DMLT/DMRT EXAMINATION BOARD, ODISHA

SECOND YEAR D.M.L.T. ANNUAL Examination-2024

(2021 Admission Batch)

QUESTIONS (PAPER-I, PATHOLOGY)

(Immuno- Hematology, Blood Banking, Histotechnique, Cytology)

TIME : 3 Hours **FULL MARKS : 100**

Answer all questions

1.Answer **any two** **(20 X 2 = 40)**

a) Describe the routine tissue processing for microscopy under the headings of (i)Dehydration (ii) Clearing (iii) Paraffin impregnation & (iv) Blocking out **(5 + 5 + 5 + 5 = 20)**

b) What is " Fixation " ? (i) Classify the fixatives. (ii) Describe the features of an ideal fixative & (iii) Write briefly about the different preparations of Formalin fixatives. **(2 + 6 + 6 + 6 = 20)**

c) What is Cytology ? Give a brief note on the different samples received in the Cytology section. Describe the pap staining procedure in detail. **(2 + 6 + 12 = 20)**

2. Write Short Notes on **(any FIVE)** **(8 X 5 = 40)**

a) Major & Minor Cross Matching of ABO Blood group

b) Gross specimen preservation

c) Hematoxylin & Eosin staining

d) Decalcification

e) Transfusion Transmitted Diseases.

f) Diff Quick staining

3. Fill in the blanks **(1 X 10 = 10)**

a) Hemolytic disease of the new borne occurs when _____.(Rh negative mother has Rh positive fetus / Rh positive mother has Rh negative fetus)

b) The minimum time gap between two blood donations by a donor is _____. (6 months , 3 months).

c) The precursor substance for ABO antigen is _____.(H antigen / I antigen)

d) Clearing in histotechnique is done by removal of _____.(Alcohol / Xylene)

e) _____is a Cytoplasmic fixative .(Clarke's fluid / Champy's fluid)

f) 1% acid alcohol is used in H & E staining procedure for _____ (Clearing / Differentiation)

g) _____is used as a fixative for electron microscopey. (Zenker's fluid / 2% Glutaraldehyde)

h) Mordants used in histotechnique are usually sulphates of Aluminum, Iron & _____ (Chromium / Selenium).

i) The fixative of choice for frozen section is _____ (10% formol saline / 40% formol saline).

j) The process of removing specific cellular components from whole blood is called _____. (Plasmapheresis / Apheresis)

3. Write Full forms of the following : **(2 X 5 = 10)**

a. MGG

b. FFP

c. DPX

d. HPLC

e. ACD

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DMLT/DMRT EXAMINATION BOARD, ODISHA

SECOND YEAR D.M.L.T. ANNUAL Exam - 2024

(2021 Admission Batch)

QUESTIONS (PAPER-II, MICROBIOLOGY)

(Immunology & Serology, Parasitology, Virology, Mycology, Animal care)

TIME : 3 Hours **FULL MARKS : 100**

Answer all questions

1. Answer any TWO **(20 X 2 = 40)**

a) Write down the different types of Antigen-Antibody reactions with example of each. Give a short note on ELISA test under the headings of (i) Types (ii) Procedure & (iii) Uses of ELISA test **(8 + 4 + 4 + 4 = 20)**

or

b) Name the intestinal & tissue Protozoa of medical importance. Write down the (i) Life cycle & (ii) Laboratory diagnosis of plasmodium falciparum. **(4 + 8 + 8 = 20)**

c) Classify the pathogenic Fungi. Write down the laboratory diagnosis of Fungal infections under the headings of (i) Microscopy (ii) Culture (iii) Serology & (iv) Newer rapid diagnostic tests. **(4 + 4 + 4 + 4 + 4 = 20)**

2. Write short notes on (any FIVE)- **(8 X 5 = 40)**

a) Type IV Hypersensitivity reaction

b) Microfilaria

c) Laboratory diagnosis of AIDS

d) Poliovirus

e) Collection & Transport of virological specimens

f) Dengue virus (clinical manifestation & laboratory diagnosis)

3. Answer the following questions : **(2 X 5 = 10)**

a) Name two oncogenic viruses

b) Name two autoimmune diseases

c) Name two hepatitis viruses transmitted through feco- oral route

d) Name two species of malaria parasite

e) Name two viruses causing hemorrhagic fever

4. Write True (T) or False (F) **(2 X 5 = 10)**

a) BCG vaccine is killed vaccine. F

b) Indian ink staining is used to detect Cryptococcus neoformans. (T)

c) Sabouraud's Dextrose Agar is the media used for fungus culture. T

d) Candida is a dimorphic fungus. T

e) Rabies virus is a DNA virus. F

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DMLT/DMRT EXAMINATION BOARD, ODISHA

SECOND YEAR D.M.L.T. ANNUAL Exam, 2024

(2021 Admission Batch)

QUESTIONS (PAPER-III, BIOCHEMISTRY)

ANSWER ALL QUESTIONS

TIME : 3 Hours **FULL MARKS : 100**

1. Answer any TWO : **(20 X 2 = 40)**

a) Classify the different Liver function tests. Describe the markers of Liver dysfunction under the headings of measurement of (i) Serum Bilirubin (ii) Urinary Urobilinogen (ii) Urine Bile salts. **(2 + 6 + 6 + 6= 20)**

b) Describe the Gastric Function Test. Write down the causes of (i) Hyperacidity & (ii) Hypoacidity. **(16 + 2 + 2 = 20)**

c) Enumerate the different Thyroid Function Tests. Write briefly about the abnormalities of thyroid function like (i) Hyperthyroidism & (ii) Hypothyroidism. **(14 + 3 + 3 = 20)**

2. Write Short Notes on **any five:** **(8 X 5 = 40)**

a) Urea Clearance test

b) Glycosylated hemoglobin

c) Major enzymes of pancreatic juice

d) Biochemical tests of CSF

e) Glucose Tolerance test

f) Laboratory errors & preventions

3. Name the following: **(2 X 5 = 10)**

a) Two tests to detect proteins in urine

b) Two tests to detect sugar in urine

c) Two tests to detect ketone bodies in urine

d) Two thyroid hormones

e) Two serum electrolytes

3. Fill in the blanks **(1 X 10 = 10)**

a) The major regulatory factor of water and electrolyte balance in our body is the hormone _____ .(Aldosterone/ Progesterone)

b) When the effective osmolality is increased the body fluid is called _____ (Hyertonic / Hypotonic).

c) Any reducing sugar will give a _____Benedict's test. (Positive / Negative)

d) _____hormone causes hyperglycaemia. (Glucagon / Insulin)

e) Type I Diabetes Mellitus is _____ (Insulin dependent / Non Insulin dependent).

f) Rothera's test determines _____in urine. (Ketone bodies / Urobilinogen)

g) The enzyme raised in obstructive jaundice is _____.(Alkaline phosphatase/ Acid phosphatase)

h) Normal serum bilirubin level is _____ (0.2 - 0.8 mg / dl / 1- 2 mg / dl)

i) The normal level of Hb1c is less than _____ (6% / 9%).

j) The hydrochloric acid in gastric juice is secreted by the gastric _____cells. (Chief cells / Parietal cells)

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