

V-1821

B. E. (Eighth Semester) Examination, 2020

(For ATKT Students)

(Civil Engg. Branch)

(CE : 801)

Paper : First

GEO TECHNICAL ENGG.-II

Maximum Marks : 70

Note : Attempt all parts. Each part carries equal marks.

1. (a) State the different types of shallow and deep foundations. Explain one of them.
(b) A footing 2 m^2 is laid at a depth of 1.3 m below the ground surface. Determine the net ultimate bearing capacity using IS code method Take $\gamma = 20 \text{ kN/m}^3$, $\theta' = 30^\circ$ and $C' = 0$.
2. (a) Explain theories of Bearing capacity of Terzaghi and Skempton.
(b) How do you estimate the group capacity of piles in sand and clay?
3. (a) Describe the different factors affecting the compaction of soil.
(b) Describe the Geosynthetics used for soil improvement technique.
4. (a) What is a mechanical stabilization? What are the factors affecting the mechanical stability of a mixed soil?
(b) What is meant by Vibration Isolation? How it is done?
5. (a) Give the classification of sheet piles.
(b) Explain the mass-spring analogy. Define the natural frequency.

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B. E. (Eighth Semester) Examination, 2020

(For ATKT Students)

(Civil Engg. Branch)

(CE-802)

CONSTRUCTION PLANNING & MANAGEMENT

Maximum Marks : 70

Note: Attempt all questions. All questions carry equal marks.

1. (a) Describe the factor affecting the job layout and draw a neat sketch of Job Layout for construction of Multistoryed Building. 7
(b) Differentiate between PERT and CPM. 7
2. (a) How will you differentiate between standard equipment and special equipment? 7
(b) Explain the Direct Cost, Indirect Cost and cost slope. 7
3. (a) What are essential requirement of a contract? 7
(b) Discuss Arbitration and Conciliation Act, 1996. Mention its object, advantage and disadvantage. 7
4. (a) Write short note on Imprest Account, Specification, Measurement Book. 7
(b) Discuss the general specification of a residential building belonging to a Class I office. 7
5. (a) Explain the various Facilities Required in a Construction Project. 7
(b) What safety measure will you adopt for drilling and blasting jobs. 7

V-1823**B. E. (Eighth Semester) Examination, 2020****(For ATKT Students)****(Branch : Civil Engg.)****(CE-803)*****Paper : Third*****ADVANCED STRUCTURAL DESIGN-II (Steel)*****Maximum Marks : 70******Note:*** Attempt all questions. All questions carry equal marks.

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| 1. | (a) | What do you mean by plate girder? Explain with diagram. | 7 |
| | (b) | Write down the IRC recommendation for design of plate girder bridge. | 7 |
| 2. | (a) | Write short notes on : | 10 |
| | (i) | Roller bearing | |
| | (ii) | Rocker bearing | |
| | (b) | Explain in brief truss girder bridges for railways. | 4 |
| 3. | | Design a cylindrical tank with hemispherical bottom for 1,60,000 litres capacity. The tank has conical roof. The ring beam of tank is at a height of 10 m from ground level. Take $f_y = 250 \text{ N/mm}^2$. | 14 |
| 4. | | Discuss in detail the design steps of guyed chimney. | 14 |
| 5. | (a) | Differentiate with help of diagram between Silo and Bunker. | 7 |
| | (b) | Explain in brief about towers and its types. | 7 |

V-1824

B. E. (Eighth Semester) Examination, 2020

(For ATKT Students)

(Civil Engg. Branch)

PAVEMENT DESIGN

(Elective II : CE 8042)

Paper : Fourth

Maximum Marks : 70

Note: Attempt all questions. All questions carry equal marks.

1. (a) Write a short note on relation between Will arrangement and loading effects.
(b) Explain freezing and thawing.
2. (a) Explain :
 - (i) CBR Method
 - (ii) Group index method
(b) Explain Burmister method.
3. (a) Explain Temperature stresses and warping stress for rigid pavement?
(b) Discuss combination of stresses in rigid pavements.
4. (a) Explain various types of pavement joints and PCA chart method.
(b) Discuss design of dowel Bar's and Tie bars.
5. Draw and explain Benklemal Beam with procedure.