

12.	C- Peptide- Proinsulin ADA deficiency- Gene therapy Retoviruses- Vector	$\frac{1}{2} \times 3$	1 $\frac{1}{2}$
13	They may not be safe . GM Research may lead to the production of many genetically modified organisms which may lead to unpredictable results when introduced into the ecosystem.	$\frac{1}{2}$ 2	2 $\frac{1}{2}$
14	Simple stirred -Bioreactor. Large scale production of proteins, antibiotics , vaccines etc.. He can help her.	1 1 $\frac{1}{2}$	2 $\frac{1}{2}$
15	Biotechnologist can develop a cybrid through Somatic hybridization. Explain	$\frac{1}{2}$ 2	2 $\frac{1}{2}$



Qn No:	<p style="text-align: center;"><u>VHSE 11 BIOLOGY PART B ZOOLOGY</u></p> <p style="text-align: center;">SCORING INDICATORS</p>	SCORE	TOTAL
1	a. Androgen b. XXY	$\frac{1}{2} \times 2$	1
2	A- Malaria B- Ascaris C- Anaemia / Internal bleeding/fever/muscular pain D- Salmonella	$\frac{1}{2} \times 4$	2
3	5' – AUGGCACAUUGCAUGCAUGCAUGC -3'	2	2
4	Yes. This ban is necessary. In many areas of our country, a tendency of destroying female foetus still exists. Amniocentesis for sex determination can be misused for female foeticide.	$\frac{1}{2} + 1$	1 $\frac{1}{2}$
5	<p>Saltation is single step large mutation which can cause speciation.</p> <p>Metastasis Ccancer cells sloughed from the tumours reach distant sites through blood and wherever they get lodged in the body , they start a new tumour there. This property of malignant tumours is called metastasis.</p> <p>Colostrum is the milk produced during the initial stages of lactation. It contains many antibodies essential to develop resistance for the newborn babies.</p>	1x3	3
6	Transformation . Transformation is seen only in bacteria. Others are related to DNA or RNA in almost all life forms.	$\frac{1}{2} + \frac{1}{2}$	1
7	<p>MTP – Medical Termination of Pregenency</p> <p>ELISA- Enzyme Linked Immuno Sorbent Assay</p> <p>VNTR- Variable Number of Tandem Repeats</p> <p>AIDS - Acquired Immuno Deficiency Syndrome</p> <p>STD – Sexually Trasmitted Disease</p>	$\frac{1}{2} \times 5$	2 $\frac{1}{2}$
8	<p>a. z,y and a are structural genes</p> <p>b. The gene O is operator gene. The repressor binds with the operator and prevents RNA Polymerase from transcribing the operon.</p> <p>c. The i gene produces the repressor that binds to the operator and prevents RNA polymerase from transcribing the operon.</p>	1 1 1	3

9	Slogans like USE CONDOMS AVOID AIDS	1x3	3
10	Nucleosome A- DNA B-Histone octamer C- H1 histone	$\frac{1}{2}$ $\frac{1}{2} \times 3 = 1 \frac{1}{2}$	2
11	Australopithecus , Homo habilis, Homo erectus, Homo sapiens	2	2
12	Nitrogen bases- Adenine, Uracil Nucleosides - Cytidine, Guanosine, Thymidine	$\frac{1}{2} \times 5$	2 $\frac{1}{2}$
13	Gene flow, genetic drift, Mutation, Genetic recombination	$\frac{1}{2} \times 4$	2
14	Stem cells are certain cells in the inner cell mass of the embryo which have the potency to give rise to all the tissues and organs. If the stem cells are preserved, they can be used for future use.	$\frac{1}{2}$ $\frac{1}{2}$	1
15	Yes. Thorns and tendrils of Bougainvillea and Cucurbita. Forelimb bones of whales, bats, cheetah and human	$\frac{1}{2}$ 1	1 $\frac{1}{2}$
		