BE Semester-_1ST YEAR___ (CIVIL) Question Bank

(ELEMENTS OF CIVIL ENGINEERING)

All questions carry equal marks(10 marks)

<table>
<tr><td>Q-1</td><td>Discuss the principles of planning</td></tr>
<tr><td>Q-2</td><td>What are the requirements of machine foundation and write different types of machine foundation</td></tr>
<tr><td>Q-3</td><td>what are the advantages of framed structure</td></tr>
<tr><td>Q-4</td><td>Explain king post roof truss with neat sketch</td></tr>
<tr><td>Q-5</td><td>What is an eco system? Describe its components</td></tr>
<tr><td>Q-6</td><td>Discuss the environment and its components.</td></tr>
<tr><td>Q-7</td><td>Explain food chain with schematic layout</td></tr>
<tr><td>Q-8</td><td>Describe the major sources of energy and discuss their impact on environment</td></tr>
<tr><td>Q-9</td><td>Write a short notes on: (1) Acid rain (2) Ozone depletion</td></tr>
<tr><td>Q-10</td><td>Define the following terms: (1) surveying (2) declination (3) Level surface (4) back sight (5) W.C.B.</td></tr>
<tr><td>Q-11</td><td>Explain primary division of surveying</td></tr>
<tr><td>Q-11</td><td>Explain fundamental principles of surveying</td></tr>
<tr><td>Q-12</td><td>Write a short notes on : (1) Plumb bob (2) Ranging rod</td></tr>
<tr><td>Q-13</td><td>The length of a chain line when measured with a 20m chain was found to be 1520m . but when 30m chain which was 0.65m too short was used for the purpose, the line was found to be 1535m long. Find the error in 20 m chain?</td></tr>
<tr><td>Q-14</td><td>Give classification of surveying. Explain it.</td></tr>
<tr><td>Q-15</td><td>A 20 m chain was found to be 10 cm too long at the end of day’s work after measuring 4500m. If the chain was correct before the starting of work, find the correct length of line</td></tr>
<tr><td>Q-16</td><td>The following bearings were taken of a closed traverse. Calculate interior angles
<table>
<tr><td>Line</td><td>FB</td><td>BB</td></tr>
<tr><td>AB</td><td>45^0 00’</td><td>225^0 00’</td></tr>
<tr><td>BC</td><td>123^0 30’</td><td>303^0 00’</td></tr>
<tr><td>CD</td><td>181^0 00’</td><td>1^0 00’</td></tr>
<tr><td>DA</td><td>289^0 00’</td><td>109^0 00’</td></tr>
</table></td></tr>
<tr><td>Q-17</td><td>The bearings of lines of closed traverse ABCD are given below. Calculate interior angles
<table>
<tr><td>Line</td><td>Fore Bearing</td><td>Back bearing</td></tr>
<tr><td>AB</td><td>N 50^0 00’E</td><td>S 50^0 00’W</td></tr>
<tr><td>BC</td><td>S 60^0 00’ E</td><td>N 60^0 00’ W</td></tr>
<tr><td>CD</td><td>S 15^0 00’W</td><td>N 15^0 00’ E</td></tr>
<tr><td>DA</td><td>N 70^0 30’W</td><td>S 70^0 30’ E</td></tr>
</table></td></tr>
</table>

Q-18	What is local attraction? Explain
Q-20	Describe different types of bench marks
Q-21	Explain temporary adjustments of leveling
Q-22	Discuss the characteristics of contour lines with neat sketch
Q-23	Write a short note on differential leveling
Q-24	Following is a page of a level book. Fill in the missing readings and calculate the reduced levels of all points. Apply usual checks

station	BS	IS	FS	RISE	FALL	RL	REMARK
1	3.150					?	BM
2	1.760		?		0.760	?	CP
3		1.850			?	?	
4	?		1.910		?	?	CP
5		2.235		1.450		?	
6		?		0.990		?	
7	1.750		2.175		?	150.00	CP
8		1.685		?		?	
9		?		?		?	
10	?		1.875		1.750	?	CP
11			1.450	0.650		?	

Q-25	The following observations were taken with dumpy level and four meter leveling staff. The instrument was shifted after the fourth and seventh readings. The first reading was taken on a bench mark whose RL is 15.575m. Prepare a page of level book and calculate RLs of all the points. The observations were taken at every 30m interval.
Q-26	Compare HI method with rise and fall method.
Q-27	The offsets from boundary of an agricultural plot are taken as below at the interval of 20m. Calculate area between the base line and boundary by Simpson's rule and Trapezoidal rule. The offsets are 0.24, 0.89, 1.45, 2.56, 5.67, 8.67, 7.88, 4.56, 3.66, 2.5 and 1.35 .
Q-28	Compare Trapezoidal and Prismoidal rules for finding volumes
Q-29	From a contour plan of a proposed reservoir area, the following data were found.

Contour (m)	100	105	110	115	120	125	130
Area enclosed by contour (ha)	3	8	13	17	23	29	33

Q-30	Explain components of planimeter with neat sketch
Q-31	Calculate the area of a figure from the following readings by a planimeter with anchor point inside the figure. Initial reading=7.875 Final reading = 3.086 M=100cm ^{2} C=23.521
Q-32	Write a short note on :(1) Rural building (2) Urban building
Q-33	Discuss the importance of a roof in a building . Explain different types of

	roofs with neat sketches.
Q-34	What is ranging ? Explain indirect ranging.
Q-35	Explain factors affecting ecosystem
Q-36	Write a short note on :(1) Eltonian pyramids (2) Decomposers
Q-37	What is foundation? State its function. What are the types of shallow foundation?
Q-38	Enlist different types of loads acting on building and explain it
Q-39	Define the following terms: (1) Ridge (2) Principal rafter (3) Purlin (3)DPC (4) leveling (5)R.L
Q-40	What is green house effect? What is the effects on environment?