



ASIA ENGLISH SCHOOL		1 st Term Exam September 2009-10
Secondary /Higher Secondary Section		Date :17-09-09
Asia Campus, Drive-in Road, Ahmedabad-380054		Time : 3 hours
Std : XII	Sub : Biology	Total Marks : 100

Roll No. _____

SECTION – A**Each question Carries one mark.****[16]**

- (1) A cell dipped in 0.5M sucrose solution does not show any effect. On dipping in 0.5 M NaCl, it will
[a] Increase in size [b] Decrease in size
[c] Become turgid [d] Get plasmolysed
- (2) Plants need one of the following for ATP formation
[a] N, P [b] N, Cu [c] N, Ca [d] K
- (3) How many molecules of glycine are required to release one molecule of CO₂ in photorespiration.
[a] One [b] two [c] three [d] four
- (4) Glycolysis takes place in
[a] All cells [b] Only eukaryotic cells [c] Muscle cells [d] Nerve cells
- (5) Prolonged thiamine deficiency in diet leads to
[a] Loss of muscle tone and damage to nerves [b] Pellagra
[c] Haemorrhage [d] Anaemia
- (6) Digestive juice lacking enzyme but aiding in digestion is
[a] Chyle [b] Chyme [c] Bile [d] succus entericus
- (7) Exchange of gases in lung alveoli occurs through.
[a] Active transport [b] osmosis [c] simple diffusion [d] passive transport
- (8) Which is used to prevent bleeding ?
[a] Vitamin A [b] Vitamin C [c] vitamin B12 [d] Vitamin k
- (9) IN Amoeba, NH₃ is excreted through
[a] Food vacuole [b] Plasma membrane
[c] Contractile Vacuole [d] All of above
- (10) Joint between atlas and axis is
[a] Pivot [b] Hinge [c] cartilagenous joints [d] Fibrous joints
- (11) Blind spot is the area of the eye where
[a] Colour vision occurs [b] Light intensity is perceived
[c] Rod and cone cells are irregularly distributed.
[d] Rod and cone cells are absent.
- (12) A person passes excessive urine and drinks much water but his glucose level is normal. It is due to
[a] Increased secretion of glucagon.
[b] Fall in glucose released in Urine
[c] Reduction in Insulin secretion.
[d] Reduction in Vasopressin secretion in posterior pituitary.
- (13) In a fertilized ovule n, 2n and 3n conditions occur respectively in
[a] Antipodal, egg and endosperm
[b] Egg, nucellus and endosperm
[c] Endosperm, nucellus and egg.
[d] Antipodal, synergids and integuments.
- (14) One set of plants exposed to 12 hr day and 12 hr night flowered. The other set with similar exposure to day-night period but with dark period interrupted by flash of light did not come to flower. The plant is
[a] Long day [b] Day neutral
[c] Intermediate [d] Short day

(P.T.O.)

- (15) The germinal epithelium of seminiferous tubule possesses the cells mentioned below :
- | | |
|-------------------|------------------------|
| [a] Sertoli cells | [b] Interstitial cells |
| [c] Sperm cells | [d] Blood cells |
- (16) _____ can regenerate alimentary canal
- | | |
|------------------|-----------|
| [a] Sea cucumber | [b] Birds |
| [c] Amphibian | [d] Fish |

SECTION – B

Each question carries 1 mark

[16]

- (17) Name the theory which is based on the force between the water molecules and state its use ?
- (18) What is the role of study of the method of 'Hydroponics' ?
- (19) Name the pigment in photosynthetic bacteria and which chemical do they use for photosynthesis
- (20) From which compound 5-C-Ribulose phosphate is formed in PPP.
- (21) Name the vitamins, whose deficiency causes Anaemia.
- (22) Which part of large intestine does not play the role of absorption of digestive food.
- (23) Name the respiratory diseases caused due to excessive smoking ?
- (24) Two auricles are separated from two ventricles externally by a groove Name it ?
- (25) Name the excretory organ in Annelids and explain its structure as per text ?
- (26) State the importance of cilia in Bivalves ?
- (27) Name the longest bone of human body and the small bone attached at its posterior end ?
- (28) Give the another name of the brain of frog also explain how it is formed ?
- (29) Explain formation of G-Protein and its function ?
- (30) Name the type of pollination observed in Cannabis and state the characters of the flowers & pollen which undergo this pollination ?
- (31) Explain abscission and the reason for abscission ?
- (32) Explain the term morphogenesis

SECTION – C

Each questions carries 2 marks.

[24]

- (33) Explain the word symplast pathway and how it is different from apoplast pathway ?
- (34) State the importance of mineral element which is the constituent of chlorophyll (any one with 4 pts.) ?
- (35) Explain photolysis of H_2O , the minerals which play an important role and give the reaction ?

OR

Explain Hatch – Slack pathway ?

- (36) Explain balanced diet & malnutrition ?
- (37) Explain very briefly the structure of G.I. tract ?
- (38) Explain open circulatory system of Arthropoda ?
- (39) Under which category does the reptiles fall with reference to excretion. Explain the types and give examples other than reptiles
- (40) Write notes or functions on the system which gives shape to the human body.
- (41) What is Hippocampus. To which part of the body system it belongs. Explain that system.
- (42) Explain the three phases of Growth in plants ?
- (43) Write notes on Grafting ?
- (44) Define ageing and state its causes ?

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SECTION – D**Each question carries 3 marks.****[24]**

- (45) Explain the movements of plant which is based on the directional stimulus ?
(46) Describe different methods of reproduction in unicellular animals ?
(47) Describe Active potential ?
(48) Describe Lymphatic system ?

OR

- Describe : Hypertension ?
(49) Describe cyclic photophosphorylation (figure is necessary)
(50) Describe the process which takes place on the Cristae
(51) Explain nervous system of Cockroach.
(52) Describe the water soluble and fat soluble Vitamins with their functional importance.

SECTION – E**Each question carries 4 marks.****[20]**

- (53) Explain the human membrane which protect the embryo and supplies nutrients to it ?

OR

- Explain endocrine theory of ageing ?
(54) When is a seed unable to germinate ? What is it know as ? Explain.

OR

- Explain the three unusual methods of embryo development in plants ?
(55) Explain role of hormones as chemical messengers and regulators ?
(56) Explain the structure of human ear ?
(57) Describe the internal structure of kidney and Uriniferous tubule ?
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