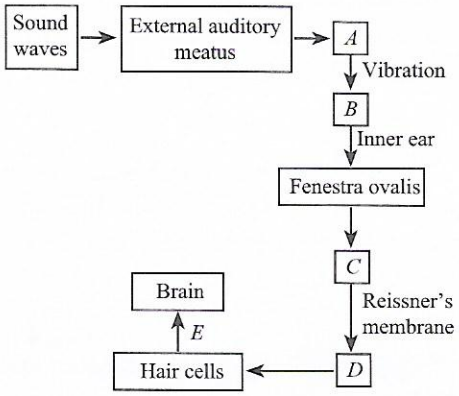
31. Study the given flow chart depicting hearing mechanism and identify the labelled parts *A*-*E*.



A. *A*-Tympanic cavity, *B*-Eustachian tube, *C*-Scala media, *D*-Scala vestibuli, *E*-Vestibular nerve

B. *A*-Tympanic membrane, *B*-Ear ossicles, *C*-Scala vestibuli, *D*-Scala media, *E*-Cochlear nerve

C. *A*-Eustachian tube, *B*-Tympanic membrane, *C*-Ampulla, *D*-Fenestra rotunda, *E*-Trigeminal nerve

D. *A*-Tunnel of Corti, *B*-Tectorial membrane, *C*-Spiral ganglion, *D*-Organ of Corti, *E*-Vagus nerve

32. Which of the following correctly shows the difference in the products of glycolysis and Krebs cycle per glucose molecule?

	Glycolysis	Krebs Cycle
A.	4 ATP, 1 reduced NAD	4 reduced NAD, 1 reduced FAD, 1 ATP
B.	4 ATP, 2 reduced NAD	8 reduced NAD, 2 reduced FAD, 2 ATP
C.	2 ATP, 1 reduced NAD	3 reduced NAD, 1 reduced FAD, 1 ATP
D.	2 ATP, 2 reduced NAD	6 reduced NAD, 2 reduced FAD, 2 ATP

33. Identify organisms *P*, *Q*, *R* and *S* from the given table and select the correct option regarding them.

Key:
– Absent
+ Present

	Organ grade organisation	Segmentation	Complete digestive system	Circulatory system
P	–	–	–	–
Q	+	–	–	–
R	+	–	+	+
S	+	+	+	+

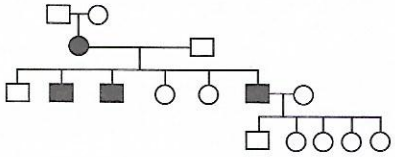
A. *P* could be *Serpula* whereas *Q* could be *Trichuris*.

B. *Q* could be *Echinococcus* whereas *R* could be *Ophiothrix*.

C. *R* could be *Hirudinaria* whereas *S* could be *Triturus*.

D. *P* could be *Astraea* whereas *S* could be *Balanus*.

34. The given pedigree shows the inheritance of a disease.



The disease can be categorised as

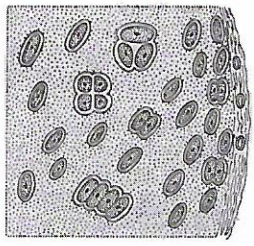
A. Autosomal dominant

B. Autosomal recessive

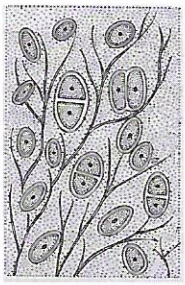
C. Sex-linked dominant

D. Sex-linked recessive.

35. Identify *X* and *Y* from the given figures and select the option that correctly states their location.



X



Y

	X	*Y*
A.	Hyoid apparatus	Pubic symphysis
B.	Eustachian tube	Rings of trachea
C.	Pelvic girdle	Nasal septum
D.	Rings of bronchi	Tip of nose

36. Following are some characteristics of a plant family.

(i) Flower : Complete, bisexual, actinomorphic

(ii) Calyx : Sepals 5, gamosepalous

(iii) Corolla : Petals 5, gamopetalous

(iv) Androecium : Stamens five, polyandrous, epipetalous

(v) Gynoecium : Bicarpellary, syncarpous, superior ovary

Select the floral formula that corresponds to the given family characteristics.

A. $\oplus ♀ K_{(1)+4} C_{(5)} A_{(5)} \underline{G}_2$

B. $\% ♀ K_{(5)} \overset{\frown}{C_{1+2+(2)}} A_{1+(4)} \underline{G}_2$