

Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, July 2020

Course: Human Anatomy & Physiology-II
Program: B.Sc. (Food, Nutrition and Dietetics)
Course Code: HSCC1007

Semester: IInd
Time 03 hrs.
Max. Marks: 100

Instructions: Read the paper carefully. All sections are compulsory

Multiple Choice Questions/True or False/ Fill in the blanks/ Multiple answer questions

S. No.	Each question carries one mark. (100 Questions) All questions should map all the COs in course and ensure equal number of questions for each CO.	Marks	CO
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Sr. no.	Question type	Questions	Options				Marks	COs
			A	B	C	D		
1	MC	Neuroglial cells support and provide nutrition for the _____ —	Nephron	Muscles	Glands	Neurons	1	1
2	MC	Somatic nervous system is made up of _____ —	Relay neurons	Associate neurons	Sensory neurons	Motor neurons	1	1
3	MC	Which of the following are the parts of neurons?	Sympathetic and parasympathetic	Dendrite axon and cell body	Cortex medulla and sheath	Brain spinal cord and vertebral column	1	1

4	MC	Myelin sheath is derived from <hr/> —	Nerve cells	Schwann cells	Neuroglial cells	Microglia	1	1
5	MC	Which of the following is true regarding interneuron ?	It has long dendrites and a long axon	It has long dendrites and a short axon	It has short dendrites and a long or short axon	It has short dendrites and a long axon	1	1
6	MC	Axoplasm is a <hr/> —	Cytoplasm of axon	Cytoplasm of dendrite	Blood plasma	External fluid to axon but inside myelin sheath	1	1
7	MC	Neurotransmission through a synapse is always from <hr/> to <hr/>	Axon, Dendron	Dendron, Axon	Brain, spinal cord	Spinal cord, brain	1	1
8	TF	Somatic nerves mediate involuntary movement	True	False			1	1
9	MC	How many laminae are present in the grey matter of spinal cord?	8	9	7	10	1	1

10	MC	_____ layer of meninges that is thin and contains many blood vessels and nerves.	Ependymal	Dura mater	Monosynaptic	Pia mater	1	1
11	MC	Which part of the human brain has a center for controlling breathing?	Cerebrum	Cerebellum	Diencephalon	Medulla oblongata	1	1
12	MC	How many pairs of the spinal nerve are found in human?	12	13	31	33	1	1
13	TF	Spinal nerve is formed from the combination of nerve fibers from its posterior and anterior roots.	True	False			1	1
14	MA	Bipolar neurons have	one main dendrite	one axon	Two main dendrite	Two axon	1	1
15	MA	The limbic system encircles	Brain stem	Pons	Spinal cord	Corpus callosum	1	1
16	TF	Graded potentials	True	False			1	1

		are used for short-distance communication only						
17	MC	The cerebellum is located between the cerebrum and the brain stem in the back of the head. It helps in _____ —	Breathing and controlling blood pressure	Balance and coordination	Voluntary movement	Speech and hearing	1	1
18	MC	The part of the brain between the spinal cord and the diencephalon	brain stem	Spinal cord	Axon and vertebra	Medulla pons and middle brain tissue	1	1
19	MC	How many pairs of cranial nerves originate from the brain	8	10	11	12	1	1
20	MC	The midbrain is also called as _____ —	Medulla	Diencephalon	Mesencephalon	Hypothalamus	1	1
21	MC	Which of the	Beta cells	Parietal cells	Chief cells	Alpha cells	1	2

		following cells produces HCL?						
22	TF	vagus nerves stimulate the gastric glands to secrete gastric juice	True	False			1	2
23	TF	G cells don't secrete Gastrin	True	False			1	2
24	MC	Secretion of Gastric juice is stimulated by?	Gastrin	Cholecystokin	Enterogastrin	Pepsin	1	2
25	MC	Bile helps in _____ -	Digestion of proteins	Breaking down of nucleic acids	Emulsification of fats	Phagocytosis	1	2
26	MC	Where is the liver situated in the body?	Beside the pancreas	Beside heart	Above kidney	Above stomach	1	2
27	MC	Which part of pancreas produce and secrete insulin?	Glomerulus	Bowman's capsule	Islets of Langerhans	Loop of Henle	1	2
28	MC	The pancreatic juice which aids digestion is	Liver	Duodenum	Stomach	Ileum	1	2

		secreted into?						
29	MC	A patient is advised to include more meat, lentils, milk and eggs in diet only when he suffers from _____	Maramus	Thyroid	Osteomalacia	Kwashiorkor	1	2
30	TF	Each day the pancreas produces 1200–1500 mL of pancreatic juice	True	False			1	2
31	TF	Four carbohydrate digesting enzymes are - dextrinase, maltase, sucrase, and lactase	True	False			1	2
32	MA	liver is a prime storage site for certain vitamins	Vitamin A	Vitamin D	Vitamin E	Vitamin K	1	2
33	MC	Continued consumption of a diet rich in	Toxicity	Kidney stones	Hypercholesterolemia	Urine with ketone bodies	1	2

		butter, red meat and eggs for long period may cause?						
34	MC	Crohn's disease is a type of inflammatory bowel disease that affect	Kidneys	mouth to anus	Pancreas	liver	1	2
35	MC	Which is the readily available source of energy in the body?	Protein	Carbohydrates	Lipids	Vitamins	1	2
36	MC	Alpha cells are found in _____ of the islet while beta cells are usually found in the _____ of the islet.	Periphery, center	Center, periphery	Equally in both regions, periphery	Periphery, Equally in both regions	1	2
37	MC	secretion of pancreatic juice is stimulated by _____	Gastrin	Secretin	Enterokinase	Enterogastron	1	2
38	MC	Most of the absorption occurs in	Small intestine	Stomach	Liver	Large intestine	1	2

39	MC	The pH of saliva is?	9.5	8	7.5	6.8	1	2
40	MC	Which of the following does not release any enzyme?	Salivary glands	Esophagus	Stomach	Pancreas	1	2
41	MC	During inspiration the diaphragm _____	Expands	Contracts	No change	Relaxes	1	3
42	MC	Part of Respiratory tract which is funnel shaped is	Larynx	Nasal cavity	Pharynx	Lungs	1	3
43	MC	The apparatus commonly used to measure the volume of air exchanged during breathing and the respiratory rate is	stethoscope	blood pressure machine	Spirometer	haemocytometer	1	3
44	MC	The site of respiration inside the lungs are _____	Alveoli	Diaphragm	Bronchi	Bronchioles	1	3

45	MC	What is the function of trachea? _____	Filters air we breathe	Releases air out of the body	Carries air to lungs	Exchange of gas	1	3
46	MC	The structure which closes of larynx is _____	Epiglottis	Vocal cords	Adam's apple	Glottis	1	3
47	MC	After deep inspiration maximum expiration of lungs is called _____	Vital capacity	Total lung capacity	Inspiratory capacity	Functional residual capacity	1	3
48	MC	Vital capacity of lung is _____	TV+IRV+ERV	TV+IRV+RV	TV+ERV	IRV+ERV	1	3
49	MC	Maximum amount of oxygen is exchanged from blood in _____	Arteries of the body	Capillaries surrounding the alveoli	Left auricle of the heart	Arteries of the body	1	3
50	TF	Residual volume is the volume of air still remaining in the lungs after the expiratory reserve	True	False			1	3

		volume is exhaled						
51	MC	A condition in which body's internal environment remains nearly constant is called as _____	Homeostasis	Hematoma	Hemostasis	Hemopoiesis	1	3
52	MC	Which of the following facilitates reabsorption of water by nephron?	Medulla	Cortex	Pelvis	Loop of nephron	1	3
53	MA	Which of the following are biological buffer systems	Protein buffer system	Hemoglobin-oxygen hemoglobin buffer system	Carbonic Acid-Bicarbonate Buffer System	Phosphate Buffer System	1	3
54	TF	Discharge of urine from the urinary bladder is called micturition	True	False			1	3
55	MC	In micturition _____ —	Urethra relaxes	Ureters relax	Ureters contract	Urethra contracts	1	3

56	MC	Main function of Henle's loop is _____	Passage of urine	Filtration of blood	Formation of urine	Conservation of urine	1	3
57	MA	The causes of chronic renal failure are	kidney stones	Diabetes mellitus	Sickle cell anemia	Acromegaly	1	3
58	MC	What is glycosuria?	Low amount of sugar in urine	Average amount of sugar in urine	Low amount of fat in urine	High amount of sugar in urine	1	3
59	TF	Urinary bladder is smaller in females as compared to males	True	False			1	3
60	MC	About 90% of kidney stones can pass out through urinary system by drinking _____	Water	Juice	Sugar drinks	Milk	1	3
61	MC	FSH and LH are collectively known as	Neurohormones	Antistress hormones	Gonadotrophic hormone	Emergency hormone	1	4
62	MC	Which of the following hormone is responsible	LH	FSH	Progesterone	Testosterone	1	4

		for ovulation						
63	MC	Who is the father of endocrinology?	R H Whittakar	Pasteur	Thomas Addison	Einthoven	1	4
64	MC	Which of the following is responsible for sleep cycle movements ?	Melatonin	Dopamine	Serotin	Adrenalin e	1	4
65	MC	Which part of the ovary of mammals acts as endocrine gland after copulation?	Stroma	Graaffian follicle	Vitelline membrane	Germinal epithelium	1	4
66	MC	How many lobes are present in the thyroid?	1	3	2	4	1	4
67	MC	Enlargement of the thyroid is called _____	Diabetes	Goitre	Cretinism	Myxoedema	1	4
68	MC	Damage to thymus in a child may lead to _____ -	Loss of cell mediated immunity	Loss of antibody mediated immunity	Reduction in stem cell production	Reduction in hemoglobin content	1	4

69	MC	The pineal gland secretes _____	MSH	Melatonin	Melanin	Prolactin	1	4
		—						
70	MC	Which of the following hormone is responsible for the secretion of milk after parturition?	ICSH	ACTH	LH	Prolactin	1	4
71	MC	Menstruation is due to _____	Reduction of FSH	Increase of LH	Reduction is Estrogen and progesterone	Decrease in LH	1	4
72	MC	Testosterone is secreted by _____	Sertoli cells	Leydig cells	Thyroid	Spermatogenic cells	1	4
73	MC	Corpus luteum secretes _____	LH	Progesterone	Progesterone and LH	Progesterone and estrogen	1	4
74	MC	The period immediately after birth to four weeks of age is called _____	Senescent	Adolescent	Infancy	Neonatal	1	4
		—						
75	MC	In which menstrual cycle phase does	Menses	Ovulation	Secretory	Proliferative	1	4

		implantation occur?						
76	MC	What do endocrine cells of the pancreas secrete?	Omega growth hormone	Beta somatostatin	Delta insulin	Alpha glucagon	1	4
77	MC	What do delta cells secrete?	Cortisol	Glucose	Pancreatic enzyme	Somatostatin	1	4
78	MC	Insulin promotes _____	Glucosuria	Glycogenesis	Glycogenolysis	Gluconeogenesis	1	4
79	MC	Gigantism and acromegaly are due to _____	Hyperthyroidism	Hyperpituitarism	Hypopituitarism	Hypothyroidism	1	4
80	MC	Which of the following gland is regarded as a master gland?	Adrenal gland	Hypothalamus	Pituitary gland	Thyroid	1	4
81	MC	Number of autosomes in human primary spermatocyte is _____	46	44	23	22	1	5
82	MC	In the absence of acrosome the sperm _____	Cannot penetrate the egg	Cannot get energy	Cannot get food	Cannot swim	1	5

83	MC	Spermatogonia are formed by _____	Meiosis	Mitosis	Amitosis	Meiosis II	1	5
84	MC	The lytic enzyme released By sperm is _____	Ligase	Acrosome	Androgamone	Hyaluronidase	1	5
85	MC	Human sperm moves with the help of _____	Cilia	Flagellum	Basal body	Nucleosome	1	5
86	MC	Acrosome is made up of _____	Ribosome	Mitochondria	Centrioles	Golgi bodies	1	5
87	MC	Which muscle is responsible for Delivery	Connective muscle	smooth muscle	epithelial muscle	skeletal muscle	1	5
88	MC	How many lobes are there in mammary glands	0	5	15-20	50	1	5
89	MC	During copulation (coitus) semen is released by the penis into the vagina is called	insemination	Fertilisation	Parturition	Lactation	1	5

90	MC	Hormones released only during pregnancy	hCG	Estrogen	Prolactin	Progesterone	1	5
91	MC	Which organ formed first during pregnancy	Heart	Kidney	Lower limb	Brain	1	5
92	MC	Milk produced during initial days of lactation is called	colostrum	Gestation	Lactation	Parturition	1	5
93	MC	Oogenesis begins in female at	Embryonic development	Puberty	Adult	Pregnancy	1	5
94	MC	How many Testicular lobules are present in testes	100	200	250	300	1	5
95	MC	How many Bulbourethral glands are present in males	2	4	6	1	1	5
96	MC	Infundibulum, ampulla, isthmus is part of	Ovary	Vagina	Fallopian tube	Testis	1	5
97	MC	Seminal plasma is rich in	Glucose	Fructose	Maltose	Galactose	1	5

98	MC	Birth canal is called as	Vagina	Uterus	Cervix	Urethra	1	5
99	MC	Middle part of Sperm mainly consist of	Mitochondria	Cytoplasm	Golgi Bodies	Grithy particles	1	5
100	MC	The first menstruation begins at puberty is called	Menarche	Ovulation	Secretory phase	Proliferation phase	1	5