Date of Examination

No of Questions:
No of Pages :

GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY

MODEL EXAM PAPER FOR SELECTION TEST FOR CIVIL CANDIDATES ENROLMENT FOR 39TH INTAKE FACULTY OF ALLIED HEALTH SCIENCES

SUBJECT RELATED

Instructions:
Answer all questions.
Use the answer sheet given to you.

Mark an 'X' in the box representing the correct answer against the relevant question number. There is only a single correct answer for each question. Avoid marking multiple answers.

Biology

1. Which one of the following organelles is involved in modifying and packaging of proteins?
   A. Ribosomes.
   B. Golgi complex.
   C. Smooth endoplasmic reticulum.
   D. Rough endoplasmic reticulum.

2. Energy currency of the human body is
   A. ADP.
   B. ATP.
   C. NADH.
   D. FADH.

3. Prokaryotic cells lack
   A. plasma membranes.
   B. DNA.
   C. membrane bound organelles.
   D. ribosomes.

4. The functional and structural unit of the kidney is
   A. Bowman's capsule.
   B. Nephron.
   C. loop of Henle.
   D. proximal convoluted tubule.

Chemistry

5. Most electronegative element among the following is
   A. Sodium.
   B. Bromine.
   C. Francium.
   D. Oxygen.

6. The metal used to recover copper from a solution of copper sulphate is
   A. Na.
   B. Ag.
   C. Hg.
   D. Fe.

7. Which of the following gives the correct sequence of compounds to represent bond nature as polar covalent, ionic, and non-polar covalent respectively?

   A. SiO_2, CaO, I_2.
   B. CaO, SiO_2, I_2.
   C. I_2, CaO, SiO_2.
   D. SiO_2, I_2, CaO.
   E.

Physics

8. Which statement from the following **does not** describe a reaction at equilibrium?
   A. Forward and backward reactions occur at equal rates.
   B. The system must be closed.
   C. Equilibrium constant (Kc) increases as the reaction progresses.
   D. Concentrations of reactants and products are constant.

9. A stone dropped from rest reaches the ground in 8 seconds. The distance travelled by the stone in the last second is

   A. 320 m.
   B. 160 m.
   C. 75 m.
   D. 70 m.

10. A washing machine is operated with a motor of 320 W and the rotating disc of it has a moment of inertia 5 kgm2. Starting from rest, how long will it take to acquire a frequency of 240 rpm under the above power? ($\pi 2 = 10$)
   A. 3 s
   B. 5 s
   C. 8 s
   D. 10 s