

**GOVERNMENT COLLEGE OF ENGINEERING, JALGAON****(An Autonomous Institute of Government of Maharashtra)**

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Name of Examination : **Summer 2021** - (Preview)Course Code & Course Name : **CE354UA - Advance Surveying**Generated At : **19-04-2022 12:58:50**Maximum Marks : **60**Duration : **3 Hrs**[Edit](#)[Print](#)[Close](#)**Answer Key Submission Type:** No marking scheme and solution

Instructions:

1. All questions are compulsory.
2. Illustrate your answer with suitable figures/sketches wherever necessary.
3. Assume suitable additional data; if required.
4. Use of logarithmic table, drawing instruments and non programmable calculators is allowed.
5. Figures to the right indicate full marks.

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| 1) a) Define Global Positioning System. Explain its components in detail. | [06] |
| OR | |
| b) What is drone surveying? Give its applications in civil engineering. | [06] |
| c) Write down the various applications of GPS. | [04] |
| 2) a) What is Geographic Information System? Explain the components of a GIS. | [06] |
| OR | |
| b) How is data acquisition done in GIS? Explain in detail. | [06] |
| c) Explain the functions of GIS | [05] |
| d) What is Digital Elevation Model? Give its applications in civil engineering | [05] |
| 3) a) Define electronic distance measurement used for surveying and explain its measurement principle. | [06] |
| b) Give the applications, advantages and disadvantages of a total station. | [05] |
| c) Write in detail about the accessories of total station. | [05] |
| 4) a) Explain the steps for taking horizontal and vertical measurements using digital theodolite. | [08] |
| b) Explain the components of a digital level and write down its advantages. | [5] |
| c) Define setting out in surveying. Explain process of setting out a building. | [5] |

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