Date:

Registration number:

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU-27
UG - IV SEMESTER (OPEN ELECTIVE)
SEMESTER EXAMINATION: APRIL 2022
(Examination conducted in July 2022)

CHOE-4318: Chemistry of food production, health and nutrition

Time- 90 mins Max Marks-35

This question paper contains _5__ printed pages.

Answer all 35 questions

Q.1) The red colour of the soil is due to the presence of
a) high content of iron
b) high content of magnesium
c) high content of copper
d) high content of organic matter

Q.2) The dark brown or black colour of soil is due to the presence of
a) high content of copper
b) high content of calcium
c) high content of iron
d) high content of organic matter

Q.3) In the Nitrogen fixation cycle, nitrogen is converted to which of the following?
a) Sulphur dioxide
b) Nitrogen Dioxide
c) Nitrous oxide
d) Ammonia

Q.4) Which of the following is correct for nitrifying bacteria?
a) They convert free nitrogen molecule to nitrogen compounds.
b) They oxidize protein to nitrogen.
c) They oxidize carbohydrates to carbon dioxide.
d) They convert proteins into ammonia.

Q.5) In the Nitrogen cycle, the following types of bacteria present in plant root nodules that can fix nitrogen in the soil?
a) Rhizobium
b) Spirogyra
c) Streptococcus
d) Xanthomonas

Q.6) Which element is not an essential micronutrient in plants.
a) Iron
b) Magnesium
c) Sulphur
d) Cadmium

Q. 7) Which of the following secondary macro-nutrient is present in the core of chlorophyll molecule?
a) Iron
b) Magnesium
c) Calcium
d) Potassium

Q.8) The correct order of soil particle size is
a) sand > gravel > silt > clay
b) gravel > sand > clay > silt
c) gravel > sand > silt > clay
d) silt > sand > gravel > clay

Q.9) Little leaf/leaf rosetting is a deficiency symptom of
a) Zn
b) As
c) Cd
d) Bi

Q.10) Urea is produced by heating which of the following gas mixture at high pressure and relatively high temperature?
a) Carbon dioxide and ammonia
b) Carbon dioxide and sulfur dioxide
c) Ammonia and oxygen
d) Ammonia and nitrogen

Q.11) What is Basal Metabolic Rate?
a) The science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health, and diseases of an organism.
b) The study of energy accumulated in food substances (proteins, fat, and carbohydrates).
c) The science that interprets the interaction of nutrients and other substances in food in relation to studying only disease of an organism.
d) The rate at which the body uses energy while at rest to maintain vital functions such as breathing, blood circulation, controlling body temperature, cell growth, brain and nerve function, and contraction of muscles.

Q.12) Goitre is due to the deficiency of
a) iodine
b) copper
c) calcium
d) phosphorus

Q.13) Which of the following pair of elements help to maintain normal levels of fluid inside our cell?
a) Sodium and potassium
b) Iron and calcium
c) Carbon and oxygen
d) Nitrogen and phosphorus

Q.14) Proteins are made up of
a) amino acids
b) monosaccharides and disaccharides,
c) glycerol units
d) vitamins and minerals

Q.15) Cellulose is a storage form of
a) carbohydrate
b) vitamins
c) proteins
d) lipids

Q.16) The Recommended Dietary Allowance (RDA) for protein with respect to a person's bodyweight is
a) 0.8 gram per kilogram
b) 2 gram per kilogram
c) 100 gram per kilogram
d) 0.05 gram per kilogram

Q.17) Which of the following food has the highest calorific value?
a) Ghee
b) Tomato
c) Wheat
d) Meat

Q.18) Which among the following fertilizers has the highest content of nitrogen?
a) Ammonium sulphate
b) Calcium ammonium nitrate
c) Urea
d) Calcium superphosphate

Q.19) The calorific value of protein per gram is
a) 4 cal/g
b) 10 cal/g
c) 9 cal/g
d) 6cal/g

Q.20) The major role of carbohydrates is
a) storage
b) structural framework
c) transport materials
d) both storage and structural framework

Q.21) Obesity occurs due to
a) overeating of carbohydrates and fats.
b) not eating enough carbohydrates and fats.
c) overeating of vitamins and minerals.
d) not eating enough vitamins and minerals.

Q.22) The mode of obtaining food for growth, energy, repair, and maintenance is called
a) carbohydrate
b) nutrition
c) calorie
d) fatty acid

Q.23) Foods like milk, egg and meat are rich in
a) carbohydrate
b) protein
c) vitamins
d) minerals

Q.24) A person suffering from slow neural transmission is recommended to increase the intake of
a) potassium
b) manganese
c) calcium
d) magnesium

Q.25) Deficiency of carbohydrates and protein in infants causes
a) marasmus
b) goitre
c) obesity
d) anaemia

Q.26) Which of the following compound is not used as adulterant in sugar
a) chalk powder
b) sand
c) urea
d) indigo

Q.27) Name the gas liberated while cooking with baking soda.
a) NO_2
b) SO_2
c) CO_2
d) CO

Q.28) Monosodium glutamate is a
a) sequesterant
b) flavour enhancer
c) acidity regulator
d) sweetener

Q. 29) Food additives that are used to change or maintain pH are called
a) sequestrant
b) sweetner
c) acid regulators
d) emulsifiers

Q.30) What are antioxidants?
a) Compounds that delay or prevent the deterioration of foods by oxidative mechanisms.
b) Agents that enhance the growth of spoilage and pathogenic microorganisms in food.
c) Compounds that enhances the oxidation mechanism in food.
d) Compound that regulates the acidity level in food.

Q.31) Which of the following does not have antioxidant qualities?
a) Vitamin E
b) Vitamin K
c) Calcium
d) Omega-3 fatty acids

Q.32) The following additive is used to regulate pH in food.
a) vinegar
b) sugar
c) salt
d) oil

Q.33) The external agents which compromises the safety or effectiveness of food materials are called as
a) adulterants
b) nutrients
c) pesticides
d) oxidants

Q.34) The process of yeast converting sugar into carbon dioxide is known as
a) proofing
b) fermentation
c) resting
d) kneading

Q.35) Fermentation of milk produces
a) ascorbic acid
b) lactic acid
c) benzoic acid
d) acetic acid