BLUE PRINT OF CLASS 11 (BIOLOGY) S.E. EXAM

BLUE PRINT (SAMPLE)

	Type of question→ Unit↓	VSA (1 Mark)	SA I (2 Marks)	SA II (3 Marks)	LA (5 Marks)	Total
1.	**Diversity in living World (OTBA)**	--	2(1)	3(1)	5(1)	**10(3)**
2.	**Str. Organisation in plants and animals**	1(1)	4(2)	6(2)	--	**11(5)**
3.	**Cell structure and Function**	2(2)	2(1)	6(2)	5(1)	**15(6)**
4.	**Plant Physiology**	1(1)	2(1)	9(3)	5(1)	**17(6)**
5.	**Animal Physiology**	1(1)	4(2)	6(2)	5(1)	**17(6)**
	Total	**5(5)**	**14(7)**	**31 (10)**	**20(4)**	**60(24)**

KENDRIYA VIDYALAYA SANGATHAN

Session Ending Exam

QUESTION PAPER (SAMPLE)

Class :XI **Subject: Biology**

Time Allowed-3:30 Hours **Max.Marks.:70**

General Instruction:-

(i) This question paper consists of four section A B C and D. Section a consist of 6 questions of mark each, Section B is of 6 questions of two marks each, Section C is of 9 questions of three marks each and section D is of 3 questions of five marks each.

(ii) All questions are compulsory.

(iii) There is overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and three questions of 5 marks weightage.

(iv) There is one additional section E of OBTA of 10 marks except 60 marks.

SECTION - A

Q 1. How is eukaryotic ribosomes differ from prokaryotic ribosome?

Q 2. What is Aestivation?

Q 3. What is peptide bond ? Show it by bond formation ?

Q 4. What is major limiting factor for photosynthesis?

Q 5. In which condition JG cells release renin ?

SECTION – B

Q 6. Why is leghaemoglobin so called ? What is its function ?

Q 7. Differentiate between pulmonary and systemic circulation.

Q 8. Write the floral formula of an actinomorphic, bisexual ,hypogynous flower with five united Sepals, five free petals, five free stamen and two united carpels with superior ovary and exile placentation.

OR

Draw the structure of a maize grain and show Radical and plumule .

Q 9. What is the difference between root hairs and trichomes. Mention one function of each.

Q 10. Write the names of various kinds of vertebra and their number present in the vertebral column of human being.

Q 11. The water flow beyond cortex in roots only through symplastic pathway. Why?

SECTION – C

Q 12. What are the mouth parts of a cockroach? Which part among them acting as tongue?

Q 13. What are Nucleic acids found in living body? Differentiate Nucleotide and nucleoside. Name Nitrogenous bases which are purines and pyrimidines.

OR

What are enzymes? What is competitive inhibitor? Define Apo enzyme and coenzyme.

Q 14. Who proposed fluid mosaic model of plasma membrane. Draw its structure and write any two functions of it.

Q 15. How many molecules of carbon dioxide, ATP and NADPH are required to make one molecule of glucose?

Q 16. Name any three phytohormones. Mention their functions.

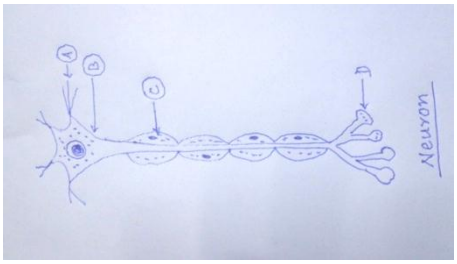
Q 17. (i)Name the gland of human which acts as exocrine as well as endocrine gland.

(ii)Name the hormones secreted by alpha cells and beta cells of this gland.

(iii)What are the functions of these hormones?

Q 18. Define osmosis and diffusion. How does plasmolysis occur?

Q 19.



(i) Mention A, B, C AND D in the below diagram of a neuron.

(ii) What is the difference between afferent and efferent fibres of CNS?

Q 20. While visiting the agriculture farm in village Tanu and Manu are confused to see that the eatable part of the potato are present underground and some roots are hanging from the stem of banyan tree. They tries to correlate their observation with their study and after returning back they asked the teacher to explain its reason –

(a) Why underground swollen part of potato is a stem and hanging brown fibrous part of banyan tree are roots. Justify your answer. Give some other examples of underground stems & Ariel roots.

SECTION – D

Q.21. What is cell cycle? Draw the diagrammatic representation of cell cycle. Name the phase of DNA synthesis.

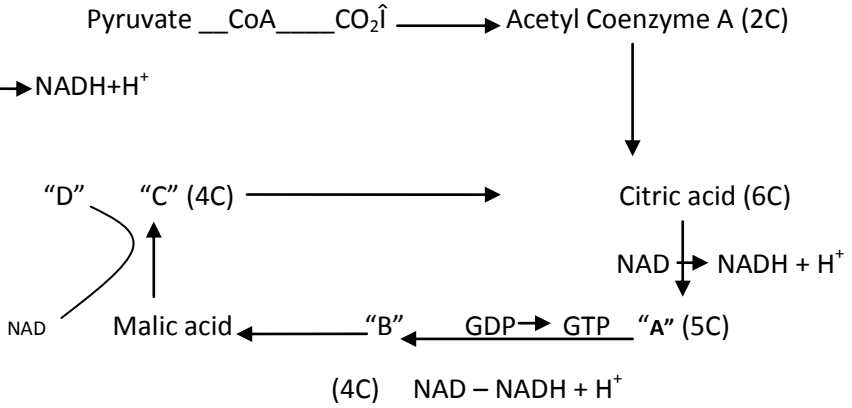
OR

Write a specific scientific term for each of the following:-

(i) Chromosomes are arranged on equatorial plate during mitosis.

(ii) Disappearance of nuclear membrane during mitosis
(iii) Reappearance of chromosomes in mitosis .
(iv) Pairing of homologous chromosomes in meiosis I.
(v) Enzyme involved in crossing over in prophase I.

Q.22. (I) MentionA, B, C, D in the following cycle?



(ii) How many ATP are formed by the reduction of one molecule of FAD into FADH2.

OR

Write differences between C_3 and C_4plants. (Any five differences).

Q.23.(i) Draw a well lebelled diagram of digestive system of human.

(ii) What is the function of HCl in stomach?

OR

(a) What is the role of haemoglobin in transportation of Oxygen in our body?
(b) What do you mean by pO_2 and pCO_2 ? How do they affect transport of Oxygen? Explain with Oxygen Dissociation Curve.

SECTION – E

Q.24 2 marks question from OTBA

Q.25 3 marks question from OTBA

Q.26 5 marks question from OTBA

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SESSION ENDING EXAM 2014-15
BIOLOGY- XI

ERROR ANALYSIS (SAMPLE)

Name of Student: **Roll No:** **M.M.:** **70**

Unit	**I**				**II**					**III**					**IV**							**v**							**TOTAL**
Chapter	**1**	**2**	**3**	**4**	**5**		**6**		**7**	**8**		**9**		**10**	**11**		**12**	**13**		**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	
Q.No	21	22	23	24	2	20	8	9	12	1	14	3	13	21	11	18	6	4	15	22	16	23	23	7	5	10	19	17	
Marks Alloted	2	3	5	1	1	3	2	2	3	1	3	1	3	5	2	3	2	1	3	5	3	5	5	2	1	2	3	3	**70**
Marks Obtained																													
Total Marks In Chapter	11				11					13					19							16							
Total Of Unit																													

Total Marks Obtained	

Signature of Examiner

S.E.EXAM (2014-15)

SUBJECT- BIOLOGY **CLASS-XI**

MARKING SCHEME (SAMPLE)

SECTION – A

Q 1. Erkayotic ribosome – 80 s, Prokaryotic ribosome 70 s.

Q 2. Correct Definition.

Q 3. The bond between carboxyl group (COOH) of one amino acid and Amino group (NH_2) of another

Q 4. CO_2

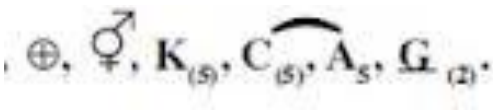
Q 5. A fall in glomerulaur blood/Glomenlar blood pressure/GFR

SECTION – B

Q 6. Leg haemoglobin resembles hemoglobin of vertebrates since it is present in root nodule of leguminous plant. Function – oxygen seavenger and protects nitrogenase from oxygen.

Q 7. Correct difference.

Q 8.



OR

See diagram page 77 of NCERT.

Q 9. See page 89 of NCERT.

Q 10. Cevicalvo=7, Thoraric V = 12 , Lumber V=5, Sucral = 1 fused Coccygeal (caudal) = 1 fused

Q 11. Due to presence impermeable suberin layer on endodermis.

SECTION – C

Q 12. Page 112 of NCERT.

Q 13. DNA and RNA

Nucleotide-P+S+N.B
Nucleoside – S+NB
Purines- Adenine, Guanine
Pyrimidines- cytosine, thymine,Uracil

OR

See page 158 of NCERT.

Q 14. Page 131 of NCERT.

Q 15. CO_2 – 6 molecules

ATP- 18 molecules
NADPH- 12 Molecules

Q 16. Name and Function

Q 17. (i) Pancreas
(ii) Alpha-cell-Glucagon
Beta – cell –Insulin
(iii) Correct function of each.

Q 18. Definition & process of plasmolysis

Q 19. Page 317 & 316 of NCERT

Q 20. (a) Correct justification – 3 Marks (b) 2 – 2 examples for each – 2 Marks

Q 21. Page 163 of NCERT

OR

(I) Metaphase (ii) Prophase (iii) Anaphase (iv) zygotene (v) pachytene

Q 22. (A) α ketoglutaric acid
(B) Succinic Acid
(C) oxaloacetic Acid
(D) NAD → $NADH+H^+$
(ii) 2ATP

OR

Any five differences

Q 23. Page 258 of NCERT
(ii) Pepsinogen $\xrightarrow{HCl}$ Pepsin (active)
provided acidic medium for the action of enzyme of Gastric juice

OR

(a) Oxygen + haemoglobin $\xrightarrow[\text{High } PO_2 \text{ (in lungs)}]{\text{Low } pCO_2}$ Oxyhaemoglobin

Oxyhaemoglobin $\xrightarrow[\text{High } PO_2 \text{ (In tissues)}]{\text{Low } pCO_2}$ haemoglobin + Oxygen

(b) Correct explanation with Oxygen dissociation. 3

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