

**Domain Knowledge Test for recruitment of Assistant Professor in DUVASU, Mathura**  
**Subject: Animal Nutrition**

1. Toxic substances released by hydrolysis of glycosidic bonds are:
  - a. Cyanide
  - b. 3-nitropropanol
  - c. 3-nitropropionic acid
  - d. All of the above.
2. The end products of fermentation by protozoa include various
  - a. Organic acids
  - b. CO<sub>2</sub>
  - c. Hydrogen
  - d. All of the above
3. Omasum is absent in\_\_\_\_\_.
  - a. Rabbit
  - b. Cattle
  - c. Buffaloes
  - d. Camel
4. Apart from acetic, propionic and butyric acid the other important VFA is:
  - a. Acetoacetic acid
  - b. Isopropionic acid
  - c. Isobutyric acid
  - d. Valeric acid
5. An important feature of protozoal life in the rumen
  - a. Bacterial predation
  - b. Cellulose degradation
  - c. Fermentation
  - d. Acid production
6. The diversity of ciliate species is \_\_\_\_\_in browsing ruminants than in grazing ruminants.
  - a. higher
  - b. lower
  - c. similar

- d. can't comment
7. Bacterial species in small intestine are
- a. Aerobic
  - b. Strictly anaerobes
  - c. Mixture of aerobes and Anaerobes
  - d. Facultative aerobes
8. The key intermediate in both rumen and hindgut fermentation systems is
- a. Propionate
  - b. Acetate
  - c. Butyrate
  - d. Pyruvate
9. Union of \_\_\_\_\_ with haemoglobin form methemoglobin:
- a. Nitrate
  - b. Nitrite
  - c. Urea
  - d. Methane
10. The availability of fiber is limited by the presence of \_\_\_\_\_ in plant material:
- a. Pectin
  - b. Lignin
  - c. Hemicellulose
  - d. Cellulose
11. Most of the energy for microbial growth in the rumen is supplied by the fermentative breakdown of structural polysaccharides:
- a. Cellulose
  - b. Xylan
  - c. Pectin
  - d. All of the above
12. \_\_\_\_\_ are responsible for biohydrogenations
- a. Bacteria
  - b. Protozoa
  - c. Both
  - d. none
13. The normal rumen pH values usually range from \_\_\_\_\_
- a. 7.0 to 8.2

- b. 5.5 to 7.0.
- c. 3.4 to 5.0
- d. Neutral pH

14. Hypomagnesemia can occur due to accumulation of \_\_\_\_\_ in forages

- a. trans-aconitic acid
- b. cis-aconitic acid
- c. Tricarballoylate
- d. SCFAs

15. Hydrogen is an end product of fermentation but its conc. is low in rumen due to

- a. its feed back
- b. interspecies hydrogen transfer reaction
- c. its consumption by methanogenic bacteria
- d. formic acid formation

**Key: Animal Nutrition**

Q. No.	Answer	Q. No.	Answer
1	a	9	a
2	b	10	b
3	c	11	c
4	d	12	d
5	a	13	a
6	b	14	b
7	c	15	c
8	d		