT COLLEGE OF EDUCATION, SECTOR 20-D, CHANDIGARH

International Collaboration for "Capacity Building Training Program for Transformative Teaching"

Report: Online 30-Hour Capacity Building Training for Transformative Teaching

An online 30-hours "Capacity Building Training Program for Transformative Teaching" was successfully organized under the international collaboration of the International Chamber of Service Industry (ICSI), India, and SARS Technology Innovation, Dubai, aimed to equip prospective teachers with the necessary skills and knowledge for transformative teaching practices and the development of global competencies. The program was inaugurated on April 18, 2023, by Major Dr. Gulshan Sharma, Director of ICSI, India; Mr. Arpit Duggar, Director of SARS Technology Innovation, Dubai; and Dr. Sapna Nanda, Principal. The program was coordinated by Dr. Nisha Singh, Assistant Professor.

This international training program was conducted online from March 17, 2023, to May 4, 2023 and utilized digital platforms (Zoom meeting, Youtube) to deliver multiple sessions of three hours each that add upto more than 30hrs training. A total of 90 students from the first and second-year B.Ed. classes of ongoing session 2022-2023 participated in the program.

The primary goal of the program was to enhance the skills and knowledge of prospective teachers, equipping them to excel in their teaching careers and improve classroom effectiveness.

The program was meticulously designed with a focus on the key pillars of modern education namely Enquiry-Based Learning, Project-Based Learning, Health and Wellness-Based Learning, Online resources and AI-Based Learning. The program was conducted entirely online, with workshop-style sessions that allowed participants to engage in hands-on activities for practical learning.

The sessions were structured to cover a diverse range of topics including Digital Literacy, Pedagogy and Andragogy, Critical Thinking and Problem Solving, Creativity and Innovation in Teaching, Emotional Intelligence and Mindfulness, Fostering Curiosity and Lifelong Learning, Utilizing AI-Based Tools for Teaching Enhancement and Exploring Online Resources for Effective Teaching and Learning. Participants were actively engaged throughout the training program through discussions, hands-on experiences, quizzes, surveys,

group activities, lesson plans, and regular assignments. These assignments allowed participants to apply the knowledge gained during the sessions and reflect on the outcomes.

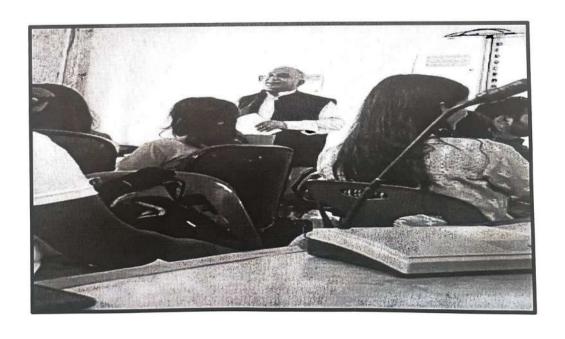
The training program also introduced participants to various new apps and technologies that could enhance their teaching skills and prepare them for global opportunities. Demonstrations and hands-on sessions familiarized participants with these apps, highlighting their potential for effective and engaging teaching.

The program achieved remarkable success, as evidenced by the participation and outcomes. A total of 90 dedicated students successfully completed the program and were awarded certificates of completion.

In conclusion, this online 30-hour capacity building training for transformative teaching, organized by international organization SARS Technology Innovations, Dubai and the ICSI, India proved to be a valuable and impactful initiative. The utilization of online platforms, introduction of new apps, and active engagement of participants contributed to the success of the program. It is anticipated that the training program will have a positive and long-lasting impact on the teaching practices of the participants, benefiting both their professional growth and the future learning experiences of their students.









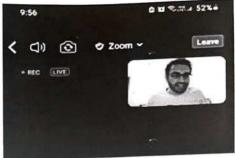


- 1. Orientation by Mr Arpit Dugar 17 Mar.
- 2. Digital Literacy by Mr Arpt Dugar 17 Mir
- 3 Andragogy & Pedagogy by Drändra 18 Mar.
- 4 Critical Thinking & Problem Solving by Dr Sapna 24 Mar
- 5. Effective Classroom Management by Mrs Roma Joshi 25 Mar
 - 6 Technology is Furn by Mr Artist Dugar 31 Mar
 - 7 Creativity & Innovation by Dr Ingra 1 Apr
 - 8. Mindfulness by Mr Anand Atur 21 Apr









How do you feel after today's lesson?









