TOTAL NO OF PAGES-02 ROLL NO----------

B.TECH(CE) FOURTH SEMESTER

MID- SEM- EXAMINATION MARCH- 2019

CE- 204 ENGINEERING SURVEYING

TIME- 1-1/2 HRS MAX- MARKS-30

NOTE-ANSWER ANY THREE- QUESTIONS FROM PART A OR PART B . ASSUME SUITABLY DATA IF ANY

PART-A

Q1 (10MARKS)

.WHAT IS ROLE OF SURVEY ENGINEER IN CONSTRUCTION – OF-AIR PORT AND HIGHWAY-WASTE IN DELHI TO DECREASE THE AIR POLLUTION? EXPLAIN ITS CAUSES AND EFFECTS DURING WINTER AND SUMMER PERIODS?

Q2 (05 MARKS)

WRITE TRUE OR FALSE

(A) POLAR RADIOUS OF THE EARTH IS EQUAL TO 6378.388 KM
(B) EARTH IS CONSIDERED AS SPHERICAL SHAPE.
(C) SUN AT A DISTANCE OF 93005000 MILES FROM THE EARTH.
(D) ONE NAUTICAL MILE IS EQUAL TO 1.852 KM
(E) DIA OF SUN IS 109 TIMES GREATER THAN EARTH DIA

FILL IN THE BLANKS (05 MARKS)

(A) A WELL SHAPED TRIANGLE SHOULD NOT HAVE ANGLES LESS THAN 30 DEGREE OR MORE THAN 120 DEGREE IS CALLED----------

(B). A CHAIN IS 100FT LONG WITH 100 LINKS IS CALLED----------

(C) THE ERRORS WHICH OCCUR IN THE SAME DIRECTION IS CALLED----------

(D) IT IS AN ENGINEERSSURVEY CONDUCTED WITH HELP OF PRISMATIC COMPASS IS CALLED----------

(E) PLEASE EXPANDS (B.M)----------

Q3.EXPLAIN? FIELD ASTRONOMY AND PHOTOGRAMMETRIC SURVEYING . (10MARKS)

PART-B

P.T.O.

Question: 1 The following forebearings and back bearing were observed in traversing with a compass.

Line	Forebearing	Backbearing
PQ	S 37°30′E	N 37°30′W
QR	S 43°15′W	N 44°15′E
RS	N 73°00′W	S 72°15′E
ST	N 12°45′E	S 13°15′W
TP	N 60°00′	S 59°00′W

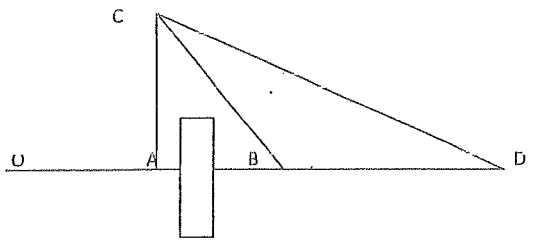
Calculate the interior angles and correct them for observational errors.

(a) What are to source of error in compass survey? What precautions will take to eliminate them?

(b) Convert the following whole circle bearings to quadrantal bearings:

(i) 32°30′ (ii)170°22′ (iii) 217°54′ (iv) 327°24′.

Question 2.(a) To continue a chain line across a building (Fig.) AC was set out at right angles to the chain line. AC=42 m. At C, using an adjustable cross staff, angles of 30° and 60° were set. Calculate the lengths CB and CD so that BD is a continuation of chain line OA. Also find the length AB.



(B) Describe the different methods of setting out a right angle at a point on a chain line using chain/tape only & Obstacle encountered in chain surveying.

Question 3(a) Explain in detail the equipment used in different survey.

(b) Explain plane & geodetic survey