

MET404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT
		PCC	1	0	0	1

**Preamble:** The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

#### Guidelines

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

#### Mark Distribution

Total marks: 50, only CIE, minimum required to pass : 25 Marks

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



ECT404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT
		PCC	1	0	0	1

**Preamble:** The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

### Guidelines

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

### Mark Distribution

Total marks: 50, only CIE, minimum required to pass : 25 Marks



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

CST404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT	YEAR OF INTRODUCTION
		PCC	1	0	0	1	2019

The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

### Guidelines

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

### Mark Distribution

Total marks: 50, only CIE, minimum required to pass : 25



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

EET404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT
		PCC	1	0	0	1

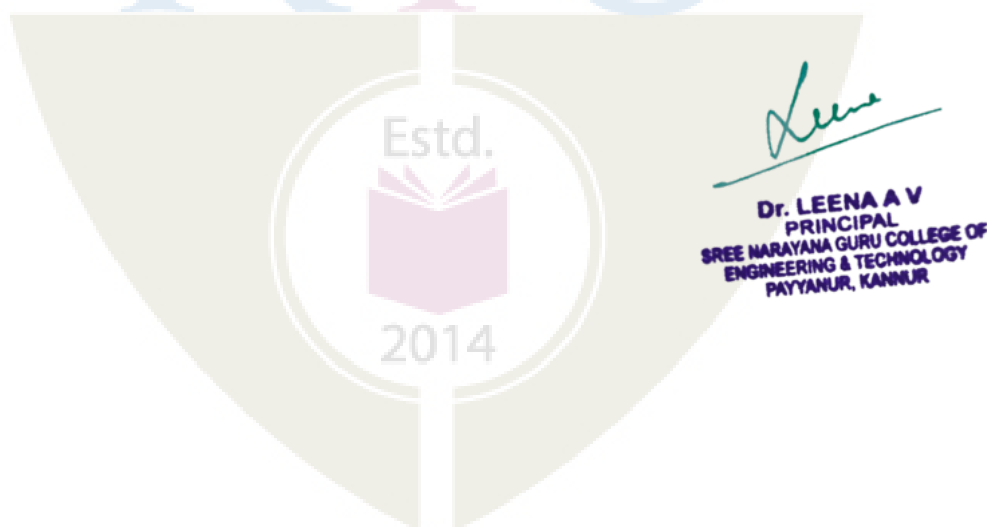
**Preamble:** The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

#### Guidelines

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

#### Mark Distribution

Total marks: 50, only CIE, minimum required to pass : 25 Marks





CET404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT
		PCC	1	0	0	1

**Preamble:** The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

### Guidelines

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

### Mark Distribution

Total marks: 50, only CIE, minimum required to pass : 25 Marks

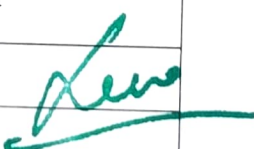


*Leena*  
**Dr. LEENA A V**  
 PRINCIPAL  
 SREE NARAYANA GURU COLLEGE OF  
 ENGINEERING & TECHNOLOGY  
 PAYANUR, KANNUR



**LIST OF STUDENTS ATTENDED COMPREHENSIVE COURSE VIVA (2022-23)**

<b>B-TECH IN CIVIL ENGINEERING</b>		
<b>SL NO:</b>	<b>REGISTER NO.</b>	<b>NAME</b>
1.	LSNC19CE021	SREEHARI K K
2.	SNC19CE001	AADITHYA KRISHNAN C
3.	SNC19CE002	ABHIRAMY RAJ
4.	SNC19CE003	AKASH P V
5.	SNC19CE004	ANANDHU ASHOK K P
6.	SNC19CE005	ANANJANA C
7.	SNC19CE006	ANJALI M P
8.	SNC19CE007	ANJANA C
9.	SNC19CE008	ASHAYA RAMESH
10.	SNC19CE009	ASWITHA GANGADHARAN
11.	SNC19CE010	ATHIRA ARUN K
12.	SNC19CE011	AYSHATH SAIFA
13.	SNC19CE012	KRISHNA PRASAD S L
14.	SNC19CE013	MUHAMMED HANNAN
15.	SNC19CE014	MUHAMMED RUFAID M
16.	SNC19CE015	NIKHIL SAI K
17.	SNC19CE016	PRANAV A K
18.	SNC19CE017	PRAYAG PRABHAKARAN
19.	SNC19CE018	SACHIN SURENDRAN M
20.	SNC19CE019	SHAMSHAD PV
21.	SNC19CE020	SILNA M

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

<b>B-TECH IN COMPUTER SCIENCE AND ENGINEERING</b>		
1.	SNC19CS001	AATHISH P JAGADEESH
2.	SNC19CS002	ABHINAV A P
3.	SNC19CS003	AHMED ADIL
4.	SNC19CS004	AJMAL
5.	SNC19CS005	ALTHAF ASHRAF K V
6.	SNC19CS006	AMAR RAJENDRAN
7.	SNC19CS007	AMRITHA RAJEEVAN M
8.	SNC19CS008	ANAGHA K
9.	SNC19CS009	ANAGHA M
10.	SNC19CS010	ARCHANA CHITHRAN K
11.	SNC19CS011	AVANTIKA K
12.	SNC19CS013	FATHIMATHU SAHALA BEEVI
13.	SNC19CS014	HRIDYASREE VALSAN
14.	SNC19CS015	HRYSHIKA PRADEEP
15.	SNC19CS016	JEEVA NARAYANAN
16.	SNC19CS017	KAVYA DEVI M K
17.	SNC19CS018	MANILA MAHESH
18.	SNC19CS019	MEGHA P K
19.	SNC19CS020	MIS-HAB C P
20.	SNC19CS021	MUHAMMAD JISHAN P T K
21.	SNC19CS022	MUHAMMED RISHAL IKBAL
22.	SNC19CS023	MUHAMMED ZAHID A P
23.	SNC19CS024	NIPUN S ANAND
24.	SNC19CS025	PALLAVI SWAROOP KUMAR
25.	SNC19CS026	PARVATHI K
26.	SNC19CS027	RAMRITHA RAJEEVAN

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

27.	SNC19CS028	SAFA FATHIMA
28.	SNC19CS029	SAFA SAYEED V
29.	SNC19CS030	SIDHARTH K
30.	SNC19CS031	SMIJITH M
31.	SNC19CS032	SRAVAN R
32.	SNC19CS033	SREEHARI V
33.	SNC19CS034	SREENANDANA T V
34.	SNC19CS035	SREENISHA K P
35.	SNC19CS036	THANMAYA SANJEEV
36.	SNC19CS037	THANYA MOHAN
37.	SNC19CS038	THEJA RAJESH
38.	SNC19CS039	U V VAISHNAV
39.	SNC19CS040	VARUN
40.	SNC19CS041	VISHNU PRABHAKARAN
41.	SNC19CS042	VISHNU R
42.	SNC19CS043	V K AYSHA
43.	LSNC19CS044	ABHIJITH RAMRAJ P K
44.	LSNC19CS045	ADARSH K
45.	LSNC19CS046	JJO JAISON

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

<b>B-TECH IN ELECTRONICS AND COMMUNICATION ENGINEERING</b>		
1.	SNC19EC001	ARJUN ASHOK K
2.	SNC19EC002	JITHIN SASIDHARAN N V
3.	SNC19EC003	KEERTHANA C V
4.	SNC19EC004	MARIYAMBI
5.	SNC19EC005	SANISHMA SACHITHANAND

<b>B-TECH IN ELECTRICAL AND ELECTRONICS ENGINEERING</b>		
1.	SNC19EE001	ANUSHA JYOTHI
2.	SNC19EE002	DEVIKEERTHANA T P
3.	SNC19EE003	VAISHNAV T V
4.	SNC19EE004	VISHAL K

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



## CCV → SAMPLE QUESTIONS

1. The mass per unit volume of a liquid at a standard temperature and pressure is called
2. The volume per unit mass of a liquid is called specific volume
- ✓ 3. The weight per unit volume of a liquid at a standard temperature and pressure is called 12
4. The specific weight of water in S.I. units is taken as
- ✓ 5. The ratio of specific weight of a liquid to the specific weight of pure water at a standard temperature is called 9
6. The specific gravity has no units
7. The specific gravity of water is taken as
- ✓ 8. The specific weight of sea water is 9
9. The density of a liquid in  $\text{kg} / \text{m}^3$  is numerically equal to its specific gravity.
10. The specific weight is also known as weight density.
- ✓ 11. The mass of  $2.5 \text{ m}^3$  of a certain liquid is 2 tonnes. Its mass density is 11
- ✓ 12. The specific gravity of an oil whose specific weight is  $7.85 \text{ kN} / \text{m}^3$ , is 12
- ✓ 13. The property of a liquid which offers resistance to the movement of one layer of liquid over another adjacent layer of liquid, is called 6
14. Kinematic viscosity is the product of dynamic viscosity and the density of the liquid.
- ✓ 15. The force per unit length is the unit of 12
- ✓ 16. The variation in the volume of a liquid with the variation of pressure is called its 13
17. The property of a liquid which enables it to resist tensile stress is called its surface tension
18. When a tube of smaller diameter is dipped in water, the water rises in the tube due to viscosity of water.
19. When a tube of smaller diameter is dipped in water, the water rises in the tube with an upward

20. A glass tube of smaller diameter is used while performing an experiment for the capillary rise of water because ↵
21. The mercury does not wet the glass. This is due to the property of the liquid known as *adhesion*
22. With an increase in size of tube, the rise or depression of liquid in the tube due to surface tension will
23. In the manufacturing of lead shots, the property of surface tension is utilised.
24. The unit of surface tension is *N/m*
25. The viscosity of a liquid is due to cohesion of its particles. *N*
26. Falling drops of water become spheres due to the property of *cohesion*
27. The intensity of pressure at any point, in a liquid, is
28. The pressure at a point 4m below the free surface of water is ↵
29. The height of a water column equivalent to a pressure of 0.15MPa is
30. According to Pascal's law, the intensity of pressure at any point in a fluid at rest is the same in all directions
31. The pressure measured with the help of a pressure gauge is called *gauge*
32. The atmospheric pressure at sea level is *2*
33. The density of air is same at different heights.
34. When the pressure intensity at a point is more than the local atmospheric pressure, then the difference of these two pressures is called
35. When the pressure intensity at a point is less than the local atmospheric pressure, then the difference of these two pressures is called vacuum pressure.
36. The vacuum pressure is always the negative gauge pressure.
37. The absolute pressure is equal to *1*
38. The pressure less than atmospheric pressure is known as
39. The pressure of a liquid measured with the help of a piezometer tube is

40. The vacuum pressure can be measured with the help of a piezometer tube.
41. The pressure measured with the help of a piezometer tube is in
42. A piezometer tube is used only for measuring  $\rho$
43. The liquid used in manometers should have  $\gamma$
44. This resistance per unit area to deformation, is called
45. The unit of stress in S.I. units is
46. The deformation per unit length is called
47. When a body is subjected to two equal and opposite pulls, as a result of which the body tends to extend its length, the stress and strain induced is
48. When a body is subjected to two equal and opposite forces, acting tangentially across the resisting section, as a result of which the body tends to shear off across the section, the stress and strain induced is
49. Hook's law holds good up to
50. The ratio of linear stress to the linear strain is called
51. The unit of modulus of elasticity is same as those of
52. When a change in length takes place, the strain is known as
53. The modulus of elasticity for mild steel is approximately equal to
54. Young's modulus may be defined as the ratio of
55. Modulus of rigidity may be defined as the ratio of
56. Two bars of different materials and same size are subjected to the same tensile force.  
If the bars have unit elongation in the ratio of 2 : 5, then the ratio of modulus of elasticity of the two materials will be
57. Strain rosetters are used to
58. A bar of length  $L$  metres extends by 1 mm under a tensile force of  $P$ . The strain produced in the bar is



59. The maximum stress produced in a bar of tapering section is at

60. Modular ratio of the two materials is the ratio of

Name: PRANAV A.K

Roll No:- SN19CE016



**SREE NARAYANA GURU COLLEGE OF ENGINEERING**  
**& TECHNOLOGY**

Internal Test	<u>1</u>	Academic Year/Semester	<b>2022-23 / S6</b>
Subject name with code	<u>CET404</u>	Branch	
Date of Exam		Duration	
Starting time		Max. Marks	

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

(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/m<sup>3</sup>

- (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/m<sup>3</sup>.

Ordinary Portland cement: 360 kg/m<sup>3</sup>

Sand : 601 kg/m<sup>3</sup> Coarse aggregate: 1160 kg/m<sup>3</sup>

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/m<sup>3</sup> is \_\_\_\_\_

☒ (A) 53 liters/m<sup>3</sup>

(B) 50 liters/m<sup>3</sup>

(C) 45 liters/m<sup>3</sup>

(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



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

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  $H^{5/2}$



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



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. stress

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

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



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

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

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



Name: Aswatha Gargulhasan

Roll No:- 09



**SREE NARAYANA GURU COLLEGE OF ENGINEERING**  
**& TECHNOLOGY**

Internal Test		Academic Year/Semester	2022-23 / S8
Subject name with code	COMPREHENSIVE VIVA VOCE	Branch	CE
Date of Exam	03/05/2023	Duration	
Starting time		Max. Marks	

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

(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/m<sup>3</sup>

- (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/m<sup>3</sup>

Ordinary Portland cement: 360 kg/m<sup>3</sup>

Sand : 601 kg/m<sup>3</sup> Coarse aggregate: 1160 kg/m<sup>3</sup>



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/m<sup>3</sup> is \_\_\_\_\_

(A) 53 liters/m<sup>3</sup>

(B) 50 liters/m<sup>3</sup>

(C) 45 liters/m<sup>3</sup>

(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

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



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  $H^{5/2}$

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

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



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

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

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



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

Name: Ananjana

Roll No:- 05



**SREE NARAYANA GURU COLLEGE OF ENGINEERING**  
**& TECHNOLOGY**

Internal Test		Academic Year/Semester	2022-23 / S6 98
Subject name with code		Branch	
Date of Exam	03/05/2023	Duration	
Starting time		Max. Marks	50

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

(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/m<sup>3</sup>

- (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/m<sup>3</sup>

Ordinary Portland cement: 360 kg/m<sup>3</sup>

Sand : 601 kg/m<sup>3</sup> Coarse aggregate: 1160 kg/m<sup>3</sup>

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/m<sup>3</sup> is \_\_\_\_\_

- (A) 53 liters/m<sup>3</sup>
- (B) 50 liters/m<sup>3</sup>
- (C) 45 liters/m<sup>3</sup>
- (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

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



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  $H^{5/2}$

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

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



A.  $I / y$

B.  $I \cdot y$

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

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

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



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

**Name:** .....Preethi K-K.....

**Roll No:- .....**



**SREE NARAYANA GURU COLLEGE OF ENGINEERING**  
**& TECHNOLOGY**

<i>Internal Test</i>		<i>Academic Year/Semester</i>	<b>2022-23 / S6</b>
<i>Subject name with code</i>		<i>Branch</i>	
<i>Date of Exam</i>		<i>Duration</i>	
<i>Starting time</i>		<i>Max. Marks</i>	

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





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



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. oven 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



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



Name: Shamsud P. U

Roll No:- SALCIA CEO19



**SREE NARAYANA GURU COLLEGE OF ENGINEERING**  
**& TECHNOLOGY**

<i>Internal Test</i>		<i>Academic Year/Semester</i>	<b>2022-23 / S6</b>
<i>Subject name with code</i>		<i>Branch</i>	
<i>Date of Exam</i>		<i>Duration</i>	
<i>Starting time</i>		<i>Max. Marks</i>	

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



1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

1953

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

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





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





Name: Silva M.

Roll No:- .....



**SREE NARAYANA GURU COLLEGE OF ENGINEERING**  
**& TECHNOLOGY**

Internal Test		Academic Year/Semester	2022-23 / S6
Subject name with code		Branch	
Date of Exam		Duration	
Starting time		Max. Marks	

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

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





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

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 ( $a_c$ ) and the degree of saturation ( $s$ ) is

☒ A.  $a_c = s$

B.  $a_c = 1 - s$

C.  $a_c = 1 + s$

D.  $a_c = 1/s$

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









SREE NARAYANA GURU COLLEGE OF ENGINEERING &  
TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

**CET404 COMPREHENSIVE VIVA VOCE CUMULATIVE  
ATTENDANCE**

SL NO.	REG NO	NAME	ATTENDANCE (%)	ATTENDANCE (Marks)
1	SNC19CE001	AADITHYA KRISHNAN.C	87	9
2	SNC19CE002	ABHIRAMY RAJ	90	10
3	SNC19CE003	AKASH.P.V	87	9
4	SNC19CE004	ANANDHU ASHOK KP	83	8
5	SNC19CE005	ANANJANA.C	93	10
6	SNC19CE006	ANJALI MP	87	9
7	SNC19CE007	ANJANA.C	87	9
8	SNC19CE008	ASHAYA RAMESH	93	10
9	SNC19CE009	ASWITHA GANGADHARAN	87	9
10	SNC19CE010	ATHIRA ARUN K	87	9
11	SNC19CE011	AYSHATH SAIFA	77	7
12	SNC19CE012	KRISHNA PRASAD S L	83	8
13	SNC19CE013	MUHAMMED HANNAN	77	7
13	SNC19CE014	MUHAMMED RUFAID M	67	5
15	SNC19CE015	NIKHIL SAI.K	90	10
16	SNC19CE016	PRANAV.A.K	77	7
17	SNC19CE017	PRAYAG PRABHAKARAN	77	7
18	SNC19CE018	SACHIN SURENDRAN.M	77	7
19	SNC19CE019	SHAMSHAD.P.V	77	7
20	SNC19CE020	SILNA.M	83	8
21	LSNC19CE021	SREEHARI K K	87	9

*[Signature]*

[HOD, CE]

*[Signature]*

Dr. L. S. S. V.  
Principal  
Sree Narayana Guru College of Engineering & Technology  
Kollam



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

**SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY**

Students Examination Eligibility Details

Academic Year : 2022 - 2023

Degree Type : Regular

Program :  
 B.Tech(Full Time)

Branch : CIVIL ENGINEERING

Semester : S8

Course Name : COMPREHENSIVE VIVA VOCE-  
 CET404

Batch : 1

Eligibility For : Pursuing Students

Period of Registration : NA

Student Name	Attendance %, Internal Marks/50	Availed Leaves	Disc. Action	Eligible for Written Exam	Status:	In- eligibility Type
AADITHYA KRISHNAN C Register No : SNC19CE001	Attendance : 87.0 Internal Marks : 44.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
ABHIRAMY RAJ Register No : SNC19CE002	Attendance : 90.0 Internal Marks : 45.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
AKASH P V Register No : SNC19CE003	Attendance : 87.0 Internal Marks : 42.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
ANANDHU ASHOK K P Register No : SNC19CE004	Attendance : 83.0 Internal Marks : 41.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	

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

ANANJANA C Register No : SNC19CE005	Attendance : 93.0 Internal Marks : 44.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
ANJALI M P Register No : SNC19CE006	Attendance : 87.0 Internal Marks : 44.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
ANJANA C Register No : SNC19CE007	Attendance : 87.0 Internal Marks : 46.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
ASHAYA RAMESH Register No : SNC19CE008	Attendance : 93.0 Internal Marks : 46.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
ASWITHA GANGADHARAN Register No : SNC19CE009	Attendance : 87.0 Internal Marks : 46.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
ATHIRA ARUN K Register No : SNC19CE010	Attendance : 87.0 Internal Marks : 44.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
AYSHATH SAIFA Register No : SNC19CE011	Attendance : 77.0 Internal Marks : 38.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
KRISHNA PRASAD S L Register No : SNC19CE012	Attendance : 83.0 Internal Marks : 43.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
MUHAMMED HANNAN Register No : SNC19CE013	Attendance : 77.0 Internal Marks : 38.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
MUHAMMED RUFAID M Register No : SNC19CE014	Attendance : 67.0 Internal Marks : 0.0/50	Long Leave : Yes Duty Leave :		Yes	Submitted by college	



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



NIKHIL SAI K Register No : SNC19CE015	Attendance : 90.0 Internal Marks : 42.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
PRANAV A K Register No : SNC19CE016	Attendance : 77.0 Internal Marks : 37.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
PRAYAG PRABHAKARAN Register No : SNC19CE017	Attendance : 77.0 Internal Marks : 40.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
SACHIN SURENDRAN M Register No : SNC19CE018	Attendance : 77.0 Internal Marks : 38.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
SHAMSHAD PV Register No : SNC19CE019	Attendance : 77.0 Internal Marks : 37.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
SILNA M Register No : SNC19CE020	Attendance : 83.0 Internal Marks : 43.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	
SREEHARI K K Register No : LSNC19CE021	Attendance : 87.0 Internal Marks : 46.0/50	Long Leave : Duty Leave :		Yes	Submitted by college	



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



## ANNEXURE 1

FORM P05/01

## PEER SUPPORT FOR LEARNING &amp; TEACHING THROUGH OBSERVATION

## PART 1: PRE-OBSERVATION MEETING

The faculty being observed should complete this form in preparation for a short meeting with their peer observation group / observer prior to the session to be observed.

## Peer Observation Group:

1. Name & Department Ms. Shanya Sukumaran, CE
2. Name & Department Ms. Revathi - P, CE

## Details of Teaching / Learning Session to be observed:

Observed: Revathi - PObserver: Shanya SukumaranDay/ Date / Time: 22/5/23, 10 AMGroup / Location: SE CE/classroomType of Session / Duration: Viva, 1hrNo of Students: 21Topic / Title of Session: ENVIRONMENTAL ENGINEERING

## What are the objectives for the session (both for you and for the students)?

objective type questions based on environmental engineering

Signature of policy approving authority

CHAIRMAN

Date of approval: 22/5/23

Shanya  
22/05/23

Maya  
[HOD, CE]

What would you like feedback on? (e.g. use of visual aids / the white board, your voice, interaction with the students, pace, use of examples, use of new techniques etc.)

- interaction with students.

Are there any factors which the observer needs to be aware of? (e.g. problems relating to the group or individual students, you are trying out something new etc.)

- NIL

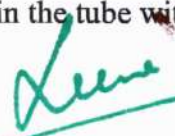
Signature of policy approving authority	CHAIRMAN	Date of approval: 22/5/23
---	----------	---------------------------

*[Signature]*  
22/5/23

*[Signature]*

## CCV → SAMPLE QUESTIONS

1. The mass per unit volume of a liquid at a standard temperature and pressure is called
2. The volume per unit mass of a liquid is called specific volume
- ✓ 3. The weight per unit volume of a liquid at a standard temperature and pressure is called 12
4. The specific weight of water in S.I. units is taken as
- ✓ 5. The ratio of specific weight of a liquid to the specific weight of pure water at a standard temperature is called 9
6. The specific gravity has no units
7. The specific gravity of water is taken as
- ✓ 8. The specific weight of sea water is 8
9. The density of a liquid in  $\text{kg} / \text{m}^3$  is numerically equal to its specific gravity.
10. The specific weight is also known as weight density.
- ✓ 11. The mass of  $2.5 \text{ m}^3$  of a certain liquid is 2 tonnes. Its mass density is 11
- ✓ 12. The specific gravity of an oil whose specific weight is  $7.85 \text{ kN} / \text{m}^3$ , is 11
- ✓ 13. The property of a liquid which offers resistance to the movement of one layer of liquid over another adjacent layer of liquid, is called 6
14. Kinematic viscosity is the product of dynamic viscosity and the density of the liquid.
- ✓ 15. The force per unit length is the unit of 11
- ✓ 16. The variation in the volume of a liquid with the variation of pressure is called its 11 13
17. The property of a liquid which enables into resist tensile stress is called its surface tension
18. When a tube of smaller diameter is dipped in water, the water rises in the tube due to viscosity of water.
19. When a tube of smaller diameter is dipped in water, the water rises in the tube with an upward

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



20. A glass tube of smaller diameter is used while performing an experiment for the capillary rise of water because  $\hookleftarrow$
21. The mercury does not wet the glass. This is due to the property of the liquid known as *adhesion*
22. With an increase in size of tube, the rise or depression of liquid in the tube due to surface tension will
23. In the manufacturing of lead shots, the property of surface tension is utilised.
24. The unit of surface tension is  $\text{N/m}$
25. The viscosity of a liquid is due to cohesion of its particles.  $\text{Pa}$
26. Falling drops of water become spheres due to the property of  $\gamma$
27. The intensity of pressure at any point, in a liquid, is
28. The pressure at a point 4m below the free surface of water is  $\text{N/m}^2$
29. The height of a water column equivalent to a pressure of 0.15MPa is
30. According to Pascal's law, the intensity of pressure at any point in a fluid at rest is the same in all directions
31. The pressure measured with the help of a pressure gauge is called  $\text{gauge}$
32. The atmospheric pressure at sea level is  $1.013 \times 10^5 \text{ N/m}^2$
33. The density of air is same at different heights.
34. When the pressure intensity at a point is more than the local atmospheric pressure, then the difference of these two pressures is called
35. When the pressure intensity at a point is less than the local atmospheric pressure, then the difference of these two pressures is called vacuum pressure.
36. The vacuum pressure is always the negative gauge pressure.
37. The absolute pressure is equal to  $\text{atm} + \text{gauge}$
38. The pressure less than atmospheric pressure is known as
39. The pressure of a liquid measured with the help of a piezometer tube is



40. The vacuum pressure can be measured with the help of a piezometer tube.
41. The pressure measured with the help of a piezometer tube is in
42. A piezometer tube is used only for measuring  $p$
43. The liquid used in manometers should have  $\gamma$
44. This resistance per unit area to deformation, is called
45. The unit of stress in S.I. units is
46. The deformation per unit length is called
47. When a body is subjected to two equal and opposite pulls, as a result of which the body tends to extend its length, the stress and strain induced is
48. When a body is subjected to two equal and opposite forces, acting tangentially across the resisting section, as a result of which the body tends to shear off across the section, the stress and strain induced is
49. Hook's law holds good up to
50. The ratio of linear stress to the linear strain is called
51. The unit of modulus of elasticity is same as those of
52. When a change in length takes place, the strain is known as
53. The modulus of elasticity for mild steel is approximately equal to
54. Young's modulus may be defined as the ratio of
55. Modulus of rigidity may be defined as the ratio of
56. Two bars of different materials and same size are subjected to the same tensile force. If the bars have unit elongation in the ratio of 2 : 5, then the ratio of modulus of elasticity of the two materials will be
57. Strain rosetters are used to
58. A bar of length  $L$  metres extends by 1 mm under a tensile force of  $P$ . The strain produced in the bar is

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

59. The maximum stress produced in a bar of tapering section is at

60. Modular ratio of the two materials is the ratio of



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



**SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY  
PAYYANUR**

**DEPARTMENT OF CIVIL ENGINEERING**

**STUDENTS LIST S8 CE**

SL.NO	REGISTER NUMBER	NAME OF STUDENT
1	SNC19CE001	AADITHYA KRISHNAN.C
2	SNC19CE002	ABHIRAMY RAJ
3	SNC19CE003	AKASH.P.V
4	SNC19CE004	ANANDHU ASHOK KP
5	SNC19CE005	ANANJANA.C
6	SNC19CE006	ANJALI M P
7	SNC19CE007	ANJANA.C
8	SNC19CE008	ASHAYA RAMESH
9	SNC19CE009	ASWITHA GANGADHARAN
10	SNC19CE010	ATHIRA ARUN K
11	SNC19CE011	AYSHATH SAIFA
12	SNC19CE012	KRISHNA PRASAD S L
13	SNC19CE013	MUHAMMED HANNAN
14	SNC19CE014	MUHAMMED RUFAID M
15	SNC19CE015	NIKHIL SAI.K
16	SNC19CE016	PRANAV A.K
17	SNC19CE017	PRAYAG PRABHAKARAN
18	SNC19CE018	SACHIN SURENDRAN.M
19	SNC19CE019	SHAMSHAD P.V
20	SNC19CE020	SILNA.M
21	LSNC19CE021	SREEHARI K K

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



CET404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT
		PCC	1	0	0	1

**Preamble:** The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

#### Guidelines

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

#### Mark Distribution

Total marks: 50, only CIE, minimum required to pass : 25 Marks

*Maeylg*  
4/2/23  
[HOD, CE]

2014

*Dr. Leena A. V.*  
PRINCIPAL  
SREE NARAYANA GURU COLLEGE OF  
ENGINEERING AND TECHNOLOGY, PAYANUR  
TAMIL NADU





# **SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY**

## **DEPARTMENT OF CIVIL ENGINEERING**

### **VISION OF THE DEPARTMENT**

- To pursue excellence in Civil Engineering and related technology towards sustainable development and to bring out professionals with futuristic vision

### **MISSION OF THE DEPARTMENT**

- To mould students into outstanding Civil Engineers by inculcating technological competency in planning, designing, analyzing and execution, through conducive environment for education and committed faculty.
- To contribute to nation building and development of society through innovation and design of sustainable infrastructure.
- To enhance employability, imbibe professional ethics, encourage entrepreneurship and equip for higher education.

*Maya*

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

CET404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT
		PEC	1	0	0	1

**Preamble:** The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

#### Guidelines

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

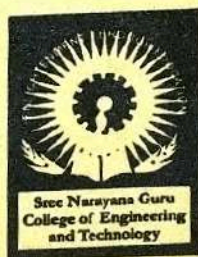
#### Mark Distribution

Total marks: 50; only CIE, minimum required to pass : 25 Marks



Dr. LEENA A. V.  
PRINCIPAL  
SREE NARAYANA JAGAD COLLEGE OF  
ENGINEERING, PAYYANUR

DEGREE / BRANCH..CIVIL.....ENGINEERING.....  
SEMESTER.....58.....SUBJECT CODE.CET 404.....  
SUBJECT ..COMPREHENSIVE.....COURSE ..VIVA.....  
CLASSES  
COMMENCING DATE ..30/1/23.....ENDING DATE..26/5/23.....  
ACADEMIC YEAR ..2022-2023.....



# **SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY**

**P.O. CHALAKKODE - PAYYANUR.**

Approved by AICTE, New Delhi, Affiliated to APJ Abdul Kalam Technological University, and Managed by Sree Bhakthi Samvardhini Yogam, Talap, Kottur

## **ATTENDANCE AND ASSESSMENT RECORD**



### Mission

To provide technical education of the highest quality and standard of excellence for socio-economic progress embedded in clearly articulated values and supported by commitments.

### Vision

A knowledge society promoting human excellence and enlightenment through effective education.

**SREE NARAYANA GURU COLLEGE OF  
ENGINEERING & TECHNOLOGY**



## **SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY**

P.O. CHALAKKODE - PAVANUR.

Approved by ANTE, New Delhi, Affiliated to APJ Abdul Kalam Technological University, and Managed by Sree Bhakti Samvardhani Yogan, Talas, Kannur

## **ATTENDANCE AND ASSESSMENT RECORD**

NAME OF STAFF Ms. REVATHI.P

DESIGNATION ASSISTANT PROFESSOR

DEPARTMENT CIVIL ENGINEERING







CLASS ROLL NO	NAME	MOI DAT HOU
---------------------	------	-------------------

[illegible][illegible]



Signature of Staff Member



**SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY  
PAYYANUR**

**DEPARTMENT OF CIVIL ENGINEERING**

**STUDENTS LIST S8 CE**

SLNO	REGISTER NUMBER	NAME OF STUDENT
1	SNC19CE001	AADITHYA KRISHNAN.C
2	SNC19CE002	ABHIRAMY RAJ
3	SNC19CE003	AKASH.P.V
4	SNC19CE004	ANANDHU ASHOK KP
5	SNC19CE005	ANANJANA.C
6	SNC19CE006	ANJALI M P
7	SNC19CE007	ANJANA.C
8	SNC19CE008	ASHAYA RAMESH
9	SNC19CE009	ASWITHA GANGADHARAN
10	SNC19CE010	ATHIRA ARUN K
11	SNC19CE011	AYSHATH SAIFA
12	SNC19CE012	KRISHNA PRASAD S L
13	SNC19CE013	MUHAMMED HANNAN
14	SNC19CE014	MUHAMMED RUFAID M
15	SNC19CE015	NIKHIL SALK
16	SNC19CE016	PRANAV A.K
17	SNC19CE017	PRAYAG PRABHAKARAN
18	SNC19CE018	SACHIN SURENDRAN.M
19	SNC19CE019	SHAMSHAD P.V
20	SNC19CE020	SILNA.M
21	LSNC19CE021	SREEHARI K K





SREE NARAYANA GURU COLLEGE OF ENGINEERING &  
TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

**CET404 COMPREHENSIVE VIVA VOCE CUMULATIVE  
ATTENDANCE**

SL NO.	REG NO	NAME	ATTENDANCE (%)	ATTENDANCE (Marks)
1	SNC19CE001	AADITHYA KRISHNAN.C	87	9
2	SNC19CE002	ABHIRAMY RAJ	90	10
3	SNC19CE003	AKASH.P.V	87	9
4	SNC19CE004	ANANDHU ASHOK KP	83	8
5	SNC19CE005	ANANJANA.C	93	10
6	SNC19CE006	ANJALI MP	87	9
7	SNC19CE007	ANJANA.C	87	9
8	SNC19CE008	ASHAYA RAMESH	93	10
9	SNC19CE009	ASWITHA GANGADHARAN	87	9
10	SNC19CE010	ATHIRA ARUN K	87	9
11	SNC19CE011	AYSHATH SAIFA	77	7
12	SNC19CE012	KRISHNA PRASAD S L	83	8
13	SNC19CE013	MUHAMMED HANNAN	77	7
13	SNC19CE014	MUHAMMED RUFAD M	67	5
15	SNC19CE015	NIKHIL SAIK	90	10
16	SNC19CE016	PRANAV.A.K	77	7
17	SNC19CE017	PRAYAG PRABHAKARAN	77	7
18	SNC19CE018	SACHIN SURENDRAN.M	77	7
19	SNC19CE019	SHAMSHAD.P.V	77	7
20	SNC19CE020	SILNA.M	83	8
21	LSNC19CE021	SREEHARI K K	87	9

*[Handwritten signature]*

*[Handwritten signature]*

Dr. LEEA A. V.  
PRI  
SREE NARAYANA GURU COLLEGE OF  
ENGINEERING  
37, PATTANUR



# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

## COURSE TEAM MEETING CHECKLIST

SEMESTER: VIII

DATE OF THE MEETING: 4/2/23

VENUE: CE Dept.

TIME: 10:AM

1. NAME OF THE FACULTY: REVATHI-P
2. DEPARTMENT: CIVIL ENGINEERING
3. SUBJECT CODE AND NAME: CET 404, COMPREHENSIVE COURSE VIVA
4. DETAILS REGARDING THE SUBJECT:

WHETHER HANDLING SUBJECT FOR THE FIRST TIME? IF NOT MENTION THE COUNT EXCLUDING THIS TIME	YES
TARGET PASS PERCENTAGE	100%
NATURE OF THE SUBJECT	EASY / MODERATE / TOUGH
CPS	COMPLETED / NOT COMPLETED
ATTENDANCE REGISTER	COMPLETED / NOT COMPLETED
ASSESSMENT PLAN	FILED / NOT FILED
ACADEMIC CALENDAR	FILED / NOT FILED
QP & SCHEME OF FIRST ASSIGNMENT	AVAILABLE / NOT AVAILABLE
QP & SCHEME OF SERIES TEST 1	AVAILABLE / NOT AVAILABLE
FEEDBACK OF THE TUTOR REGARDING THE CLASS	—
ACTION PLAN BY THE FACULTY TO ACHIEVE TARGET PASS PERCENTAGE	—
ANY OTHER REMARKS FROM THE FACULTY	—

*Revathi P*  
FACULTY

*L. P. 4/2/23*  
COURSE CHAIRMAN

*M. S. 4/2/23*  
V.



## INDEX FOR COMPREHENSIVE COURSE VIVA

SL.NO.	PARTICULARS
1	DEPARTMENT VISION AND MISSION
2	SYLLABUS
3	COURSE TEAM MEETING CHECKLIST
4	ATTENDANCE RECORD
5	STUDENT NAMELIST
6	PEER EVALUATION
7	EVALUATION SHEETS
8	CUMMULATIVE ATTENDANCE
9	KTU INTERNALS & ATTENDENCE

*Maya*

*Leena*

Dr. L. S. A. V.  
Principal  
Sree Narayana Guru College of  
Engineering & Technology,  
Kannur





## ANNEXURE 1

FORM P05/01

## PEER SUPPORT FOR LEARNING &amp; TEACHING THROUGH OBSERVATION

## PART 1: PRE-OBSERVATION MEETING

The faculty being observed should complete this form in preparation for a short meeting with their peer observation group / observer prior to the session to be observed.

## Peer Observation Group:

1. Name & Department *Ms. Sharmya Sukumaran, CE*

2. Name & Department *Ms. Revathi P., CE*

## Details of Teaching / Learning Session to be observed:

Observed: *Revathi P.*

Observer: *Sharmya Sukumaran*

Day / Date / Time: *22/5/23, 10 AM*

Group / Location: *SE CE / classroom*

Type of Session / Duration: *VIVA, 1hr*

No of Students: *21*

Topic / Title of Session: *ENVIRONMENTAL ENGINEERING*

What are the objectives for the session (both for you and for the students)?

*objective type questions based on environmental engineering*

Signature of policy approving authority

CHAIRMAN

Date of approval: *22/5/23*

*Sharmya*  
*22/5/23*

*Revathi*

What would you like feedback on? (e.g. use of visual aids / the white board, your voice, interaction with the students, pace, use of examples, use of new techniques etc.)

- interaction with students.

Are there any factors which the observer needs to be aware of? (e.g. problems relating to the group or individual students, you are trying out something new etc.)

- NIL

Signature of policy approving authority	CHAIRMAN	Date of approval: 22/5/23
---	----------	---------------------------

*[Signature]*  
22/5/23

*[Signature]*

*[Signature]*



## INDEX

Sl. No.	PARTICULARS
1	DEPARTMENT VISION AND MISSION
2	SYLLABUS
3	CPS
4	STUDENTS NAME LIST
5	ATTENDANCE RECORD
6	TUTORIAL / ASSIGNMENT QUESTION PAPER AND SCHEME
7	SERIES QUESTION PAPER AND SCHEME
8	COURSE TEAM MEETING FORM
9	CUMULATIVE ATTENDANCE
10	INTERNALS STATEMENT
11	KTU INTERNALS STATEMENT
12	UNIVERSITY QUESTION PAPER AND VALUATION SCHEME
13	TUTORIAL/ASSIGNMENTS SAMPLES
14	SERIES TEST SAMPLES
15	REMEDIAL SAMPLES
16	CONTENT BEYOND SYLLABUS – PLAN, EXECUTION AND ASSESSMENT
17	GAPS IN THE SYLLABUS- PLAN, EXECUTION AND ASSESSMENT
18	COURSE MATERIALS
19	CO-PO ATTAINMENT



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

**SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY**

Students Examination Eligibility Details

**Academic Year : 2022 - 2023**

**Degree Type : Regular**

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

**Branch : ELECTRONICS AND COMMUNICATION  
ENGINEERING**

**Semester : S8**

**Course Name : COMPREHENSIVE VIVA VOCE-  
ECT404**

**Batch : 1**

**Eligibility For : Pursuing Students**

**Period of Registration : NA**

Student Name	Attendance %, Internal Marks/50	Availed Leaves	Disc. Action	Eligible for Written Exam	Status:	In- eligibility Type
ARJUN ASHOK K Register No : SNC19EC001	Attendance : 100.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by college	
JITHIN SASIDHARAN N V Register No : SNC19EC002	Attendance : 100.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by college	
KEERTHANA C V Register No : SNC19EC003	Attendance : 100.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by college	
MARIYAMBI Register No : SNC19EC004	Attendance : 100.0 Internal Marks :	Long Leave : Duty Leave :		Yes	Submitted by college	

## ECT 404 COMPREHENSIVE COURSE VIVA

1. How can you differentiate signal and wave?

Signal is ~~a~~ an impulse which consist of information.

wave is a ~~repetative~~ signal

2. What is the difference between deterministic and random signals?

deterministic - If there is certainty with respect to its value at any instant of time.

Random :- If there is uncertainty with respect to its value at any instant of time.

3. What are even and odd signals?

Even signal - symmetric around vertical axis eg:- cosine wave.

odd signal - ~~antisymmetric~~ around the vertical axis eg:- sine wave.

4. What is the difference between power signal and energy signal in terms of energy and power?

Power signal - A signal whose amplitude is constant over a infinite duration.

Energy signal - A signal is said to be an energy signal if its total energy is finite.

5. What is the significance of unit ramp function?

It is a standard signal at  $t=0$  and increases linearly with time.



6. What are the applications of initial and final value theorems?

initial value theorem — connects frequency domain statements to time behaviour as approaches to zero.

Final value theorem — It is used to find the final value of a function.

7. What is the significance of region of convergence (ROC) of Z transform?

ROC can be used to determine, causality and stability of the system.

8. What is the relationship between z-transform and DTFT?

when  $r=1$ , DTFT = Z transform.

9. What is the difference between DTFT and DFT?

DTFT : discrete time fourier transform.

DFT — Discrete fourier transform.

10. Define invertible system?

A system is called invertible if it produces distinct o/p signals for distinct input signals.



11. What is the difference between convolution and correlation?

convolution:- combining 2 signals to form another signal.

correlation:- It is a form of correlation but with functional inverse.

12. What are the applications of convolution?

- probability
- Statistics
- signal & image processing.

13. What is autocorrelation?

Correlation of a signal with delayed copy of itself.

14. What is the importance of unit impulse function?

The response of a system to any arbitrary i/p can be calculated from the system impulse response using a convolution integral.

15. What are mutually orthogonal functions?

~~The~~ Two vectors are said to be orthogonal if the dot product is zero.

Mutually orthogonal means every pair of vectors are orthogonal.

16. What are the advantages of digital filter over analog filters?

digital filters do not drift from temperature or humidity or require precision components.

17. Define FIR system.

Finite ~~complex~~ impulse response.

18. Define IIR system.

Infinite impulse response.

19. Give one example of FIR and IIR filters?

FIR -

IIR - Butterworth filter

20. Define overlap add and save method

## ECT 404 COMPREHENSIVE COURSE VIVA

### 1. What is Modulation? What happens in over modulation?

It is a process of varying one or more properties of a periodic waveform called the signal with a separate signal, called the modulating signal, that typically contains information to be transmitted. The process is done by the modulated carrier and distributes the received modulating.

### 2. What do you mean by FM and classify FM?

Angle modulation is which the frequency of sinusoidal carrier wave deviates from a center frequency by an amount proportional to the instantaneous value of the message signal. It is classified into two types: Frequency Modulation (FM) and Phase Modulation (PM). In FM, the carrier frequency is about the same as the signal frequency as an analog. If the change in the carrier frequency is much higher than the signal frequency.

### 3. State the advantages of superheterodyning?

- \* Super sensitivity
- \* Frequency Stability
- \* Selectivity.

### 4. What is Amplitude Modulation?

Amplitude Modulation is a technique used in electronic communications, most commonly for transmitting message with a radio wave. The wave is varied in proportion to that of the message signal, such as an audio signal.

### 5. What is an Analog Signal?

Is a continuous signal representing some other quantity.

A voltage, current or physical quantity that continuously and infinitely varies in accordance with some time-varying parameters.



6. What is aperiodic Signal and periodic Signal?

A signal that does not repeat itself after specific interval of time.

one that repeats the sequence of values exactly after a fixed length of time.

7. Enlist some advantages of Modulation?

- \* Antenna size gets reduced.
- \* no signal mixing occurs.
- \* communication range increases.
- \* multiplexing of signals occur.

8. What are different types of Modulation?

Analog modulation

Digital modulation.

pulse modulation.

spread spectrum method.

9. Explain Square Law Modulator?

one that produces an output voltage or current that is proportional to the square of its input voltage or current.



10. What is a precision rectifier?

Configuration obtained with an operational amplifier in order to have a circuit behave like an ideal diode or rectifier.

11. What is a multivibrator?

An electronic circuit that generates square, rectangular, pulse, waveform, also called multivibrator, oscillator or function generator. Is basically a 2 amplifier circuit connected with regenerative feedback.

12. What is a Schmitt trigger?

Is a comparator circuit with hysteresis implemented by applying +ve feedback to the non-inverting input of a comparator or differential amplifier. Active circuit which convert an analog signal to digital o/p signal.

**13. What are active filters?**

Is a type of analog circuit implementing an electronic filter using active components. Typically an amplifier

**14. what is sampling?**

Selecting the reduction of a continuous time signal to discrete time signal.

**15. What is Sampling? Explain Sampling Theorem?**

The reduction of a continuous time signal to discrete time signal.

A signal has to be sampled at least with twice the frequency of the original signal.

## ECT 404 COMPREHENSIVE COURSE VIVA

1. How can you differentiate signal and wave?

A wave is a solution of a differential wave equation. Basically sinusoidal solutions.

A signal is a network used to convey any wave all used to transfer signals.

2. What is the difference between deterministic and random signals?

Signals which can be defined exactly by mathematical formula are known as deterministic signals. There is consistency with respect to its value at any instant of time. As deterministic signals are random in nature hence they are called random signals.

3. What are even and odd signals?

Related to its time-reversed counterparts.  $x(t) = x(-t)$   
A signal is odd if  $x(t) = -x(-t)$

4. What is the difference between power signal and energy signal in terms of energy and power?

Power signal.

- \* Finite power
- \* Infinite energy
- \* Periodic signal are power signal.

Energy signal

- \* Finite energy
- \* Zero power
- \* Non periodic signals are energy signals.

5. What is the significance of unit ramp function?

Usual real function whose graph called ramp. is defined as a single-valued function of one or more independent variables which contains some information.



6. What are the applications of initial and final value theorems?

main applications is electronic device or circuit.  
used to find the steady or transient state  
of a system.

7. What is the significance of region of convergence (ROC) of Z transform?

orig. disc in the  $z$ -plane / surface of the  
origin.

8. What is the relationship between  $z$ -transform and DTFT?

DTFT if  $\omega=1$ , this discrete time base transform  
is same as  $z$  transform.

9. What is the difference between DTFT and DFT?

partial version of the DTFT.

10. Define invertible system?

It produces distinct output signals also for  
distinct input signals.

11. What is the difference between convolution and correlation?

convolution is the calculation of the area under the product of 2 signals. in LTI system.

correlation is a measurement of similarity b/w two signals.

12. What are the applications of convolution?

probability, statistics, signal processing

13. What is autocorrelation?

Serial correlation is the discrete time case. measures the relationship of the observations between the different points in time.

14. What is the importance of unit impulse function?

The response of a system to any arbitrary input can be calculated from the system impulse response using convolution integral.

15. What are mutually orthogonal functions?

Two vectors are mutually independent if their dot product is zero.

16. What are the advantages of digital filter over analog filters?

only arithmetic operations add, subtract and multipliers. digital filters do not drift with temperature or humidity or require precision components.

17. Define FIR system.

a nonrecursive filter is that the output from the current & previous inputs.

18. Define IIR system.

many linear time-invariant systems that are distinguished by having an impulse response.

19. Give one example of FIR and IIR filters?

digital filters.

20. Define overlap add and save method

overlap-save procedure cuts the signal up into equal length segments with some overlap.   
 overlap-add breaks a long sequence, into signals of shorter lengths and calculate the convolution of each block separately.



ECT404	COMPREHENSIVE COURSE VIVA	CATEGORY	L	T	P	CREDIT
		PCC	1	0	0	1

**Preamble:** The objective of this Course viva is to ensure the basic knowledge of each student in the most fundamental core courses in the curriculum. The viva voce shall be conducted based on the core subjects studied from third to eighth semester. This course helps the learner to become competent in placement tests and other competitive examinations.

#### **Guidelines**

1. The course should be mapped with a faculty and classes shall be arranged for practicing questions based on the core courses listed in the curriculum.
2. The viva voce will be conducted by the same three member committee assigned for final project phase II evaluation. It comprises of Project coordinator, expert from Industry/research Institute and a senior faculty from a sister department.
3. The pass minimum for this course is 25.
4. The mark will be treated as internal and should be uploaded along with internal marks of other courses.
5. Comprehensive Viva should be conducted along with final project evaluation by the three member committee.

#### **Mark Distribution**

Total marks: 50, only CIE, minimum required to pass : 25 Marks



# **SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

## **VISION**

- To be a center of excellence in Electronics and Communication Engineering and to create engineers who can address global challenges.

## **MISSION**

- To provide students with high quality technical education, and to develop their professional and entrepreneurial skills in Electronics and Communication Engineering.
- To enable students for developing different skills, leading to benchmarking and innovations.
- To inculcate in students a high degree of social consciousness and sense of human values.

*Handwritten signature*  
HOD ECE

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



**Subject :**

[illegible]

4	4	4	4	5	5
15	15	7	7	3	3
1	2	1	2	1	2
x	x	x	x	x	y
x	x	x	x	x	x
x	x	x	x	x	x
x	x	x	x	x	x
x	x	x	x	x	x



### AWARDING OF MARKS

Signature of Staff Member

Module Co-ordinator

HOD



**SREE NARAYANA GURU COLLEGE OF ENGINEERING AND TECHNOLOGY, PAYYANUR**

**Promoted by Sree Bhakthi Samvardhini Yogam**

**(Affiliated to KTU, Recognised by AICTE)**

**Cumulative attendance of 2019-2023 EC S8**

**SUBJECT : ECT404:COMPREHENSIVE COURSE VIVA**

**TOTAL HOURS:16**

REGISTER NO.	STUDENT NAME	HOUR PRESENT	HOUR ABSENT	PERCENTAGE
SNC19EC001	ARJUN ASHOK K	16	0	100
SNC19EC002	JITHIN SASIDHARAN N V	16	0	100
SNC19EC003	KEERTHANA C V	16	0	100
SNC19EC004	MARIYAMBI	16	0	100
SNC19EC005	SANISHMA SACHITHANAND	16	0	100

  
**COURSE INSTRUCTOR**

  
**HOD**

26/5/23



## SREE NARAYANA GURU COLLEGE OF ENGINEERING AND TECHNOLOGY, PAYYANUR

### COURSE TEAM MEETING CHECKLIST

SEMESTER: B

DATE OF THE MEETING: 3/2/23

VENUE: Meeting Hall

TIME: 2.00 pm

1. NAME OF THE FACULTY: Meera.
2. DEPARTMENT: ECE
3. SUBJECT CODE AND NAME: ECT404 Comprehensive Course Viva.
4. DETAILS REGARDING THE SUBJECT:

WHETHER HANDLING SUBJECT FOR THE FIRST TIME? IF NOT MENTION THE COUNT EXCLUDING THIS TIME	<u>Yes</u>
TARGET PASS PERCENTAGE	<u>100%</u>
NATURE OF THE SUBJECT	<u>EASY / MODERATE / TOUGH</u>
CPS	<u>COMPLETED / NOT COMPLETED (NA)</u>
ATTENDANCE REGISTER	<u>COMPLETED / NOT COMPLETED</u>
ASSESSMENT PLAN	<u>FILED / NOT FILED</u>
ACADEMIC CALENDAR	<u>FILED / NOT FILED</u>
QP & SCHEME OF FIRST ASSIGNMENT	<u>AVAILABLE / NOT AVAILABLE</u>
QP & SCHEME OF SERIES TEST 1	<u>AVAILABLE / NOT AVAILABLE</u>
FEEDBACK OF THE TUTOR REGARDING THE CLASS	<u>Good</u>
ACTION PLAN BY THE FACULTY TO ACHIEVE TARGET PASS PERCENTAGE	<u>conducting more Viva</u>
ANY OTHER REMARKS FROM THE FACULTY	<u>-</u>

FACULTY

3/2/23  
COURSE CHAIRMAN

3/2/23  
HOD





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

**SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY**

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	

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

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	



Dr. LEENA A. V.  
PRINCIPAL

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	



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





# SREE NARAYANA GURU COLLEGE OF ENGINEERING & TECHNOLOGY

## PEER EVALUATION FORM

### FORM 1

**[TO BE FILLED BY THE OBSERVER AND THE OBSERVEE AFTER DISCUSSION]**

#### PEER SUPPORT FOR LEARNING & TEACHING THROUGH OBSERVATION

##### **PART 1: PRE-OBSERVATION MEETING**

The faculty being observed should complete this form in preparation for a short meeting with their peer observation group / observer prior to the session to be observed.

##### **Peer Observation Group:**

1. Name & Department ..... Revathi - P, CE .....

2. Name & Department ..... Dr. Susan Abraham, CE .....

##### **Details of Teaching / Learning Session to be observed:**

Observed: Revathi - P .....

Observer: Dr. Susan Abraham .....

Day / Date / Time: 5/6/23, 3: PM .....

Group / Location: 56 CE classroom .....

Type of Session / Duration: Mcq session / 1hr .....

No of Students: 20 .....

Topic / Title of Session: Mcq session on Geotechnical engineering .....

**What are the objectives for the session (both for you and for the students)?**

Mcq session conducted on geotechnical engineering

Susan  
5/6/23

OBSERVER

Maya  
5/6/23  
HOD, CE

What would you like feedback on? (e.g. use of visual aids / the white board, your voice, interaction with the students, pace, use of examples, use of new techniques etc.)

- use of Visual Aids.
- voice
- interaction with students.

Are there any factors which the observer needs to be aware of? (e.g. problems relating to the group or individual students, you are trying out something new etc.)

NIL

Srinivasan  
5/6/23

OBSERVER

May 19  
5/6/23 [HOD, ce]

DR. LEEPA A. V.  
PROFESSOR  
SCHOOL OF DISTANCE EDUCATION  
ENGINEERING & TECHNOLOGY, KANNUR  
KANNUR

Name: Aparna.....

Roll No:- 07.....



**SREE NARAYANA GURU COLLEGE OF ENGINEERING**  
**& TECHNOLOGY**

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

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

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



(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/m<sup>3</sup>

- (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/m<sup>3</sup>

Ordinary Portland cement: 360 kg/m<sup>3</sup>

Sand : 601 kg/m<sup>3</sup> Coarse aggregate: 1160 kg/m<sup>3</sup>

  
DR. LEENA A. V.  
PRINCIPAL  
SREE NARAYANA GURU COLLEGE OF  
ENGINEERING & TECHNOLOGY, PATTANUR  
KANNUR

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/m<sup>3</sup> is \_\_\_\_\_

- (A) 53 liters/m<sup>3</sup>
- (B) 50 liters/m<sup>3</sup>
- (C) 45 liters/m<sup>3</sup>
- ☒ (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

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



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

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

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

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



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

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

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

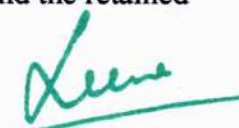
C. spring stiffness

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

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

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

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



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

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

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

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

