

SEE 2080 (2,4)  
ENGINEERING SURVEYING-I

समय : २ घण्टा

पूर्णाङ्क : ५०

दिए गए निर्देशन का आधारमा आपनै शैलीमा सिर्जनात्मक उत्तर दिनुहोस् :

समूह 'क' (Group 'A')

तलका प्रश्नहरूको ठिक विकल्प छान्नी उत्तरपुस्तिकामा लेख्नुहोस् :

Choose the best alternative of the following questions and write in the answer sheet: (9×1=9)

१. Surveying भनेको के हो ?

- a. Surveying is the process of finding area of land
- ☒ b. Surveying is the process to find the relative position of a point on or beneath the surface of the earth
- c. Surveying is the examination of students
- d. Surveying is the process of making map

२. Surveying को मुख्य सिद्धान्त के हो ?

What is the main principle of surveying?

- a. Working from part to part
- ☒ c. Working from whole to part
- b. Working from part to whole
- d. Working from whole to whole

३. दूरी मापन गर्ने उपकरण कुन चाहिए हो ?

Which one is the accessory for distance measurement?

- a. Compass
- ☒ c. Ranging rod
- b. Level machine
- d. Plane table

४. २० मिटरको metric chain मा कतिवटा links हुन्छन् ?

How many numbers of links are there in 20m metric chain?

- ☒ a. 100
- b. 150
- c. 200
- d. 300

५. तलकामध्ये कुन चाहिए उपकरण chain survey को लागि चाहिँदैन ?

Which of the following instrument is not required in chain survey?

- ☒ a. Dumpy level
- c. Chain
- b. Ranging rod
- d. Peg

६. Chain survey मा well-conditioned triangle को लागि हुनुपर्ने angles को range कति हो ?

- ☒ a. more than  $30^\circ$  and less than  $120^\circ$
- c. less than  $60^\circ$  and more than  $120^\circ$
- b. less than  $30^\circ$  and more than  $120^\circ$
- d. more than  $60^\circ$  and less than  $120^\circ$

७. Meridian नाप्नको लागि प्रयोग हुने उपकरण कुन हो ?

The instrument used to measure meridian is...

- a. ranging rod
- ☒ b. compass
- c. level
- d. chain

८. कुनै एक ठाउँको instrument को setup बाट लिइएको अन्तिम staff reading लाई के भनिन्छ ?  
The last staff reading taken from every setup of an instrument is known as...
- a. B.S.      c. I.S.      ☒ b. F.S.      d. Line of sight
९. Datum बाट माथि लिइएको निश्चित बिन्दु जसको उचाइ थाहा छ भने त्यसलाई के भनिन्छ ?  
A relatively fixed point of known elevation (R.L.) above datum is called
- a. Line of sight      b. B.S.      ☒ c. Bench mark      d. Datum

### समूह 'ख' (Group 'B')

सबै प्रश्नहरूको छोटो उत्तर लेख्नुहोस् :

**Attempt all short answer questions:**

(5x5=25)

१०. Plane surveying र geodetic surveying बिचको कुनै तीनवटा फरकहरू लेख्नुहोस् । Chain survey को सिद्धान्तलाई सफा चित्रसहित प्रस्तुत गर्नुहोस् ।  
Write any three differences between plane surveying and geodetic surveying. State the principle of chain surveying with neat sketch. (3+2)
११. Tape का प्रकारहरूलाई परिभाषित गर्नुहोस् । Datum र Reduced level भन्नाले के बुझ्नुहुन्छ ?  
Define any three types of tape. What do you mean by Datum and Reduced level? (3+2)
१२. PQ, QR, RS, ST र TP line को fore bearing हरू लगातार  $35^{\circ}30'$ ,  $110^{\circ}15'$ ,  $210^{\circ}30'$ ,  $290^{\circ}45'$  र  $300^{\circ}45'$  छन् भने  $\angle P$ ,  $\angle Q$ ,  $\angle R$ ,  $\angle S$  and  $\angle T$  को भित्री कोणहरू पत्ता लगाउनुहोस् ।
१३. Surveyor's Compass र Prismatic compass बिचका कुनै पाँचओटा फरकहरू लेख्नुहोस् ।  
Write any five differences between surveyor's compass and prismatic compass. (5)
१४. Survey मा accuracy किन आवश्यक छ ? Survey मा errors का प्रकारहरूको बारेमा छोटकरीमा व्याख्या गर्नुहोस् ।  
Why accuracy is required in survey? Explain in brief about types of error in survey. (2+3)



## समूह 'ग' (Group 'C')

सबै प्रश्नहरूको लामो उत्तर लेख्नुहोस् :

**Attempt all long answer questions:**

**(2x8=16)**

१५. Level मा Adjustment किन आवश्यक छ ? Level को temporary adjustment को बारेमा छोटकरीमा व्याख्या गर्नुहोस् ।

Why adjustment of level is required? Explain briefly the temporary adjustment of level. (2+6)

१६. Chain survey को suitabilities र unsuitabilities हरू के के हुन् ? Offset का प्रकारहरूलाई छोटकरीमा चित्रसहित व्याख्या गर्नुहोस् ।

What are the suitabilities and unsuitabilities of chain survey? Explain briefly the different types of offset in chain survey with suitable sketch. (4+4)

...