

ARYA COLLEGE OF ENGINEERNG
GUESS PAPERS
(B.Tech II Semester 2025-26)
2FY3-09 BASIC CIVIL ENGG.

Unit 1:
Short Answers:(2 Marks Each)

Q. 1 What is “Surveying”.	2023
Q. 2 Define longitude and latitude of a line.	2023
Q. 3 Differentiate between Plans and Maps.	2022
Q. 4 Differentiate between Fore sight, Back sight and Intermediate sight .	2023
Q. 5 Explain WCB and QB system with neat sketch.	
Q. 6 Differentiate between Fore bearing and Back bearing.	
Q. 7 Explain the terminology used in leveling.	2022, 2018
Q. 8 What is ranging of surveying line.	
Q. 9 What do you understand by Infrastructure development.	
Q.10 Enlist different types of chain & tapes.	
Q.11 Write the name of two instrument used in linear measurements.	2023

Descriptive Answers: (5 to 20 Marks)

Q. 1 What are the fundamental Principles of Surveying? Explain briefly.	2023
Q. 2 Explain tape corrections in detail with formula.	2022, 2021
Q. 3What is the role of Civil Engineers in Society? How can you correlate the infrastructural development with the economy of that country?	2022,2019
Q. 4 The Following staff reading were observed successively with a level, the instrument having been moved after third, sixth and eighth reading : 2.228 ; 1.606 ; 0.988 ; 2.090 ; 2.864 ; 1.262 ; 0.602 ; 1.982 ; 1.044 ; 2.684 meters. Calculate the R.L. of points with the H.O.I method if the first reading was taken at a bench mark of 432.384 m.	2018
Q. 5What is the method of ranging out survey lines? with suitable figure	2018 , 2021
Q. 6 Explain the different branches of civil engineering in brief.	2019
Q. 7 A 20 meter long tape was used to measure a base line. Find the total correction per tape length. Tape is standardized at a temp of 25°C and pull of 12Kg. The pull applied at field was 18Kg and temp at the time of measurement was 18°C. Weight of the tape is 0.94kg , unit weight of tape material is 7.86 gm/cm ³ and coefficient of thermal expansion is 7×10^{-6} per °C. The modulus of elasticity of tape material is 2.06×10^6 kg/cm ² .	
Q.8 Convert the following bearing into another system :	
1) 115° 3) S 15° W	
2) 325° 4) N 55° W	

ARYA COLLEGE OF ENGINEERNG
GUESS PAPERS
(B.Tech II Semester 2025-26)
2FY3-09 BASIC CIVIL ENGG.

Q.9 The following bearings were observed with the help of a prismatic compass. Calculate the all interior angles of traverse ABCDEA.

Line	AB	BC	CD	DE	EA
Fore Bearing	105°15'	20°00'	316°30'	187°15'	122°45'

Q.10 Enlist different types of chain & tapes.

Q.11 Write short note on 'Total Station'.

Q.12 Elaborate the chaining method on sloping ground.

Q.13 A 20 m chain was used to measure a survey line and length was found to be 327 m . The chain was found afterwards 3cm too long. What was the true distance or corrected length of survey line.

Unit 2:
Short Answers:(2 Marks Each)

Q. 1 What are the types of building given by NBC?	2018
Q. 2 Discuss the difference between carpet area and plinth area?	2021,
2023	
Q. 3 What is site plan? Which is the information to be included in site plan?	2018, 2022
Q. 4 Explain the role of lintel and sill in superstructure.	2018, 2022
Q. 5 Define floor area index.	2019, 2018
Q. 6 Write down the different parts of superstructure.	2018, 2022

Descriptive Answers: (5 to 20 Marks)

Q. 1 Explain the concept of sunlight and ventilation.	2018
Q. 2 Explain the different building bye laws.	2018, 2023
Q. 3 Explain the concept of R.C.C.	2018, 2018, 2019
Q. 4 Explain types of shallow and deep foundation with neat sketch.	
Q. 5 Explain the different Factors one need to consider while selecting a site for building?	2019
Q. 6 Explain the different components of building.	2018, 2022
Q. 7 Explain 'how Orientation affects the ventilation of a building'.	2023

**ARYA COLLEGE OF ENGINEERNG
GUESS PAPERS
(B.Tech II Semester 2025-26)
2FY3-09 BASIC CIVIL ENGG.**

**Unit 3:
Short Answers:(2 Marks Each)**

Q. 1. Explain the causes of accidents.	
Q. 2 Write short note on 'Transportation Engineering'.	
Q. 3. Why road traffic signs are used?	2018, 2019
Q. 4 Give some measures to decrease the accidental rates.	2018, 2018, 2022
Q. 5 Draw some mandatory signs.	2018, 2019

Descriptive Answers: (5 to 20 Marks)

Q. 1 Explain types and characteristics of various modes of transportation	2018, 2022 ,2019, 2021
Q. 2 Explain road safety measures.	2018, 2018, 2022
Q. 3 Write a short note on road traffic signs. (Draw diagrams)	2018, 2019
Q. 4 Explain the remedial measures to prevent the accidents.	2018, 2018, 2022
Q. 5 Explain the different types of traffic sign.	2018, 2019

**Unit 4:
Short Answers:(2 Marks Each)**

Q. 1 Draw Hydrological cycle , carbon cycle and nitrogen cycle.	2019, 2021
Q. 2 Define "Biodiversity".	
Q. 3 What do you mean by "Ecosystem" ?	
Q. 4 Explain the any three characteristics of drinking water.	2019, 2021
Q. 5 Draw pyramid of energy flow.	2019
Q. 6 What is flow of energy flow in ecosystem.	2019, 2023

Descriptive Answers: (5 to 20 Marks)

Q. 1 Explain the environmental act and regulations.	2021
Q. 2 Enlist any four important chemical characteristics of raw water. Mention the method of analysis and its acceptance value as per water Quality standards of any two of them.	2023
Q. 3 Explain the different components of environment in brief.	
Q. 4 What are the effects of oxygen demand on water? Explain in detail.	
Q. 5 Explain the waste water treatment process in brief.	2021

**ARYA COLLEGE OF ENGINEERNG
GUESS PAPERS
(B.Tech II Semester 2025-26)
2FY3-09 BASIC CIVIL ENGG.**

Q. 6 Explain reuse and saving concept of water.	2018
Q. 7 Explain the any two method of Rainwater Harvesting.	2018, 2022

**Unit 5:
Short Answers:(2 Marks Each)**

Q.1 Write a short note on followings :

- (a) Landfill site selection
- (b) Incineration
- (c) Generation of energy from solid waste
- (d) Bio remediation
- (e) Onsite Handling
- (f) Garbage and Rubbish

Descriptive Answers: (5 to 20 Marks)

- Q. 1 Describe the various types of classifications of solid waste. 2021
- Q. 2 Explain Global warming and green house effect. 2021
- Q. 3 Describe various collection systems. What are the advantages and disadvantages of door-to-door collection system? 2021
- Q. 4 Explain causes and effects of air pollution.
- Q. 5 Explain the ozone layer depletion. 2022
- Q. 6 Explain the disposal method of solid waste. 2021
- Q. 7 Explain the methods of noise pollution in detail. 2023
- Q. 8 Elaborate causes of thermal and radioactive pollution.