

Weak Student Assignment

Course: B. Tech.	:	Sub: Basic Civil Engineering	:	Code:1FY3-27
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CO1	Comparing various surveying methods and understanding its principles along with the latest technological advancements in surveying.
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- The length of a line measured with a 20 m chain was found to be 250 m. Calculate the true length of the line if the chain was 10 cm too long.
- If L is true length of chain and L' is incorrect length of the chain the correction to area A is _____ (Where $\Delta L/L = e$, e is small and A' is measured area)
- Define ranging
- Define role of Environment Engineer
- Write two characteristics of contour
- Explain the scope of Civil Engineering
- Convert the following whole circle bearing of lines into a reduced bearing system.
 - 35°
 - 115°
 - 210°
 - 315°
- Explain the height of the instrument and magnetic declination
- Define role of Structural Engineer and GeoTechnical Engineer
- Discuss scope of civil engineering.
- Write difference between site engineer and design engineer?
- What is surveying? Explain its principle and objective.
- The following readings were observed with a 4 m leveling staff & a dumpy level. Calculate the reduced level by HI method .Also apply arithmetical check. The readings given in table as:

Station	B.S.	I.S.	F.S	H.I	R.L	Remarks
A	3.25				210.00	B.M.
B		3.15				
C		3.25				
D		2.95				

E			2.85			
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14. A tape may be too long or an angle measuring instrument may be out of adjustment. Then such type of error comes under which source of error?
15. Explain Types of tape used in linear measurements with their specifications
16. What do you understand by local attraction and how it will affect fore bearing and back bearing?
17. What do you understand by linear measurement?
18. Explain relation between WCB and QB System.
19. Write down the difference between prismatic compass and surveyors compass.
20. Explain types of chain used in linear measurements with their specifications
21. Write the two objectives of civil engineering.
22. Enlist the chains used in chain survey with their specifications
23. What are the advantages of surveying?
24. What do you understand by local attraction and how it will affect fore bearing and back bearing?
25. Explain Tape correction and its type in detail.
26. Write down the difference between prismatic compass and surveyors compass.
27. Explain leveling and methods of leveling in details
28. Find out reduced level of different points
29. Write least count of prismatic compass and surveyor's compass.
30. Explain Whole Circle Bearing and how it is measured.
31. Explain Reduce bearing. How is it measured and another name of reduced bearing?
32. Explain relation between WCB and QB System.
33. What do you understand by local attraction and how it will affect fore bearing and back bearing?
34. Define benchmark, fore sight, back sight and height of instrument.
35. Write a formula for sag correction with each and every symbol meaning and dimensions.
36. What do you understand Scale?
37. Draw Flow diagram of types of Scales?
38. Draw flow diagram of types of Surveying.
39. What do you understand by reduced level?
40. What do you understand by leveling?

CO2	Understand building construction technology and identify construction materials along with sustainable construction technology with focus on Green buildings.
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- For brick construction, the lime-sand mortar, is
 - 1 : 1
 - 1 : 2
 - 1 : 3
 - 1 : 4
- The rocks which are formed due to cooling of magma at a considerable depth from earth's surface are called
 - Plutonic rocks
 - Hypabyssal rocks
 - Volcanic rocks
 - Igneous rocks
- In a mortar, the binding material is
 - Cement
 - Sand
 - Surkhi
 - cinder.
- Inner part of a timber log surrounding the pith, is called
 - Sapwood
 - cambium layer
 - heart wood
 - none to these
- Plastic asphalt is
 - used as a waterproofing layer over roof
 - a mixture of cement and asphalt
 - a natural asphalt
 - a refinery product
- The C.I. as building material possesses
 - More than 2% carbon
 - More than 6.67% carbon
 - 2 to 4.5% carbon
 - Less than 2% carbon

7. How many types of foundations are there based on depth?
 - a) 2
 - b) 3
 - c) 4
 - d) 5
8. Which footing is used in load bearing masonry construction?
 - a) Pile
 - b) Strip
 - c) Strap
 - d) Isolated
9. Pier foundation is also called?
 - a) Girder
 - b) Bridge
 - c) Box
 - d) Caisson
10. CPRF stands for?
 - a) Corrosion Proof Raft Foundation
 - b) Combined Pile Raft Foundation
 - c) Connected Pile Round Foundation
 - d) Combined Plain Round Foundation
11. Steining is a component of which of the below type of foundation?
 - a) Well
 - b) Isolated
 - c) Strap
 - d) Pile
12. Machine foundation is subjected to?
 - a) Dynamic loads
 - b) Static and dynamic loads
 - c) Wind loads
 - d) Static loads
13. Write the component of a building. (RTU 2018)
14. What should be the planning for proper sunlight and ventilation in a building? (RTU 2018)
15. Define Floor Space Index.
16. Define layout of building.
17. Write basic requirements for selection of a site.

18. Write 2 basic requirements for selection of sites.
19. Write a short note on building by-laws. (RTU 2018)
20. Write types of building.
21. Define Setback Area.
22. Define plinth area.
23. Define carpet area.
24. Write 2 types of foundation of shallow foundation.
25. Full form of RCC.
26. Explain the basic concept of RCC. (RTU 2018)
27. What is the main function of alumina in bricks? (RTU 2018)
28. What is the initial setting time for ordinary portland cement as per IS specification? (RTU 2018)
29. Define the term constructional material.
30. Write different construction materials.
31. Write 3 uses of bricks.
32. Explain any four of the buildings.
33. Write the properties of cement.
34. Explain term mortar.
35. What are the various uses of mortar? (RTU 2018)
36. Mention uses of cement. (RTU 2018)
37. What are the qualities of good bricks? (RTU 2018)
38. Write the properties and uses of concrete? (RTU 2018)
39. Define foundation.
40. Write types of foundation.

CO3

Understand about traffic, road safety and various types of roads and railway systems along with road and vehicular characteristics required at obtaining a consistent and efficient traffic system

1. One of the disadvantages of traffic signals is
 - (A) Provide orderly moment at intersection
 - (B) The quality of the traffic flow improves
 - (C) Traffic handling capacity increases
 - (D) The rear end collision increases

2. The traffic signals that are installed for pedestrians are called _____
 - (A) Traffic control signals
 - (B) Pedestrian signals
 - (C) Special traffic signals
 - (D) Automatic signals
3. To reduce the conflict points which method is preferable?
 - (A) Restricting the entry in one side
 - (B) Widening of the roads
 - (C) Use of traffic signals
 - (D) Diverting the traffic
4. Give the name of a regulatory sign?
 - (A) Speed limit
 - (B) Stop
 - (C) Give way
 - (D) All of the above
5. Traffic symbols are classified into how many categories?
 - (A) One
 - (B) Two
 - (C) Three
 - (D) Four
6. Which of the following is a disadvantage in one way traffic?
 - (A) Increase in average travel speed
 - (B) More effective coordination of signal system
 - (C) More streamlined movement of vehicles
 - (D) More chances of overtaking
7. The specifications for road signs are specified by
 - (A) IRC 6
 - (B) IRC 21
 - (C) IRC 67
 - (D) IRC 97
8. Give way sign is of _____
 - (A) Triangular shape
 - (B) Circular shape
 - (C) Octagonal shape
 - (D) Hexagonal shape

9. STOP sign is having _____
 - (A) Octagonal shape
 - (B) Circular shape
 - (C) Triangular shape
 - (D) Any shape
10. The clearance time is indicated by _____
 - (A) Red
 - (B) Amber
 - (C) Green
 - (D) White
11. A road sign indicating "speed limit"?
 - (A) Warning sign
 - (B) Prohibitory sign
 - (C) Mandatory sign
 - (D) Informatory sign
12. Write a short note on Road safety measure
13. Write a short note on Causes of accidents
14. Write various road traffic signs.
15. What are the various safety measures you will take during accidents, in civil construction
16. Give the classification of roadways
17. What do you mean by regulatory signs .
18. What are the different modes of transportation? Explain in brief?
19. What do you mean by regulatory signs .Name any four regulatory signs used in signals?
20. Describe the characteristics of rail transport
21. What are the benefits of transportation by road.
22. What is the function of transportation?
23. Give any two regulatory signs
24. Write down the names of traffic signs with two examples each.
25. What are the benefits of transportation by airways?
26. Describe road markings?
27. Describe vehicular characteristics
28. Difference between road and railway transportation
29. What do you mean by road safety assessment
30. Define safety audit.
31. What are mandatory sign
32. Write a short note on road safety measures

33. Explain Waterways .Write its characteristics
34. Define airways Write its characteristics
35. What is the purpose of traffic engineering?
36. Write two advantages and disadvantages of rail transport
37. What is the use of traffic lights?
38. Explain the height of the instrument and magnetic declination
39. Define Environmental Acts and Regulations.
40. Name any four regulatory signs used in signals?

CO4	Recognize various types of pollution and associated risks and identify their control measures; also understand municipal waste treatment methods and outline emerging and efficient technologies of solid waste management.
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1. Explain the Hydrological cycle with a neat sketch.
2. Describe reuse and saving of water.
3. Explain rainwater harvesting with neat sketches.
4. What are the types of pollution?
5. Define Biodiversity
6. Define Global Warming
7. Define GreenHouse Effect.
8. What do you mean by the basics of spices?
9. What do you mean by collection of waste water?
10. Write down the types of Solid waste.
11. Discuss the effects of soil pollution.
12. What is the control of air pollution?
13. Discuss the control of soil pollution
14. Define sources of groundwater contamination.
15. Describe effect of groundwater contamination.
16. Explain composition of solid waste.
17. Explain harmful effects of air pollution on human health.
18. Explain harmful effects of air pollution on animals.
19. Explain harmful effects of air pollution on plants.
20. Explain harmful effects of air pollution on material and climate.
21. Define Environmental Acts and Regulations.
22. Define the concept of ecology.
23. Write types of ecosystem.

24. Define ecosystem.
25. Write components of the ecosystem.
26. Write types of biodiversity.
27. What is the control of water pollution
28. What is the classification of air pollutants?
29. Define ozone depletion
30. Define acid rain
31. Define Effect and cause of global warming.
32. What is the control of noise pollution?
33. Define solid waste management
34. Write classification of solid waste.
35. Describe collection and transportation of solid waste
36. Describe treatment and disposal of solid waste
37. Write types of sanitation.
38. Describe treatment of wastewater
39. What are the sources of air pollution?
40. Describe benefits, threats biodiversity.