INSTRUCTIONS TO CANDIDATES
Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over

KIBU observes ZERO tolerance to examination cheating.
Answer Question ONE and any other TWO questions

Question ONE (30 marks)

a. Briefly explain the role of the following hormones in reproduction: (i) FSH (ii) LH (iii) Oestrogen (3 marks)
b. Using a well diagram describe the general structure of a fish ovum (3 marks)
c. Briefly outline the contributions of the following scientists to the field of embryology: (i) Aristotle (ii) Spemann (iii) Weismann (3 marks)
d. Explain the importance of environment in embryo development (3 marks)
e. Briefly describe the outstanding features of various strategies of reproduction (3 marks)
f. Describe any three advantages of external fertilization over internal fertilization (3 marks)
g. Using illustrate describe the structure of a blastula (3 marks)
h. Describe any three ramifications of abnormal development (3 marks)
i. Describe any 3 methods reproduction in unicellular organisms
   (3 marks)
j. Briefly describe the main organs derived from the primary germ layers (3 marks)

Question TWO (20 marks)
Briefly discuss various strategies employed by nations to regulate human population.

Question THREE (20 marks)
Discuss the main general stages of development of organisms from fertilization to parturition.

Question FOUR (20 marks)
Discuss fully the process of gamete formation in a named vertebrate.

Question FIVE (20 marks)
Discuss the morphogenetic movement during embryo implantation in chordates.