

Government College of Engineering, Aurangabad
(An Autonomous Institute off Government of Maharashtra)

F.E. (Civil) Examination
End Semester Examination December 2016

CE1001: BASICS OF CIVIL ENGINEERING

5 DEC 2016

Time: Three Hours

Max. Marks: 60

“Verify the Course Code and check whether you have got the correct question paper”

N.B:-

1. All questions are compulsory
2. Figures to the right indicate full marks
3. Assume suitable data if necessary and state it clearly
4. Use of non-programmable calculator is allowed

Q1. Attempt any two

(12)

- i) What are the principles of planning? Explain any two in detail.
- ii) Define
 - a) Plinth area
 - b) Carpet area
 - c) Floor Space Index
 - d) Cost of building
 - e) Built up area
 - f) Building by laws
- iii) What are the different types of rollers used for compaction?

Q2. Attempt any two

(12)

- i) How would you explain the uses and working of the prismatic compass, with the help of suitable sketch?
- ii) Write down the uses of following instruments;
 - a) Ranging Rod
 - b) Arrow
 - c) Tape
 - d) Peg
 - e) Cross Staff
 - f) Leveling Staff
- iii) Convert the following whole circle bearing into reduced bearing
 - a) $128^{\circ}30'$
 - b) 85°
 - c) $102^{\circ}30'$
 - d) 358°
 - e) $105^{\circ}45'$
 - f) $288^{\circ}30'15''$

Q3. Attempt any two

(12)

- i) Draw the sketch of typical cross section of load bearing wall.
- ii) Explain the different types of structures and write down the suitability of each.
- iii) Give the classification of roads. Explain rigid and flexible pavement. What is the function of Camber?

Q4. Attempt any two

(12)

- i) Explain the precautions to be taken before occurrence of the Earthquake.
- ii) What is Earthquake? What are the causes of Earthquake?
- iii) Explain effects of Earthquake.

Q5. Attempt any two

(12)

- i) What is mean by watershed and watershed management? Explain the necessity of watershed management works.
- ii) Draw the typical cross section of Gravity Dam and explain the terms and levels related with the gravity dam
- iii) Explain the necessity and benefits of irrigation.