

Mid-West University
Examinations Management Office
Surkhet, Nepal

End Semester Examination 2080

B.Ed. Level /VI Semester

Sub: Principles of Real Analysis (Math 462)

Roll No.

Group 'A'

10×1=10

Tick (✓) the Best Answer.

- A subset B of R^n is open if,
 - $R^n \setminus B$ is open
 - $R^n \setminus B$ is closed
 - B contains all limit points of B
 - all of the above
- For a, b and $c \in R$, then the associative law for multiplication is ...
 - $a(bc) = (ab)c$
 - $a(b+c) = (a+b)c$
 - $a(b+c) = ab+ac$
 - $a+(b+c) = (a+b)+c$
- If the number of elements of two sets A and B are equal then
 - $A = B$
 - $A \neq B$
 - $A \subset B$
 - $A \sim B$
- The set of all adherent points of a set S is called the closure of S and denoted by \bar{S} where,
 - $\bar{S} \leq S \cup S'$
 - $\bar{S} \neq S \cup S'$
 - $\bar{S} = S \cup S'$
 - $\bar{S} \geq S \cup S'$
- Which one of the followings is a property of metric space?
 - $d(x, y) = 0$
 - $d(x, y) > 0$ if $x \neq y$
 - $d(x, y) = d(x + y)$
 - $d(x, y) < 0$ if $x \neq y$

- The set of all accumulation points of a set A is called...
 - empty set
 - open set of A
 - universal set
 - derived set of A
- If the function f is monotonic on $[a, b]$, then f is ...
 - bounded variation on $[a, b]$
 - denumerable
 - bounded Variation
 - bounded only
- A set B is closed if and only if
 - $B \neq \bar{B}$
 - $B = \bar{B}$
 - $B \leq \bar{B}$
 - $B \geq \bar{B}$
- If the functions f and g are bounded variation on $[a, b]$ then
 - $V_{f \pm g} \geq V_f + V_g$
 - $V_{f \pm g} > V_f + V_g$
 - $V_{f \pm g} < V_f + V_g$
 - $V_{f \pm g} \leq V_f + V_g$
- An integral that contains the upper and lower limits then it is called... definite integral
 - improper integral
 - indefinite integral
 - definite integral
 - proper integral