

SH-I/NUT/103/GE-1/19

B.Sc. 1st Semester (Honours) Examination, 2019-20**NUTRITION****Course ID : 12314****Course Code : SH/NUT/103/GE-1****Course Title : Fundamentals of Nutrition and Food Science****Time: 2 Hours****Full Marks: 40***The figures in the right hand side margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.**দক্ষিণ প্রান্তস্থ সংখ্যাগুলি প্রশ্নের পূর্ণমানের নির্দেশক।
পরীক্ষার্থীদের যথাসম্ভব নিজের ভাষায় উত্তর দিতে হবে।***1. Answer any five of the following:****2×5=10***যে কোনো পাঁচটি প্রশ্নের উত্তর দাও :*

- What is imbalance?
অসম পুষ্টি কী?
- Mention the sources of riboflavin.
রাইবোফ্লাভিনের উৎস উল্লেখ করো।
- Write the functions of Vitamin E.
ভিটামিন E -র কাজ লেখো।
- Mention the consequence of Vitamin B₁₂ deficiency.
ভিটামিন B₁₂-এর অভাবজনিত ফল উল্লেখ করো।
- Mention two differences between marasmus and kwashiorkor.
ম্যারাসমাস ও কোয়াশিওরকরের মধ্যে দুটি পার্থক্য উল্লেখ করো।
- What are the physiological fuel value of carbohydrate and protein?
কার্বোহাইড্রেট ও প্রোটিনের শারীরবৃত্তীয় শক্তিমূল্য কত?
- Write the name of four essential amino acids.
চারটি অত্যাবশ্যকীয় অ্যামাইনো অ্যাসিডের নাম লেখো।
- Write the name of four protective nutrients.
চারটি দেহসংরক্ষক পরিপোষকের নাম লেখো।

2. Answer any four questions:**5×4=20***যে কোনো চারটি প্রশ্নের উত্তর দাও :*

- Write the functions of lipid. What is invisible fat?
লিপিডের কাজগুলি লেখো। অদৃশ্য ফ্যাট কী? **4+1=5**
- What do you mean by food groups? Write its utility.
খাদ্যের শ্রেণি বলতে কী বোঝো? এর উপযোগিতা লেখো। **2+3=5**

- (c) Write the functions of Vitamin D. Mention the clinical manifestations of ricket. 2+3=5
ভিটামিন D-এর কাজগুলি লেখো। রিকেটের লক্ষণগুলি উল্লেখ করো।
- (d) Write the dietary guidelines for an Indian adult man. 5
একজন প্রাপ্তবয়স্ক ভারতীয় পুরুষের জন্য পথ্যবিষয়ক নির্দেশিকাগুলি লেখো।
- (e) Write the functions of Thiamine. 5
থিয়ামিনের কাজগুলি লেখো।
- (f) What is conjugated protein? Write some important functions of proteins. 2+3=5
যুক্ত প্রোটিন কী? মানবদেহে প্রোটিনের কিছু গুরুত্বপূর্ণ কাজ সম্বন্ধে লেখো।

3. Answer *any one* of the following questions:

যে কোনো একটি প্রশ্নের উত্তর দাও :

- (a) Write the sources and functions of Vitamin C. Write the consequences of deficiency of this Vitamin. 2+6+2=10
ভিটামিন C-এর উৎস ও কাজ উল্লেখ করো। এই ভিটামিনের অভাবজনিত ফলগুলি লেখো।
- (b) Write short notes on: 2½×4=10
টীকা লেখো :
- (i) Food pyramid
খাদ্য পিরামিড
- (ii) Iodine deficiency disorders
আয়োডিনের অভাবজনিত ফল
- (iii) Folic acid
ফোলিক অ্যাসিড
- (iv) Xerophthalmia
জেরোফথ্যালমিয়া
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SH-I/NUT/101/C-1/19

B.Sc. 1st Semester (Honours) Examination, 2019-20

NUTRITION

Course ID : 12311

Course Code : SH/NUT/101/C-1

Course Title : Human Physiology-I

Time: 1 Hour 15 Minutes

Full Marks : 25

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* of the following questions: 1×5=5
- (a) State the role of ptyalin in digestion.
 - (b) Mention the cause of first heart sound during cardiac cycle.
 - (c) Name one hormone secreted by the juxtaglomerular apparatus.
 - (d) Define vital capacity.
 - (e) What is GFR?
 - (f) Write down the functions of rough ER.
 - (g) What is enterohepatic circulation?
 - (h) Mention the functions of the distal convoluted tubules of the nephrons.
2. Answer *any two* of the following questions: 5×2=10
- (a) Discuss how protein is digested in our body. 5
 - (b) Explain the process of reverse chloride shift with a proper diagram. 5
 - (c) Describe the intrinsic pathway of blood coagulation. 5
 - (d) Discuss the role of kidney in maintaining acid base balance in our body. 5
3. Answer *any one* of the following questions: 10×1=10
- (a) Describe the regulation of cardiac output. What is the significance of Rh-group of blood? What are anticoagulants? Give example. 6+2+(1+1)=10
 - (b) Discuss the process of fat absorption in our body. Differentiate between liver bile and gall bladder bile. 6+4=10
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SH-I/NUT/102/C-2/19

B.Sc. 1st Semester (Honours) Examination, 2019-20

NUTRITION

Course ID : 12312

Course Code : SH/NUT/102/C-2

Course Title : Food Science and Basic Nutrition-I

Time: 1 Hour 15 Minutes

Full Marks : 25

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Answer *any five* of the following questions: 1×5=5
- (a) What do you mean by phytochemicals?
 - (b) What is mixed triglycerides?
 - (c) What is epimer?
 - (d) What is fibrous protein?
 - (e) Give two examples of non-polar amino acid.
 - (f) What is iodine number?
 - (g) What do you mean by soap?
 - (h) What is reducing sugar?
2. Answer *any two* of the following questions: 5×2=10
- (a) What do you mean by rancidity of fat? Mention its causes. What is saponification number?
1+2+2=5
 - (b) How fructose is formed from glucose? What is the difference between D and L sugar? 3+2=5
 - (c) Write the role of dietary fibre in prevention of constipation and coronary heart disease.
2½×2=5
 - (d) What do you mean by NPU? What is isoelectric point? What is conditionally essential amino acid?
2+2+1=5
3. Answer *any one* of the following questions: 10×1=10
- (a) Glucose and fructose form same osazone—Explain. Describe Ruff degradation. Give one example of heteropolysaccharide. 5+4+1=10
 - (b) Classify protein based on chemical nature. Write biuret and xanthoproteic tests of protein.
6+(2+2)=10
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SH-I/NUT/101/C-1(P)/19

B.Sc. 1st Semester (Honours) Practical Examination, 2019-20

NUTRITION

Course ID : 12321

Course Code : SH/NUT/101/C-1 (P)

Course Title : Human Physiology-I

Time: 2 Hours

Full Marks : 15

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Measure blood pressure of a subject by using sphygmomanometer. Interpret your result. 4+1=5
 2. Determine your blood group. 5
 3. Viva voce 3
 4. Laboratory Note Book. 2
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SH-I/NUT/102/C-2(P)/19

B.Sc. 1st Semester (Honours) Practical Examination, 2019-20

NUTRITION

Course ID : 12322

Course Code : SH/NUT/102/C-2 (P)

Course Title : Food Science and Basic Nutrition

Time: 2 Hours

Full Marks : 15

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

1. Prepare a standard curve with different dilutions of the given protein sample following Lowry's method. Write down the principle. 5+1=6
 2. Test whether the given sugar sample is a reducing or a non-reducing sugar. 2
 3. Laboratory Note Book 2
 4. Viva-voce 5
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