

MINING AND
NAME OF COURSE-Applied Civil Engineering
OCBC19

RGPV(DIPLOMA WING)BHOPAL

BRANCH -MINING AND MINE SURVEYING

NAME OF COURSE : Applied Civil

COURSE OUTCOME 1	Able to select the general materials and technology that are used in the construction of buildings.
LEARNING OUTCOME-1.1	Able to conduct laboratory tests to check the quality of bricks.
CONTENTS	Type of bricks, good quality of bricks, laboratory test of bricks.
METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignment
LEARNING OUTCOME-1.2	Able to select the stone aggregates.
CONTENTS	Requirement of good quality of stone, test for stone, selection of stone aggregates, Fitness modules.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
LEARNING OUTCOME 1.3	Able to check the quality of cement and steel .
CONTENTS	Composition of cement, Type of cement, Laboratory tests of cement; Composition of steel, change in properties of steel section, test of MS bar.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
LEARNING OUTCOME-1.4	Able to Characterise good timber.
CONTENTS	Characteristics of good timber, defect in timber, preservation of timber.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
COURSE OUTCOME 2	Able to define the purpose of various parts of construction.
LEARNING OUTCOME 2.1	Detail of foundation.
CONTENTS	Necessity of foundation , bearing capacity & safe bearing capacity of foundation, selection of type of foundation, procedure to design foundation plan, checking the accuracy of layout, utility of control plan.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
LEARNING OUTCOME 2.2	Able to Summarize the masonry.
CONTENTS	Type of masonry, necessity bond of bricks, masonry, types of masonry, revetment.

METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme
LEARNING OUTCOME 2.3	Able to prepare the concrete.
CONTENTS	Ingredients in cement concrete properties of ingredien concretes, work ability of concretes, slum test, water ce which affect the quality of concrete, use of reinforceme
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
COURSE OUTCOME-3	able to demonstrate appropriate surveying alignment f
LEARNING OUTCOME-3.1	Able to manipulate road alignment.
CONTENTS	Type of Roads, General detail of Roads Construction. survey control points, Levelling, Detailed Topographical Pavement Design, Drainage.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
LEARNING OUTCOME-3.2	Able to manipulate rail alignment.
CONTENTS	Survey for track alignment, Traffic Survey, Reconnaissan survey or final location survey.
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
COURSE OUTCOME-4	Able to comprehend the work of general constructiona
LEARNING OUTCOME-4.1	Able to comprehend the construction of bridges.
CONTENTS	SIMPLE CONSTRUCTION DETAIL OF BRIDGES :- Compon of Bridge. Slab Bridge, T-beam and Slab Bridge, Suspens
METHOD OF ASSESSMENT	Internal: Mid Semester Exam - Pen paper test/Assignme
LEARNING OUTCOME-4.2	Able to dscribe the purpose of various types of dams.
CONTENTS	Purpose of dams. Earthen Dam & Gravity Dam
METHOD OF ASSESSMENT	External : End semester Examination-Pen Paper Test
COURSE OUTCOME-5	Able to estimate the economical aspect of construction
LEARNING OUTCOME 5.1	Able to estimate the Quantities.
CONTENTS	Introduction – Main items of work-calculation of quanti cement concrete, R.C.C., Doors, Windows, Flooring, Whi

METHOD OF ASSESSMENT External : End semester Examination-Pen Paper Test

LEARNING OUTCOME 5.2 Able to prepare cost analysis.

CONTENTS Factors affecting rates – importance – Materials for diffi
of Rates for cement concrete, R.C.C., brick masonry, Sto
block masonry, Plastering, Painting, Flooring, Road work

METHOD OF ASSESSMENT External : End semester Examination-Pen Paper Test

MINING SURVEYING

Engineering	FORMAT 3 SEMESTER -IV	SHEET NO1	Teaching Hours	Marks
<p>is used in common civil work.</p> <p>f bricks.</p> <p>bricks.</p> <p>ent.</p>			7	10
<p>lection of stone for different civil works, coarse and fine</p>			7	7
<p>t & Field test on cement.</p> <p>ue to alloying, impurities in steel, steel alloy, defect in steel,</p>	STEEL & STEEL		7	7
<p>vatives, seasoning of timber</p>			5	5
<p>ion</p>				
<p>ing capacity, type of foundation, shallow foundation, deep</p> <p>o give layout, different terms, centre line plan, foundation</p> <p>oint.</p>			10	10
<p>ie of stone masonry, dry stone masonry,</p>				

int.

7

10

t, grade & strength of concrete, nominal mix controlled
ment ratio, test for compressive strength of concrete, factors
nt in concrete, R.C.C.& P.C.C.

10

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or road and rail setup.

Topographical survey - Establishing
survey, Cross-section Surveys.
Design criteria - Geometric Design,

7

7

ice survey-instrument.Preliminary survey-instrument, Detail

5

5

I details of bridge & dam.

ents of Culverts- causeways.
ion Bridge.

Type

int.

6

10

work

5

5

ties earth work, stone masonry, brick masonry, plastering,
ite washing, Distempering and their units.

7

7

erent items of work – Rates of materials and labour – analysis
ne masonry, Hollow
s, Sanitary Works, Water supply works and Electrical works.

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