Practical No.7: Paint the given surface of wall after preparing a required base of relevant material.

I. **Practical Significance-** Painting a wall surface after preparing the required base results in enhanced aesthetics, surface protection, improved durability, easy maintenance, and increased property value. These practical outcomes contribute to creating a more attractive, resilient, and valuable living or working environment.

II. **Industry or Employer Expected Outcome-**

Undertake safe building construction practices with relevant building materials.

III. **Course Level Learning Outcome-**

Use the relevant type of special purpose construction materials in the given situation.

IV. **Laboratory Learning Outcome-**

Paint the given surface of wall after preparing a required base of relevant material.

V. **Relevant Affective domain related Outcome**

1. Follow safety practices
2. Practice good housekeeping

VI. **Relevant Theoretical Background**

1. A paint should possess good covering power or spreading power.
2. Should have such consistency so that it can be applied easily and freely on the surface with a brush or spray.
3. It should adhere well to the surface to which it is applied.
4. The paint smooth, hard and wear resisting.
5. Paint should be not affected by weathering agencies.
6. Paint color should neither fade nor change.
7. It should offer a surface which is durable and strong enough to resist moisture penetration.

XI. Observation Table

Sr. No.	Name of Paint	Name of color	No. of coats applied
1	Acrylic	Blue	2
2	oil based	white	3
3	Emulsion	green	2
4	Distemper	yellow	1
5	Enamel	red	3

XII. Result

I have use all type of points of special purpose construction material

XIII. Interpretation of results

point of the all the type of surface and wall after give the all types of materials is available.

XIV. Conclusions and Recommendations (if any)

proper wall surface preparation is essential befor painting to ensure durability, smoothness and anesthetically pleasing finish the process of wall involves cleaning the wall material

XV. Practical Related Questions

Note: Below given are few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO. Write answers of minimum three questions.

1. What is paint and its types?
2. Give any four properties of plastic paints.

3. State the situation where oil paint is used
4. State the Uses of paints.
5. What are Distempers and where it is used?

Q. 1) ⟶ According to the nature of surface and the finishing required the surface should be created with a point, Varnish or distemper etc.

Q. 2) ⟶ 1) Decorative apperance 2) quick Drying points 3) it passes pleasing appearance 4) this type of paint has high Cavering power.
Uses:- used for painting show rooms, auditoriums, offices, cenema halls, etc. where attractive apperance is required.

Q. 3) ⟶ However, oil paint and should not be applied during hurid and damp weather.

Q. 4) ⟶ the paints are coatings of fluid materials and they are applied aver the surface of timber

Q. 5) ⟶ Distempers are considered to be water paints. a distemper is composed of base carrier colouring pigments and a binder such as glue.

XI. Observation Table

Sr.No.	Name and Brand of Cement	Proportion	Observation
1	Wall retech OPC 53	1 : 2 : 4	wood strength
2	Acc. cement PPC	1 : 3 : 6	durable
3	Ambuja cement OPC 43	1 : 1 : 5 : 3	Fast setting high strength
4	Shree cement PSC	1 : 2 : 3	wood workability
5	Jk cement white cement	1 : 3 : 5	fine texture

XII. Result

cement mortor is usually prepared in a proper tion such as 1:3 , 1:4 1:5 or 1:6 (cement sand)

XIII. Interpretation of results

w.t.r cted apc 53 1:2:4 good strength and the properties are very good

XIV. Conclusions and Recommendations (if any)

If all parameters heet the required standard The mertar is sutable for construction

XV. Practical Related Questions

Note: Below given are few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO. Write answers of minimum three questions.

1. Write four properties of cement mortar.
2. Write the five brands of cement.
3. State the situation where lime mortar is used with its proportion
4. Write the various types of mortars.
5. Write difference between artificial sand and natural sand.

Q. 1) ⟶ ?
Ans:- ① it has high fire resistance, ② it has high strength. ③ initial settings time should be more of cement mortar ④ water cement ratio preparation of cement mortar.

Q. 2) ⟶ ?
Ans:- ordinary portland cement ② rapid hardning cements ③ low heat cements ④ pazzaland portland cement.

Q. 3) ⟶ ?
Ans:- this is type of mortar classified on the basis of binding materials. in this lime is used as binding material
it is mixture of lime, sand or lime aggregate and water with appropriate proporation.

Q. 4) ⟶ ?
Ans:- 1) fire-resistance mortar 2) light weight mortar 3) injection mortar 4) Hydrallic insulating mortar 5) a coustic mortar
6) x-ray shielding mortar.

XVI. References/ suggestions for further Reading

Sr.No.	Links	Discription
1	https://youtu.be/LrFP6ohFAGg?si=X0kWjKfa4LHhFN73	Prepare cement mortar
2	https://youtu.be/ehBKETtRImk?si=DdHoEkj5-CAFCVdE	Prepare cement mortar

Practical No.11: Prepare a visit report with sketches/photos by arranging visit to stone masonry construction work.

I. Practical Significance

Stone masonry is a construction method that involves the use of natural stones. Stones are bounded by using mortar. If irregularly shaped stones are used without much shaping is known as Rubble masonry and if stones are cut into uniform sizes and shapes known as Ashlar masonry. A visit to stone masonry site you can gain valuable knowledge its construction methods, aesthetic appeal, observing process, unique characteristics of stone masonry work.

II. Industry/Employer Expected outcomes (POs)

This practical is expected to develop the following skills for the Industry identified.

1. A student should be able to know material used in stone masonry.
2. To know the procedure of construction stone masonry.
3. To check verticality and horizontally of stone masonry.

III. Course Level Learning Outcomes

Undertake the given type of building construction activity for the given component of building structure.

IV. Laboratory learning outcome(s)

Prepare a site visit report with reference to stone masonry.

V. Relevant Affective Domain

1. Follow safety practices and precautions.

2. Maintain tools and equipment.

VI. Relevant Theoretical Background

1.Recommended stones for various masonry work.
2.Types of stone masonry work.
3.Mortar used in stone masonry work.

6. The center of the masonry should be filled with stone chips and mortar.
7. Mortar of correct proportion should be used.
8. Verticality of the wall should be frequently checked with plumb bob.
9. Through stones should be within 1.5 m distances.
10. Proper curing is necessary for 2-3 weeks
11. Use safety measures on site.
12. Listen and follow the instruction given by site in charge.
13. Maintain discipline during Visit.

X. Procedure:

Field Visit Report

Date of Visit-------25 March 2025

Site Address--Taroda Naka Nanded.

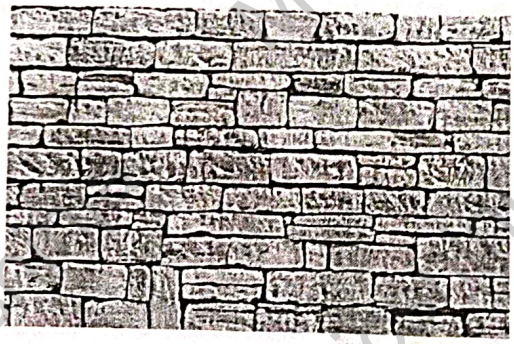
Name of Project--residential building.

Name of Contractor & Site Engineer--Rathod . M.S.

Status of project-Completed/ongoing----ongoing.

XI. Observation Actual Procedure followed –

(Attached Photograph)



XII. Result

all the type of building construction acti
of the given components of building
structure.

XIII. Interpretation of results

stone mesonary is a construction method
that involves the use of natural ston
are bounded by using morter

XIV. Conclusions and Recommendations

observing process characteristic stone
mesonary work.

XV. Practical Related Questions

1. Describe the various types of stone masonry work.
2. Suggest the recommended stones for various type of work.
3. Enlist the points to be observed during construction.
4. Enlist the precaution taken during construction.
5. Draw neat sketch of Rubble and Ashlar masonry work.

Q. 1 ⟶ ?

Ans:- ① rubber mesonary ② ashlar
mesonary ③ composite ④ polygonal meson
⑤ cyclopen mesonary

rubber mesonary 150 mm to 300 mm

Q. 3) ——→ ?

Ans:- ① Selection of stones ② preparation of surface ③ Dressing of stones ④ laying of stones ⑤ and mortar ⑥ Boarding and alignment ⑦ curing ⑧ Scaffolding and safety ⑨ Rihishing and cleaning

Q. 4) ——→ ?

Ans:- precation to take During stone mesonary cost reaction ① selection of stones ② foundation preparation ③ laying of stones ④ mortar Application ⑤ Bonding and alignment ⑥ Thickness of Joints ⑦ curing ⑧ Scattoding and safety measures ⑨ projection from lather. ⑩ cleaning and finishing These precuation ensure strong long lasting and high quality stone masonary construction let me hold it you need any fwdter explanation.

Q.5 → Rubble masonary utilizes undressed or roughly dressed stones This types is characteristics by it's irregular appearance with stones of varying shapes and sizes fitted together.

XVI. References/Suggestions for further Reading

Sr. No	Links	Discription
1	https://youtu.be/ULpl8LyQXhA?si=qFev12X2-mgIVSyS	Stone masonry construction work
2	https://www.youtube.com/watch?v=XsFeVuVQE-E	Stone masonry construction work
3	https://www.youtube.com/watch?v=3XGt-p-hpdU	Stone masonry construction work