Est.: 1980

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H.K.E. SOCIETY'S

BASAVESHWAR COLLEGE OF EDUCATION,

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(Recognized by SRC NCTE, New Delhi and Permanent Affiliated to Gulbarga University, Kalaburagi)

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CRITERION – II

TEACHING LEARNING AND EVALUATION

2.4: Competency and Skill Development

2.4.5: Adequate skills are developed in students for effective use of ICT for teaching learning process

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Sl. No.	Particulars
D	Identifying and selecting/ developing online learning resources

IQAC Coordinator
H.K.E.S. Basaveshwar College of Education
BIDAR - 585 403 (Karnataka)

PRINCIPAL
H.K.E.S.Basaveshwar College of Education, BIDAR

ಹೈ.ಕ.ಶಿಕ್ಷಣ ಸಂಸ್ಥೆಯ

ಬಸವೇಶ್ವರ ಶಿಕ್ಷಣ ಮಹಾವಿದ್ಯಾಲಯ, ಬೀದರ.

ಸರ್ಕಾರಿ ಪ್ರೌಢ ಶಾಲೆ, ಅಮಲಾಪೂರ ತಾ|| ಜಿ|| ಬೀದರ

ನೈದಾನಿಕ ಪರೀಕ್ಷೆ -2020-21

ವಿಷಯ : ಕನ್ನಡ

ಇ: ದಿನಾಂಕ:

ತ: ಸಮಯ: 30 ನಿಮಿಷ

ಮಾ: ಕನ್ನಡ ಅಂಕಗಳು: 25

ಖಾಲಿ ಸ್ಥಳಗಳನ್ನು ತುಂಬಿರಿ 5 x1=5

1. ಕನ್ನಡದ ವರ್ಣಮಾಲೆಯಲ್ಲಿ---------ಅಕ್ಷರಗಳಿವೆ.
2. ಅ,ಇ,ಉ,ಋ,ಎ,ಒ, ಇವು---------.
3. ಆ,ಈ,ಊ,ಏ,ಓ,ಔ ಇವು----------
4. ಅಂ, ಆಃ ಇವು----------
5. ನಯನ, ಕನಕ, ಸಮರ, ಭತ್ತ ಇವುಗಳಲ್ಲಿ ಒತ್ತಕ್ಷರ ಇರುವ ಪದ-------

ಳಗಿನ ಪದಗಳಿಗೆ ಸಮನಾದ ಪದಗಳನ್ನು ಬರೆಯಿರಿ. 5 x1=5

1. ಹೂ=
2. ಸೂರ್ಯ=
3. ವನ=
4. ಜಲ=
5. ಭೂಮಿ=

ಈ ಕೆಳಗಿನ ವಾಕ್ಯಗಳನ್ನು ಸರಿ ಪಡಿಸಿ ಬರೆಯಿರಿ. 5 x1=5

1. ಹೋದನು ರಾಮನು ಕಾಡಿಗೆ
2. ನಮ್ಮ ಬೀದರ ಜಿಲ್ಲೆ
3. ಓದುತ್ತಿದ್ದೇನೆ 8ನೇ ತರಗತಿಯಲ್ಲಿ ನಾನು
4. ಬರೆದವರು ಕುವೆಂಪು ನಾಡಗೀತೆ
5. ಪ್ರೌಢಶಾಲೆ ನನ್ನ ಶಾಲೆಯ ಹೆಸರು ಅಮಲಾಪೂರ ಸರಕಾರಿ

IV.ಈ ಕೆಳಗಿನ ಅಕ್ಷರಗಳನ್ನು ಸರಿಯಾಗಿ ಹೊಂದಿಸಿ ಬರೆಯಿರಿ. 5 x1=5

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ಭಾ	ರ	ಪ್ರ	ತ್ನ

5

ಅ	ರ	ಮ	ಪೂ	ಲಾ

V.ಈ ಕೆಳಗಿನ ಪದಗಳಿಗೆ ವಿರುದ್ಧ ಪದಗಳನ್ನು ಬರೆಯಿರಿ. 5 x1=5

1. ರಾತ್ರಿ X
2. ದುಃಖX
3. ಅಳು X
4. ಸಿಹಿ X
5. ಬೆಳಕು X

Estd : 1980

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BASAVESHWAR COLLEGE OF EDUCATION, BIDAR

UNIT PLAN / UNIT TEST / RESOURCE UNIT

2022 - 2023

Name of the Student Teachers Shivani S. Mugle

Roll No. 21

Reg. No. UNAH22E0021

Subject Biological Science

Method I / II Method - II

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Unit Plan

Introduction:

Unit plan plays an important role for the successful execution of a task. It caters to the proper realisation of the aims and objectives of a task. It helps in proper utilisation of time and energy on the part of human and material resources. It is equally true for the process of teaching learning process. The teachers who plan their work properly ~~prove~~ quiet effective in their teaching task that is ~~why~~ science teacher concentrates on wise planning of his teaching.

Meaning of Unit plan:

The term Unit signifies Unity. Unit plan is the Proper selection of learning activities. which are closely related with Each Other and Presents a Complete picture. Unit plan is a plan made on the Entire Unit which may Consist a set of Concepts, Principles generalization etc.

Which in turn together built, themselves Into a Unit it is not simply a block of subject Matter as viewed Earlier but a Systematic and Scientific arrangement of Subject Matter.

⇒ **Definitions Of Unit Plan:**

According to preston:

A Unit is the Organization of learning Material into large block. A Unit is large block of selected Subject Matter as can over viewed by the learner.

According to Samford:

A Unit is an outline of carefully selected Subject Matter which has been isolated block of its relationship to pupil need and Interest

According to cater V. Good:

Unit May be described as an Organisation of various Activities, Experiences and types developed co-operatively by a group of Pupils Under teacher - leadership.

IV) Characteristics of Unit plan:

The good Unit plan should be.

1) Meaningful Segment of wall Organized Subject Matter.
2) Organized body of Information and Experiences
3) Outline of carefully selected Subject Matters.
4) Large block of releated Subject Matter.
5) Not too length or too short.
6) Retains the Interest of the Subject Students.
7) Provide different types of activities and learning Experiences
8) Permits to growth from time to time

Importance of Unit plan:

1. It presents key ideas of subject in more Unified and Systematic Manner
2. It initiates new activities which are not possible during the class period
3. It individualizes the instruction at its best
4. It includes joyful types of teaching activities.
5. It extends structural experiences beyond the limit prescribed by the Syllabus.
6. It anticipates future needs and materials to be developed.
7. It helps the teacher to realize the instructional objectives.
8. It covers all the three domains

Learning Experiences has two dimensions:

1. Teacher activity: The role played by the teacher in class to cause learning is teacher activity. The teacher does many activities in the class like questioning, Explaining etc.
2. Pupil activity: They very system of education is weaved around a child taken place in classroom. Hence it is expected to find a reaction for Every teacher activity by pupil.

Evaluation: The Purpose of Unit plan is the achievement of the best result of teaching-learning Process. So the teacher should have appropriate Evaluation tool to know whether his objectives are achieved or not. This can be done through Unit.

Merits of Unit Plan

1) Unit plan makes the process of learning more Interesting.
2) The students can apply the gained knowledge, partically in their life.
3) In the process of teaching and learning, the participation of teacher and tought takes place
4) It provides the proper Correlation of subject matter with the life of the children and with the other school subject.

Demerits of Unit Plan.

1) Only Experts can teach by this method. which is available less in number
2) Proper Evaluation cannot carried out in the lower classes.
3) It is time - Consuming.
4) There is a lack of freshness and learning becomes monotonous and stereotyped.

Format Of Unit Plan:

1) Information
2) Subject format
3) Nature and objectives of Unit
4) Outline of Unit
5) Instructional objectives
6) Motivation
7) Development (or) Presentation
8) Activities
9) Teaching Aids
10) Correlation
11) Unit test
12) Conclusion
12) References

MODEL OF UNIT PLAN

Information:

Name of the student teacher : Shivani. S. M.

Name of the school : Kittur Rani Channamma Residential School.

Reg. No : U04AH22E0021

Subject : Biological Science

Topic : Pollution of Air and Water

Class : 8th std.

Subject Format:

SI.NO	SubUnits	Date
01	Air pollution	2/2/24.
02	How the air is getting polluted?	9/2/24
03	Green House Effect	16/2/24
04	Water Pollution	21/2/24.
05	Potable Water	25/2/24.

Nature and Objectives of Unit:

-Air pollution is contamination of air by impurities which may have harmful impact on living organisms and the non-living organisms. Pollutants are the substances which contaminate air and water. Carbon monoxide, nitrogen oxides, Carbon dioxide, Methane and Sulphur dioxide are the major pollutants of air. Increasing levels of greenhouse gases like CO_2 are leading to global warming. Water pollution is the contamination of water by substances harmful to life. water which is purified and fit for drinking is known as potable water. Water is a precious natural resource. We must learn to conserve it.

Outline of the Unit :

1) Sub Unit - I
   i) Introduction
   2) Air Pollution
   3) Air Constituents

2) Sub-Unit - II
   i) Air Pollutants
   2) Affects of air pollution
   3) CFC's

3) Sub-Unit III.
   i) Case Study on Taj mahal
   2) Green House Effect
   3) Global Warming

4) Sub-Unit - IV
   i) Water Pollution
   2) Water pollutants
   3) How does water gets Polluted?

5) Sub-Unit V.
   i) Activity on water filteration
   2) Potable water
   3) How water can be Prevented from Pollution.

Instructional Objectives:

General Objectives.

1) To develop the Interest about learning Science.
2) To develop Scientific attitude among Students.
3) To develop abilities of Imagination, reasoning.
4) To develop the skill of Science Experiement.
5) To Increase the knowledge of nature of Scientific Enterprise
6) Imparting the knowledge of fundamental Principles and Concepts in Sci
7) To develop logical thinking among Students.
8) To develop skill in handling and manipulating apparatus in Science.

Specific Objectives

I) Knowledge:

1) Students are able to State the Air Pollution
2) Students are able to Define the Pollutants.
3) Students are able to Recognise the green house effect
4) Students are able to Denote the water Pollution
5) Students are able to Define the potable Water.

II) Understand:

1) Students are able to Explain the Constituents of Air.
2) Students are able to observe how the air is getting polluted.
3) Students are able to Global Warming.
4) Students are able to Explain how the water is getting polluted.
5) Students are able to how the water gets filtered

3) Application :-

1) Students are able to Analyse the Air pollution.
2) Students are able to give Examples of the gases which are making the air polluted.
3) Students are able to reason the Cause for global warming.
4) Students are able to give reason how water is getting polluted.
5) Students are able to new idea to Prevent water-from polluted.

4) Skill :-

1) Students are able to draw the constituents of Air pollution.
2) Students are able to Connect the how the air is getting polluted.
3) Students are able to Connect the green house gases.
4) Students are able to with the polluted. river Specially the ganga ri
5) Students are able to Denote the purified water.

Motivation:

1) Name some festival which we celebrate in India?

Ans Holi, Diwali, etc are some festival which we celebrate in India

2) How we celebrate Diwali in India?

Ans We celebrate Diwali by lighting lamps and burning Crackers

3) What comes out after bursting the Crackers?

Ans Smoke, dust Gases comes out after bursting the Crackers

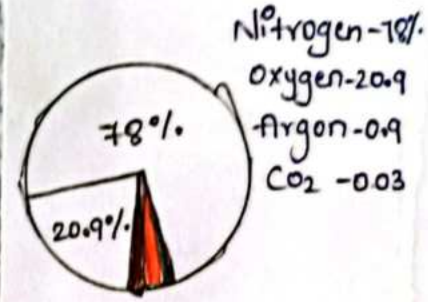
4) What are the effect of Smoke, dust on humans?

Ans Smoke, dust causes breathing problem in humans

5) What are the harmful effects of gases on Environment?

Ans Harmful gases create pollution in Environment.

Development (or) presentation:

Sl. No		Activity	Teaching Aids	Co-relation	Time.
1)	Air Pollution				
	a) Introduction.	1) Air pollution and water Pollution was thought by giving Examples. 2) Pollutions was [illegible] by lecture Metho[d] 3) Introductory Con[tent] the basic thin[gs]	Any physical, chemical or biological change in the air is called Air pollution	Co-releated with the Environmental Science	15 mins
	b) Air pollution.	1) Air pollution [was] [illegible] -fied by provid[ing] [illegible] 2) Air Pollution [was] [illegible] by lecture method. 3) Air pollution was taught was showing charts			15 mins
	c) Air Constituents.	1) Air Constituents was explained by lecture method. 2) Air Constituents was done by showing Images of Air constituents 3) charts were shown.			15 mins

Sl.NO		Activity	Teaching Aids	Co-relation	Time
II)	How the air is getting Polluted.				
1)	Air pollutants.	1) Air pollutants were explained by lect 2) Pollutants were by examples. 3) Air pollutants w explained by Sh charts.	Affects of Air Pollution  Air Pollutants. 1) Nitrogen dioxide 2) Carbon Monoxide 3) Sulphur Dioxide 4) Ground level ozone	Co-related with the ecological Science	15 mins
2)	Affects of Air pollution	1) Air pollution was done by dem 2) Air Pollution was explained by showing chart 3) Air pollution was done lect			15 mi
3)	CFC's.	1) CFC's was desc and its harm were explained 2) Charts were S 3) Lecture Method Used to teach CFC's.			15 m

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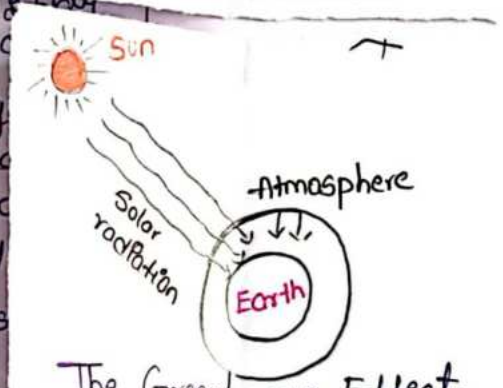
Sl.NO		Activity	Teaching Aids	Co-relation	Time
III	Green House Effect.				
1)	Case study on Taj Mahal?	1) Taj Mahal Case was Explained Method. 2) Taj Mahal Colo -ation was Expl Saying Exampl 3) Taj Mahal Case was Shown by	Green House Gases 1) Methane 2) Nitrous oxide 3) Carbon dioxide 4) Ozone 5) Carbon Monoxide	Co-related with the Chemical Science	15 mins
2)	Green House Effect.	1) Green House g were Explained 2) Green House ga was tought by Method 3) Green House gas was Explained. Deductive Met	 The Greenhouse Effect.		15 mins
3)	Global Warming	1) Global Warming Explained by lec Method 2) Global warming Shown by cha 3) Global warming t Inductive Method	The gradual Increase in the Earth's tempe -rature is called global Warming.		15 mins

Sl No		Activity	Teaching Aids	Co-relation	Time
IV)	Water pollution				
1)	Water pollution.	1) Water pollution wa[s] explained by Indu[ctive] Method. 2) Water pollution was [...] by lecture method. 3) Water pollution wa[s] [...] by showing chart[...]	Water pollution. 	Co-related with the physics to study Enviro-nmental Problem	15 min
2)	Water pollutants.	1) Water pollutants [...] Explained by Ind[uctive] Method. 2) Charts were shown on water pollutants 3) Lecture method wa[s] [...] to Explain water p[...]	Water pollutants. 1) Sewage waste 2) Industrial waste 3) Fertilizers 4) Pesticides 5) Soaps/detergents.		15 min
3)	How does water get polluted.	1) This Concept was [...]-ed by Demonstration Method. 2) Inductive Method Used to Explain th[e] Concept 3) Lecture Method w[as] Used for description			15 m

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Sl.NO		Activity	Teaching-Aids	Co-relation	Time
VI	Potable Water.				
1)	Activity on water filteration.	1) Activity Method was used to explain the concept 2) Experimental Method was tought to the concept Explain 3) Lecture Method was used.	Potable Water ↓ Safe to Drink (Purified)	Co-releated with the Ecology and biological Study.	15 mins
2)	Potable Water.	1) Lecture Method was used for explained the concept 2) Inductive Method was used to explaine. 3) Charts were shown on while explaining the concept			15 mins
3)	How water Can be Prevented from pollution	1) Lecture Method was used to explained. 2) Many Examples were Explained. 3) Inductive Method was used to Explain	REUSE REDUCE RECYCLE		15 mins

Unit test :→

1) Unit test is taken at the End of the Unit.
2) Unit test is the Important Evaluation tool.
3) Unit test is pre planned and systematic by the teacher
4) Unit test help in seeing the Pupils achievement.
5) The Unit test helps to the teacher and Pupils in the teaching learning process.
6) Unit test is based on the Unit of 8th std., describing about the Sources of air and water pollution, which Consist of 16 questions with 25 Marks and the time duration of 40 min (or) 45 mins.

Conclusion:

A Unit plan is very useful for both teaching and learning process and has a lot of advantages for preparing a Unit., which can be create an idea of knowing the Instructional objectives, methods of teaching, maxims of teachings, teaching aids, teaching points etc. also more important is the achievement of the pupils. It is designed as per the following format of the Unit plan and it is helpful for the preparing the lesson plan Every easily in a short period of the time.

Referance :

1) Pedagogy of School Subject biological Science → B.R. Ramachandriah

2) Science text book of 8th class → NCERT

3) Internet Sources → Wikipedia.

Estd : 1980

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BASAVESHWAR COLLEGE OF EDUCATION, BIDAR

UNIT PLAN / UNIT TEST / RESOURCE UNIT

2022 - 2023

Name of the Student Teachers Aishwarya D/o Ashok Patil

Roll No. 30

Reg. No. U04AH22E0030

Subject Mathematics

Method I / II Mathematics

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Signature of the Method Master

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UNIT TEST OF MATHEMATICS

1 Introduction.

Unit test means a test which is set after a particular unit is taught during a regular course of teaching to test pupil's assimilation and mastery of that particular unit. Unit testing is a method where components (or) individuals unit of software are tasked to determine their conformity to the desired specifications and that also includes testing associated data and usage procedure. A unit is simply a small piece of code for any single function.

(1) Meaning of Unit test.

A unit test is a test which is Constructed, administrated and owned by a teacher after teaching a particular unit to a group of students for whom the unit is taught. A unit test is a test, whose items are constructed for the whole unit after the instruction is over, to test the behavioural changes in the children.

A unit test is very useful and helpful to the teacher to know about the performances of pupils on that unit. It also helps the teacher in finding out the difficulty in the student. This will help the teacher to modify the teaching techniques, and students also derives a lot of benefits by making use of this test.

(iii) Definition of Unit test:

1) According to Dryton:-

"Unit test is a large block of related subject matter that can be covered by the lesson".

2) According to Boxing:-

"Unit test consist of a comprehensive body of related and meaningful activities so as to achieve pupil's purpose and provide significant educational experience and result in appropriate behavioural change".

8. Characteristics of unit test.

1) It should run fast. If the test are slow, they will not be run often.
2) The Scope should be clear. If the test fails. It's obvious where to look for the Problem. It's important to only test One thing in a single test.
3) Unit test should be independent from each other.
4) Unit test shouldn't be heavily dependent On interface.
5) Clearly reveals its intention. Another developes can look at the test and understand what is expected of the production code.
6) Integration testing is necessary since unit testing cannot consider all Possibilities.
7) Unit testing is often tedious, requiring patience and thoroughness.

Importance of Unit test.

1) It satisfies the criteria for developing a miniature question paper.
2) If administered according to the study, unit test helps in objective evaluation of the students achievement throughout the year.
3) The unit test also helps the students to review a topic after it is completed in the class, and find their own strength and weakness in it.
4) This experience, during the year will prepare the students to face their final examination, with confidence and it will lead to better results.
5) The unit test is important because the blue-print of the unit test gives as a functional picture of the test.

Steps of Unit test:-

The Perfect and Valid unit test must have the following test.

1) Plan the design of the test.
2) Editing the unit test.
3) Review test item.
4) Administering the test.
5) Interpret the test result.

1) Plan the dsign of the test.

Planning of an activity is important to achievement of the test result. & It also plays an very important role to plan the dsign of the unit test. It involves following sub point which are as follows.

A) Unit - Analysis:

Based on the scope and significance the unit must be organised into convenient number of subunits.

B) Content - Analysis:

It can be done for each subunit by identifying and analyzing important facts principle and concepts.

C) Weightage of Objective:

On the basis of NCERT norms, the suitable weightage should be given all important objectives of teaching mathematics. It includes the objectives, marks and the percentage of the weightage. So the weightage to objective is as shown in table given below.

Objectives	Marks	% in weightage
Knowledge	೭	28%
Understanding	೧೦	೪೦%
Application	3	12%
Skill	5	20%

D) Weightage to the Content:

Depending on the scope of the lesson proper weightage should be given to all Subunits and no unit left in weightage.

Subunit	Marks	% in weightage
Subunit -1	೨೦	೪
Subunit -2	x	೪
Subunit -3	Y	೪
Subunit -4	z	೪

E) Weightage to the questions.

Proper Weightage should be given to all type of questions like objective type, Short answer type and essay type.

Question type	Marks	% in Weightage
Objective type	10	40%
Short answer type	10	40%
Essay type	5	20%
Total	25M	100%

F) Blue Print.

The blue print is the three dimensional chart showing the weightage given to the Content, type of question and Objectives in terms of marks. It is also called "Table of Specification" as it relates outcomes to the Content and it also indicates the relative weightage of Subject.

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Objectives / Content	Knowledge			Understanding			Application			Skill			Total	Percentage (%)
Sub-Unit	O.T	S.A	A.A	O.T	S.A	A.A	O.T	S.A	A.A	[illegible]	[illegible]	[illegible]		
Sub-Unit-I													[illegible]	
Sub-Unit-II													[illegible]	
Sub-Unit-III													[illegible]	
Sub-Unit-IV													[illegible]	
Total	[illegible]%			[illegible]%			[illegible]%			[illegible]%			[illegible]%	

2) Editing the unit test :-

A. Construction of Item:
The teacher should construct all possible number of question on the unit under different objectives like objective type, short answer type and Essay type.

B. Selection of test item:
Based on the blue print, the teacher has to select required number of test item.

C. Instruction of test item:
For each question, instruction must be written clearly.

D. Preparing marking and Scoring test:
The teacher should pre-determined the scheme of evaluation and Scoring keys, expected answer and marks allotted.

E. Question Paper:
Question Paper should print legibly in different section like Part A, B, C, etc.

5) Interpret the test results.

The test result has to be interpreted by some statistical analysis based on central tendency, quartiles, NPC and difficulty Or.

Importance of Unit test.

1) It help in knowing the pupils achievement.
2) It help in classifying the slow and gifted children.
3) Teaching for slow learners and enrichment for gifted children.
4) It is best self learning evaluation for both pupil and teacher.
5) It is useful to know the weakness and strength of the test

Merits and Demerits of Unit test.

(i) Merits of Unit test.

1) Students can study seriously.
2) Parents can analyze the performance of the students.
3) Identifying knowledge and learning gaps.
4) Issues are found at early stage.

(ii) Demerits of Unit test:-

1) Pressure on students and parents.
2) Students feel demotivated due to low scores.
3) Some schools conduct frequently.
4) Unable to prepare a proper study plan.

MODEL OF UNIT TEST

Blue Print

1. Weightage of questions.

Type of questions	No. of questions	Marks	Percentage
Objective	10	10	40%.
Short answers	05	10	40%.
Essay type	01	05	20%.
Total	16Q	25M	100%.

11. Weightage of Objectives.

Objectives	Questions	Marks	Percentage
Knowledge	6	7	28%
Understanding	7	10	40%
Application	2	3	12%
Skill	1	5	20%
Total	16	25M	100%

(III). Weightage of Subunit Content.

Sl. No.	Sub-Unit	Questions	Marks	Percentage
1	Introduction of Surface area and Volume	4	4	16%
2	Surface Area and Volume of a Cuboid	3	4	16%
3	Example On Surface Area and Volume of a Cuboid.	1	2	8%
4	Surface Area and Volume of a Cylinder	3	7	28%
5	Example On Surface Area and Volume of a Cylinder	2	4	16%
6	Surface Area and Volume of a Cone	1	1	4%
7	Example On Surface Area and Volume of a Cone	1	1	4%
8	Surface Area and Volume of a Sphere.	1	2	8%
	Total	16	25	100%

Mathematics

Surface Area and Volume

Blue Print

Class - 9th Std

Objectives	Knowledge			Understanding			Application			Skill			Total	%
Sub-unit	O.T	S.A	L.A	O.T	S.A	L.A	O.T	S.A	L.A	O.T	S.A	L.A		
Introduction of Surface Area and Volume	2(2)			2(2)									4(4)	16%
Surface Area and Volume of a Cuboid	1(1)			1(1)	1(2)								3(4)	12%
Example On Surface Area and Volume of cuboid					1(2)								1(2)	8%
Surface Area and Volume of a cylinder	1(1)			1(1)								1(5)	3(7)	28%
Example On Surface Area and Volume of a cylinder		1(2)						1(2)					2(4)	16%
Surface Area and Volume of a Cone	1(1)												1(1)	4%
Example On Surface Area and Volume of Cone							1(1)						1(1)	4%
Surface Area and Volume of a Sphere					1(2)								1(2)	8%
Total	6(7)			7(10)			2(3)			1(5)			16(25)	100%
Percentage (%)	28%			40%			12%			20%			100%	

Note: Outside the brackets are questions (Q) Inside the brackets are marks (M) {Q(M)}

H.K.E SOCIETY'

BASAWESHWAR COLLEGE OF EDUCATION , BIDAR

KITTUR RANI CHANNAMMA RESIDENTIAL SCHOOL ,JANWADA ,BIDAR

UNIT TEST

CLASS : 9th | TIME : 45 min

SUBJECT: MATHEMATICS | TOTAL MARKS : 25

INSTRUCTION : 1. Write all questions compulsory.

2. Mention the correct question number.

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1) FILL IN THE BLANKS. 1X5=5

1. The Total Surface Area of a Cube is _____.
2. The Volume of cuboid is _____.
3. The Curved Surface Area of a Cylinder is _____.
4. The Total Surface Area of a cone is _____.
5. The Volume of Sphere is _____

2) MATCH THE FOLLOWING . 1X5=5

A	B
a) L.S.A of cube	1. ½ *l*2πr(πrl)
b) T.S.A of cuboid	2. 4(side^2)
c) Volume of cylinder	3. 2(lb+bh+hl)
d) C.S.A of cone	4. $\pi r^2 l$
e) T.S.A of sphere	5. $4\pi r^2$

3) SOLVE THE FOLLOWING QUESTIONS . 2X5=10

1. Harry's bookshelf is 40cm long ,50cm wide , and 90cm high . What is the volume of the bookshelf?
2. Find the lateral surface area and total surface area of a cube of edge 10cm?
3. The diameter of a right circular cylinder is 21cm and its height is 8cm.Find the volume of a cylinder?
4. If the diameter of the box of a cone is 10.5cm,and its slant height is 10cm.Find the curved surface area of a cone?
5. Find the c.s.a and T.s.a of a hemisphere of radius 2cm?

4) SOLVE THE FOLLOWING QUESTIONS. 5X1=5

1) A soft drink is available in two parks.

a) A tin can with a rectangular box of length 5cm and width 4cm,having a height of 15cm

b). A plastic cylinder with circular box of diameter 7cm and height 10cm.

which container has greater capacity and by how much?

Answer Key.

I →

1) $6a^2$
2) $l \times b \times h$
3) $2\pi rh$
4) $\pi r(l+r)$
5) $\frac{4}{3}\pi r^3$

II →

1) $4(\text{side})^2$ / (b)
2) $2(lb+bh+hl)$ / (c)
3) $\pi r^2 h$ / (d)
4) πrl / (a)
5) $4\pi r^2$ / (e)

III →

1) →

Sol: Given length = 40cm, width = 50cm, height = 90cm

Volume of bookshelf = $l \times b \times h$
= $40 \times 50 \times 90$ cm
= $1,80,000 cm^3$.

2) →

Sol: Given, edge = 10cm,
Lateral Surface Area of a Cube = $4(\text{side})^2$
= $4 \times (10)^2$
= 4×100 cm
= $400 cm^2$.

2) Sol: Total Surface Area of a Cube $= 6(\text{side})^2$
$= 6 \times 10\text{cm} \times 10\text{cm}$
$= 600\text{cm}^2$.

3) ?

Sol: Given, diameter $= 21\text{cm}$, height $= 8\text{cm}$, radius $= \frac{21}{2} = \frac{d}{2}$.

Volume of cylinder $= \pi r^2 h = \frac{22}{7} \times \frac{21}{2} \times \frac{21}{2} \times 8$
$= 2772\text{cm}^3$.

4) ?

Sol: Given Diameter of a Cone $= 10.5\text{cm}$, Radius $= \frac{d}{2} = \frac{10.5}{2}\text{cm}$

Slant height $(l) = 10\text{cm}$,

Curved Surface area of Cone $= \pi r l$
$= \frac{22}{7} \times \frac{10.5}{2} \times 10$
$= 165\text{cm}^2$.

5) →

Sol: Given Radius of hemisphere = 21cm,

CSA of hemisphere = $2\pi r^2 = 2 \times \frac{22}{7} \times 21 \times 21$

$= 44 \times 63 cm$

$= 2772 cm^2$.

TSA of hemisphere = $3\pi r^2 = 3 \times \frac{22}{7} \times 21 \times 21$

$= 66 \times 63 cm$

$= 4158 cm^2$.

IV) →

Sol: (i) Given length of a rectangular box = 5cm, width = 4cm, height = 15cm.

Volume of cuboid = $l \times b \times h$

$= 5cm \times 4cm \times 15cm$

$= 300 cm^3$.

(ii) Diameter of a cylinder = 7cm, Radius of a cylinder = $\frac{7}{2} = \frac{d}{2}$, height = 10cm.

Volume of a cylinder = $\pi r^2 h$

$= \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times 10$

$= 11 \times 35 cm$

$= 385 cm^3$. →

A Plastic cylinder has a greater capacity than by $385 - 300 \Rightarrow 85 cm$.

Unit Test

Chapter - 13

Surface area and volume

Name :- [illegible]

Father :- [illegible]

Class :- 9th

Roll no :- [illegible]

Sub :- maths

I) Fill in the blanks   1×5=5

1) $6a^2$
2) $l \times b \times h$
3) $2\pi rh$
4) $\pi r(l+r)$
5) $\frac{4}{3}\pi r^3$

II) match the following   1×5=5

1) $4(side)^2$ (b)
2) $2(lb+bh+hl)$ (c)
3) $\pi r^2 h$ (d)
4) πrl (a)
5) $4\pi r^2$ (e)

III) Solve the following Questions 2×5

1) —

Sol :- Length = 40cm
Width = 50cm
height = 90cm
volume of bookshelf = ?
bookshelf of volume = $l \times b \times h$
= 40 × 50 × 90
= 180000 cm^3

2) edge = 10cm

L.S.A of cube = $4(a^2)$

$= 4 \times (10)^2$

$= 4 \times 100$

$= 400 cm^2$

T.S.A of cube = $6(a)^2$

$= 6(10)^2$

$= 6 \times 100$

$= 600 cm^2$ //

3) diameter = 21cm

height = 8cm

volume of cylinder = ?

Radius = $\frac{21}{2}$

volume of cylinder = $\pi r^2 h$

$= \frac{22}{7_1} \times \frac{3}{2_1} \times \frac{21}{2_1} \times \frac{8^4}{1}$

$= 11 \times 3 \times 21 \times 4$

$= 33 \times 84$

$= 2772 cm^3$ //

4) Diameter = 10.5cm

slant height = 10cm

C.S.A of cone = ?

$r = \frac{10.5}{2}$

C.S.A of cone = $\frac{\pi r l}{1.5}$

$= \frac{22}{7_1} \times \frac{10.5}{2_1} \times 10^5$

$= 110 \times 1.5$

$= 165.0 = 165 cm^2$ //

5) radius = 21cm
C.S.a of hemisphere = ?
T.S a. of hemisphere = ?

C.S.a. of hemisphere $= 2\pi r^2$
$= 2 \times \frac{22}{7} \times 21 \times 21$
$= 44 \times 63$
$= 2772 \text{ cm}^2$

T.S A of hemisphere $= 3\pi r^2$
$= 3 \times \frac{22}{7} \times 21 \times 21$
$= 66 \times 63$
$= 4158 \text{ cm}^2$

III) Solve the following $5 \times 1 = 5$

i) $l = 5\text{cm}$
$w = 4\text{cm}$
$h = 15\text{cm}$

~~T.S.A of cuboid = 2~~ $(lb + bh + hl)$
volume of cuboid $= l \times b \times h$
$= 5 \times 4 \times 15$
$= 300 \text{ cm}^3$

ii) Diameter $= 7\text{cm} = \frac{7}{2}$
$h = 10\text{cm}$
volume of cylinder $= \pi r^2 h$
$= \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times 10$
$= 11 \times 35$
$= 385 \text{ cm}^3$

Class: 8th Std, Max Marks - 25M

Subject: Physical Science

Sl. No	Student Name	Marks obtained
1)	Sanchita D/o Santosh	24
2)	Varsha D/o Rajkumar	23
3)	Mahadevi D/o Vijaykumar	21
4)	Sangeeta D/o Sanjeev kumar	19
5)	Bhagyashree D/o Siddappa.	25
6)	Swati D/o Tukaram.	20
7)	Anjali D/o Satish	23
8)	Soujanya D/o Baburao	24
9)	Akshata D/o Suresh.	25
10)	Deepika D/o Pandurang	21
11)	Ranjeeta D/o Rajkumar	20
12)	Shalini D/o Santosh	19
13)	Sonali D/o Shivakumar	22
14)	Nandini D/o Prabhu	18
15)	Lavanya D/o Prakash	22
16)	Vaishnavi D/o Dilip	21
17)	Ashwini D/o Narappa	24
18)	Kallalingamma D/o Prabhu	23
19)	Dayyamma D/o Pandit	20
20)	Ankita D/o Nagappa.	22.

ಹೈ. ಕ. ಶಿ. ಸಂಸ್ಥೇಯ

ಬಸವೇಶ್ವರ ಶಿಕ್ಷಣ ಮಹಾವಿದ್ಯಾಲಯ, ಬೀದರ

Sl No.	Name of the Student	Question																Total Attempted
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	Sanchita	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	15
2	Varsha	✓	✓	×	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	14
3	Mahadevi	✓	✓	×	✓	×	✓	×	✓	×	✓	✓	✓	✓	✓	✓	✓	12
4	Sangeeta	✓	✓	✓	×	✓	×	✓	✓	×	✓	✓	×	✓	×	×	✓	10
5	Bhagyalaxmi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16
6	Swati	✓	✓	✓	✓	✓	✓	✓	×	✓	×	✓	×	✓	×	×	✓	11
7	Anjali	✓	✓	✓	✓	×	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	✓	14
8	Soniya	✓	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	15
9	Akshata.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	16
10	Deepika.	✓	✓	×	✓	×	×	✓	✓	×	✓	✓	✓	✓	✓	✓	✓	12

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ಬಸವೇಶ್ವರ ಶಿಕ್ಷಣ ಮಹಾವಿದ್ಯಾಲಯ, ಬೀದರ

Sl no.	Name of the Student	Questions																Total Attempted
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
11	Ranjeeta	x	x	✓	✓	✓	✓	x	✓	✓	x	✓	✓	x	✓	✓	✓	11
12	Shalini	✓	✓	✓	x	✓	✓	x	✓	✓	x	x	✓	x	x	✓	✓	10
13	Laxmi	✓	✓	✓	x	✓	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	13
14	Nandini	✓	x	x	✓	x	✓	✓	x	✓	✓	x	✓	x	x	✓	✓	9
15	Lavanya	✓	✓	✓	✓	x	✓	✓	x	✓	✓	✓	✓	x	✓	✓	✓	13
16	Vishnavi	✓	✓	✓	✓	✓	x	✓	✓	x	✓	x	✓	x	✓	✓	✓	12
17	Ashwini	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	15
18	Yallalingeshwari	✓	✓	✓	x	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	14
19	Divyashree	✓	x	✓	x	✓	x	✓	x	✓	✓	✓	x	✓	✓	✓	✓	11
20	Ankita.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	x	✓	x	13

ಶ್ರೀ. ಜ. ಚ. ಸಂಸ್ಥೆಯ
ಬಸವೇಶ್ವರ ಶಿಕ್ಷಣ ಮಹಾವಿದ್ಯಾಲಯ, ಬೀದರ

Calculation

Raw Scores.

24, 23, 21, 19, 25, 20, 23, 24, 25, 21, 20, 19, 22, 18, 22, 21, 24, 23, 20, 22.

Total Number of Scores - 20.

Range = Highest Value - lowest Value

= 25 - 18

= 7.

Number of class Interval = $\frac{\text{Range}}{\text{Size of C.I}} = \frac{7}{3} = 2.3$

Size of class Interval = 3.

Number of class Interval = 3.

Frequency Distribution Curve.

Sl No	Class Interval	Frequency	Tallies
1	18 - 20	6	
2	21 - 23	9	
3	24 - 26	5	

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Mean

ಕ್ರ.ಸಂ	C.I	f	x	fx
1	18-20	6	19	114
2	21-23	9	22	198
3	24-26	5	25	125

$N = 20$ $\quad \Sigma fx = 437$

$$\text{Mean} = \frac{\Sigma fx}{N}$$

$$= \frac{437}{20}$$

$$= 21.85.$$

Mean = 21.85

Median

ಕ್ರ.ಸಂ.	C.I	f	c.f.
1	18-20	6	6-f
2	21-23	9-f	15
3	24-26	5	20

$$\text{Median} = l + \left[\frac{\frac{N}{2} - F}{f}\right] \times i$$

$$= 20.5 + \left[\frac{10-6}{9}\right] \times 3$$

$$= 20.5 + \left[\frac{4}{3}\right] \times 3$$

$$= 20.5 + 1.33$$

$$= 21.83$$

Mode

$$\text{Mode} = 3\,\text{Mdn} - 2\,\text{Mean}$$

$$= 3(21.83) - 2(21.85)$$

$$= 65.55 - 43.7$$

$$= 21.85$$

Interpretation.

The Central tendencies are.

Mean = 21.85, Median = 21.83, Mode = 21.85.

Interpretation = Highest Value − lowest Value.

$$= 21.85 - 21.83$$

$$= 0.02.$$

Hence, It follows NPC Curve as it is in the range of 0.1.

Conducted Unit test On Surface Area and Volume for 9th Std.

Conducted Unit test On Surface Area and Volume for 9th Std.

(11) Conclusion

The unit test is the important Evaluation tool, the unit test is pre-planned and Systematically arrangement done by the teacher. This also help to see the Pupil's achievement and performance. The unit test also help to the teacher and pupil in the teaching learning Proces. As I conducted unit test for 8th std students after the analysis of questions most of the students are not attempted some questions. So I have to do the remedial class based on that Particular topic to the stud

6. Reference.

1) Pedagogy of School Subject Mathematics.
— B.R. Ramachandraiah.

2) Internet Source.
— Wikipedia.