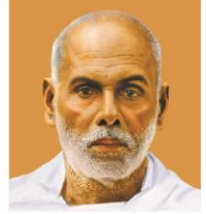


Sree Narayana Guru College of Engineering & Technology

CHALAKKODE P.O., KOROM, PAYYANUR, KANNUR-670 307



SUPPORTING DOCUMENTS OF COMPREHENSIVE EXAM

CET308	COMPREHENSIVE COURSE WORK	CATEGORY	L	T	P	CREDIT	Year of Introduction
		PCC	1	0	0	1	2019

Preamble: The course is designed to ensure that the student have firmly grasped the foundational knowledge in Civil Engineering familiar enough with the technological concepts. It provides an opportunity for the students to demonstrate their knowledge in various Civil Engineering subjects.

Pre-requisite: Nil

Course outcomes: After the course, the student will able to:

CO1	Learn to prepare for a competitive examination
CO2	Comprehend the questions in Civil Engineering field and answer them with confidence
CO3	Communicate effectively with faculty in scholarly environments
CO4	Analyze the comprehensive knowledge gained in basic courses in the field of Civil Engineering

CET 308 Comprehensive Course Work		P O	P O	P O	P O	P O	P O	P O	P O	P O	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3
	CO1	3	1	1			2							1	1	
	CO2	3	1				2				3					
	CO3	3	1			1	2				3				1	
	CO4	3	3			1	2									

Assessment pattern

Bloom's Category	End Semester Examination (Marks)
Remember	25
Understand	15
Apply	5
Analyze	5
Evaluate	
Create	


Dr. LEENA A. V.
PRINCIPAL
 SREE NARAYANA GURU COLLEGE OF
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End Semester Examination Pattern:

A written examination will be conducted by the University at the end of the sixth semester. The written examination will be of objective type similar to the GATE examination. Syllabus for the comprehensive examination is based on following five Civil Engineering core courses.

CET 201- Mechanics of Solids

CET 203- Fluid Mechanics and Hydraulics

CET 205- Surveying & Geomatics

CET 204- Geotechnical Engineering I

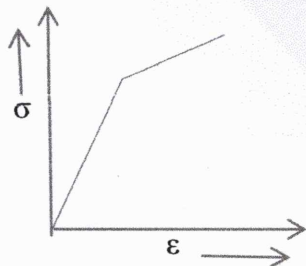
CET 309- Construction Technology and Management

The written test will be of 50 marks with 50 multiple choice questions (10 questions from each module) with 4 choices of 1 mark each covering all the five core courses. There will be no negative marking. The pass minimum for this course is 25. The course should be mapped with a faculty and classes shall be arranged for practising questions based on the core courses listed above.

Written examination	:	50marks
Total	:	50 marks

Course Level Assessment and Sample Questions:

- 1) Poisson's ratio for an incompressible isotropic material is:
A) 0.25 B) 0.5 C) Zero D) Indeterminate
- 2) The following stress-strain curve is obtained for a material. It indicates



- A) Rigid body behaviour
- B) Perfectly plastic behaviour

Leena

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
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- C) Elastic-linear strain hardening behaviour
D) Elastic- plastic behaviour
- 3) A principal plane is one where the shear stress will be:
A) Maximum B) Minimum C) Zero D) Coverage of principal stress
- 4) In a differential manometer, the flowing fluid is water and the gauge fluid is mercury. If the manometer reading is 100mm, the differential head in meters is:
A) 13.6 B) 1.36 C) 1.47 D) 1.26
- 5) A rectangular open channel carries a flow of $2\text{m}^3/\text{sec}/\text{m}$, what is the value of minimum specific energy?
A) 0.74m B) 1.11m C) 1.48m D) 1.85m
- 6) A pipe has diameter 0.4m, length 0.1km and coefficient of friction 0.005. What is the length of an equivalent pipe which has diameter 0.2m and coefficient of friction 0.008?
A) 195m B) 19.5m C) 1.95m D) 1950m
- 7) The true bearing of a line is $40^\circ 30'$. Declination is 3°W . The magnetic bearing of line is:
A) $43^\circ 30'$ B) $37^\circ 30'$ C) $36^\circ 30'$ D) $44^\circ 30'$
- 8) Points C and D are 1530m apart across a wide river. The following reciprocal levels are taken with one level.

Level at	Reading on	
	C	D
C	3.810 m	2.165 m
D	2.355 m	0.910 m

The true difference in elevation between C and D is:

- A) 1.645 m B) 1.545 m C) 1.745 m D) 1.345 m
- 9) Fore bearing of a line is 540° . Declination is 2°W . True bearing of line is:
A) 222° B) 218° C) $S 42^\circ \text{E}$ D) $S 38^\circ \text{E}$
- 10) The dry density of a soil is 1.5 g/cc . If the saturation water content were 50%, then its saturated density and submersed density would respectively be,
A) 1.5 g/cc and 1.0 g/cc B) 2.0 g/cc and 1.0 g/cc C) 2.25 g/cc and 0.25 g/cc
D) 2.50 g/cc and 1.50 g/cc

- 11) A clay sample has a void ratio of 0.50 in dry state and if the specific gravity of solids is 2.70, its shrinkage limit will be
 A) 12% B) 13.5% C) 18.5% D) 22%
- 12) A non-homogenous soil deposit consists of a silt layer sandwiched between a fine-sand layer at top and a clay layer below. Permeability of the silt layer is 10 times the permeability of the clay layer and one-tenth of the permeability of the sand layer. Thickness of the silt layer is 2 times the thickness of the sand layer and two-third of the thickness of the clay layer. The ratio of equivalent horizontal and equivalent vertical permeability of the deposit is _____.
 A) 10.967 B) 10.968 C) 10.969 D) None of these
- 13) Which cement contains high percentage of C_3S and less percentage of C_2S ?
 A) Rapid Hardening Cement B) Ordinary Portland Cement C) Quick Setting Cement D) Low Heat Cement
- 14) Workability of concrete is measured by _____
 A) Vicat apparatus test B) Slump test C) Minimum void method D) Talbot Richard test
- 15) The shortest possible time in which an activity can be achieved under ideal circumstances is known as _____
 A) Pessimistic time estimate B) Optimistic time estimate C) Expected time estimate D) None of these

Course Code: CET 308


Comprehensive Course Work

MODULE 1

Concept of stress and strain, Hooke's law, Stress-strain diagram of mild steel; Axially loaded bars. Temperature stress in composite bars, Poisson's ratio, Elastic constants and the relationship between them. Beams, Concept of bending moment and shear force, Shear force and bending moment diagrams of cantilever beams, simply supported beams and overhanging beams for different type of loads. Theory of simple bending; Shear stress in beams. Principal stresses and principal planes in 2D problems, maximum shear stress; Mohr's circle.

MODULE 2

Fluid properties; Fluid statics, measurement of fluid pressure. Buoyancy and Floatation: Buoyant force, Principle of floatation, stability of floating and submerged bodies, metacentre and metacentric height; continuity equation in one, two and three dimensions. Bernoulli's equation and its applications; Pipe flow- computation of major and minor losses in pipes, equivalent pipe.


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Open channel flow, velocity distribution in open channels, uniform flow computations, Most economical sections, Specific energy, Critical flow; Hydraulic jump.

MODULE 3

Introduction to Surveying- Principles, Linear, angular and graphical methods. Bearing of survey lines, Local attraction, Declination; Principles of levelling, Methods of levelling. Theodolite surveying, Measurement of horizontal and vertical angle; Triangulation. Traverse Surveying, Checks in closed traverse; Theory of Errors – Types, theory of least squares, Weighting of observations. Total Station – concept of EDM, principles and working. GPS-Components and principles. Remote Sensing.

MODULE 4

Definitions and properties of soil, 3 phase system, Index properties of soil, Soil classification, Effective stress, Quick sand condition, Stress distribution, Permeability of soil, Darcy's law, Factors affecting permeability, Laboratory tests, Consolidation, Normally consolidated, over consolidated and under consolidated soils, Time factor, Coefficient of consolidation, Compaction Tests – OMC and MDD, shear strength of soil, Triaxial compression test, Unconfined compression test, Direct shear test and Vane shear test

MODULE 5

Cement: Manufacturing, chemical composition, Types, Tests, Hydration of cement. Properties of fresh concrete and hardened concrete. Types of stone masonry – composite walls - cavity walls and partition walls - Construction details and features. Finishing works: Plastering, Pointing, Painting – objectives and types. Prefabricated construction – advantages and disadvantages, Prefabricated building components. Causes of failures in RCC and Steel structures. Types of tenders, Types of contracts. Types of Schedules. Network analysis – CPM, PERT – concepts and problems

May 19
4/2/23
[HOD, CE]

(Signature)

Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
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DEPARTMENT OF CIVIL ENGINEERING

COURSE PLAN SCHEDULE

Name of the faculty	Ms. REVATHI P
Designation	Assistant Professor
Faculty department name	Civil Engineering
Name of the course with course code	CET 308 Comprehensive Course Work
Department to which this course is offered	Civil Engineering
Semester	VI
Academic Year	2022-23

1. COURSE OVERVIEW

The course is designed to ensure that the student have firmly grasped the foundational knowledge in Civil Engineering familiar enough with the technological concepts. It provides an opportunity for the students to demonstrate their knowledge in various Civil Engineering subjects.


2. COURSE OBJECTIVE

1.To practice more with core subjects for cracking Gate, placement test and other competitive examinations

3. PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES

I. PROGRAM OUTCOMES

- ENGINEERING KNOWLEDGE
- PROBLEM ANALYSIS
- DESIGN / DEVELOPMENT OF SOLUTION
- CONDUCT INVESTIGATION OF COMPLEX PROBLEMS
- MODERN TOOL USAGE
- THE ENGINEER AND SOCIETY
- ENVIORNMENT AND SUSTAINABILITY
- ETHICS
- INDIVIDUAL AND TEAM WORK
- COMUNICATION
- PROJECT MANAGEMENT AND FINANCE
- LIFE LONG LEARNING


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II. PROGRAM SPECIFIC OUTCOME

- III. **PSO 1** –Demonstrate in-depth knowledge in the analysis, design, experimental research and construction aspects of civil engineering structures
- IV. **PSO 2** –Apply the concept of sustainability in Civil Engineering

4. COURSE OUTCOME

- **CO 1** Learn to prepare for a competitive examination
- **CO 2** : Comprehend the questions in Civil Engineering field and answer them with confidence
- **CO 3** Communicate effectively with faculty in scholarly environments
- **CO 4** : Analyze the comprehensive knowledge gained in basic courses in the field of Civil Engineering

5. COURSE MAPPING

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
CO1	3	1	1			2							1	1
CO2	3	1				2			3					
CO3	3	1			1	2			3					1
CO4	3	3			1	2								

6. SYLLABUS

CET 201- Mechanics of Solids
CET 203- Fluid Mechanics and Hydraulics
CET 205- Surveying& Geomatics
CET 204- Geotechnical Engineering I
CET 309–Construction Technology and Management


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7. TEACHING PLAN

SL No:	TOPIC	No of Lectures
1	Mechanics of Solids	
1.1	Mock Test on Module 1 and Module 2	1
1.2	Mock Test on Module 3, Module 4 and Module 5	1
2	Fluid Mechanics and Hydraulics	1
2.1	Mock Test on Module 1, Module 2 and Module 3	1
2.2	Mock Test on Module 4 and Module 5	1
3	Surveying & Geomatics	1
3.1	Mock Test on Module 1 and Module 2	1
3.2	Mock Test on Module 3, Module 4 and Module 5	1
3.3	Feedback and Remedial	1
4	Geotechnical Engineering I	1
4.1	Mock Test on Module 1, Module 2 and Module 3	1
4.2	Mock Test on Module 4 and Module 5	1
5	Construction Technology and Management	1
5.1	Mock Test on Module 1, Module 2 and Module 3	1
5.2	Mock Test on Module 4 and Module 5	1
6	Construction Technology and Management	1
6.1	Mock Test on Module 1, Module 2 and Module 3	1
6.2	Mock Test on Module 4 and Module 5	1
6.3	Feedback and Remedial	1

8. Subject History

- ✓ Year of Introduction of the Subject – 2022
- ✓ Faculty Handled Just before this time – *Dr. Susan Abraham*
- ✓ Pass Percentage during last three years – *66.67%*
- ✓ Target Pass Percentage – 85
- ✓ The following is the formula for calculating the target percentage of a subject.

9. Any other important matter to be brought into consideration:


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PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
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Manual Prepared by:

Ms. REVATHI P

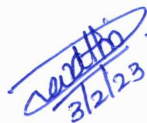
ASSISTANT PROFESSOR

DEPARTMENT OF CE

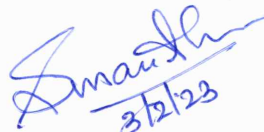
Approved by:

Dr. Susan Abraham
Associate Professor
Department of CE

Dated signature of faculty member


3/2/23

Dated signature of Module Coordinator


3/2/23

Dated signature of HOD

May 19
3/2/23.


Dr. LEENA A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYANUR
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SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

STUDENTS LIST S6 CE

SL.NO	REGISTER NUMBER	NAME OF STUDENT
1	SNC20CE001	ABHIJITHA K
2	SNC20CE002	AKSHAYA PV
3	SNC20CE003	ALEN ALEX
4	SNC20CE004	AMAYA T
5	SNC20CE006	ANUVINDA P
6	SNC20CE007	APARNA P
7	SNC20CE008	ARJUN KM
8	SNC20CE009	FATHIMATHUL MARJAN KP
9	SNC20CE010	FATHIMATH ZUHRA
10	SNC20CE011	FIZA FARHEEN
11	SNC20CE012	KEERTHANA SURENDRAN
12	SNC20CE013	MOOHAMMED EBRAHIM
13	SNC20CE014	RAJATH MANOHARAN
14	SNC20CE015	SAJJAD ZAINUDHEEN
15	SNC20CE016	SHAHANA SHERIN
16	SNC20CE017	SREELAKSHMI K
17	SNC20CE018	SREEVISHNU K
18	SNC20CE019	VAISHNAVI N K
19	SNC20CE020	VYSHNA K
20	LSNC20CE021	ANUPRIYA K


Dr. LEENA A.V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PATTAYUR
KANNUR



**SREE NARAYANA GURU COLLEGE OF ENGINEERING &
TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING
CET308-COMPREHENSIVE COURSE WORK**

CUMULATIVE ATTENDANCE

SL NO.	REG NO	NAME	ATTENDENCE (%)	ATTENDENCE (MARKS)
1	SNC20CE001	ABHIJITHA K	95.8	10
2	SNC20CE002	AKSHAYA PV	95.8	10
3	SNC20CE003	ALEN ALEX	91.7	10
4	SNC20CE004	AMAYA T	91.7	10
5	SNC20CE006	ANUVINDA P	91.7	10
6	SNC20CE007	APARNA P	91.7	10
7	SNC20CE008	ARJUN KM	75.0	7
8	SNC20CE009	FATHIMATHUL MARJAN KP	83.3	8
9	SNC20CE010	FATHIMATH ZUHRA	83.3	8
10	SNC20CE011	FIZA FARHEEN	75.0	7
11	SNC20CE012	KEERTHANA SURENDRAN	75.0	7
12	SNC20CE013	MOOHAMMED EBRAHIM	75.0	8
13	SNC20CE014	RAJATH MANOHARAN	95.8	10
13	SNC20CE015	SAJJAD ZAINUDHEEN	83.3	8
15	SNC20CE016	SHAHANA SHERIN	83.3	8
16	SNC20CE017	SREELAKSHMI K	95.8	10
17	SNC20CE018	SREEVISHNU K	95.8	10
18	SNC20CE019	VAISHNAVI N K	87.5	10
19	SNC20CE020	VYSHNA K	91.7	10
20	LSNC20CE021	ANUPRIYA K	91.7	10

Maya
[HOD, CE]

Dr. Leena A. V.
PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
ENGINEERING & TECHNOLOGY, PAYANUR
KANNUR

Name: Aparna.....

Roll No:- 07.....



SREE NARAYANA GURU COLLEGE OF ENGINEERING
& TECHNOLOGY

Internal Test	<u>1</u>	Academic Year/Semester	<u>2022-23 / S6</u>
Subject name with code	<u>CET308 CCW</u>	Branch	<u>CG</u>
Date of Exam	<u>15/2/23</u>	Duration	<u>1 hr</u>
Starting time	<u>1 PM</u>	Max. Marks	<u>45</u>

1. Which of the following statements regarding the cube strength of concrete are correct?


- (i) Strength increases with decrease in cube size
(ii) Strength decreases with increase in slenderness ratio Time: 60 min. (iii) Strength increases with increase in slenderness ratio
(iv) Strength decreases with decreases in cube size
(A) (i) and (ii) are correct (B) (i), (ii), (iii) are correct
(C) (i) and (iii) are correct (D) All the above

2. Which of the following statements regarding properties of concrete are correct?

- (p) Modulus of elasticity of M25 grade of concrete is 25000 MPa.
(q) Approximate value of shrinkage strain of concrete is 0.0003
(r) pH value of water used in concrete construction should not be less than 6.
(A) p and q are correct (B) p and r are correct (C) q and r are correct
(D) all the above are correct

3. The long term modulus of elasticity of M25 grade concrete with q value at 7 days to be 2.2 is

- (A) 25000 MPa (B) 7812.5 MPa


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PRINCIPAL
SREE NARAYANA GURU COLLEGE OF
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(C) 3500 MPa

☒ (D) None

4. Consider the following statements regarding the air entrained concrete? (1) Increased resistance to freezing and thawing

(2) Improvement in workability.

(3) Increase in strength.

(4) Permits reduction in water content of these,

(A) 1, 2, 4 are correct

(B) 2, 3, 4 are correct

(C) 1, 3, 4 are correct

☒ (D) All the above are correct

5. Which of the following statements regarding admixtures are correct? (A) Retards the setting of cement (B) Accelerates the setting of cement (C) Improves the workability of concrete ☒ (D) All the above

6. Consider the following statements:

I. The compressive strength of concrete decreases with increase in water cement ratio of the concrete mix.

II. Water is added to the concrete mix for hydration of cement and workability.

III. Creep and shrinkage of concrete are independent of the water cement ratio in the concrete mix.

The true statements are

☒ (A) I and III

(B) I, II, III

(C) II and III

☒ (D) I and II

7. Consider the following statements:

I. Modulus of elasticity of concrete increases with increase in compressive strength of concrete

II. Brittleness of concrete increases with decrease in compressive strength of concrete.

III. Shear strength of concrete increases with increase in compressive strength of concrete.

The true statements are

- (A) I and III (B) I, II, III
(C) II and III (D) I and II

8. Consider the following statements:

- (p) Nominal mix proportions for M20 grade concrete is 1 : 1.5 : 3
(q) Weight batching is preferred compared to nominal (volume) batching
(r) Maximum cement content as per IS456-2000 is 450 kg/m³

- (A) p, q are correct (B) p, r are correct
(C) q, r are correct (D) p, q and r are correct

9. Which of the following statements given below are correct.

- (p) Nominal cover to reinforcement is based on serviceability or durability requirements
(q) Factors affecting the durability of concrete are w/c and maximum cement content
(r) Minimum cement content is not based on exposure conditions.

- (A) p, q, r are correct (B) p and q are correct
(C) p and r are correct (D) only p is correct

10. Consider the following statements regarding the addition of pozzolanas to cement causes

- (p) Increase in strength (q) Less heat of hydration (r) Decrease in workability

The true statements are


- (A) p, q, r are correct (C) p and r are correct
(B) p and q are correct (D) q only is correct

11. The composition of air entrained concrete is given below:

Water : 180 kg/m³

Ordinary Portland cement: 360 kg/m³

Sand : 601 kg/m³ Coarse aggregate: 1160 kg/m³


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PRINCIPAL
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Assume the specific gravity of OPC, sand and coarse aggregate to be 3.10, 2.65 and 2.74 respectively, the air content in liters/m³ is _____

- (A) 53 liters/m³
- (B) 50 liters/m³
- (C) 45 liters/m³
- ☒ (D) None

12. Consider the following statements

- (p) Nominal maximum size of coarse aggregate to be used in R.C.C is 20 mm
 - (q) As per IS456-2000; fine sand to be used in R.C.C should confirm to zone II and medium sand.
 - (r) Minimum grade of concrete to be used in R.C.C is M30
- The true statements are
- ☒ (A) p and q are true
 - (B) p and r are true
 - (C) p, q and r are true
 - (D) q and r are true

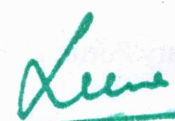
13. Which of the following statements given below are correct?

- (p) In mild environment, surface crack width should not exceed 0.3 mm as per IS456-2000.
 - (q) Crack width increases with increase in stress in reinforcement bar.
 - (r) Concrete and steel exhibit high strength after being subjected to high temperature.
- (A) p and r are correct
 - (B) p, q and r are correct
 - (C) p and q are correct
 - ☒ (D) None

14. The ratio of the volume of air voids to the volume of voids, is called

- A. void ratio
- ☒ B. air content
- C. degree of saturation
- D. Porosity

15. The specific gravity of sandy soils is


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A. 1.2

B. 1.8

C. 2.2

D. 2.7

16. According to Indian standards, the dispersing solution used in pipette method, for the determination of size of particle consists of

7 g sodium carbonate, 43 g sodium

7 g sodium carbonate, 33 g sodium

A. hexameta-phosphate and 1 litre
distilled water

B. hexameta-phosphate and 1 litre
distilled water

7 g sodium carbonate, 23 g sodium

C. hexameta-phosphate and 1 litre
distilled water

D. any one of the above

17. The water content in a soil at which just shear strength develops is called

A. liquid limit

B. plastic limit

C. elastic limit

D. shrinkage limit

18. Which of the following gives the correct decreasing order of the densities of a soil sample?


A. Saturated, submerged, wet, dry

B. Saturated, wet, submerged, dry

C. Saturated, wet, dry, submerged

D. Wet, saturated, submerged, dry

19. The ratio of the unconfined compressive strength of undisturbed soil to the unconfined compressive strength of soil in a remoulded state, is called


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A. sensitivity

B. thixotropy

C. relative density

D. bulk density

20. A body floating in a liquid is said to be in neutral equilibrium, if its metacentre

A. coincides with its centre of gravity

B. lies above its centre of gravity

C. lies below its centre of gravity

D. lies between the centre of buoyancy and centre of gravity

21. A flow through an expanding tube at constant rate is called

A. steady uniform flow

B. steady non-uniform flow

C. unsteady uniform flow

D. unsteady non-uniform flow

22. The total energy of a liquid particle in motion is equal to

A. pressure energy + kinetic energy + potential energy

B. pressure energy - (kinetic energy + potential energy)

C. potential energy - (pressure energy + kinetic energy)

D. kinetic energy - (pressure energy + potential energy)

23. The discharge over a rectangular notch is

A. inversely proportional to $H^{3/2}$

B. directly proportional to $H^{3/2}$

C. inversely proportional to $H^{5/2}$

D. directly proportional to $H^{5/2}$

as

A. real fluid

B. ideal fluid

C. newtonian fluid

D. non-newtonian fluid

29. Whenever some external system of forces acts on a body, it undergoes some deformation. As the body undergoes some deformation, it sets up some resistance to the deformation. This resistance per unit area to deformation, is called

A. strain

B. stress

C. pressure

D. modulus of elasticity

30. A beam extending beyond the supports is called

A. simply supported beam

B. fixed beam

C. overhanging beam

D. cantilever beam

31. A concentrated load is one which


A. acts at a point on a beam

B. spreads non-uniformly over the whole length of a beam

C. spreads uniformly over the whole length of a beam

D. varies uniformly over the whole length of a beam

32. The section modulus (Z) of a beam is given by


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24. The sheet of water flowing over a notch or a weir is known as

A. sill or crest

B. nappe or vein

C. orifice

D. none of these

25. The total energy line lies over the hydraulic gradient line by an amount equal to the

A. pressure head

B. velocity head

C. pressure head + velocity head

D. pressure head - velocity head

26. Select the wrong statement

A. An equivalent pipe is treated as an ordinary pipe for all calculations

B. The length of an equivalent pipe is equal to that of a compound pipe

C. The discharge through an equivalent pipe is equal to that of a compound pipe

D. The diameter of an equivalent pipe is equal to that of a compound pipe

27. When a cylindrical vessel, containing some liquid, is rotated about its vertical axis, the liquid surface is depressed down at the axis of its rotation and rises up near the walls of the vessel on all sides. This type of flow is known as

A. steady flow

B. turbulent flow

C. vortex flow

D. uniform flow

28. fluid whose viscosity does not change with the rate of deformation or shear strain is known as

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A. I/y

B. $I.y$

C. y/I

D. M/I

33. beam of T-section is subjected to a shear force of F . The maximum shear force will occur at the

A. top of the section

B. bottom of the section

C. neutral axis of the section

D. junction of web and flange

34. A rectangular beam of length l supported at its two ends carries a central point load W . The maximum deflection occurs

A. at the ends

B. at $l/3$ from both ends

C. at the centre

D. none of these

35. The load required to produce a unit deflection in a spring is called

A. flexural rigidity

B. torsional rigidity

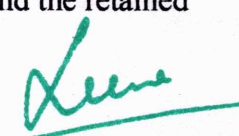
C. spring stiffness

D. Young's modulus

36. The Rankine's theory for active earth pressure is based on the assumption that

A. the retained material is homogeneous and cohesionless

B. the frictional resistance between the retaining wall and the retained


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material is neglected

the failure of the retained material

- C. takes place along a plane called rupture plane D. all of the above

37. If percentage reduction in area of a certain specimen made of material 'A' under tensile test is 60% and the percentage reduction in area of a specimen with same dimensions made of material 'B' is 40%, then


- A. the material A is more ductile than material B B. the material B is more ductile than material A
- C. the ductility of material A and B is equal D. the material A is brittle and material B is ductile

38. Factor of safety is defined as the ratio of

- A. ultimate stress to working stress B. working stress to ultimate stress
- C. breaking stress to ultimate stress D. ultimate stress to breaking stress

39. The failure of foundation of a building is due to

- A. withdrawal of subsoil moisture B. unequal settlement of soil
- C. lateral escape of the supporting material D. all of these


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40. The bearing capacity of soils can be improved by

- A. increasing the depth of footing B. draining the sub-soil water
C. ramming the granular material like
crushed stone in the soil D. all of the above

41. brick masonry, for good bonding

- A. all bricks need not be uniform in size B. bats must be used in alternate courses
only
C. vertical joints in alternate courses
should fall in plumb D. cement mortar, used must have surkhi
as additive


42. The size of a step commonly adopted for residential buildings is

- A. 250 mm x 160 mm B. 270 mm x 150 mm
C. 300 mm x 130 mm D. 350 mm x 100 mm

43. A weir, generally, used as a spillway of a dam is

- A. narrow crested weir B. broad crested weir
C. Ogee weir D. submerged weir

44. The hydraulic mean depth for a circular pipe of diameter (d) is


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A. $d/6$

B. $d/4$

C. $d/2$

D. d


45. The coefficient of venturiflume, generally lies between

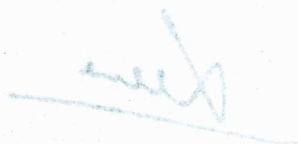
A. 0.3 to 0.45

B. 0.50 to 0.75

C. 0.75 to 0.95

D. 0.95 to 1.0


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Name: *Abhijitha. K*

Roll No:-1.....



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& TECHNOLOGY

Internal Test	2	Academic Year/Semester	2022-23 / S6
Subject name with code	CET308 CCW	Branch	CE
Date of Exam	29/03/23	Duration	1 hr
Starting time	9:00 am	Max. Marks	20

Chemical weathering of soil is caused due to

- A. oxidation
B. hydration
C. carbonation and leaching
D. all of these

The property of a soil which is of great importance in finding settlement of structures, is


- ✓ A. permeability
- B. shear strength
- C. consolidation
- D. compressibility

The ratio of the volume of air voids to the volume of voids, is called

- A. void ratio ✓ B. air content
C. degree of saturation D. Porosity

The ratio of the unit weight of soil solids to that of water is called

- A. void ratio
B. porosity
C. specific gravity
D. degree of saturation


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soil sample is having a specific gravity of 2.60 and a void ratio of 0.78. The water content in percentage required to fully saturate the soil at that void ratio will be

- A. 10
- B. 30
- C. 50
- ☒ D. 70

The specific gravity of sandy soils is

- A. 1.2
- B. 1.8
- C. 2.2
- ☒ D. 2.7

According to Indian standards, the dispersing solution used in pipette method, for the determination of size of particle consists of

- A. 7 g sodium carbonate, 43 g sodium hexameta-phosphate and 1 litre distilled water
- ☒ B. 7 g sodium carbonate, 33 g sodium hexameta-phosphate and 1 litre distilled water
- C. 7 g sodium carbonate, 23 g sodium hexameta-phosphate and 1 litre distilled water
- D. any one of the above

When the hydrometer analysis is performed, it requires correction for


- A. temperature only
- ☒ B. meniscus only
- C. dispersing agent only
- D. all of these

If the volume of voids is equal to the volume of soil solids, then the values of porosity and void ratio are respectively

- A. 0 and 0.5
- ☒ B. 0 and 1
- C. 0.5 and 1
- D. 1 and 0.5

A soil having uniformity co-efficient more than 10, is called

- A. uniform soil
- B. poor soil


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☒ C. well graded soil

D. coarse soil

According to Indian standards, in a 2 mm sieve

A. there are two holes

B. each sieve is circular and its diameter is 2 mm

☒ C. each hole is a square and its side is 2 mm

D. there are two holes per cm length of the mesh

The water content in a soil at which just shear strength develops is called

A. liquid limit

B. plastic limit

☒ C. elastic limit

D. shrinkage limit

The ratio of the unconfined compressive strength of undisturbed soil to the unconfined compressive strength of soil in a remoulded state, is called

☒ A. sensitivity

B. thixotropy

C. relative density

D. bulk density

The liquid limit minus plastic limit is termed as

A. flow index

☒ B. plasticity index

C. shrinkage index

D. liquidity index

The water content of soils can be accurately determined by

A. sand bath method

B. calcium carbide method

☒ C. over drying method

D. Pycnometer method

Which of the following gives the correct decreasing order of the densities of a soil sample?

A. Saturated, submerged, wet, dry

B. Saturated, wet, submerged, dry

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C. Saturated, wet, dry, submerged

☒ D. Wet, saturated, submerged, dry

For a given soil mass, the void ratio is 0.60, water content is 18% and specific gravity of the soil particles is 2.6. The degree of saturation of the soil is

☒ A. 30%

B. 50%

C. 78%

D. 82.50%

The relation between the air content (ac) and the degree of saturation (s) is

A. $ac = s$

B. $ac = 1 - s$

☒ C. $ac = 1 + s$

D. $ac = 1/s$

The minimum size of grains of silts is about

A. 0.0002 mm

☒ B. 0.002 mm

C. 0.02 mm

D. 0.2 mm


Chemical weathering of soil is caused due to

A. oxidation

B. hydration

C. carbonation and leaching

☒ D. all of these


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APJ Abdul Kalam Technological University
CET Campus, Thiruvananthapuram
Kerala -695016
India

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Students Examination Eligibility Details

Academic Year : 2022 - 2023

Degree Type : Regular

**Program :
B.Tech(Full Time)**

Branch : CIVIL ENGINEERING

Semester : S6

**Course Name : COMPREHENSIVE COURSE
WORK-CET308**

Batch : 1

Eligibility For : Pursuing Students

Period of Registration : NA

Student Name	Attendance %, Internal Marks	Availed Leaves	Disc. Action	Eligible for Written Exam	Status:	In- eligibility Type
ABHIJITHA K Register No : SNC20CE001	Attendance : 96.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
AKSHAYA PV Register No : SNC20CE002	Attendance : 96.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
ALEN ALEX Register No : SNC20CE003	Attendance : 92.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
AMAYA T Register No : SNC20CE004	Attendance : 92.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	

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ANUVINDA P Register No : SNC20CE006	Attendance : 92.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
APARNA P Register No : SNC20CE007	Attendance : 92.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
ARJUN KM Register No : SNC20CE008	Attendance : 75.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
FATHIMATHUL MARJAN KP Register No : SNC20CE009	Attendance : 83.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
FATHIMATH ZUHRA Register No : SNC20CE010	Attendance : 83.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
FIZA FARHEEN Register No : SNC20CE011	Attendance : 75.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
KEERTHANA SURENDRAN Register No : SNC20CE012	Attendance : 75.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
MOOHAMMED EBRAHIM Register No : SNC20CE013	Attendance : 75.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
RAJATH MANOHARAN Register No : SNC20CE014	Attendance : 96.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
SAJJAD ZAINUDHEEN Register No : SNC20CE015	Attendance : 83.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	



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SHAHANA SHERIN Register No : SNC20CE016	Attendance : 83.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
SREELAKSHMI K Register No : SNC20CE017	Attendance : 96.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
SREEVISHNU K Register No : SNC20CE018	Attendance : 96.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
VAISHNAVI N K Register No : SNC20CE019	Attendance : 88.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
VYSHNA K Register No : SNC20CE020	Attendance : 92.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	
ANUPRIYA K Register No : LSNC20CE021	Attendance : 92.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by faculty	



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