CVM UNIVERSITY

M.Sc. (Real Estate Valuation) / (Plant and Machinery Valuation)
Semester-I Examination-2021
Friday, 26th February – 2021
02:00 PM to 04:00 PM
PAPER CODE: 101370103/101380103
Elementary Surveying and Engineering Drawing

Total Marks: 60

Note: (1) Attempt all questions.
(2) Figures to the right indicate marks.

Q. 1 (a) Answer the following multiple choice questions. (08)

(1) The method of plane surveying can be used when the extent of area is less than

    (a) 250 sq. km
    (b) 260 sq. km
    (c) 245 sq. km
    (d) 2500 sq. Km

(2) The object of surveying is to prepare a

    (a) Drawing
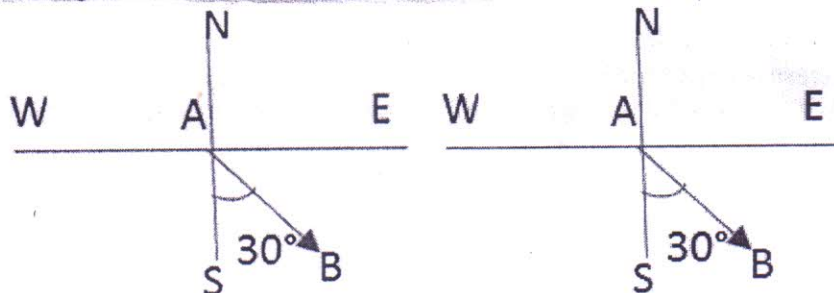   (b) Longitudinal section
    (c) Sketch
    (d) Map

(3) The WCB of a line is 300°, its RB is

    (a) N60°W
    (b) N60°E
    (c) W60°N
    (d) E60°N

(4) _____ bearing is measured in the direction of survey.
    (a) Primary
    (b) First
    (c) Fore
    (d) Front

(5) The bearing of line AB as shown below is represented in reduced bearing as:

(a) N150°
(b) E60°S
(c) S30°w
(d) S30°E

(6) _____ quadrants are imagined in orthographic projection.
  (a) One
  (b) Two
  (c) Three
  (d) Four

(7) In orthographic projection, projectors are _____ to projecting plane.
  (a) Perpendicular
  (b) parallel
  (c) inclined
  (d) none of the above

(8) Plinth height, floor height, lintel level etc. Are shown in
  (a) plan
  (b) elevation
  (c) cross section
  (d) lay out plan

(b) Answer the following (Fill in the blanks and True or False)   **(08)**
(1) Convert W.C.B TO R.B. if WCB =00° __,
(2) Convert. R..B. TO W.C.B   N 44° E _____
(3) F.B of AB= 24° ANGLE ABC= 45°   F,B OF BC=____
(4) TRUE LENGTH= _____

(5) H.I.=_____
(6) FALL=_____
(7) Plan is drawn below elevation in first angle projection method.
(8) In a building plan, building is assumed to be cut horizontally at slab level.

Q.2   Attempt **any six** of the following.   **(12)**
(1) Define: scale, map.
(2) State the name of Area measurement for irregular figure and its procedure.
(3) Explain Station in levelling and compass.
(4) Describe principle of surveying.
(5) What are the Methods of levelling?.
(6) Define R.F. of a scale. Give one example of a reducing scale.
(7) Mention two differences between first angle and third angle projection method.
(8) Draw sketches of any four types of solids.

Q. 3   Calculate the true distance from the following observations. The distance **(08)** measured with the help of 20m chain is 2900m.The chain was 2cm too long. At the end of day's work total distance was measured 3900m.. The chain was 3 cm too short at the end. The chain was correct before the commencement of the work

OR

Q.3   Solve the included angle from a single station.   **(08)**

Line	bearing
OA	39°
OB	119°
OC	179°
OD	269°
OE	319°

Q. 4   Determine the included angles in a closed traverse.   **(08)**

Line	F.B.
AB	45°
BC	145°
CD	203°
DA	333°

OR

Q. 4   Determine the included angles in a closed traverse.   **(08)**

LINE	F.B.
PQ	N 45° E
QR	S 35° E
RS	S 25° W
SP	N 39° W

Q. 5   Calculate the R.L of points from a sloping ground.   **(08)**

St	B.S	I.S.	F.S	H.I	R,L
B.M	0.650				25.0M
A		1.005			
B		1.690			
C		2.125			
D		2.655			
E		3.035			
F			3.335		

OR

Q. 5   The field of an area was measured with the help of planimeter anchor point **(08)** inside the figure. IR=9.377, FR= 3.336, M= 100 and C= 23.521. it is observed that zero mark of the dial passed index marks once in the anticlockwise direction. The scale of fig. is 1:300. Calculate area into Hectare.

Q. 6   Show details to be shown in plan, elevation and section of a building with **(08)** neat sketches.

OR

Q. 6   Show with a sketch how front view and top view are obtained by **(08)** orthographic projection – first angle projection method.

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