**Animal Nutrition**:

Ch 41

Animalia:

:**(Fig 41.26)**

Herbivore:

Carnivore:

Omnivore:

Diet must obtain:

Feeding mechanisms: **(Fig 41.2)**

Suspension feeders:

Substrate feeders:

Fluid feeders:

Bulk feeders:

**Homeostatic mechanisms**:

**(Fig 41.3)**

Calorie balance:

Undernourished:

Overnourished:

Malnourished:

Obesity:

Hormones: **(Fig 41.5)**

Leptin:

Ghrelin:

PYY:

Insulin:

Evolution

**Carbon skeleton**:

Essential amino acids:

Essential fatty acids:

Vitamins

Minerals

Table 41.2

**Processing food**: **(Fig 41.12)**

Ingestion:

Digestion:

Mechanical digestion:

Chemical digestion:

Absorption:

Elimination:

Intracellular digestion:

Extracellular digestion

Alimentary canal: **(Fig 41.14)**

Gastrovascular cavity **(Fig 41.13)**

**Mammalian digestive system**: **(Fig 41.15)**

Peristalsis:

Sphincters:

Accessory organs:

From mouth to stomach: **(Fig 41.16)**

Oral cavity:

Oral sphincter:

Tongue:

Teeth:

Salivary gland:

Salivary amylase:

Pharynx:

Epiglottis:

Esophagus:

Stomach: (Fig 41.17)

Gastric gland:

Mucus cells:

Parietal cells:

Chief cells:

Pyloric sphincter:

Stomach to colon:

Small intestine:

Duodenum:

Jejunum

(Fig 41.21)

Ileum:

Nutrient absorption: **(Fig 41.23)**

Villi:

Lacteal:

Microvilli:

**Fig 41.23**

Fig 41.21

From large intestine to exit

Ileocecal sphincter:

Cecum: **(Fig 41.27, 15)**

Herbivores:

Carnivores:

Omnivores:

**(fig 41.15)**

Colon:

Sections:

Feces:

Rectum:

**Hormonal control**: **(Fig 41.22)**

Cholecystokinin: (CKK)

Gastrin:

Secretin:

Enterogastrone: