

Mcq digestion

1.About some GIT hormones(true or false):

- (A)Gastrin is released as a result of stomach distension and vagal stimulation.
- (B)Secretin stimulates the pancreatic acinar cells to secrete enzymes.
- (C)pancreozymin is itself CCK and it has a structural relationship to gastrin.
- (D) Secretin causes excessive gastric Secretion and accelerates gastric emptying.

2.VIP causes(true or false):

- (A) stimulation of the intestinal cells to secrete water and electrolytes.
- (B)Inhibition of gastric Secretion.
- (C)Relaxation of the lower esophageal sphincter.
- (D)Peripheral V.C.

3. Stimulation of Gastrointestinal Secretion include:

- (A)Chemical stimuli.
- (B)Tactile stimulation.
- (C)A and B.
- (D) Distension.
- (E)All are correct.

4.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 HCO_3^- .

5.The GIT is controlled by:

- (A)Its own intrinsic nervous system(auerbach's and meissner's plexuses).
- (B)The sympathetic N.S.
- (C) The para sympathetic N.S.
- (D)Only B&C.
- (E)A,B&C.

6.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.

7.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 Stimulate.
- (E)If histamine is injected.

8. 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.

9. 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.

10. 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) Somatostatin is a powerful Stimulator to both gastric Secretion and motility.

11. Cholecystokinin:

- (A) Release is Stimulated by protein hydrolysates in the lumen of the small intestine.
- (B) Is released from gastric mucosal cells.
- (C) Release is Stimulated by distension of the colon.
- (D) A and C are correct.

12. A major part of the gall bladder contractions are due to:

- (A) sympathetic contraction OF the viscus.
- (B) The overfilling of the gall bladder with bile.

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- (C)The rate of cholesterol synthesis and excretion by the liver.
- (D)A hormone synthesized by duodenal mucosa .
- (E)A pancreatic hormone.

13.The major factor that Stimulates the release of Secretin into the blood stream is:

- (A)An acid PH of the chyme entering the duodenum.
- (B) The para sympathetic Stimuli.
- (C)Peptones in the gastric chyme that enter the duodenum.
- (D)A stomach full of digested contents.

14.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.

15. 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.

16. Secretin IS released by:

- (A)Acid in the duodenum.

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- (B) Acid in the urine.
- (C) S cells in the duodenal mucosa.
- (D) Distension of the colon.
- (E) Cells in the hypothalamus.

17. 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 is stimulated by secretin and GIP.
- (D) It is structurally similar to CCK.
- (E) It has +ve feedback relation with gastric acidity.

18. About the GIP, all the following are true except:

- (A) It is secreted from the duodenal mucosa.
- (B) It has +ve feedback effect on gastric secretion and motility.
- (C) Its release is stimulated by presence of excess fat.
- (D) It inhibits both gastric secretion and motility.
- (E) It stimulates insulin secretion.

19. About Cholecystikinin-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.

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(D)It potentiates the action of secretion on the pancreas.

(E)It inhibit both gastric and intestinal motility.

20.The GIT hormone are 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.

21. . About the GRP,all the followings are true except:

(A) It inhibit the intestinal motility.(through librating gastrin).

(B)It increase the gastric secretion . .(through librating gastrin).

(C) It increase the pancreatic secretion . .(through librating gastrin).

(D)It is found in the hypothalamus.(in addition to GIT)

(E)It is the neurotransmitter of the vagal nerve ending s that terminate on G cells.

22. Concerning the gastrin, all the following are true except:

(A) It is a polypeptide hormone that is secreted in several Chemical forms.

(B)It is released from almost the whole GIT mucosa and its secretion is stimulated by vagal stimulation.

(C)It has a trophic effect on gastric mucosa and increase the gastric motility.

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(D) Its release is stimulated by gastric distension and inhibited by presence of excess acid in pyloric antrum.

(E) It stimulates insulin secretion from pancreas.

(F) It is released only during gastric phase of gastric secretion and increases the secretion of only the oxyntic cells.

23. all the followings are correct about gastrin except:

(A) It is stimulated by distension of antrum.

(B) It is stimulated by insulin induced hypoglycemia.

(C) Its secretion is increased by secretin.

24. A patient with trigeminal lesion would have the greatest difficulty with which of the following?

(A) Swallowing.

(B) Chewing.

(C) Receptive relaxation of the upper esophageal sphincter

(D) Secondary peristalsis in the esophagus.

25. Mastication is important because:

(A) Minimize the mechanical damage to the gut mucosa.

(B) Allows the salivary enzymes to act for a longer time.

(C) Increase the surface area of the food particles.

(D) Destroys the protective coating present around some foods.

(E) All of the above.

26. Mastication:

(A) Is entirely a voluntary act.

(B) Includes both voluntary and reflex components.

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- (C) Is performed by muscles supplied by 7th (facial nerve).
- (D) It is normally initiated by conditioned reflexes.
- (E) Is important for digestion of carbohydrates only.

27. Man is unable to digest dietary:

- (A) GLYCOGEN.
- (B) Dextrin.
- (C) Saccharose.
- (D) Cellulose.
- (E) glucose.

28. The salivary amylase:

- (A) Is also called ptyalin and it is beta amylase.
- (B) Is the only amylase in GIT.
- (C) Digest mainly cooked starch.
- (D) Is activated by either HCL or Ca^{++}
- (E) Releases free glucose in the stomach.

29. About salivary secretion (true or false):

- (A) At rapid rate of secretion, its Na^+ & Cl^- concentrations increase while its K^+ concentration decreases.
- (B) It plays a significant role in digestion of lipids.
- (C) It is best stimulated by sour food.
- (D) It is entirely under nervous control.

30. About salivary secretion (true or false):

- (A) It is an alkaline hypertonic fluid.

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- (B) Its enzymes come mainly from the parotid and submaxillary glands.
- (C) It is largely under hormonal control.
- (D) Its mucous come mainly from the submaxillary, sublingual and buccal glands.

31. During the chewing of a bolus of food, but before Swallowing, salivary secretion, gastric secretion and pancreatic secretion are stimulated by which the following?

- (A) Acetylcholine, gastrin, histamine.
- (B) Acetylcholine, CCK, nitric oxide.
- (C) Nitric oxide, VIP, histamine.
- (D) VIP, gastrin, Somatostatin.
- (E) Nitric oxide, CCK, serotonin.

32. The salivary secretion:

- (A) Is rich in glucose.
- (B) Is Produced by a nervous mechanism Only.
- (C) digests starch to glucose.
- (D) Has the largest volume relative to other digestive juices.
- (E) Is hyperosmotic relative to plasma.

33. About salivary glands, which of the following statement is true?

- (A) Their secretion is mainly under hormonal control.
- (B) The sympathetic system is the Only natural pathway for stimulation of their secretion.
- (C) Both sympathetic and parasympathetic nerves stimulate their secretion.

- (D) Bradykinin decrease their blood flow rate.
- (E) Their secretion increase in conditions of dehydration.

34. The saliva (true or false)?

- (A) Contains no organic substances.
- (B) Is markedly increase in amount after sympathetic stimulation.
- (C) secretion is increased after injection of atropine.
- (D) secreted by submandibular glands is about 70% of the total secretion .
- (E) Volume average 500 ml daily.

35. secretion of The saliva increase when (true or false)?

- (A) Touch receptor in the mouth are stimulated.
- (B) the mouth is flushed with acid fluid with a PH of about 4.
- (C) A subject thinks of unappetizing food.
- (D) Vomiting is imminent.
- (E) The sympathetic nerve supply is stimulated.

36. The presentation of a bolus of solid food to the mouth:

- (A) stimulates taste buds.
- (B) Is usually followed by Mastication.
- (C) Reflexively stimulates The salivary glands.
- (D) All are correct.

37. The salivary secretion (true or false)?

- (A) Has a serous component.
- (B) Has a mucous component.
- (c) A and B are correct.

(D) It is largely under hormonal control.

(E) All are correct.

38. saliva is necessary for (true or false)?

(A) Digestion of food.

(B) Swallowing of food.

(C) Normal speech.

(D) Antisepsis in the mouth.

(E) Taste sensation.

39. The salivary secretion:

(A) Is stimulated by most GIT hormones specially gastrin.

(B) Is essential for complete digestion of starch.

(C) Increases more by sweet than by bitter substances.

(D) Markedly increases by parasympathetic stimulation.

(E) Contains lower concentration of K^+ & HCO_3^- than those in the Plasma.

40. Salivation can become a conditioned reflex. This suggests that:

(A) Pleasant taste sensation are not related to the reflex.

(B) Only salivatory nuclei in the brainstem need to be excited by taste sensation without participation of suprasegmental influences.

(C) The cerebral cortex partially controls salivation.

(D) salivation could be completely interrupted in a decorticate animal whose tongue is mechanically stimulated.

41. Saliva is characterized by all the following except:

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- (A) Its concentration of K^+ is the same as that in plasma.
- (B) Its Na^+ & Cl^- concentration are lower than those in plasma.
- (C) Its osmotic pressure and PH are lower than their corresponding values in plasma.
- (D) It exerts antibacterial action.

42. which of the following statements about salivary secretion is untrue?

- (A) saliva contains digestive enzymes.
- (B) saliva has important antiseptic action.
- (C) It is largely under hormonal control.

43. which of the following statements about salivary secretion is untrue?

- (A)) saliva has constant composition regardless the rate of secretion.
- (B) The submandibular glands secrete about 70% of the total secretion .
- (C) The buccal phase of salivary secretion is due to unconditioned reflex.

44. Deglutition is associated with (true or false)?

- (A) Relaxation of upper esophageal sphincter.
- (B) Temporary apnea .
- (C) Closure of the glottis.
- (D) Food entrance into the nasopharynx.

45. The pharyngeal phase of Swallowing:

- (A) Can be voluntarily inhibited.
- (B) Involves closure of larynx by the vocal cord.
- (C) Is associated with lowering of the soft palate.

(D)Is accompanied by deep inspiration.

(E)Is initiated by conditioned reflex.

46. About Deglutition (Swallowing) (true or false)?

(A)It Is entirely an involuntary act that is controlled by medullary center.

(B)Bilateral vagotomy abolishes the esophageal peristalsis.

(C)Damage of the Deglutition center abolishes the buccal phase.

(D)The peristalsis in the lower part of the esophagus Can be initiated by local enteric reflex.

47. the esophageal phase of deglutition:

(A)Occurs only as a result of peristalsis originating in the pharynx.

(B) is controlled only by enteric reflex.

(C)Is normal(i.e not changed)after bilateral vagotomy.

(D)Is opposed(antagonized) by gravity.

(E) is controlled by vagi nerves.

48. Swallowing is a reflex which (true or false)?

(A)Has its reflex center in the cervical segments of the spinal cord.

(B)Includes inhibition of respiration.

(C) Is initiated by voluntary act.

(D)Is dependant on intrinsic nerve network in the esophagus.

(E)Is more effective with the trunk in the upright posture.

49.The act of Swallowing is associated with:

(A)Concurrent inhibition of respiration.

- (B) Opening of the glottis.
- (C) Movement of food into the nasopharynx.
- (D) upper esophageal sphincter constriction when food placed in contact with the anterior pillars of the pharynx.
- (E) A and B are correct.

50. during which stage of Swallowing is respiration inhibited?

- (A) Voluntary stage.
- (B) pharyngeal stage.
- (C) Esophageal stage.
- (D) Postprandial stage.

51. Deglutition (Swallowing):

- (A) Is a complicated act requiring the precise coordination of many muscle group.
- (B) Is an automatic function of smooth muscle.
- (C) Is associated with a lowering of hard palate to prevent reflux of food into the nasopharynx.
- (D) Does not require relaxation of cricopharyngeal muscle.
- (E) A and c are correct.

52. During a normal Swallowing sequences ,the smooth muscle which surrounds the gastro esophageal junction.

- (A) Remains tonically constricted until the bolus arrives at this junction.
- (B) Relaxes even before the oncoming peristaltic wave has arrived.
- (C) constricts further on the passing bolus and allows a gradual esophageal emptying.

(D)Is never constrict at all , and has no participation of any kind in the Swallowing process.

53.Of the following cranial nerves ,one dose not participate with motor efferents to the act of Swallowing:

(A)Trigeminal nerve.

(B)Glossopharyngeal nerve.

(C)Accessory (11th cranial nerve).

(D)hypoglossus.

(E)Intermedius.

54. During Swallowing , all the following occur except:

(A)The palatopharyngeal folds approximate to each other.

(B)The larynx moves upwards and is closed by the epiglottis.

(C)The pharyngeo- esophageal sphincter is relaxed.

(D)The vocal cords relax and separate from each other.

(E)The pharyngeal muscles contract and the soft palate is elevated.

55.About the process of Swallowing, all the followings are true except:

(A)As a peristaltic wave passes along the esophagus , the cardiac sphincter ,stomach wall and duodenum relax.

(B)The esophageal musculature below the pharynx contains striated (skeletal)muscles which is entirely under control of vagi nerves.

(C)The most sensitive site for initiation of the pharyngeal phase is the tonsillar pillars.

(D)Food does not enter the trachea mainly due to approximation of The vocal cords.

(E)The voluntary phase includes the period during which food passes through both the buccal cavity and pharynx.

56.Select a single incorrect answer about Swallowing:

(A)Reflex apnea occurs during the pharyngeal phase.

(B) the buccal phase of swallowing is voluntary.

(C)Food is prevented from entering the nose during swallowing by elevation of epiglottis.

57.The lower esophageal sphincter(true or false)?

(A) Prevents reflux of the gastric content into the esophagus (gastro esophageal reflux).

(B)Relaxes in response to the peristaltic waves passing down the esophagus.

(C)Is abnormally contracted in achalasia.

(D) Is tonically contracted by high doses of gastrin hormone.

58. Esophageal peristalsis:

(A)Is stimulated by A.CH.

(B)Is initiated by vagal reflexs.

(C)Can be caused by distension of the esophagus.

(D)All are correct.

59. The musculature of the esophagus below the pharynx is:

(A)Smooth only.

(B)Mainly striated.

(C)Incapable of peristalsis in absence of impulses from the Swallowing center.

- (D) Primarily innervated by spinal nerves.
- (E) Strongly affected by all circulating GIT hormones.

60. Secondary esophageal peristalsis:

- (A) Is preceded by an oral- pharyngeal phase of Swallowing .
- (B) Involves activation of medullary Swallowing centers .
- (C) Is accompanied by lower esophageal sphincter relaxation.
- (D) Occurs in both skeletal and smooth muscle portions of the esophagus.
- (E) Is abolished by vagotomy.

61. In contrast to Secondary esophageal peristalsis, primary esophageal peristalsis characterized by which of the following statements?

- (A) It does not involve relaxation of The lower esophageal sphincter.
- (B) It involves only contraction of esophageal smooth muscle.
- (C) It is not influenced by intrinsic nervous system.
- (D) It has an oropharyngeal phase.
- (E) It involves only contraction of esophageal skeletal muscle.

62. All the following statements about esophagus are true except:

- (A) UES is a true sphincter.
- (B) Gastrin increases tone of LES.
- (C) LES contracts during Swallowing .

63. The rate of gastric emptying is delayed by (true or false)?

- (A) The enterogastric reflex.
- (B) The gastrin hormone.
- (C) GIP.

(D) A moderate stomach distension.

64. Vagotomy prevents increased gastric secretion in response to (true or false)?

(A) Sight and smell of food.

(B) Injection of insulin.

(C) Emotional disturbances.

(D) Injection of gastrin.

65. HCL secretion in the stomach:

(A) Is a function of peptic cells.

(B) Require no energy.

(C) Occurs by passive diffusion of both H^+ and CL^- in the gastric human.

(D) Require presence of carbonic anhydrase enzyme.

66. Gastric emptying:

(A) Is normally completed about 9 hours after ingestion of a usual meal.

(B) Is slowest if the food is soft and rich in carbohydrates.

(C) Is inhibited by excessive acidity in the duodenum.

(D) Is accelerated by presences of fat or hypertonic solutions in the duodenum.

(E) Is delayed by stomach distension and by vagal stimulation.

67. Acidification of the duodenum will:

(A) Decrease pancreatic secretion of bicarbonate.

(B) Increase secretion of gastric acid.

(C) Decrease gastric emptying.

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(D) Increase contraction of the gall bladder.

(E) Increase contraction of the sphincter of Oddi.

ANSWERS:

1.A,B

2.A,B

3.E

4.D

5.E.

6.B.

7.B.

8.B

9.F

10.D

11.A

12.D

13.A

14.C

15.B

16.C.

17.D

18.C

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19.E

20.C

21.A

22.F

23.C

24.B

25.E

26.B

27.D

28.C

29.A,C,D

30.B,D

31.A

32.B

33.C

34. D

35.A,B,D,E

36.D

37.C

38.C,D,E

39.D

40.C

41.A

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42.C

43.A

44.A,B,C

45.B

46.A,B,D

47. E

48.B,C,D,E

49.A

50.B

51.A

52.B

53.E

54.D

55.E

56.C

57.A,B,C,D

58.D

59.B

60.C

61.D

62.C

63.A,C

64.A,B,C

65.D

66.C

67.C

68-Oxyntic or parietal cells secrete:

- a.HCL.
- b.Trypsin.
- c.Zymogen granules.
- d.Pepsinogen.
- e. a&c.

69-The passage of gastric contents to the duodenum may cause (True or False):

- a.Copious secretion of pancreatic juice rich in bicarbonate.
- b.Decreased gastric motility.
- c.Contraction of the gall bladder.
- d.Contraction of the sphincter of oddi.
- e.Release of Pancreozymin.

70-Ingesting antacids with and after a meal so that PH doesn't decrease below 6 will cause a greater than normal secretion of:

- a.Gastrin.
- b.Secretin.
- c.Pancreatic bicarbonate.
- d.CCK.

e.Somatostatin.

71-The pangs associated with hunger :

- a.Are decreased a low level of blood sugar.
- b.Are accompanied with feeling of hunger and pain in the pit of the stomach.
- c.Usually appear 3 to 4 hour after fasting begins.
- d.diminish after 1 to 2 days of starvation.
- e. b&d .

72.Chronic gastritis is often associated with which of the following :

- a.Microcytic anemia.
- b.Hyperchlorohydria.
- c.Steatorrhea.
- d.pernicious anemia.

73-Vitamin B12 absorption :

- a.Depends on presence of intrinsic factor.
- b.Depends on passive diffusion.
- c.Occurs in the jujenum.
- d.Occurs in the stomach.
- e. a&c.

74-The secretion of the intrinsic factor occurs in :

- a.Parietal cells of the stomach.
- b.Chief cells of the stomach.
- c. Upper duodenum.
- d. Beta cells of pancreas.
- e.Liver.

75-Gastric HCL secretion :

- a.Occurs secondary to active transport of H^+ by the parietal cells into the lumen of the stomach.
- b.Requires the presence of the carbonic anhydrase enzyme.
- c.In response to hypoglycaemia is mediated via the vagi nerves.
- d.Is increased by administration of histamine.
- e.Is inhibited by the secretin hormone and H_2 receptor blockers.(e.g.cimetidine)
- f. All of the above.

76-So-called hunger pangs :

- a.Are truly due to smooth muscle spasm of the transverse colon.
- b. Are associated with esophageal and pyloric contraction that coexist with an empty relaxed stomach.
- c.Are more common if starvation is associated with hypoglycaemia.

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d. May occur in a totally vagotomized patient.

77-Basal acid output is increased with which of the following :

- a. Acidification of the antrum.
- b. Administration of a H₂ receptor antagonist.
- c. Vagotomy.
- d. Alkalinization of the antrum.
- e. Acidification of the duodenum.

78-The cephalic phase of gastric secretion :

- a. Occurs when food reach the stomch.
- b. Isnot accompanied by release of GRP.
- c. Is controlled by the vagi nerves.
- d. Isnot blocked by injection of atropine.
- e. Conistitutes about one $\frac{1}{2}$ of the gastric juice secreted on eating.

79-Gastric HCL secretion :

- a. Is a passive process that occurs in all parts of the stomach.
- b. Is stimulated by somatostatin, cimetidine & pyrenzepine.
- c. Is inhibited by histamine, gastrin & acetylcholine.
- d. plays a significant rule in iron absorption.

80-The gastric peristalsis (True or False) :

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- a. Depends on the basis of electric rhythm (BER).
- b. Originates at the mid point of the greater curvature and increases in intensity as it sweeps towards the pylorus.
- c. Is associated with a strong contraction of the antrum and the end of each wave.
- d. Always ejects the contents of the gastric antrum into the duodenum.

81-Distension of the stomach:

- a. Is associated with a decrease in its peristaltic movement.
- b. Leads to reduction of gastric juice secretion.
- c. Decrease the tone of the lower esophageal sphincter.
- d. Causes an acute increase in the intragastric pressure.
- e. Results in an increase in the volume of the stomach with a little rise in the intragastric pressure

82-All of the following statements are untrue except:

- a. Peptic ulcers can be treated by anticholinesterase drugs.
- b. Gastric secretion in response to hypoglycemia is due to gastrin.
- c. Peptic ulcers tend to heal by removal of the pyloric antrum.
- d. Vomiting occurs more by smooth muscle than by skeletal muscle activity.
- e. Gastric emptying is not affected after bilateral vagotomy

83-Which of the following statement is true?:

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- a. The intrinsic factor is secreted by the parietal cells of the gastric mucosa.
- b. The gastric juice can't digest the gastric mucosa because the cell membranes contain
 - a. pepsin activator.
- c. The stomach normally absorbs about 30% of the ingested food.
- d. The secretion of the gastric juice is associated with increased H^+ in the blood.
- e. The gastric juice is essential for the digestion of both fat and protein.

84-Under normal condition, the gastric secretion is:

- a. Not affected by presence of food in the stomach.
- b. Stimulated by norepinephrine and inhibited by curare.
- c. Increased by distention of the stomach.
- d. Maximal before food ingestion.
- e. Absent after the food has entered into the duodenum.

85-About pepsins:

- a. There are 5 types of exopeptidase enzymes.
- b. They are secreted by endocytosis as active enzymes.
- c. They are incapable of autoactivation
- d. Their optimum pH of action is 1.6- 3.2.
- e. They don't increase in the cephalic phase of gastric secretions

86-The stomach is a poor area for absorption primarily because:

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- a. Most foods are swallowed before ptyalin has a chance to breakdown starch
- b. pH of the stomach is too high
- c. The junction between epithelial cells presents wide space for fluid/ion movement
- d. The stomach lacks villous membranes.
- e. b&d

87-Hydrochloric acid secretion:

- a. Is accomplished by passive diffusion.
- b. Requires the dissociation of water with subsequent exchange of the hydrogen ion for potassium ion.
- c. Requires anaerobic metabolism.
- d. Utilize protein molecules to neutralize OH^- remaining in the secretory cells.
- e. b&d

88-A 45 years old man is found to have a condition in which the parietal cells of his stomach have been destroyed by an autoimmune mechanism. This condition is often associated with which of the following?:

- a. Pernicious anaemia.
- b. Gastric ulceration
- c. Steatorrhea.
- d. Protein deficiency.

89-It's believed that in parietal cells of the gastric mucosa (which secrete hydrochloric acid), an active transport system is responsible for the transmembrane passage of:

- a.Chloride
- b.Carbon dioxide.
- c.Bicarbonate.
- d.Water

90-Pepsin, secreted by the gastric mucosa:

- a.Continues to act in the neutral medium of the duodenum.
- b.Is proteolytic on the mucosal surface, in the alkaline medium provided by the mucus secreted by the surface cells of the stomach.
- c.Is synthesized within the chief cells.
- d.Doesnot increased in concentration in response to the mental stimuli found in the so'called cephalic phase of gastric digestion

91-Acid secretion in ulcer disease can be reduced by which of the following?

- a.Blockage of secretin secretion
- b.Blockage of histamine H₂ receptors.
- c.Blockage of action of pepsin
- d.Treatment with antibiotics.

92- The normally innervated stomach (True or False):

Mcq digestion

- a. Is stimulated to secrete gastric juice when food is chewed, even if it's not swallowed
- b. Can't secrete HCL when its H₁ histamine receptors are blocked
- c. the denervated stomach can secrete gastric juice after a meal is ingested.
- d. Empties more quickly than the denervated stomach.
- e. Is stimulated to secrete gastric juice by the hormone secretion.

93-Under the normal conditions, the bulk of gastric secretions are produced:

- a. Before the food is ingested and while the pleasure of its ingestion is anticipated
- b. While the food stays in the stomach.
- c. After the food has entered the duodenum.
- d. During fasting periods.

94-Mucous presents on the surface of the mucosa of the stomach, small and large intestine is:

- a. Resistant to enzymes secreted into the lumen of the gastrointestinal tract.
- b. Alkaline, and thus a poor buffer for alkaline foods.
- c. A non-amphoteric protein.
- d. Easily removed from the surface of the stomach by the gastric secretions during the gastric phase of digestion.

95-The enterogastric reflex can be elicited by which of the following?:

- a. Distension of the duodenum
- b. Acid chyme in the duodenum.
- c. Hyperosmotic chyme in the duodenum.
- d. All of the above

96- The secretion of gastrin by the pyloric antrum ceases:

- a. When the stomach is distended by a full meal
- b. When the gastric mucosa contents have a pH of about 2.0
- c. If histamine is injected.
- d. If the vagi are stimulated.

97-Gastric peristalsis:

- a. Originates in the distal half of the stomach.
- b. Is characterized by strong contractions of the antrum at the end of the wave.
- c. Ejects all the contents of the antrum into the duodenum.
- d. Decreases in intensity as it sweeps toward the pylorus.
- e. b&d

98-Which of the following substances is released from the duodenal mucosa in response to acidic gastric juice?:

- a. Histamine
- b. Secretin

Mcq digestion

- c. Norepinephrine
- d. Acetylcholine

99-The chyme entering the small intestine causes a release of secretin which results in:

- a. Stimulation of pancreatic fluids which there are no enzymes.
- b. A pancreatic fluid that aids in protection against the development of duodenal ulcers.
- c. A pancreatic secretion whose pH is just right for action of the pancreatic enzymes that are eventually released.
- d. Pancreatic fluid secretion of a large volume containing low chloride but high bicarbonate concentration.
- e. All are correct.

100-Which of the following hormones is involved in the initiation of the migrating motor complex?:

- a. Gastrin
- b. Motilin
- c. Secretin
- d. Cholecystokinin
- e. Enterogastrone.

101.The main function of the cardiac sphincter of the stomach is to:

- a. Prevent the reflux of the gastric content to the esophagus

Mcq digestion

- b. Facilitate storage of food on the lower part of the esophagus
- c. Mix the food particles entering the stomach.
- d. Control the rate of food entry into the stomach.
- e. None of the above.

102-Which of the following statements is correct?:

- a. The gastric juice contains pepsins, gelatinase, lipase and α -amylase enzymes.
- b. The only essential constituent of the gastric juice is the intrinsic factor.
- c. The hunger contractions disappear after bilateral vagotomy or damage of the feeding center in the hypothalamus.
- d. HCL is essential for both carbohydrate and fat digestion.

103.Which of the following is the major factor that protects the duodenal mucosa from the damage by gastric acid?:

- a. Pancreatic bicarbonate secretions.
- b. The endogenous mucosal barrier of the duodenum.
- c. Duodenal bicarbonate secretion,
- d. Hepatic bicarbonate secretion.
- e. Bicarbonate contained in bile.

104-Which of the following substances is released from the duodenal mucosa in response to acidic gastric juice?:

- a. CCK

Mcq digestion

- b. Substance P
- c. Secretin
- d. GIP

105-A 42 years old salesman presents with the chief complaint of intermittent midepigastic pain that is relieved by antacids or eating. Gastric analysis reveals that basal and maximal acid output exceed normal values. The gastric hypersecretion can be explained by an increase in the plasma concentration of which of the following?:

- a. Somatostatin
- b. Histamine
- c. Gastrin
- d. Secretin
- e. Enterogastrone

106- Removal of the stomach can lead to all of the following except:

- a. Marked digestive disturbances
- b. Megaloblastic anaemia (pernicious anaemia)
- c. A fall in the plasma volume after a heavy meal (due to the dumping syndrome)
- d. Diminished Ca^{++} absorption and weak development of bones

107-About the cephalic phase of gastric secretion, all the following are true except:

- a. It occurs before food enters the stomach

Mcq digestion

- b.It's inhibited by bilateral vagotomy
- c.It involves some release of gastrin
- d.It's due to both conditioned and unconditioned reflexes
- e.It begins only when food is tasted and accounts for most of the gastric secretion

108- HCl secretion includes all the following processes except:

- a.Active transport of H^+ into gastric lumen
- b. H^+ is exchanged for K^+ from the extracellular fluid
- c. HCO_3^- diffuse into the extracellular fluid in exchange for Cl^-
- d.It's associated with production of a postprandial alkaline tide

109-The gastric juice has all the following characteristics except:

- a.It contains an alkaline secretion from the surface epithelium
- b.It's PH is always less than 3
- c.It contains the intrinsic factor which is essential for vit. B_{12} absorption
- d.It's antibacterial action is produced by its mucous content
- e.It's volume averages 2.5 liters/day

110-The gastric mucosal barrier is maintained by all the following except:

- a.The nature of the surface membrane of the gastric mucosal cells and the tight junctions between these cells.

Mcq digestion

- b. Certain prostaglandins and the alkaline mucous secretion of the stomach
- c. The mucus gel-like membrane that coats the gastric mucous membrane
- d. Administration of H₂ receptor blocking drugs (e.g. cimetidine)
- e. Excessive amounts of bile salts, aspirin or ethanol

111-Which of the following statements is wrong?

- a. Repeated vomiting leads to dehydration, alkalosis, and K⁺ depletion
- b. The rate of gastric emptying is affected by the fat content of food
- c. The enterogenic reflex is a gastro-inhibitory reflex
- d. The enterogenic reflex depends on vagal impulses as well as local enteric and prevertebral ganglionic reflexes
- e. The enterogastric reflex is of value in facilitating carbohydrates digestion

112-About the gastric motility, all the following is true except:

- a. It's marked in the distal half of the stomach
- b. It's inhibited in painful conditions
- c. It increases by vagal stimulation and decreases by symp. Stimulation
- d. It decreases by the enterogastric reflex and by the secretin and CCK hormones
- e. It increases by over distension of the stomach
- f. It decreases in response to presence of excess fat in the duodenum

113- Gastric secretion is inhibited by all the following except:

- a. Presence of excess H^+ in the pyloric antrum
- b. Presence of excess protein digestive products in the stomach
- c. Certain emotions e.g. fear and depression
- d. Certain GIT hormones e.g. secretin, CCK and VIP
- e. Presence of fat, hypertonic solutions and excess acid in the duodenum
- f. The enterogastric reflex

114- Concerning HCl secretion, all the following is true except:

- a. It's associated with increased PH of the gastric venous blood
- b. It's stimulated by gastrin, acetylcholine, histamine and norepinephren
- c. The energy required is derived from ATP breakdown
- d. It involves formation of carbonic acid
- e. There is an active transport of H^+ from oxyntic cells into the gastric lumen and K^+ in the opposite direction

115- All the following statements are true except:

- a. VIP stimulates intestinal secretion and inhibits gastric acid secretions
- b. Diamox (a carbonic anhydrase inhibitor) increases both gastric HCL formation and the HCO_3^- content in the pancreatic juice
- c. Both gastrin and glucagons are secreted from the pyloric antrum and duodenum
- d. Gastrin is secreted from almost the whole GIT mucosa

Mcq digestion

e. Glicentin is formed by the intestinal mucosa and has some glucagones activity

f. The pancreatic endocrines secretion is stimulated by both GIP and CCK

116-Which of the following statement is wrong?:

a. The gastric peristalsis includes propulsive, mixing and grinding movements

b. The cephalic phase of gastric secretion involves no release of gastrin.

c. Deficiency of the intrinsic factor causes pernicious anaemia.

d. Large doses of gastrin cause contraction of the pyloric sphincter.

117-The following statements about gastric secretion are correct except:

a. Gastric secretion increases when a hungry person thinks about food

b. Gastric secretion helps vit. B₁₂ absorption

c. Production of HCl depends on activity of carbonic anhydrase

d. Gastric secretion is associated with increased H⁺ concentration in venous blood coming from stomach

118 Which of the following statements about gastric secretion is incorrect:

a. Gastric acid secretion can be inhibited by somatostatin

b. The main phase of gastric secretion is the gastric phase

c. Gastric secretion increases in response to the presence of food in mouth after the vagi to stomach have been cut

119-A 55 years old man with a history of chronic alcohol consumption presents to his local physician with non specific complaints of dyspepsia. Examination and diagnostic testing reveal that he has destruction of the

gastric glands. The condition would predispose the patient to which of the following?:

- a. Steatorrhea
- b. Gastric hypomotility
- c. Gastric ulcer
- d. Anaemia

120-Which of the following statement about motor function of stomach is untrue?:

- a. The frequency of gastric peristaltic contraction is about 3/min
- b. Fasting hypoglycemia produces hunger contractions
- c. The enterogastric reflex stimulates gastric emptying

121-Which of the following statement about motor function of stomach is untrue?:

- a. Motility of stomach increases when fat enters duodenum
- b. MMC prevents duodenogastric reflex
- c. Receptive relaxation of stomach is mediated by purinergic vagal fibers

122-Vomiting:

- a. occur only in a denervated stomach
- b. Occurs by strong contraction of the stomach wall
- c. May be produced by conditioned reflex
- d. occur only in an empty stomach

123-Vomiting:

Mcq digestion

- a. Leads to expulsion of gastric contents by violent rhythmic contractions of gut smooth ms.
- b. Is coordinated by a mid-brain vomiting center
- c. Of green fluid suggests that duodenal contents have regurgitated into the stomach
- d. May be accompanied by a fall in arterial blood pressure
- e. May be induced by drugs acting on centers in the medulla

124-The so-called chemoreceptor trigger zone:

- a. Is synonymous with the vomiting center
- b. Is located in the cerebral peduncles, ventral to the Aqueduct of Sylvius
- c. Is sensitive to the action of morphine
- d. May be destroyed experimentally ; the ablation of both chemoreceptor trigger zones abolishes all forms of vomiting

125-As regards the process of vomiting:

- a. Its is controlled by a center in the cerebral cortex
- b. It always begins with nausea
- c. Prolonged vomiting usually produces dehydration associated with acidosis
- d. It's associated with relaxation of the body and fundus of the stomach
- e. Uraemic toxins stimulates the vomiting center directly
- f. The vomiting center is stimulated by chlorpromazine and inhibited by apomorphine and digitalis

126-Vomiting:

Mcq digestion

- a.Result in dehydration, depletion of a body HCO_3^- , Na^+ and K^+ and alkalosis
- b.Is the forceful expulsion of the contents of the digestive tract through the mouth
- c.Results in loss of the fluid and if prolonged, can result in circulatory collapse and death
- d.Is a complex reflex art, which is coordinated by a center located in the sacral region of the spinal cord
- e. a,b &c

127-The chemoreceptor trigger zone (CTZ):

- a.Is the name given to the vomiting center in the medulla oblongata
- b.Is not related to the vomiting center
- c.Initiates vomiting as a result of irritation of the upper part of the GIT
- d. Is stimulated by impulses discharged from an irritated peritoneum
- e.Is responsible for the vomiting produced by emetic drugs (e.g. apomorphine)

128-A pyloric obstruction in an infant which results in a prolonged bout of sever vomiting is likely to cause a primary:

- a.Metabolic acidosis
- b.Metabolic alkalosis
- c.Respiratory acidosis
- d.Respiratory alkalosis

129- An obstruction of the small bowel leading to severe vomiting with a preponderant loss of duodenal contents is likely to cause a primary:

- a. Metabolic acidosis
- b. Metabolic alkalosis
- c. Respiratory acidosis
- d. Respiratory alkalosis

130- A likely reason why a to and fro motion, such as that encountered during airplane flights or in an automobile ride over a bumpy road, tends to cause nausea and vomiting, is because during such motions:

- a. Much air is swallowed and the stomach becomes distended
- b. The stomach is more likely to develop reverse peristalsis
- c. The cerebral cortex can no longer inhibit an intrinsic tendency of the brainstem to cause vomiting
- d. Vestibular reflex eventually excite a chemoreceptor trigger zone in the medulla
- e. The cerebellum is strongly inhibited

131- Select a single incorrect answer about vomiting:

- a. Vomiting center is in hypothalamus
- b. The role of stomach is passive in the process of vomiting
- c. Vomiting may occur as a conditioned reflex

132- Trypsinogen in pancreatic juice is activated by:

Mcq digestion

- a. Alkaline PH
- b. Enterokinase
- c. Bile salts

133-Chemotrypsinogen in pancreatic juice is activated by:

- a. Enterokinase
- b. Alkaline PH
- c. Trypsin
- d. Bile salts

134-Pancreatic lipase is activated by:

- a. gastrin
- b. Bile salts
- c. Enterokinase

135-All of the following statements concerning pancreatic secretion are true except:

- a. Its pH is about 8
- b. Has high HCO_3^- content
- c. It's secretion is primarily under neural control
- d. Contains digestive enzymes

136-The following stimulate pancreatic secretion rich in enzymes and poor in HCO_3^- except:

- a. CCK

Mcq digestion

- b. Gastrin
- c. Secretin
- d. Vagal stimulation

137-Loss of pancreatic secretion produces the following except:

- a. Maldigestion
- b. Malabsorption
- c. Dehydration
- d. Alkalosis

138-Pancreatic amylase is activated by:

- a. Bile salts
- b. Trypsin
- c. Cl^- ions
- d. Enterokinase

139- PH of pancreatic secretion is about:

- a. 1
- b. 6.5- 7.5
- c. 8

140The volume of pancreatic secretion per day is about:

- a. 0.6 L
- b. 1.5 L
- c. 3 L

141-Pancreatic secretion contains all the following enzymes except:

Mcq digestion

- a. Trypsin
- b. Chymotrypsin
- c. Lipase
- d. Amylase
- e. Nucleotidase

142-All the following statements concerning pancreatic secretion are true except:

- a. Sympathetic stimulation inhibits pancreatic HCO_3^- secretion
- b. The cephalic phase accounts for about 20 % of secretion after meal
- c. Pancreatic HCO_3^- depresses further release of secretin
- d. Contains enzymes which digest polysaccharides to monosaccharides

143-Pancreatic secretion is inhibited by all the followings except:

- a. Somatostatin
- b. Glucagon
- c. Acid in the duodenum
- d. Sympathetic stimulation.

answers

68-a	88-a	108-b	127-e
69-a,b,c,e	89-a	109.d	128-b
70-a	90-c	110-e	129-a
71-b	91-b	111-e	130-d
	92.a,c,d		
72-d	93-b	112-e	131-a
73-a	94-a	113-b	132b
74-a			
75.f	95-d	114-b	133-c
76-c	96-b	115-b	134-b
77-d	97-b	116-b	135-c
78-c	98-b	117-d	136c
79-d	99-e	118-c	137-d
80-a,b,c	100-b	119-d	138-c
81-e	101-a	120.c	139-c

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82-c	102-c	121a,	140.b
83-a	103a	122-c	141-e
84-c	104-c	123-c .d.e	142.d
85-d	105-c	124-c	143.c
86-d	106-a	125-d	
87-b	107-e	126-e	

144-All the following statements about pancreatic secretion are true except :

- (A) The intestinal phase is the main phase of pancreatic secretion .
- (B) Gastro-pancreatic reflex stimulates pancreatic secretion .
- (C) Failure of both pancreatic and biliary secretions is needed before steatorrhea develops .

145-All the following are correct statements about pancreatic secretion except:

- (A) HCO₃ rich fluid is secreted by ductal cells in response to secretin .
- (B) Secretion of enzymes by acinar cells occurs in response to CCK.
- (C) Vagotomy augment secretion of enzymes after meal .

146-Select a single incorrect answer about pancreatic secretion.

- (A) Trypsinogen is activated by enterokinase.
- (B) Chymotrypsinogen is activated by trypsin
- (C) Pancreatic lipase is activated by alkaline pH.

147-The following statements about pancreatic secretion are false except:

- (A) Pancreatic acini contain trypsin.
- (B) Vagal stimulation produces HCO₃ rich juice.
- (C) The hormone which stimulates enzyme _ rich secretion also causes contraction of gall bladder.

148-All the following are true about liver functions except:

- (A) Liver cells are the only important site for plasma albumin synthesis.
- (B) Liver cells can store vitamin B12.

Mcq digestion

(C) Liver cells inactivates certain hormones by conjugation.

(D) Essential fatty acids are synthesized in liver.

149-All the following statements are correct about liver cells except:

(A) They form non essential amino acids.

(B) They form hippuric acid by conjugation of benzoate with glycine.

(C) They form TPP from vitamin B6.

150-Liver perform the following function except:

(A) Haemopoiesis in adults.

(B) Formation of about half of body lymph.

(C) Formation of bile salts.

151-Liver functions include all the followings except:

(A) Excretion of bile.

(B) Glycogenolysis

(C) Glycogenesis.

(D) Formation of essential amino acids.

152-The following statements about bile secretion are correct except:

(A) Canalicular secretion represents 75% of bile secretion.

(B) Ductular secretion represents 75% of bile secretion.

(C) Bile is secreted by both the hepatocytes and cholangiocytes.

153-all the following statement about bile secretion are true except:

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- (A) Bile contain cholesterol and fatty acids.
- (B) Hepatic bile has lower specific gravity.
- (C) Gall bladder bile contain less organic constituent than hepatic bile

154-Gall bladder bile is characterized by all the followings except:

- (A) It is relatively acidic
- (B) Darker in color.
- (C) More inorganic constituent.
- (D) Higher specific gravity.

155-The following statement about bile salts are correct except:

- (A) They are 2 types 1st & 2nd
- (B) They are Na⁺ and K⁺ salts of bile acids conjugated with glucuronic acid.
- (C) They are actively reabsorbed from the terminal ileum.

156- All the followings are true about bile salt except;

- (A) 50% of canalicular flow is dependent on bile salts in the enterohepatic circulation.
- (B) the amount of bile salts in stool is about 0.2-0.4gm/day
- (C) The total circulating pool of bile salts is 0.2-0.4gm

157-The following are choleretics except:

- (A) Bile salts.

- (B) Secretin.
- (c) Acetylcholine.
- (D) Bile pigments

158-Which of the followings has the highest pH:

- (A) gastric juice.
- (B) pancreatic juice.
- (C) hepatic bile.
- (D) succus entericus.

159-Bile secretion contains the following constituents except:

- (A) Bile salts.
- (B) Cholesterol.
- (C) Free bilirubin.
- (D) Urobilinogen.

160-Bile secretion is stimulated by the following except:

- (A) Secretion.
- (B) Bile salts.
- (C) Sympathetic stimulation.
- (D) increase blood flow of liver.

161-Bile salts promotes lipid absorption as a result of all the followings except:

- (A) Emulsifying fat.
- (B) Formation of micelles.
- (C) Activation of pancreatic lipase.

(D) Non of the above.

162-The following statements about absorption of bile salts are true except:

- (A) Active transport occurs in the distal ileum.
- (B) Removal of distal ileum reduces their absorption.
- (C) Passive diffusion transport of them.

163-Emptying of gall bladder is stimulated by the followings except:

- (A) Vagal stimulation.
- (B) Sympathetic stimulation.
- (C) CCK

164-The following statements are correct about functions of gall bladder except:

- (A) The capacity of gall bladder is 20-60 ml.
- (B) Bile can be concentrated in gall bladder upto 12-20 folds.
- (C) Secretion of NaHCO_3 by gall bladder prevents precipitation of calcium.

165-Select the single correct answer about bile pigments:

- (A) The principal bile pigment is bilivirdin.
- (B) Free bilirubin is the conjugated bilirubin.
- (C) Cholebilirubin is the conjugated bilirubin.
- (D) Urobilinogen is converted into bilirubin by action of bacteria.

166-All the following statements about bile pigments are true except:

- (A) They are formed from Hb in RECs.
- (B) In blood bilirubin combines with plasma albumin to form conjugated bilirubin.

(C) Mostly urobilinogen passes with feces as stercobilinogen.

167- Contraction of gallbladder is described by the following statement except:

(A) Occur in response to CCK.

(B) It is stimulated mainly by acid chyme in duodenum.

(C) It is inhibited by atropine.

168- All the following are correct statements about liver cells except:

(A) They convert amino acids into glucose.

(B) They form cholesterol.

(C) They release glucose when blood glucose tend to decrease.

(D) They are the only site of synthesis of plasma globulins.

169- The following statements about bile salts are true except:

(A) They help digestion and absorption of fat.

(B) They have choleric action.

(C) They are actively absorbed from duodenum.

170- Choose a single incorrect answer about bile salts:

(A) Bile salts are secreted as conjugated bile salts by liver.

(B) They are converted to 2ry bile salts by action of intestinal bacteria.

(C) They help absorption of calcium and iron.

(D) Non of the above.

171- Emptying of GB is inhibited by the followings except:

Mcq digestion

- (A) Somatostatin.
- (B) Sympathetic stimulation.
- (C) Estrogen.
- (D) Progesterone.

172-The following statements about succus entericus are true except:

- (A) It contains digestive enzymes.
- (B) Its secretion depends on the amount of chime in small hntestine.
- (C) It is secreted by intestinal glands.
- (D) It is released mainly by vagal stimulation.

173-Succus entericus is inhibited by the followings except:

- (A) Adrenaline and noradrenaline.
- (B) Sympathetic stimulation.
- (C) Prostaglandins
- (D) endogenous opiates.

174-Intestinal proteolysis is caused by the followings except:

- (A) Trypsin.
- (B) Carboxypeptidase.
- (C) Chymotrypsin.
- (D) Pepsin.

175-The intestinal brush border help digestion by the followings except:

- (A) Facilitating movements of intestinal content.
- (B) Supplying digestive enzymes and special transport system.
- (C) Increasing surface area of intestinal mucosa

176-Cholera toxins cause diarrhea by:

- (A) Activation of calcium activated C1 – channels in the cells of intestinal crypts.
- (B) Activation of cAMP-activated C1- channels.
- (C) Activation of both Ca⁺⁺ activated and cAMP- activated C1- channels.

177-The volume of succus entericus per day is about:

- (A) 0.6L.
- (B) 2L.
- (C) 3L.

178-Digestion of proteins by succus entericus enzymes includes all the following enzymes except:

- (A) Aminopeptidase.
- (B) Carboxypeptidase.
- (C) Nucleases.
- (D) Dipeptidase.

179-Lactase enzyme splits lactose into:

- (A) Glucose.
- (B) Glucose and galactose.
- (C) Glucose and fructose.

180-Enteric lipase splits neutral fat into:

Mcq digestion

- (A) Fatty acid and glycerol.
- (B) Fatty acid glycerol and monoglycerides.
- (C) Monoglycerides.

181-The main mechanism of succus entericus secretion is:

- (A) Vagal stimulation.
- (B) CCK.
- (C) Secretin
- (D) Local axon reflex

182-The extracellular enzyme in succus entericus is:

- (A) Dipeptidase.
- (B) Entericlipase.
- (C) Lactase.
- (D) Enterokinase.

183-The followings are true statements about absorption from small intestine except:

- (A) Fructose is absorbed by facilitated diffusion.
- (B) Glucose is absorbed by Na⁺ dependent 2ry active transport.
- (C) Vit. B12 is absorbed by diffusion

184-Choose a single incorrect answer about absorption from small intestine:

- (A) Gastric HCL help iron absorption
- (B) K⁺ ions are absorbed passively.
- (C) HCO₃⁻ ions are absorbed passively.

185-The absorptive surface area of small intestine is over:

- (A) 2.8m
- (B) 250m²
- (C) 7m
- (D) 50m²

186-Intestinal motility help absorption from small intestine by all the following except:

- (A) Increase blood and O₂ supply.
- (B) Increase lymph flow.
- (C) Increase osmotic pressure.
- (D) Increase contact of food with mucosa.

187-The following statement about calcium absorption from small intestine are true except:

- (A) It occurs by active transport.
- (B) It requires vit. D and parathormone.
- (C) It occurs by passive diffusion from upper small intestine.
- (D) It is decreased by excess phosphate and oxalate in food.

188-The following are true statement about fat absorption from small intestine except:

- (A) It is helped by bile salts.
- (B) Glycerol and short chain FAs are absorbed passively.
- (C) Deficiency of fat absorption leads to poor absorption of VIT.B complex.
- (D) Chylomicrons are extruded into Lacteal laterals by exocytosis.

189-The transport of glucose across intestinal mucosa is directly dependent Upon the following except:

- (A)Na concentration in intestinal lumen.
- (B)Plasma insulin.
- (C)Inhibitors of energy metabolism.

190-Absorption of fat soluble vitamins require the following:

- (a)Bile.
- (B)Bile and chymotrypsine.
- (C)Bile and pancreatic amylase.
- (D)None of the above.

191-The major site of absorption of VIT B12 is:

- (A)Duodenum.
- (B)Jujenum.
- (C)Colon.
- (D)Ileum.

192-The following are true statement about absorption from small intestine except:

- (A)Hexose are absorped faster than pentose.
- (B)D amino acids are absorped better than L amino acids.
- (C)Glucose is absorped faster than fructose.

193-The amount of water excreted in stool is about:

- (A)100mld

(B)0.5Ld

(C)0.4Ld

194-Absorption of Na ions from small intestine occur by the following except:

(A)Special Na channel.

(B)Cotransported with Cl.

(C)Cotransported with glucose and amino acids.

(D)None of the above.

195-Absorption of Cl⁻ ions from small intestine occur by the following ways except:

(A) 2ry active transport.

(B)1 ry active transport.

(C) Passive diffusionparacellularly.

196-All of the followings are absorbed by Na dependent 2ry active transport except:

(A)Glucose and galactose.

(B)Amino acids.

(C)VitaminC

(D)VitaminB.12

197-The following are true statement about iron absorption from small intestine except:

(A) It is actively absorbed from duodenum and jejunum.

(B)Its absorption is decreased by tannin.

(C)Its absorption is helped by vitamin C.

Mcq digestion

(D)It is transported from the brush border as Fe^{+3} or heme.

198-Fructose is absorbed from small intestine by :

(A)Simple diffusion.

(B)Facilitated diffusion.

(C) Na^{+} dependent 2ry active transport.

199-Pentose is absorbed from small intestine by:

(A)Simple diffusion.

(B)Facilitated diffusion.

(C) Na^{+} dependant 2ry active transport.

200-Whole proteins may be absorbed from small intestine by :

(A)Pinocytosis.

(B) Na^{+} dependant 2ry active transport.

(C)Facilitated diffusion.

201-Vitamin D is absorbed from small intestine as the absorption of :

(A)Water soluble vitamins.

(B)Glycerol.

(C)Cholesterol.

(D)Short chain fatty acids

202-VitaminC is absorbed from small intestine by:

(A)Passive diffusion.

(B) Na^{+} dependant 2ry active transport.

(C)1ry active transport.

203-Peristaltic contractions of small intestine are characterized by all of the followings except:

- (A)They are myogenic
- (B)They are due to local axon reflex
- (c)They are stimulated by gastro-enteric reflex

204-The following reflexes inhibit small intestine motility except:

- (A)Peritoneo-intestinal
- (B)Reno-intestinal
- (C)Gastro-ileal.
- (D)Somato-intestinal.

205-Rhythmic segmentation of small intestine is characterized by the following except:

- (A)It is due to local axon reflex.
- (B)It is myogenic.
- (C)Its frequency is determined by BER.
- (D)Its main function is to mix chyme with the digestive juice.

206-Peristaltic waves in the small intestine are characterized by the following statement except:

- (A)They occur in response to distention of the wall.
- (B)Can be abolished by local application of cocaine
- (C)They are controlled primarily by extrinsic innervation

207-Migration motor complex is characterized by the following except:

- (A)It starts in the stomach and spread to terminal ilium.

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- (B)Occurs every 1-1.5h.
- (C)It helps digestion of food
- (D)It prevents duodeno-gastric reflux.

208-Peristaltic rush are characterized by the following except:

- (A)They are strong peristaltic contraction.
- (B)They occur normally.
- (C)they occur when there is intense irritation or distention of the small intestine.
- (D)They are initiated by reflexes involving the intrinsic and extrinsic nerves.

209-Small intestine motility is stimulated by the following except:

- (A)Gastrin
- (B)CCK
- (C)Secretin
- (D)Motilin.

210-Small intestine motility is inhibited by the following except:

- (A)Somatostatin.
- (B)VIP.
- (C)Adrenaline
- (D)Insulin.

211-Motility of small intestine is inhibited by the following except:

- (A)Intestino-intestinal reflex
- (B)Vesico-intestinal reflex.
- (C)Peritoneal irritation

(D)Distention of stomach.

212-Large intestinal secretion is stimulated by:

(A)Direct stimulation.

(B)Local myentric reflex.

(C)Para sympathetic stimulation.

(D)All of the above.

213-Colonic motility is stimulated by the following except:

(A)Gastro-colic reflex.

(B)Colono-colic reflex.

(C)Duodeno-colic reflex.

214-Emptying at ileocecal region is promoted by:

(A)Distention of cecum

(B)Distention of colon.

(C)Distention of stomach.

(D)Sympathetic reflex.

215-Emptying at ileocecal region is inhibited by:

(A)Gastroileal reflex.

(B)Gastrin

(C)Colonoileal reflex.

(D)Distention of terminal ilium.

216-Removal of the entire colon would be expected to cause:

(A)Megaloblastic anemia.

- (B) Severe malnutrition.
- (C) Decrease urinary urobilinogen.
- (D) Death.

217-The parasympathetic supply of the distal colon is:

- (A) Pelvic nerve.
- (B) Vagus nerve
- (C) The lesser splanchnic nerve.
- (D) The pudendal nerve.

218-The external anal sphincter is supplied by:

- (A) Pelvic nerve.
- (B) Pudendal nerve.
- (C) Vagus nerve

219-Large intestine secretion is stimulated by:

- (A) Direct stimulation.
- (B) Local myenteric reflex.
- (C) Parasympathetic stimulation.
- (D) All the above.

220-Mass movement in the colon after meal is due to the following except:

- (A) Gastrocolic reflex
- (B) Duodenocolic reflex
- (C) Gastrin hormone.
- (D) Secretine hormone.

221-Mass movement in the colon would be abolished by:

- (A)Vagotomy.
- (B)Sympathectomy.
- (C)Destruction of the intrinsic nerve plexus.

222-The following are true about defecation except:

- (A)It is initiated by distention of rectum with feces.
- (B)It is facilitated by micturition reflex.
- (C)It is under voluntary control in infant.
- (D)It is inhibited by pain.

223-Anal mucosa is sensitive to all of the following except:

- (A)Pain
- (B)Stretch.
- (C)Touch
- (D)Temperature

224-Rectal mucosa is sensitive to:

- (A)Pain
- (B)Touch
- (C)Temperature
- (D)Stretch

225-Resting anal pressure is mainly due to :

- (A)Tone of external anal sphincter
- (B)Tone of the internal sphincter.

(C)Tone of the puborectalis muscle.

226.Fecal continence requires:

(A)Intact innervations of anorectal region

(B)Sensation of rectum and anal mucosa.

(C)Tone of the internal and external anal sphincter

(D)All of the above

answers

144) c

145) c

146) c

147) c

148) D

149) c

150) A

151) D

152) B

153) c

154) C

155) B

156) C

157) D

158) C

159) c

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- 160) C
- 161) D
- 162) c
- 163) B
- 164) C
- 165) C
- 166) B
- 167) B
- 168) D
- 169) C
- 170) D
- 171) C
- 172) D
- 173) C
- 174) D
- 175) A
- 176) B
- 177) B
- 178) C
- 179) B
- 180) B
- 181) D
- 182) D

Mcq digestion

- 183) C
- 184) C
- 185) B
- 186) C
- 187) C
- 188) C
- 189) B
- 190) A
- 191) D
- 192) B
- 193) A
- 194) D
- 195) B
- 196) D
- 197) D
- 198) B
- 199) A
- 200) A
- 201) c
- 202) B
- 203) A
- 204) C
- 205) A

Mcq digestion

- 206) C
- 207) C
- 208) B
- 209) C
- 210) D
- 211) D
- 212) D
- 213) B
- 214) C
- 215) C
- 216) C
- 217) A
- 218) B
- 219) D
- 220) D
- 221) C
- 222) C
- 223) B
- 224) D
- 225) B
- 226) D

Mcq digestion