

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, January 2021**

**Course: Remedial Biology**

**Semester: 1<sup>st</sup>**

**Program: B.Sc. Nutrition/Clinical/Micro/B.Tech Food-Tech**

**Time 03 hrs.**

**Course Code: BP106RBT**

**Max. Marks: 100**

**Instructions:**

**SECTION A**

**1. Each Question will carry 5 Marks**

**2. Instruction: Complete the statement / Select the correct answer(s)**

S. No.	Statement of question (Attempt all questions)	30	CO
Q 1	<p><b>Assertion:</b> Pericycle of monocot roots show dual functioning.</p> <p><b>Reason:</b> Pericycle of monocot root helps in formation of lateral roots and secondary growth.</p> <p>A) If both assertion and reason are true and reason is correct explanation of assertion.</p> <p>B) If both assertion and reason are true but reason is not correct explanation of assertion.</p> <p>C) If assertion is incorrect and reason is true.</p> <p>D) Both assertion and reason is false.</p>	5	CO1
Q 2	<p><b>Assertion(A):</b> Carbon monoxide when inhaled causes death.</p> <p><b>Reason(R):</b> Carbon monoxide combines with hemoglobin.</p> <p>A) Both A and R are true and R is the correct explanation of A.</p> <p>B) Both A and R are true but R is not the correct explanation of A.</p> <p>C) A is true but R is false.</p> <p>D) A is false but R is true.</p> <p>E) Both A and R are false.</p>	5	CO2
Q 3	<p><b>Assertion:</b> Ovulation is controlled by the hormone oestrogen.</p> <p><b>Reason:</b> Contraceptives are, therefore, made up of both oestrogen and progesterone</p>	5	CO3

	<p>A) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.</p> <p>B) If both the assertion and reason are true but the reason is not a correct explanation of the assertion.</p> <p>C) If the assertion is true but the reason false.</p> <p>D) If both the assertion and reason are false.</p> <p>E) If the assertion is false but reason is true.</p>		
Q 4	<p><b>Assertion:</b> The only product of light reaction, required in dark reaction are NADPH and ATP.</p> <p><b>Reason:</b> Dark reaction occurs in night only.</p> <p>A) If both assertion and reason are true and the reason is a correct explanation of the A.</p> <p>B) If both assertion and reason are true but reason is not correct explanation of the A.</p> <p>C) If assertion is true but the reason is false.</p> <p>D) If both assertion and reason are false.</p>	5	CO4
Q 5	<p><b>Assertion:</b> Mitochondria are known as the powerhouse of a cell.</p> <p><b>Reason:</b> These generate energy (as ATP) for various cellular activities.</p> <p>A) If both assertion and reason are true and reason is the correct explanation of assertion.</p> <p>B) If both assertion and reason are true, but reason is not correct explanation of assertion.</p> <p>C) If assertion is true, but reason is false.</p> <p>D) If both assertion and reason is true.</p>	5	CO5
Q 6	<p>If Mr. Vikash Pandey has a resting heart rate of 60 beats per minute and a stroke volume of 70 mL, what is his cardiac output?</p> <p>A) 4.2 L/minute</p> <p>B) 70 L/minute</p> <p>C) 4200 L/minute</p> <p>D) 60 L/minute</p>	5	CO2

**SECTION B****1. Each question will carry 10 marks. Answer all 5 questions.****2. Instruction: Write short / brief notes**

	Statement of question	50	CO
Q 1	Give a suitable example of modification (both tap and adventitious) for storage of food.	10	CO1
Q 2	Discuss mechanism of breathing and its regulation.	10	CO2
Q 3	Give an outline for mechanism of urine formation.	10	CO3
Q 4	Discuss in detail plant macro-micro nutrients.	10	CO4
Q 5	Define photosynthesis along with factors affecting photosynthesis.  <b>OR</b>  Discuss cell and cell organelles.	10	CO5

**SECTION C****1. Each question will carry 20 marks.****2. Instruction: Write Long Answer.**

	Statement of question	20	CO
Q 1	Explain cell cycle and cell division <b>OR</b> Classify different types of plant tissues in detail with suitable examples.	20	CO5