PROVISIONAL ANSWER KEY

		Question Paper Code:	100/2025/OL	
		Category Code:	596/2024	
		Exam:	Laboratory Technician	
		Date of Test	10-09-2025	
		Department	Meat Products of India Limited	
Que	stion1:-I	n adults, Beta	a chain of Haemoglobin contains	amino acids.
	A:-151			
	B:-141			
	C:-146			
	D:-Non	e of the abov	e	
	Correct	: Answer:- Op	tion-C	
Que	stion2:-l	n C. perfringe	ens septicaemia, blood film shows	
	A:-Schi	stocytes		
	B:-Sph	erocytes		
	C:-Heir	z bodies		
	D:-Base	ophilic stipplir	ng	
	Correct	: Answer:- Op	tion-B	
Que	stion3:-I	n sickle cell a	naemia, an abnormal Hb, HbS formed wher):
	A:-Valir	ne replaces Gl	lutamic acid	
	B:-Glut	amic acid rep	laces Valine	
	C:-Leuc	in replaces G	ilutamic acid	
	D:-Non	e of the abov	e	
	Correct	: Answer:- Op	tion-A	
Que	stion4:-I	Normal value	of CSF total protein is :	
	A:-60-9	0 mg%		
	B:-40-7	'0 mg%		
	C:-30-6	60%		
	D:-15-4	l0 mg%		
	Correct	: Answer:- Op	tion-D	
Que	stion5:-/	Acetest is a ta	ablet reagent test to detect in uring	e.
	A:-Biliru	ubin		
	B:-Prot	ein		
	C:-Bile	salt		

D:-Ketone bodies
Correct Answer:- Option-D
Question6:-Fixative used on frozen sections :
A:-Clarke's solution
B:-Carnoy's solution
C:-Gendre's solution
D:-None of the above
Correct Answer:- Option-A
Question7:-Araldite is used as an embedding medium in Histopathology, it is an example of type of resin.
A:-Acrylic resin
B:-Epoxy resin
C:-Polyester resin
D:-Phenolic resin
Correct Answer:- Option-B
Question8:-An example for histochemical fixative
A:-Picric acid
B:-Osmic acid
C:-Merchluric chloride
D:-Cold acetone
Correct Answer:- Option-D
Question9:-Use of membrane filters in concentration of cancer cells suspended in fluid was first introduced by :
A:-Leif
B:-Sam H Seal
C:-Anderson
D:-Papanicolaou
Correct Answer:- Option-B
Question10:-Which of the following is a stain for detection of carbohydrate in cytology?
A:-Nile blue sulphate
B:-Acetic Orcein
C:-Sudan black B
D:-PAS
Correct Answer:- Option-D
Question11:-Stain used for hormonal evaluation in cytology is :

A:-Rakoff's stain

В	:-Cresyl violet
С	:-Shorr's stain
D	e:-Both (1) and (3)
С	orrect Answer:- Option-D
Questi defect	on12:-Which of the following is an example for autosomal chromosome?
Α	:-Turner's syndrome
В	:-Klinefelter's syndrome
С	:-Cat-cry syndrome
D	:-Chromatin positive ovarian Dysgenesis
С	orrect Answer:- Option-C
Questi	on13:-Colchicine is an example for :
Α	:-Mitotic poison
В	:-Stain
С	:-Fixative
D	:-None of the above
С	orrect Answer:- Option-A
Questi	on14:-CPDA maintains viability of blood cells up to
Α	:-21-25 days
В	:-23-28 days
С	:-15-20 days
D	:-28-35 days
С	orrect Answer:- Option-D
Questi	on15:-Anti-Rh antibody is type of Antibody.
Α	:-IgM
В	:-IgG
С	:-lgA
D	e:-lgD
С	orrect Answer:- Option-B
Questi	on16:-Attenuated vaccine was first developed by
Α	:-Robert Koch
В	:-Joseph Lister
С	:-Robert Hook
D	:-Louis Pasteur
С	orrect Answer:- Option-D

Question17:-Spirochaetes are looked under best by the microscope

- A:-Compound Microscope
- B:-Fluorescent Microscope
- C:-Dark field Microscope
- D:-None of these

Correct Answer:- Option-C

Question18:-Charcoal powder and fats are sterilized by

- A:-Autoclave
- B:-Hot air oven
- C:-Tyndallization
- D:-Inspissation

Correct Answer:- Option-B

Question19:-The enzyme absent in Anaerobic bacteria is

- A:-Catalase
- B:-Oxidase
- C:-Phosphatase
- D:-None of these

Correct Answer:- Option-A

Question20:-Silver Impregnation Staining technique is used for the demonstration of bacterial

- A:-Fimbriae
- B:-Flagella
- C:-Capsule
- D:-Spore

Correct Answer:- Option-B

Question21:-Which of the following is Capnophilic bacteria?

- A:-Klebsiella pneumoniae
- B:-Salmonella typhi
- C:-Campylobacter jejuni
- D:-None of these

Correct Answer:- Option-C

Question22:-The finding of large, multinucleated, clumps of cells in the bronchial secretions of a 2-year-old girl with acute bronchopneumonia suggests that this infection is caused by

- A:-Respiratory syncytial virus
- B:-Epstein-Barr virus
- C:-Mycoplasma hominis
- D:-Rhinovirus

Correct Answer:- Option-A

Question23:-The human virus that has been associated with Burkitt's lymphoma (a malignant tumor of the jaw) is :

A:-Cytomegalovirus

B:-Human Papillomavirus (HPV)

C:-Retroviruses

D:-Epstein-Barr virus

Correct Answer:- Option-D

Question24:-Which of the following statement is false about Laboratory Diagnosis of Influenza viruses?

A:-Rapid Influenza Antigen Tests are convenient but may have lower sensitivity than molecular tests

B:-RT-PCR tests are not preferred because of their low sensitivity and specificity

C:-Viral Culture tests are less common for routine diagnosis due to longer turnaround times

D:-Antigen tests can be performed on samples like Nasopharyngeal Swab, Nasal Aspirate, or throat swabs

Correct Answer:- Option-B

Question25:-Which of the following mycoses can be diagnosed by demonstrating fungal cells that reproduce by budding in the infected patient's tissues?

A:-Candidiasis and Cryptococcosis

B:-Candidiasis and Mucormycosis

C:-Mycetoma and Aspergillosis

D:-Aspergillus and Tinea corporis

Correct Answer:- Option-A

Question26:-A positive Germ tube test is a rapid diagnostic test primarily used to identify

A:-Candida albicans

B:-Candida parapsilosis

C:-Candida tropicalis

D:-Candida glabrata

Correct Answer: - Option-A

Question27:-Of the following, which is not referred as an antifungal medicine?

A:-Fluconazole

B:-Clotrimazole

C:-Albendazole

D:-Voriconazole

Correct Answer:- Option-C Question28:-Which of the following has only one host? A:-Plasmodium vivax B:-Taenia solium C:-Trypanosoma gambience D:-Entamoeba histolytica Correct Answer:- Option-D Ouestion29:-The main reservoir of Balantidiasis is A:-Mosquito B:-Man C:-Pig D:-Cow Correct Answer:- Option-C Question30:-All are bile stained egg except A:-Trichuris trichiura B:-Taenia solium C:-Ancylostoma duodenale D:-Ascaris lumbricoides Correct Answer:- Option-C Question31:-Sickle cell haemoglobin is produced due to the change in amino acid A:-Sixth position glutamic acid in the beta chain of HbA to valine B:-Sixth position valine in the beta chain of HbA to glutamic acid C:-Sixth position glutamic acid in the beta chain of HbA to lysine D:-121 position of glutamic acid in the beta chain of glutamine Correct Answer: - Option-A Question32:-Acute intermittent porphyria is due to the deficiency of the enzyme A:-Haem synthase B:-Porphobilinogen deaminase C:-Porphobilinogen synthase D:-Ferro chelatase Correct Answer:- Option-B Question33:-The coenzyme required for the oxidative decarboxylation of alphaketo glutarate in TCA cycle is A:-PLP B:-THF C:-BIOTIN

D:-TPP

Correct Answer:- Option-D

Question34:-Which apolipoprotein is essential for the activation of lipoprotein Lipase?

A:-Apo C 2

B:-Apo B 100

C:-Apo E

D:-Apo A 1

Correct Answer: - Option-A

Question35:-The Gibbs - Donnan equilibrium is significant in which of the following

A:-Gas exchange in lungs

B:-lon and water balance across cell membrane and capillary walls

C:-Digestion in the intestinal tract

D:-All the above

Correct Answer:- Option-B

Question36:-Which of the following is the primary cause of high anion gap metabolic acidosis?

A:-Diarrhea

B:-Renal tubular acidosis

C:-Diabetic keto acidosis

D:-Hyper chloremic acidosis

Correct Answer:- Option-C

Question37:-In the atomic absorption spectrophotometer the light source used is

A:-Tungsten lamp

B:-Xenon lamp

C:-Hollow cathode lamp

D:-Diode

Correct Answer:- Option-C

Question38:-Heinrich Domino theory is primarly focussed on

A:-Post accident medical treatment

B:-Identifying and breaking the cause of accident

C:-Random chances

D:-Increased compensation payments

Correct Answer:- Option-B

Question39:-The equivalent weight of a base is calculated by

A:-Molecular mass divided by number of hydroxide ions

B:-Equals to its molecular mass

C:-Molecular mass multiplied by number of hydroxide ions

D:-Reaction rate

Correct Answer:- Option-A

Question 40:-Which one of the following best describes the relationship between water purity and chemical conductivity?

A:-Higher conductivity indicates higher purity

B:-Conductivity measures only pH

C:-Purity not related to conductivity

D:-Lower conductivity indicates higher purity

Correct Answer:- Option-D

Question41:-Which enzyme is used in PCR to synthesize new DNA Strands?

A:-RNA Polymerase

B:-DNA ligase

C:-Taq Polymerase

D:-Reverse transcriptase

Correct Answer:- Option-C

Question42:-Tyrosine crystals appear in urine as

A:-Spheres

B:-Tufts of fine needle

C:-Rectangular rhomboid plate

D:-Envelop shaped

Correct Answer:- Option-B

Question43:-In tuberculous meningitis, which one of the following is not correct?

A:-Cob web type coagulation

B:-Protein content in CSF is high

C:-Sugar content in CSF is high

D:-Sugar content in CSF is low

Correct Answer:- Option-C

Question44:-Wilson's disease is associated with reduced concentration of

A:-Albumin

B:-Fibrinogen

C:-Ceruloplasmin

D:-Transferrin

Correct Answer:- Option-C

Question45:-The mobility of molecules during electrophoresis depends on the

following factors except A:-Net charge on the particles B:-pH of the medium C:-Strength of the electric field D:-Volume of Buffer Correct Answer: - Option-D Question46:-The most likely cause for serum or plasma to appear milky is the presence of A:-VLDL B:-Chylomicron C:-LDL D:-HDL Correct Answer:- Option-B Question47:-Porphyrins are best demonstrated by A:-UV Flourascence B:-Atomic Absorption Spectroscopy C:-Electrophoresis D:-ELISA Correct Answer: - Option-A Question48:-The term microalbuminuria is used when the daily excretion of albumin is A:-Less than 500 mg/day B:-Less than 300 mg/day C:-Less than 300 microgram/day D:-Less than 1 g/day Correct Answer:- Option-B Question49:-A dye binding technique commonly employed for the estimation of serum albumin is A:-Coomassie Blue B:-Brilliant Cresyl Blue C:-Malachite Green D:-Bromo Cresol Green

Correct Answer:- Option-D

Question 50:-Which of the following is not a quality control chart?

A:-Input Output chart

B:-Cumulative Sum control chart

C:-Levy-Jening's chart

	D:-Westgard multiple rule chart
	Correct Answer:- Option-A
Que	stion51:-In nutrition, a reference man weights
	A:-60 Kg
	B:-55 Kg
	C:-60 Kg
	D:-70 Kg
	Correct Answer:- Option-A
Que	stion52:-Harris benedict equation estimates
	A:-Respiratory quotient
	B:-BMR
	C:-Body Density
	D:-Energy in starvation
	Correct Answer:- Option-B
Que	stion53:-Fats should contribute percentage of total calories.
	A:-10
	B:-30
	C:-15
	D:-20
	Correct Answer:- Option-B
Que	stion54:-Total requirement of vegetables in a 2000 Kcal diet
	A:-100 g
	B:-200 g
	C:-350 g
	D:-400 g
	Correct Answer:- Option-D
Que	stion55: functions as a hormone.
	A:-Vitamin B
	B:-Vitamin D
	C:-Vitamin E
	D:-Vitamin C
	Correct Answer:- Option-B
Que	stion56:-Calcium forms g of body weight of adult body.
	A:-1.5 - 2 Kg
	B:-500 - 750 g
	C:-650 - 750 a

	D:-920 - 1200 g
	Correct Answer:- Option-D
	stion57:-MUAC values below are considered undernourished for adult ales.
	A:-18 cm
	B:-15 cm
	C:-22 cm
	D:-17 cm
	Correct Answer:- Option-C
Que	stion58:-CIAF is a new approach in
	A:-Clinical examination
	B:-Biochemical estimation
	C:-Anthropometry
	D:-Dietary recall
	Correct Answer:- Option-C
	stion59:-Recommended allowance for pulses in 'my plate' (2000 Kcal) for etarians is
	A:-85 g
	B:-75 g
	C:-60 g
	D:-65 g
	Correct Answer:- Option-A
Que	stion60:-ICMR RDA for methionine and cysteine for adults (per g of protein) is
	A:-15 mg
	B:-45 mg
	C:-18 mg
	D:-22 mg
	Correct Answer:- Option-D
Que	stion61: cells in the stomach wall secrete HCl.
	A:-Goblet cells
	B:-Paneth cells
	C:-Parietal cells
	D:-Endocrine cells
	Correct Answer:- Option-C
Que	stion62:-Length of large intestine is
	A:-4 m

	B:-3 m
	C:-8 m
	D:-1.5 m
	Correct Answer:- Option-D
Ques tissu	tion63:-Name the hormone promoting synthesis of tri glycerides by adipose
	A:-Polypeptides
	B:-Insulin
	C:-Glucagon
	D:-Somatostatin
	Correct Answer:- Option-B
Ques	tion64:-Ketone bodies can be used as energy source by all cells except
	A:-RBC
	B:-Brain cells
	C:-Cardiac cells
	D:-Myocytes
	Correct Answer:- Option-A
Ques	tion65:-The Vitamin that initiates haem synthesis is
	A:-Riboflavin
	$B:-B_{12}$
	C:-B ₆
	D:-Pantothenic acid
	Correct Answer:- Option-C
	tion66:-Which vitamin acts as a coenzyme with pyruvate dehydrogenase, aketoglutarate dehydrogenase and Keto acid dehydrogenase?
	A:-Niacin
	B:-Pantothenic acid
	C:-Riboflavin
	D:-Thiamine
	Correct Answer:- Option-D
Ques	tion67:-Melatonin is produced in
	A:-Pineal gland
	B:-Pituitary gland
	C:-Kidney
	D:-Adrenal gland
	Correct Answer:- Option-A

Question68:-Nucleases are produced in A:-Thymus gland **B:-Pancreas** C:-Pineal gland D:-Hypothalamus Correct Answer: - Option-B Question69:-Normal bi carbonate level in blood is A:-45-50 meg/L B:-40-50 meg/L C:-22-29 meq/L D:-15-20 meq/L Correct Answer:- Option-C Question70:-Major component inside cell is A:-Phosphate B:-Bicarbonate C:-Chloride D:-Calcium Correct Answer:- Option-A Question71:-Dietitian's role is to provide A:-Do a nutritional assessment of the patient B:-Provide nutritional counselling C:-Provide nutritional advice on follow up D:-All the above Correct Answer:- Option-D Question72:-A patient recovering from surgery requires a A:-High calorie, high protein diet B:-Low calorie, high protein diet C:-High calorie, low protein diet D:-None of the above Correct Answer:- Option-A Question73:-Therapeutic diet includes A:-Clear fluid diet B:-Liquid diet C:-Soft diet D:-All the above Correct Answer:- Option-D

Question74:-Lifestyle Diseases are also called A:-Communicable diseases B:-Non-communicable diseases C:-Bacterial diseases D:-Viral diseases Correct Answer:- Option-B Question75:-Patients with Diabetes mellitus requires foods that have A:-Low glycaemic index B:-High glycaemic index C:-Very high glycaemic index D:-All the above Correct Answer:- Option-A Question 76:-Patients with Type 1 Diabetes mellitus require A:-3 major meals B:-3 major meals + 3 snacks C:-4 major meals D:-4 major meals + 2 snacks Correct Answer:- Option-B Question77:-Creatinine is a good biochemical parameter for A:-Lung disease B:-Liver disease C:-Kidney disease D:-GIT disease Correct Answer:- Option-C Ouestion78:-Crohn's disease is a disease of A:-Heart B:-Limbs C:-Lungs D:-GIT Correct Answer:- Option-D Question 79:-Parenteral feeding is providing nutritional support via A:-GUT B:-Mouth C:-Stomach D:-Veins Correct Answer:- Option-D

Question80:-Constipation can be conservatively treated with a diet that includes A:-Green leafy vegetables and fruits B:-Pulses and Legumes C:-Unpolished grains D:-All the above Correct Answer:- Option-D Question81:-Food preservation methods include A:-Salting B:-Drying C:-Pasteurisation D:-All the above Correct Answer:- Option-D Question82:-Identify the food additive A:-NADH B:-ATP C:-MSG D:-GAD Correct Answer:- Option-C Question83:-The main function of foods is/are A:-Energy yielding B:-Body building C:-Protection and regulation D:-All the above Correct Answer:- Option-D Question84:-Identify the adulterant A:-Chalk powder B:-Chilli powder C:-Turmeric powder D:-Coriander powder Correct Answer:- Option-A Question85:-The ingredients that play a role in the preservation of jams and jellies are A:-Sugar, pectin, acids B:-Salt, pectin, alkali C:-Sugar, acids, alkalis D:-None of the above

Correct Answer:- Option-A

Question86:-Mercury poisoning is commonly found in

A:-Canned foods

B:-Fish

C:-Fruit juices

D:-Mineral water

Correct Answer:- Option-B

Question87:-GMP stands for

A:-Good Market Programs

B:-Great manufacturing practices

C:-Good manufacturing practices

D:-Good market produce

Correct Answer:- Option-C

Question88:-Milk is an example of a

A:-Clear liquid

B:-Emulsion of oil in water

C:-Both the above

D:-None of the above

Correct Answer:- Option-B

Ouestion89:-An artificial sweetener common in market is

A:-Aspartame

B:-Baking powder

C:-Glycogen

D:-Monosodium glutamate

Correct Answer:- Option-A

Question 90:- The codex alimentarius was set up by

A:-FAO/WHO

B:-UNICEF

C:-UNESCO

D:-IMF

Correct Answer:- Option-A

Question91:-Which of the following is/are among the core focus areas of the POSHAN Abhiyaan?

- I. Improving outcomes for pregnant women and lactating mothers
- II. Ensuring universal healthcare access for all citizens
- III. Reducing stunting and underweight in children
- IV. Increasing GDP allocation to nutrition-specific programs

A:-I and III are correct, II and IV are incorrect

B:-II and IV are correct; I and III are incorrect

C:-I and IV are correct; II and III are incorrect

D:-I, II and III are correct; IV is incorrect

Correct Answer:- Option-A

Question92:-Which of the following best reflects the main objective of the SUPOSHIT Bharat initiative?

A:-Providing free multivitamin supplements to all school-going children across India

B:-Eliminating undernutrition through mobile health clinics and monthly growth monitoring

C:-Ensuring cash transfers to all malnourished families for purchasing fortified food from registered vendors

D:-Mobilizing communities to adopt nutrition-centric behaviour change through convergent action and targeted interventions for pregnant women and children

Correct Answer:- Option-D

Question93:-For primary school children (Classes I-V) under the PM POSHAN / Mid-Day Meal Scheme, the prescribed per-meal nutritional standard is :

A:-480 kcal energy, 10 g protein, plus adequate iron, folic acid and vitamin A

B:-450 kcal energy, 12 g protein, plus adequate iron, folic acid and vitamin A

C:-450 kcal energy, 14 g protein, plus adequate iron, folic acid and vitamin A

D:-480 kcal energy, 12 g protein, plus adequate iron, folic acid and vitamin A

Correct Answer:- Option-B

Question94:-Which of the following statements about the National Nutritional Anaemia Prophylaxis Programme (NNAPP) are correct?

- I. NNAPP was launched in 1970 to address nutritional anaemia among vulnerable groups.
- II. Initially, prophylactic supplementation for pregnant women was 60 mg elemental iron +

 $500 \mu g$ folic acid daily for 100 days.

III. In 2013, NNAPP was subsumed into the National Iron Plus Initiative (NIPI), expanding

coverage to children, adolescents and women of reproductive age.

IV. Under Anaemia Mukt Bharat, the focus shifted exclusively to school-going adolescents,

replacing iron supplementation in other target groups

A:-I, II and III are correct, IV is incorrect

B:-I and III are correct; II and IV are incorrect

C:-II, III and IV are correct; I is incorrect

D:-I, II, III and IV are correct

Correct Answer:- Option-A

Question95:-According to the diagnostic criteria for Severe Acute Malnutrition (SAM), which of the following child profiles most accurately fits the classification of oedematous malnutrition?

A:-A 10-month-old with bilateral pitting oedema, weight-for-height SD-score of-2.5 and height-for-age SD-score of-2.8

B:-A 2-year-old with no oedema, weight-for-height SD-score of -3.4 and height-for-age SD-score of -2.9

C:-A 9-month-old with visible severe wasting, MUAC of 120 mm and no oedema

D:-A 15-month-old with bilateral pitting oedema, weight-for-height SD-score of -1.5 and height-for-age SD-score of -1.8

Correct Answer:- Option-D

Question96:-Which of the following statements concerning the sources of vitamin D is not correct?

A:-UV-B radiation from the sun is the best source of vitamin D

B:-Egg yolk, butter and milk are good sources of vitamin D

C:-Infants exclusively breastfed after two months should be given vitamin D supplements

D:-Longer exposures during early morning or late evening can give adequate vitamin D

Correct Answer:- Option-B

Question 97:-Which of the following best describes the purpose of the GATHER strategy in nutrition communication?

A:-To promote social campaigns using the 4 Ps (product, price, place, promotion)

B:-To evaluate the economic consequences of malnutrition in national planning

C:-To provide a structured approach for effective interpersonal communication (IPC) between dietitian and client

D:-To implement monitoring systems for mass media nutrition campaigns

Correct Answer:- Option-C

Question 98:-According to the classification of nutrition communication methods, which of the following correctly pairs a method with its appropriate category?

A:-Result demonstration - Mass contact

B:-Personal letter - Group contact

C:-Posters - Visual or objective

D:-Leader training meeting - Individual contact

Correct Answer:- Option-C

Question99:-Which of the following animal-derived nutrients have proven nutraceutical benefits such as improving brain function, reducing inflammation and supporting heart health?

1. ω -3 fatty acids

- 2. Choline
- 3. Conjugated Linoleic Acid (CLA)
- 4. Lecithin
 - A:-1 and 2 only
 - B:-1, 3 and 4 only
 - C:-1, 2 and 3 only
 - D:-All of the above

Correct Answer:- Option-D

Question100:-Which of the following statements regarding functional foods is accurate?

- I. Functional foods must show proven physiological benefits.
- II. Consumption of functional foods can be part of a normal diet.
- III. All fortified foods are considered functional foods.
- IV. Functional foods must be approved by the FDA as drugs.
 - A:-I and II are correct
 - B:-I and III are correct
 - C:-II and III are correct
 - D:-I and IV are correct

Correct Answer:- Option-A