

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Examination, May 2021**

**Course: Physiopathology of nutrition related disorders**

**Semester: IV**

**Program: BSc FND**

**Course Code: HSCC2009**

**Time: 03 hrs.**

**Max. Marks: 100**

**Instructions: Attempt all Sections.**

**SECTION A**

S. No.	MCQs or True and False or Fill in the blanks (1 marks each)	30 Marks	CO
1	In the stomach lining, the parietal cells release..... and the chief cells release ....., both play a role in peptic ulcer disease. a. Pepsin, HCl b. Pepsinogen, pepsin c. Pepsinogen, gastric acid d. HCl and pepsinogen	1.5	CO1
2	GERD is the back up of stomach acid into the esophagus. <b>True/ False</b>	1.5	CO2
3	Small Intestinal Bacterial Overgrowth is normally prevented by the combined action of antimicrobial peptides and immunoglobulins, secreted by small intestinal epithelial cells. <b>True/ False</b>	1.5	CO3
4	The etiology of gastroparesis includes, Select ALL that apply a. Stomach surgery b. Eating disorder c. Diabetes d. Fever	1.5	CO1
5	Cholecystitis disease is usually presented as a. pain in the right upper quadrant b. pain in the left upper quadrant c. pain in the left inguinal region d. umbilical region	1.5	CO2
6	A patient has developed a duodenal ulcer. As the healthcare expert, you know that which of the following plays a role in peptic ulcer formation. Select ALL that apply: a. Food b. Helicobacter pylori c. NSAIDs d. Milk e. Zollinger-Ellison syndrome	1.5	CO3

7	The main hormone secreted by the Thyroid gland is (Tick all that apply) a. Thyroxine b. Tri-iodothyronine c. Calcitonin d. TSH	1.5	CO1
8	The low serum T-3, T-4 levels, and markedly elevated TSH levels interpret the laboratory diagnosis in myxoedema. <b>True/ False</b>	1.5	CO2
9	Which of the following are the associated risk factors for irritable bowel syndrome (IBS)? a. Alcohol consumption b. Obesity c. Hypertension d. All of the above	1.5	CO3
10	Insulin is synthesized in the beta cells of pancreatic islets, which of the following statement is true about insulin. a. Insulin is initially formed as pre-proinsulin which is single chain 86 aminoacid precursor polypeptide. b. Human insulin protein consisted of 55 amino-acids. c. The function of insulin is the regulation of body temperature. d. Insulin is considered as the main catabolic hormone.	1.5	CO1
11	The accumulation of .....in the body causes gout. a. Neutrophils b. Uric acid c. Synovial fluid d. Leukocytes	1.5	CO2
12	Which of the following is TRUE about the etiology of RA? a. It is likely an autoimmune disease. b. It is believed that infectious, genetic, and hormonal factors may be contributing factors. c. If one monozygotic twin has RA, there is a 1 in 2 chance that the other twin will develop the same disease. d. Both A and B	1.5	CO3
13	Which of the following is the function of the human liver? Tick all that apply a. Production of bile b. Metabolization of fats c. Metabolization of carbohydrates d. Detoxification of chemicals	1.5	CO1
14	Reflux is an alternative term for _____. a. Vomiting b. Acid erosion c. Regurgitation d. Salivating	1.5	CO2
15	This transmission of this form of Hepatitis could occur via contaminated water or food. a. A and E b. C c. B	1.5	CO3

	d. All of these.		
16	This nucleic acid .....is found in hepatitis B virus. a. dsRNA b. ssDNA c. ssRNA d. dsDNA	1.5	CO1
17	Short bowel syndrome is characterized by all of the following except: a. Steatorrhea b. Hypogastrinemia c. Diarrhea d. Weight loss	1.5	CO2
18	Which of the following is not a symptom of lactose intolerance? a. Bloating b. Cramps c. Nausea d. Fever	1.5	CO3
19	Gout is usually caused by abnormal metabolism of ..... a. Pyrimidine b. Purine c. Glucose d. Fats	1.5	CO1
20	Moon face, weight gain, buffalo hump are the clinical manifestations of ..... a. Addison's disease b. Cushing syndrome c. Hypothyroidism d. None of them	1.5	CO2
<b>SECTION B the word limit 20 marks 4 questions 5 marks each</b>			
Q	Short Answer Type Question (5 marks each) Scan and Upload 4 questions 5 marks each (word limit not more than 80 words)	20 Marks	CO
1	Explain the anatomy of pancreas and the role of pancreatic cells.	5	CO1
2	Which food causes lactose intolerance? Mention its pathophysiological mechanism.	2+3	CO2
3	Classify Hepatitis? What is the mode of transmission of Hepatitis B and D?	5	CO2
4	Enumerate the functions of liver? Name the disorders associated with liver.	2+3	CO1
<b>SECTION C 30 marks</b>			
Q	<b>Two case studies 15 marks each subsections</b>	30 Marks	CO
1	<b>Case Study 1</b> A 52-year-old woman with obesity and a 9-year history of type 2 diabetes presents with complaints of fatigue, difficulty losing weight, and no motivation. She denies polyuria, polydipsia, polyphagia, blurred vision, or vaginal infections. She notes a marked decrease in her energy level, particularly in the afternoons. Her blood glucose values on capillary blood glucose testing have been 170–200 mg/dl before breakfast.	15	CO3, CO5

	<p>Before supper and bedtime values range from 150 mg/dl to &gt;300 mg/dl. Her blood pressure is 160/88 mmHg.</p> <ol style="list-style-type: none"> <li>1. Can individuals on high insulin doses successfully lose weight? 1 marks</li> <li>2. What intervention you suggest for weight management? 3 marks</li> <li>3. What diet can be planned for the management of the disease and explain why? 5 marks</li> <li>4. What are the possible causes and risk factors associated with the diabetes? 4 marks</li> <li>5. What are the complications of this disease? 2 marks</li> </ol>		
2	<p><b>Case Study 2</b>  <b>History:</b> A 55-year-old house-wife complains of progressive weight gain of 10 kgs in 1 year, fatigue, postural dizziness, loss of memory, slow speech, deepening of her voice, dry skin, constipation, and cold intolerance.  <b>Vital signs</b> include a temperature 96.8<sup>0</sup>F, pulse 58/minute and regular, BP 110/60. She is moderately obese, speaks slowly, and has a puffy face, with pale, cool, dry, and thick skin. The thyroid gland is not palpable. The deep tendon reflex time is delayed.  <b>Laboratory studies:</b> CBC and differential WBC are normal. The serum T4 concentration is 3.8 ug/dl (Normal range = 4.5-12.5), the serum TSH is 0.1 uU/ml (N=0.2-3.5), and the serum cholesterol is 255 mg/dl (N&lt;200).</p> <ol style="list-style-type: none"> <li>1. Identify the disease. 1 marks</li> <li>2. What are the symptoms that made you consider that diagnosis? 3 marks</li> <li>3. What physical findings supported the diagnosis? 5 marks</li> <li>4. Which lab data supported the diagnosis? 2 marks</li> <li>5. What are the most likely causes? 4 marks</li> </ol>	15	CO3, CO5
<b>SECTION- D 20 marks</b>			
Q	Long Answer type Questions Scan and Upload (10 marks each) <b>word limit</b>	<b>20 Marks</b>	<b>CO</b>
1	Inflammatory Bowel disease causes deficiency of vitamins, minerals how? Explain the pathophysiology of IBD? Or What is Gluten? Explain the pathophysiology of Gluten Induced Enteropathy. (word limit not more than 400 words)	<b>10</b>	<b>CO4</b>
2	Explain about the disorders associated with adrenal glands. (word limit not more than 400 words)	<b>10</b>	<b>CO4</b>