

GUJARAT TECHNOLOGICAL UNIVERSITY
BPLAN – SEMESTER 2– • EXAMINATION – SUMMER 2017

Subject Code: 1025502**Date: 26/05/2017****Subject Name: Surveying & Photogrammetry****Time: 10.30AM to 12.30PM****Total Marks: 50****Instructions:**

1. Attempt all questions.
2. Make suitable sketches wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (A) 1) Hydro-graphic surveys deal with the mapping of** **07**
- a) Large water
 - b) Heavenly bodies
 - c) Mountainous region
 - d) Canal system
- 2) Pick up the correct statement from the following :
- a) The diaphragm plays no part in defining the line of sight
 - b) The optical centre of the objective plays no part in defining the line of sight
 - c) The eyepiece plays no part in defining the line of sight
 - d) None of these.
- 3) In chain surveying tie lines are primarily provided
- a) To check the accuracy of the survey
 - b) To increase the number of chain lines.
 - c) To take offsets for detail survey
 - d) To avoid long offsets from chain lines
- 4) The intercept of a staff
- a) Is maximum if the staff is held truly normal to the line of sight.
 - b) Is minimum if the staff is held truly normal to the line of sight.
 - c) Increases if the staff is tilted towards normal.
 - d) Decreases if the staff is tilted away from normal.
- 5) Closed contours of decreasing values towards their centre, represent
- a) A hill.
 - b) A river bed.
 - c) A saddle or pass.
 - d) A depression.
- 6) The accuracy of measurement in chain surveying, does not depend upon
- a) Scale of the plotting
 - b) Importance of the features
 - c) Length of the offset
 - d) General layout of the chain lines.

- 7) The real image of an object formed by the objective, must lie
- At the centre of the telescope
 - In the plane of cross hairs
 - At the optical centre of the eye-piece
 - Anywhere inside the telescope.

- (B) Write Ranges of 03
- Small scale
 - Medium scale
 - Large scale

- Q.2 (A) Compare HI method and Rise and Fall method. 05

- (B) Differentiate between prismatic compass and surveyor's compass. 05

OR

- (B) Find out which scale is smaller of these two? 05
 1 cm = 10 m; or 1 cm = 15 m

- Q.3 (A) Characteristics of contour lines. 05

- (B) Uses of GIS, GPS and PHOTOGRAMMETRIC survey. 05

OR

- Q.3 (A) Draw a scale 1 cm = 3 m and show 33.3 m on it. 05

- (B) Draw symbols for following. Lawn, stations of survey work, telephone line, Pine tree, wall and gate 05

- Q.4 (A) Draw the sketch of the instruments necessary for "Chain & tape survey". Explain their uses. 10

OR

- Q.4 (A) Draw a neat sketch of a Dumpy Level. Label the parts. 10

- Q.5 (A) Following bearings were observed in running a closed traverse. Calculate the Included Angle. 10

LINE	Fore Bearings
AB	60° 30'
BC	122° 00'
CD	46° 00'
DE	205° 30'
EA	300° 00'

OR

- Q.5 (A) The following staff readings were observed successively with a level, the instrument having been moved after third, sixth and eighth readings: 2.228, 1.606, 0.988, 2.864, 1.262, 0.602, 1.982, 1.044, 2.684 meters. Calculate RL of points if the first reading was taken with a staff held on a bench mark of 432.384 m. 10
