Unit 1

1.1 Integumentary System
Derivatives of integument
1.2 Skeletal System
Evolution of visceral arches
1.3 Digestive System
Brief account of alimentary canal and digestive glands
1.4 Respiratory System
Brief account of Gills, lungs, air sacs and swim bladder

Unit 2

2.1 Circulatory System
Evolution of heart and aortic arches
2.2 Urinogenital System
Evolution of kidney and urinogenital ducts
2.3 Nervous System
Comparative account of brain
2.4 Sense Organs
Different types of receptors,

Unit 3 Early Embryonic Development

3.1 Gametogenesis and fertilization in mammals
3.2 Types and patterns of cleavage
3.3 Blastulation and gastrulation
3.4 Role of primary organisers

Unit 4 Late Embryonic Development and control

4.1 Extra embryonic membranes
4.2 Types of placenta
4.3 Basic processes in development (gene activation, determination, induction)
4.4 Basic processes in embryonic development (differentiation, intra cellular communications, cell movement and cell death)
1. Osteology: Disarticulated skeleton of frog, varanus, fowl and rabbit.
2. Study of frog and chick embryology
3. Study of the different types of placenta- histological sections through permanent slides or photomicrographs.
4. Dissection of following animals to expose different systems:
   3 Scoliodon
   4 Frog
   5 Rat

SUGGESTED READINGS