



RAN-1803000201030072



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F. Y. B. Sc. (MLT) (Sem. - I) Examination

March - 2023

Medical Laboratory Technology : Paper - II

Equipments and Instruments in Medical Technology

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.

Fill up strictly the details of signs on your answer book

Name of the Examination:

F. Y. B. Sc. (MLT) (Sem. - I)

Name of the Subject :

Medical Laboratory Technology : Paper - II Equipments and Instruments in Medical Technology

Subject Code No.: **1803000201030072**

Seat No.:

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Student's Signature

(2) All questions are compulsory.

O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ

O.M.R. Sheetની પાછળ છાપેલ છે.

***Important instructions to fillup O.M.R. Sheet
are given on back side of the provided O.M.R. Sheet.***

SET - II

- Q. 1. _____ is used as a light source in colorimeter.
- a) Tungsten filament b) Hydrogen lamp
c) Xenon lamp d) All of these
- Q. 2. _____ is an example of moist heat sterilization.
- a) Autoclave b) Hot air oven
c) Incineration d) All of above
- Q. 3. In distillation unit, condenser carries _____.
- a) Electricity b) Kerosene
c) Cold water d) Gas
- Q. 4. _____ used as a stain in electron microscopy.
- a) Phosphotungstic acid b) Uranyl acetate
c) Osmium tetroxide d) All of above
- Q. 5. Spectrophotometer is worked with _____ light.
- a) UV b) Visible
c) IR d) All of above
- Q. 6. _____ is used to sterilize culture media.
- a) Autoclave b) Hot air oven
c) Incinerator d) Incubator
- Q. 7. Solution having pH 3.4 is called _____.
- a) Alkali b) Acidic
c) Neutral d) Basic

- Q. 8.** In TEM, the amount of electron scattering is proportional to _____.
- a) The sectioning of specimen
 - b) The source of illumination
 - c) The nature of specimen mounting
 - d) The electronic density of specimen
- Q. 9.** Chamberland filter was made up of _____.
- a) Unglazed porcelain
 - b) Asbestos
 - c) Polyester
 - d) Cellulose acetate
- Q. 10.** Who used first simple microscope?
- a) Robert Koch
 - b) Louis Pasteur
 - c) John Tyndall
 - d) Anton Van Leeuwenhoek
- Q. 11.** pH range is in between _____.
- a) 1 - 10
 - b) 0 - 14
 - c) 1 - 7
 - d) 8 - 14
- Q. 12.** _____ is an example of dry heat sterilization.
- a) Autoclave
 - b) Hot air oven
 - c) Incineration
 - d) All of above
- Q. 13.** Which instrument is used to maintain constant temperature for microbial growth?
- a) Hot air oven
 - b) Incubator
 - c) Autoclave
 - d) Centrifuge
- Q. 14.** What is the total magnifications of microscope having ocular lens 10X and objective lens 45X?
- a) 400X
 - b) 350X
 - c) 300X
 - d) 450X

Q. 15. What is used as a wavelength selector in spectrophotometer?

- a) Tungsten filament
- b) Filter
- c) Prism
- d) Photocell

Q. 16. Direct flaming is also known as _____.

- a) Incineration
- b) Autoclaving
- c) Incubation
- d) Pasteurization

Q. 17. What is pH?

- a) Potential of hydrogen
- b) Power of halogen
- c) Potential of halogen
- d) Power of hydrogen

Q. 18. What is the function of substage condenser?

- a) It forms real image and virtual image
- b) It act as a source of illumination
- c) It supports microscope
- d) It focuses a cone of light on the slide

Q. 19. Measurement of osmolarity is based on _____.

- a) Ionic strength
- b) Osmotic pressure
- c) Electrical potential
- d) Mass

Q. 20. Which filter is used for the sterilization of air?

- a) HEPA filter
- b) Depth filter
- c) Earthen filter
- d) Seitz filter

Q. 21. In centrifuge, rpm stands for _____.

- a) Resolutions per minute
- b) Resolutions parts per minute
- c) Revolutions per minute
- d) Revolutions parts per minute

- Q. 22. _____ is fitted in dark field microscope.
- a) Simple condenser with annular diaphragm
 - b) Substage condenser with phase ring
 - c) Simple condenser with opaque ring
 - d) Abbe condenser with opaque disc
- Q. 23. In colorimeter, _____ is used to hold the solution.
- a) Monochromators
 - b) Cuvette
 - c) Photocell
 - d) Light source
- Q. 24. Hot air oven is used to sterilize _____.
- a) Powder
 - b) Mineral oil
 - c) Petroleum jelly
 - d) All of above
- Q. 25. Distillation unit contains _____.
- a) Condenser
 - b) Distilling flask
 - c) Burner
 - d) All of these
- Q. 26. *Treponema pallidum* is a causative agent of _____.
- a) Tuberculosis
 - b) AIDS
 - c) Influenza
 - d) Syphilis
- Q. 27. What is the use of monochromator in colorimeter?
- a) It converts light into electric current
 - b) It transmits a narrow band of spectral region
 - c) It measures electric current
 - d) It holds the solution

- Q. 35.** What is not the colligative property of a solution in osmometry?
- a) Osmotic pressure b) Boiling point
c) Ionic strength d) Freezing point
- Q. 36.** Autoclave works on which principle?
- a) Steam under pressure b) Dry heat air
c) Direct flaming d) None
- Q. 37.** Analytical balance have a sensitivity of about _____.
- a) 100 mg b) 0.01 mg
c) 0.1 mg d) 10 mg
- Q. 38.** In TEM, the amount of electron scattering is proportional to _____.
- a) The sectioning of specimen
b) The source of illumination
c) The nature of specimen mounting
d) The electronic density of specimen
- Q. 39.** What is the use of colorimeter?
- a) To determine the concentration of substance
b) To detect the pH of solution
c) To detect osmolality of solution
d) To measure the weight of compound
- Q. 40.** Which filter is made up of kieselguhr earth?
- a) Earthen filter b) Molecular filter
c) HEPA filter d) Traditional filter

Q. 48. _____ is not used to sterilize moist sensitive compounds.

- a) Autoclave
- b) Hot air oven
- c) Filtration
- d) All of above

Q. 49. _____ is a component of centrifuge.

- a) Rotor
- b) Motor
- c) Tachometer
- d) All of above

Q. 50. Resolution depends on _____.

- a) Distance between two objects
 - b) Wavelength of light
 - c) Numerical aperture
 - d) All of above
- _____

SPACE FOR ROUGH WORK