

KATHMANDU UNIVERSITY  
End Semester Examination  
March/April 2017

Marks Scored:

Level : B.Sc.

Year : II

Course : HBIO 204

Semester: I

Exam Roll No. :

Time : 30 mins.

F.M : 20

Registration No.:

Date : APR 6 2017

SECTION "A"

[15 Q.×1=15 marks]

Tick the correct answer:

1. Which of the following factors are responsible for ascent of testis (**EXCEPT**)?  
a. Lengthening of uteric bud  
b. Large pelvic cavity  
c. For the search of better nutrition  
d. Diminution of foetal curvature
2. Which of the following hormone has anti insulin effect on the mother?  
a. Human chorionic gonadotropin  
b. Progesterone  
c. Oestrogen  
d. Human somato mamotropin
3. Which part of spermatozoon contains the implantation fossa?  
a. Head  
b. Neck  
c. Middle piece  
d. Principal piece
4. Ovulation occurs due to the high concentration of:  
a. Prostaglandins  
b. Progesterone  
c. Leutinizing hormone  
d. Oestrogen
5. Sex of child is determined at:  
a. Time of fertilization  
b. Implantation  
c. Morula  
d. 2 monts
6. The central axis of the embryo is determined by:  
a. Ectoderm  
b. Prochordal plate  
c. Endoderm  
d. Epiblast
7. The part of the mesoderm where the extra embryonic coelom does not extend is called as:  
a. Amnion  
b. Connecting stalk  
c. Cloacal membraned.  
d. Yolk sac
8. The placental praevia in which the placenta reaches the internal os, but doesnot cover it is of:  
a. First degree  
b. Second degree  
c. Third degree  
d. Fourth degree
9. Melanoblasts cell of the epidermis are derived from:  
a. Neural crest cells  
b. Ectoderm  
c. Mesoderm  
d. Endoderm

10. Superior parathyroid gland develops from:  
 a. 1<sup>st</sup> pharyngeal pouch  
 b. 2<sup>nd</sup> pharyngeal pouch  
 c. 3<sup>rd</sup> pharyngeal pouch  
 d. 4<sup>th</sup> pharyngeal pouch
11. Oxygenated blood from the placenta comes to the fetus through:  
 a. Umbilical artery  
 b. Umbilical vein  
 c. Aorta  
 d. Venacava
12. The collecting part of the kidney is derived from:  
 a. Metanephrons  
 b. Metanephric blastema  
 c. Ureteric bud  
 d. Nephron
13. Pontine flexure lies at the middle of:  
 a. Telencephalon  
 b. Diencephalon  
 c. Mesencephalon  
 d. Rhombencephalon
14. Which of the following is not the dilatation of heart tube?  
 a. Bulbus cordis  
 b. A. V cushion  
 c. Sinus venosus  
 d. Atrium
15. Which of the following is/are skin appendages?  
 a. Hair  
 b. Sweat gland  
 c. Nails  
 d. All of them

SECTION "B"  
 [5 Q.×1=5]

Define in one sentence:

16. Menstrual cycle
17. Haermaphroditism
18. Scaphocephaly
19. Remodeling of bones
20. Implantation

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Level : B.Sc.

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Time : 2 hrs. 30 mins.

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F.M : 55

SECTION "C"

(Long answer question)

[3 Q.×7=21 marks]

1. Describe the process required for the development of kidneys with their congenital anomalies. Add note on ascent and rotation of the kidneys.
2. Explain how inter-atrial septum are formed. Briefly mention the congenital anomalies of heart.

OR

Mention the components of ear and explain how otic vesicles undergoes differentiation to form the different components of membranous labyrinth.

3. Describe the formation of vertebral column with their anomalies

SECTION "D"

(Short answer question)

4. Write short notes on (*ANY FIVE*) [5×5=25]
  - a. Cranial flexures
  - b. Hormonal changes during menstrual cycle
  - c. Rotation of gut
  - d. Development of skin
  - e. Foetal circulation
  - f. Development of spinal cord
5. Differences between (*ANY THREE*) [3×3=9]
  - a. Endochondral ossification and intramembranous ossification
  - b. Sperm and ovum
  - c. Auricles and ventricles
  - d. Pronephrons and mesonephrons

