To

The HOD

Centurion University of Technology and Managment

Bhubaneswar, Jatni

28 July, 2022

Sub:- Out of syllabus question from Surveying Techniques

Respected Sir,

we are 2nd semester of Civil Engineering depantment of Bhubaneswar campus want to state that in the final exam paper of Surveying Technique (code-CUTM1067), 15 marks question are from out of syllabus and must of the question are from practice section. The question no. are 1(b), 1(c), 2(a,b), 3(a), 4(a), 7(a).

so, we are here by to request you give us grace mark of respective questions for which we shall be grateful to you.

yours Sincerely,

→ Soubhagya Nath - 210301110001
→ Tushar Singh - 210301110002
→ Shubhadra Behera - 210301110003
→ Aiswarya Mohapatra - 210301110004
→ Achyut kumar Gouda - 210301110005
→ Pratik kumar Barik - 210301110006
→ Muha Jena - 210301110007
→ Praveen Behera - 210301110008
→ Rupashree pradhan - 210301110011

The question marks are given bellow.

Question	Mark
1 (b, c)	2
2 (a, b)	5
3 (a)	3
4 (a)	2.5
7 (a)	2.5
	15

B. Tech.
CUTM1067

2nd **Semester Examination: JUL-AUG 2022**
SURVEYING TECHNIQUE

Full Marks: 30

Time: 2 Hrs.

Answer Question No.1 which is compulsory and any Five from the rest.
The figure in the right hand margin indicates marks.

PART – A

[5x1=5]

1. **Answer All**
   a) List the function keys of total station.
   b) If the sensitivity of a bubble tube is 30" per 2 mm division, what would be the error in staff reading held vertically at a distance of 200m when the bubble is out of centre by 2.5 divisions?
   c) Explain the difference between a clothoid and a cubic parabola.
   d) Mention the linking software used to transfer data files in Total station.
   e) Draw the contour maps of (i) saddle and (ii) vertical cliff.

PART – B

[5x5 =25]

2. a) What are the various methods of making linear measurements in chain survey? Differentiate Cadastral survey and Topographical survey. [1+1]
   b) If the length of one chain along a sloping ground, the ground rises by 4.50m. Find the angle of slope and the hypotenusal allowance in case of (i) 20m chain and (ii) 30m chain. [1.5+1.5]

3. a) The following are the interior angles of a closed traverse ABCDE :
   $<A = 78^0\ 15'$, $<B = 168^0\ 30'$, $<C = 84^0\ 30'$, $<D = 115^0\ 45'$ and $<E = 93^0\ 00'$. If the observed bearing of AB is $135^0\ 00'$, the traverse having been run counter-clockwise, determine the bearings of the remaining sides. [3]
   b) Explain with nest sketches differentiate between declination and dip. [2]

4. a) Define the term contour gradient. Explain the method to locate a contour gradient in the field with a level. [1+1.5]
   b) What are the indirect methods of contouring? Explain one of them with sketches. [1+1.5]

5. a) Describe the procedure to measure distances and coordinates of a given points using Total Station Instruments. [3.5]
   b) Differentiate between REM and RDM. [1.5]

6. a) How profile leveling is conducted for highway alignment. Draw a typical longitudinal section. [1+1]
   b) The following readings were taken during a leveling operation: 2.312, 1.185, -2.365, 0.195, 0.885, 1.345, 0.905. The instrument was shifted after the 4th reading. Find the reduced levels of all the points if the first reading was to a B.M. of assumed RL 100.00. [3]

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7. a) The following data refer to a right hand compound curve
   (i) Total deflection angle = 80^0
   (ii) Radius of first arc = 200m
   (iii) Radius of second arc = 250m
   (iv) Chainage of point of intersection = 1504.80m
   (v) Deflection angle of first arc = 50^0
   Determine the chainages of the point of curvature and the point of tangency.
   Compute the lengths of the sub-chords if the length of the normal chord is
   [2.5]
   20m.
   b) Explain with sketches the geometry of a transition curve. What is meant by
   [1.5+1
   the term shift of curve?
   [2x2.5

8. Write short notes on any **Two**: -
   a) Derive the equation on correction for curvature and refraction
   b) Procedure to mark control points and offset lines by Total station
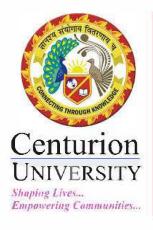   c) Basic Principle of Surveying
   d) Setting out of culverts

Fwd: Out of syllabus questions from surveying technique

3 messages

Kamal Barik <kamal.barik@cutm.ac.in>   Fri, Jul 29, 2022 at 9:50 AM
To: Deepak Kumar Sahu <deepakkumar.sahu@cutm.ac.in>

KAMAL KUMAR BARIK, Ph.D. | **Associate Professor & HOD, Dept. of Civil Engineering**

A: Centurion University of Technology and Management |
At - Ramchandrapur, P.O. - Jatni, Bhubaneswar Dist:
Khordha, 752050, Odisha, India
E.Mail: kamal.barik@cutm.ac.in | **w:** www.cutm.ac.in
Mob: 9439 477 770, 6371 893 947

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linkedin icon

---------- Forwarded message ---------
From: **Kamal Barik** <kamal.barik@cutm.ac.in>
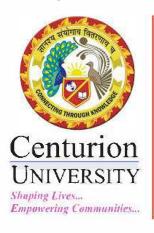Date: Fri, Aug 12, 2022 at 1:25 PM
Subject: Fwd: Out of syllabus questions from surveying technique
To: Kumar Chardra Sethi <kumar.sethi@cutm.ac.in>

Dear Sir,

As per my discussion with the director QA, We have to reach QA Cell at 3 PM today.

Thanking You

KAMAL KUMAR BARIK, Ph.D. | **Associate Professor & HOD, Dept. of Civil Engineering**

A: Centurion University of Technology and Management |
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---------- Forwarded message ---------
From: **Kamal Barik** <kamal.barik@cutm.ac.in>
Date: Fri, Jul 29, 2022 at 9:50 AM
Subject: Fwd: Out of syllabus questions from surveying technique
To: Director QA @ CUTM <dir.qa@cutm.ac.in>
Cc: Kumar Chardra Sethi <kumar.sethi@cutm.ac.in>

Respected Madam,

For your kind information, in the final semester examination of the 2nd semester, BTech Civil
Engineering, most of the questions are from outside the syllabus and some questions are from

practical sections in the **Surveying Techniques (CODE: CUTM 1067) subject**. The students are highlighting outside syllabus questions in the attached file and also claiming 15 marks out of 30 marks are out of the syllabus. So, I kindly request you, please do the needful for which the department will be obliged to you.

Your sincerely,

KAMAL KUMAR BARIK, Ph.D.| Associate Professor & HOD, Dept. of Civil Engineering

A: Centurion University of Technology and Management | At - Ramchandrapur, P.O. - Jatni, Bhubaneswar Dist: Khordha, 752050, Odisha, India
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From: **SUBHADRA BEHERA** <210301110003@cutm.ac.in>
Date: Thu, Jul 28, 2022 at 7:32 PM
Subject: Out of syllabus questions from surveying technique
To: Kamal Barik <kamal.barik@cutm.ac.in>

📄 **application .pdf**
536K

SUBHADRA BEHERA <210301110003@cutm.ac.in>   Fri, Aug 29, 2022 at 9:50 AM
To: Deepak Kumar Sahu <deepakkumar.sahu@cutm.ac.in>
Cc: Kamal Barik <kamal.barik@cutm.ac.in>, Kumar Chardra Sethi <kumar.sethi@cutm.ac.in>

Respecter sir,
The problem has been solved.thabk you for your mentorship and guidance..

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    [Quoted text hidden]

SUBHADRA BEHERA <210301110003@cutm.ac.in>   Fri, Aug 29, 2022 at 9:50 AM
To: Deepak Kumar Sahu <deepakkumar.sahu@cutm.ac.in>

[Quoted text hidden]

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Back

Centurion University of Technology and Management

School of Engineering & Technology, Bhubaneswar

Centurion University campus

Semester Grade Sheet

Student Regd. No : 210301110003
Student Name : SUBHADRA BEHERA
Course : B.Tech Civil Engg.
Batch : 2021
Branch : Civil Engineering
Semester : Sem 2

SL.NO	SUB.CODE	SUBJECT	TYPE	CREDIT	GRADE
1	CUTM1004	DISCRETE MATHEMATICS	THEORY+PROJECT	3	E
2	CUTM1011	OPTIMISATION TECHNIQUES	PRACTICAL	2	O
3	CUTM1014	GENDER, HUMAN RIGHTS AND ETHICS	THEORY+PROJECT	3	D
4	CUTM1046	ELECTRONIC DEVICES AND SYSTEMS	BOTH	3	A
5	CUTM1066	CONCRETE TECHNOLOGY	TPP	3	O
6	CUTM1067	SURVEYING TECHNIQUE	BOTH	3	E
7	CUTM1907	DISASTER PREPAREDNESS & PLANNING MANAGEMENT	THEORY	2	E

Total Credits : 19   **Credits Cleared : 19**   **SGPA : 8.47**   **CGPA : 8.69**

Date : 05-Apr-2023   Dean, Examinations