

## **BIOLOGY**

# BOOKS - TRUEMAN'S BIOLOGY (ENGLISH)

**NEET - 2013 (HUMAN SYSTEMS)** 



**1.** Figure shows schematic plan of blood circulation in humans with labels A to Z. Identify

the label and give its functions



- A. C Vena Cava takes blood from body  $\label{eq:cava-takes} \mbox{parts to right auricle, } PCO_2 = \mbox{45 mm Hg}$
- B. D- dorsal aorta -takes blood from heart to body parts,  $PO_2$  = 95 mm Hg
- C. A Pulmonary vein takes impure blood  $\label{eq:condition} \mbox{from body parts, } PO_2 \mbox{ = 60 mm Hg}$
- D. 8 Pulmonary artery takes blood from heart to lungs,  $PO_2$  = 90 mm Hg

#### **Answer: 1**



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**2.** Which of the following statements is correct in relation to the endocrine system.

A. Non-nutrient chemicals produced by the

body in trace amount that act as

intercellular messenger are known as

hormones.

- B. Releasing and inhibitory hormones are produced by the pituitary gland.
- C. Adenohypophysis is under direct neu- ral regulation of the hypothalamus.
- D. Organs in the body like gastrointes- tinal tract, heart, kidney and liver do not produce any hormone

#### **Answer: 1**



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**3.** What is the correct sequence of sperm formation?

A. Spermatogonia, spermatozoa, sper- . matocyte, spermatid

B. Spermatogonia, spermatocyte, spermatid, spermatozoa

C. Spermatid, spermatocyte, spermatogonia. spermatozoa

D. Spermatogonia, spermatocyte, spermatozoa, spermatid

#### **Answer: 2**



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## 4. Artificial insemination means

A. artificial introduction of sperms of healthy donor into the vagina

B. introduction of sperms of a healthy donor directly into the ovary

C. transfer of sperms of a healthy donor to a test tube containing ova

D. transfer of sperms of husband to a test tube containing ova

### **Answer: 1**



**5.** Which one of the following is not the function of placenta?

A. (a) Facilitates removal of carbon dioxide and waste material from embryo.

B. (b) Secrets oxytocin during parturition.

C. (c) Facilitates supply of oxygen and nutrients to embryo.

D. (d) Secretes estrogen

## Answer: 2



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- **6.** Select the correct statement with respect to locomotion in humans
  - A. The vertebral column has 10 thorac- ic vertebrae
  - B. The joint between adjacent vertebrae is a fibrous joint
  - C. A decreased level of progesterone causes osteoporosis in old people.

D. Accumulation of uric acid crystals in joints causes their inflammation.

**Answer: 4** 



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**7.** Parts A, B, C and D of the human eye are shown in the diagram. Select the option which gives correct identification along with its functions/ characteristics



A. C - Aqueous chamber -reflects the light

which does not pass through the lens.

B. D - Choroid - its anterior part forms ciliary body

C. A - Retina - contains photo recep- tors rods and cones

D. B- Blind spot - has only a few rods and cones

## **Answer: 3**



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8. Which of the following cannot be detected in a developing foetus by amniocentesis? (A)

Down syndrome (B) Jaundice (C) Klinefelter syndrome (D) Sex of the foetus

A. Down syndrome

B. Jaundice

C. Klinefelter syndrome

D. Sex of the foetus

## Answer: 2



**9.** Select the correct match of the digested products in human given in column I with their absorption site and mechanism in





**10.** If two persons with 'AB' blood group marry and have sufficiently large number of

children, these children could be classified as 'A' blood group: 'AB' blood group 'B' blood groUp in 1:2:1 ration. Modern technique of protein electrophoresis reveals presence of both 'A' and 'B' type proteins in 'AB' blood group individuals. This is an example of A. Partial dominance

C. Codominance

D. Incomplete dominance

B. Complete dominance

Answer: 3

11. One of the legal methods of birth control is

A. 1.by having coitus at the time of day break

B. 2.by a premature ejaculation during coitus

C. 3.abortion by taking an appropriate medicine

D. 4.by abstaining from coitus from day 10

to 17 of the menstrual cycle

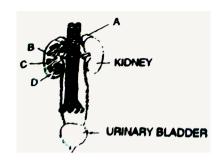
**Answer: 4** 



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**12.** Figure shows human urinary system with structures labelled A to D. Select option which correctly identifies them and gives their

# characteristics and/or functions



- A. C- Medulla inner zone of kidney and contains complete nephrons
- B. D-Cortex-outer part of kidney and do not contain any part of nephrons.
- C. A Adrenal gland -located at the anterior part of kidney. Secrete Cat- echolamines which stimulate glyco- gen breakdown

D. B-Pelvis-broad funnel shaped space inner to hilum, directly connected to loops of Henle.

### **Answer: 3**



**13.** The H-zone in the skeletal muscle fibre is due to

- A. (a) The central gap between actin filaments extending through myosin filaments in the A-band
  - B. (b) Extension of myosin filaments in the central portion of the A-band.
  - C. (c) The absence of myofibrils in the central portion of A-band
- D. (d) The central gap between myosin filaments in the A-band.

## Answer: 1

**14.** The figure shows a diagrammatic view of human respiratory system with labels A, B, C and D. Select the option which gives correct identification and main function and/ or characteristic



A. C-Alveoli - thin walled vascular bag like structures for exchange of gas- es.

B. D - Lower end of lungs-diaphragm pulls it down during inspiration

C. A- trachea -long tube supported by complete cartilaginous rings for conducting inspired air.

D. B-pleural membrane -surround ribs on both sides to provide cushion against rubbing.

#### Answer: 1



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# **15.** The characteristics and an example of a synovial joint in humans is

Charasteristics 2 1 2 2	Examples
(1) fluid filled synovial	joint between
cavity between	atlas and axis
two bones	
(2) lymph filled	gliding joint
between two	between
bones, limited	carpals
movement	
(3) fluid cartilage	Knee joint
between two bones,	
limited movements	
(4) fluid filled between	Skull bones
two joints, provides	
cushion	



**16.** Select the answer which correctly matches the endocrine gland with the hormone it secretes and its function/ deficiency symptom

Endocrine gland	Hormone	Function/ deficiency symptoms
(1) Thyroid gland	Thyroxine	Lack of iodine in diet results in goitre
(2) Corpus luteum	Testoste- rone	Stimulates spermato- genesis
(3) Anterior pituitary		Stimulate uterus cont- raction during
(4) Posterior (	Growth	child birth Oversecretion stimulates abnormal
		growth



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**17.** A diagram showing axon terminal and synapse is given. Identify correctly at least twoofA-D



A. A- Neurotransmitter, B-Synaptic cleft

B. C-Neurotransmitter, D- $Ca^{\,+\,+}$ 

C. A - Receptor, C-Synaptic vesicles

D. B-Synaptic connection , D- $K^{\,+}$ 

#### **Answer: 3**



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**18.** Product of sexual reproduction generally generates

A. New genetic combination leading to variation

B. Large biomass

C. Longer viability of seeds

D. Prolonged dormancy

Answer: 1

- 19. Menstrual flow occurs due to lack of
  - A. Oxytocin
  - B. Vasopressin
  - C. Progesterone
  - D. FSH

Answer: 3



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**20.** The diagram given here is the standard ECG of a normal person. The P-wave represents the



A. Beginning of the systole

B. End of systole

C. Contraction of both the atria

D. Initiation of the ventricular contraction

#### **Answer: 3**



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