Harvard
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PHYSIO

GASTROINTESTINAL

2ND YEAR

MCQ L1

Dr/M.M

Written GIT 1

1) Enumerate function and control of gastrin?

2) Enumerate function and control of CCK?

3) Enumerate function and control of secretin?

4) Mention function and control of GIP?

MCQ (Formative and Important Q)

1. High acidity in the duodenum stimulates release of: *A) Gastrin* *B) Mottlin* *C) Secretin* *D) VIP* *E) CCK*	**C**
2. Inhibition of somatostatin would most likely cause: *A) Excess gastrin and acid secretion* *B) Reduced insulin release* *C) Reduced VIP secretion* *D) Decreased peristalsis* *E) Increased bile storage*	**A**
3. Gastric emptying is inhibited by: *a) calcitonin* *b) CCK.* *c) Gastrin* *d) motulin* *e) Acetyl choline*	**B**

4. Which hormone is possibly increased in a patient with a tumor increasing gastric H+ level? *a) CCK* *b) VIP* *c) Secretin* *d) Moulin* *e) GIP*	***C***
5. The function of secretin hormone is: *a) contraction of gallbladder wall* *b) regulation of food intake* *c) stimulation of gastric emptying* *d) stimulation of HCL secretion* *e) stimulation of pancreatic secretion.*	***E***
6. Release of gastrin from G cells in Antrum is inhibited by which of the following? *a. Circulating acetyl choline* *b. Blood borne Ca++* *c. Distension of stomach* *d. Somatostatin* *e. Alkalinity of gastric mucosa*	***D***
7. How the duodenum normally protects itself against ulcer formation? *a) It has thick viscous mucus layer* *b) It has thick apical membrane* *c) Release of histamine by EC like cells* *d) Rich in blood supply* *e) S- cells release secretin*	***E***

8. Sympathetic stimulation to GIT leads to: *a) Inhibition of all functions and constriction of blood vessels.* *b) Inhibition of GIT motility and dilation of blood vessels* *c) Only, inhibition of gastrin secretion* *d) Stimulation of all GIT secretion* *e) Stimulation of GIT secretion and inhibition of its motility*	***A***
9. The major cause of gallbladder evacuation is: *a) Sympathetic stimulation* *b) Overfilling of the gallbladder with bile* *c) A hormone synthesized by the duodenal mucosa and affects gallbladder wall* *d) The rate of cholesterol synthesis and excretion by the liver* *e) A pancreatic hormone that control the sphincter of oddi*	***C***
10. Which hormone will be inhibited by Low gastric PH? *a) Cholecystokinin (CCK).* *b) Gastrin* *c) Gastric inhibitory polypeptide (GIP)* *d) Secretin.* *e) Vasoactive intestinal polypeptide (VIP).*	***B***
11. Which of the following is related to short reflexes that regulate GIT function? *a) All reflex components are located in the wall of the gut.* *b) They are carried by the sympathetic nerves.* *c) They are carried only by parasympathetic fibers.* *d) They cannot regulate GIT functions in absence of extrinsic innervation* *e) They involve centers in the CNS.*	***A***

12. Which of the following is stimulated by CCK hormone? *a) contraction of gall bladder* *b) gastric motility* *c) gastric secretion.* *d) growth of gastric mucosa* *e) insulin secretion*	***A***
13. Cholecystokinin: *a) is a glycoprotein hormone.* *b) is secreted mainly by the stomach.* *c) stimulates gastric emptying.* *d) Stimulates relaxation of gall bladder.* *e) stimulates secretion of pancreatic enzymes*	***E***
14. A hormone regulates intestinal motility between meals preparing it for next meal: *a) CCK.* *b) GIP* *c) Gastrin.* *d) Motilin.* *e) Secretin.*	***D***
15. Inhibition of the myenteric plexus leads to which of the following? *(A) Increased Secretion of Secretin from the duodenum.* *B) Decreased gut motility.* *(C) Hyperacidity in the stomach.* *(D) Diarrhea.*	***B***

16. The pH of duodenal content is increased by: *a) Gastrin.* *b) GRP.* *c) Intrinsic factor.* *d) Pepsin.* *e) Secretin*	***E***
17. Patient with gastrin secreting tumor would be likely to have: *a) Decrease HCL secretion* *b) Duodenal ulceration.* *c) Increase gastric pH in between meals.* *d) Low incidence of gastro-esophageal reflux disease.* *e) Protein malabsorption.*	***B***
18. Which of the following substances is secreted in response to oral glucose load? *a) Secretin.* *b) Gastrin.* *c) CCK.* *d) VIP.* *e) GIP.*	***E***
19. Cholecystokinin: *a) Is a glycoprotein.* *b) Is secreted mainly by the distal ileum.* *c) Stimulate relaxation of gall bladder.* *d) Is released into blood and stimulates secretion of pancreatic enzymes.*	***D***

20. Which of the following is a site of gastrin secretion: *a) Gastric fundus.* *b) Gastric antrum.* *c) Rectum.* *d) Ilium.* *e) Colon.*	***B***
21. The Secretin hormone: *(A) Is secreted by the pancreas.* *(B) Is released by the pyloric mucosa.* *(C) Contracts the gall bladder wall.* *(D) Increases the pancreatic Secretion of water and HCO3-.*	***D***
22. The Secretion of gastrin cease (stop): *(A) When the stomach is distended by meal.* *(B) When the PH of the gastric content is decreased below 2.* *(C) If the fundic mucosa is anaesthetized.* *(D) If the vagi are stimulated.* *(E) If histamine is injected.*	***B***
23. Stimulation of sub-mucosal plexus result in an Increase in which of the following? *(A) Motility of the gut.* *(B) Secretion of the gut.* *(C) Sphincter tone.* *(D) Stomach PH.*	***B***

24. Secretin: *(A) Is a GIT hormone Secreted from the pylorus.* *(B) Stimulates a pancreatic Secretion rich in enzymes.* *(C) Acts as powerful cholagogue.* *(D) Is secreted as a result of vagus nerve stimulation.* *(E) Stimulates gastric Secretion.* *(F) Is released as a result of contact of acid chyme to the duodenal mucosa.*	***F***
25. About the GIT hormones affecting gastric function: *(A) CCK and Secretin Increase both gastric Secretion and motility.* *(B) Gastrin Secretion is stimulated by the digestive products of fat.* *(C) Gastrin inhibits gastric Secretion and delay gastric emptying.* *(D) GIP and VIP inhibit gastric Secretion.* *(E) Somatstatin is a powerful Stimulator to both gastric Secretion and motility.*	***D***
26. It is known that gastrin: *(A) It is a large protein molecule, somewhat similar in size to pepsin.* *(B) Is not secreted by empty stomach when peristaltic movements may be quite forceful.* *(C) Reaches the secretory cells of the fundus of the stomach through the blood and not through the lumen.* *(D) Promotes the secretion of pepsin, but not that of HCL.*	***C***
27. It is known that secretin: *(A) It is a large protein hormone synthesized by the pancreas together with pancreozymin.* *(B) Is a small polypeptide synthesized by the intestinal mucosa.* *(C) Neutralizes directly the acid chyme that passes through the pylorus.* *(D) Has an optimal activity at a PH equal to 8.4.*	***B***

28. Concerning the gastrin hormone: *(A) It is secreted at the pyloric antrum and reaches the fundus through the gastric lumen.* *(B) It promotes the secretion of pepsin, but not HCL.* *(C) Its Secretion Stimulated by secretin and GIP.* *(D) It is structurally similar to CCK.* *(E) It has +ve feedback relation with gastric acidity.*	***D***
29. About Cholecystokinin-pancreozymin (CCK), all the following are true except: *(A) It is GIT hormone secreted by the duodenal mucosa in response to presence of fat or protein digestive products.* *(B) It causes contraction of the gall bladder wall being a natural cholagogue.* *(C) It produces a pancreatic Secretion rich in enzymes.* *(D) It potentiates the action of secretion on the pancreas.* *(E) It inhibits both gastric and intestinal motility.*	***E***
30. The enteric nervous system that regulate GIT functions: *a) Few fibers go to the mouth and the thorax.* *b) It passes through the pelvic nerve* *c) It is responsible only for long reflexes.* *d) It arises mainly from vagus nerve.* *e) It is located in ganglia in myenteric and submucosal nerve plexuses.*	***E***
31. The intrinsic innervation regulating GIT functions is *a) Located in parasympathetic neurons.* *b) Its stimulation inhibits all GIT functions.* *c) It is responsible for long and short reflexes.* *d) It can direct all functions of the GIT in absence of extrinsic innervation.* *e) Its activities are modulated by parasympathetic neurons only.*	***D***

32. The GIT hormone is characterized by all the following except: *(A) They are secreted by APUD system and are divided into 2 families on the basis of their structural similarity.* *(B) They are secreted in response to specific physiological Stimuli during digestion.* *(C)Their effects are abolished by cutting the nervous connections of GIT.* *(D) They affect areas in GIT that may be far away from the sites of their release.* *(E) I.V injection of their extracts produce similar effect to those produced by the stimuli that release them.*	**C**
33. About extrinsic innervation controlling GIT functions, which is correct: *a) It inhibits all GIT functions.* *b) It lies between the longitudinal and circular muscle fibers* *c) It is responsible for long reflexes.* *d) It arises only from vagus nerve.* *e) It is located in the gut wall.*	**C**
34. About long reflexes controlling GIT functions, which is correct: *a) Are mediated through sympathetic and parasympathetic nerves.* *b) They lie between the longitudinal and circular muscle fibers* *c) They are responsible for self-regulation of the gut.* *d) Have no centers in the CNS.* *e) All components of the reflex are located in the gut wall.*	**A**
35. The short reflexes that regulate GIT functions are mediated through: *a) Centers in the CNS.* *b) enteric nervous system* *c) Extrinsic autonomic nerves.* *d) Parasympathetic nerves only.* *e) Sympathetic nerves only.*	**B**

36. About the long reflexes that regulate the GIT functions: *a) All reflexes' components are located in the gut's wall* *b) They are responsible for self-regulation of GI functions.* *c) They involve centers inside the CNS.* *d) They occur entirely inside ENS.* *e) They occur only inside the submucosal nerve plexus.*	**C**
37. Which of the following hormones can be found in tissue homogenates from antral and duodenal mucosa: *a) CCK.* *b) GIP.* *c) Gastrin.* *d) Motilin.* *e) Secretin.*	**C**
38. Which of the following hormones is released by fat and protein in small intestine and decreases gastric emptying: *a) CCK.* *b) GIP.* *c) Gastrin.* *d) Motilin.* *e) Secretin.*	***A***
39. The presence of fat, carbohydrate or protein in the duodenum stimulates the release of which of the following hormones from the duodenal mucosa? *a-cholecystokinin (CCK).* *b- glucose-dependent insulinotropic peptide (GLIP).* *c- gastrin.* *d- motilin.*	***B***