

JEMAS(PG)-2022, MSc-OTS

1. What will be the pulse pressure for a blood pressure reading of 130/80 mm Hg?
 - (A) 80 mmHg
 - (B) 50 mmHg
 - (C) 210 mmHg
 - (D) 130 mmHg
2. To what pressure an endotracheal tube must be inflated to produce an adequate seal between the cuff and the wall of the trachea?
 - (A) 20 mm Hg
 - (B) 16 mm Hg
 - (C) 22 mm Hg
 - (D) 18 mm Hg
3. In a thyroidectomy, a loop retractor retracts the:
 - (A) Thyroid veins
 - (B) Cervical fascia
 - (C) Sternocleidomastoid muscle
 - (D) Platysma muscle
4. Who is considered as the father of modern digital programmable computers?
 - (A) Herman H Goldstein
 - (B) Charles Babbage
 - (C) Marcian E Hoff
 - (D) Joseph Jacquard
5. Which method should be used to open the airway in case of suspected C spine injury?
 - (A) Jaw thrust
 - (B) Back thrust
 - (C) Abdominal thrust
 - (D) Head tilt and chin lift
6. The force maintaining primary structure of a protein is called:
 - (A) Hydrogen bonds.
 - (B) Electrostatic (ionic) bonds.
 - (C) Hydrophobic forces.
 - (D) Peptide bonds.
7. The primary cause of depletion of ozone is the presence of _____ in the atmosphere.
 - (A) Chlorofluorocarbons
 - (B) Hydrocarbons
 - (C) Carbon monoxide
 - (D) Nitrogen oxide

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8. When is National Earth Day celebrated?
- (A) 21st June
 - (B) 17th May
 - (C) 15th June
 - (D) 22nd April
9. Which of the following is known as laughing gas?
- (A) B₂O
 - (B) CO₂
 - (C) NO₂
 - (D) N₂O
10. What is the colour of nitrous oxide gas cylinder?
- (A) White
 - (B) Black
 - (C) Gray
 - (D) Blue
11. Aldosterone regulates:
- (A) Sodium absorption
 - (B) Urine concentration
 - (C) Serum calcium
 - (D) Blood glucose
12. An intravenous solution of 0.45% sodium chloride is_____.
- (A) Hypotonic
 - (B) Isomeric
 - (C) Hypertonic
 - (D) Isotonic
13. A habitat is home to many organisms and destroying a habitat affects _____.
- (A) Weather
 - (B) Resources
 - (C) Climate
 - (D) Biodiversity
14. Which is an intrinsic risk factor that places the client at risk for pressure ulcers?
- (A) Friction
 - (B) Shearing
 - (C) Impaired tissue perfusion
 - (D) Pressure

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15. The instrument used to retract the skin edges, blood vessels, nerves and abdominal wall is:

- (A) Czerny's retractor
- (B) Pronged retractor
- (C) Lange beck's retractor
- (D) Doyen's retractor

16. The 'Pollutant Standard Index' is related to:

- (A) Air pollution
- (B) Water pollution
- (C) Noise pollution
- (D) Soil pollution

17. What mixture of gases is used in general anaesthesia?

- (A) O₂ and CO₂
- (B) CO₂, O₂, and N₂O
- (C) O₂ and N₂O
- (D) CO₂ and N₂O

18. When the Environment Protection Act came into force in India?

- (A) 1988
- (B) 1985
- (C) 1987
- (D) 1986

19. What is capnometry?

- (A) Measurement of end-tidal NO₂
- (B) The measurement of end-tidal CO₂
- (C) Measurement of end-tidal N₂O
- (D) Measurement of end-tidal O₂

20. Cholecalciferol is synthesized in _____.

- (A) Liver
- (B) Kidney
- (C) Intestinal mucosa
- (D) Skin

21. Which of the following is NOT considered a portal of entry for bacteria?

- (A) Intact skin
- (B) Eyes
- (C) Mouth
- (D) Nose

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22. Lactam-lactim interconversion is an example of:
- (A) Anomerisation
 - (B) Optical isomerism
 - (C) Tautomerism
 - (D) Epimerisation
23. A computer program that converts assembly language into object code is known as
- (A) Compiler
 - (B) Assembler
 - (C) Comparator
 - (D) Translator
24. What type of immunity occurs when a person is given an injection of immune serum?
- (A) Adaptive immunity
 - (B) Active artificial immunity
 - (C) Active natural immunity
 - (D) Passive artificial immunity
25. What is the color-coding of the bags used in hospitals to dispose of human anatomical wastes such as body parts?
- (A) Blue
 - (B) Red
 - (C) Yellow
 - (D) Black
26. Sick Building Syndrome refers to:
- (A) Second hand smoke
 - (B) Indoor air quality
 - (C) Outdoor air pollution
 - (D) Photochemical smog
27. What is the name of the temporary data storage area between a peripheral device and the CPU, which compensates for the difference between their speeds?
- (A) Temporary storage
 - (B) Main storage
 - (C) Buffer
 - (D) Backing storage
28. The type of drain providing drainage of colorectal anastomosis is:
- (A) Silastics tube drain
 - (B) Under water seal drainage
 - (C) Vaccum drain
 - (D) T-tube drain

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29. During data processing, where does the actual execution of instructions takes place?
- (A) Storage Unit
 - (B) Arithmetic logic Unit
 - (C) Register unit
 - (D) Control unit
30. Which of the following cellular organelles serve as the site of protein synthesis?
- (A) Golgi bodies
 - (B) Mitochondria
 - (C) Endoplasmic reticulum
 - (D) Peroxisome
31. "First, do no harm" is based on which ethical principle of health care?
- (A) Non-maleficence
 - (B) Fidelity
 - (C) Accountability
 - (D) Beneficence
32. In hospitals the waste sharps are disposed of in _____ containers.
- (A) Blue
 - (B) Yellow
 - (C) Black
 - (D) Red
33. Which of the following amino acids have an indole ring in their structure?
- (A) Arginine
 - (B) Histidine
 - (C) Tryptophan
 - (D) Proline
34. Which ozone layer provides great benefit to the life on Earth?
- (A) Tropopause
 - (B) Stratosphere
 - (C) Photosphere
 - (D) Troposphere
35. Which of the following is an inhalation anaesthetic agent?
- (A) Fentanyl
 - (B) Cyclopropane
 - (C) Halothane
 - (D) Ethylene

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36. The MS-DOS operating system is a:
- (A) Multi-tasking operating system.
 - (B) Command-driven interface.
 - (C) Graphical user interface system.
 - (D) Single-user operating system.
37. _____ the major fat present in adipose tissues.
- (A) Phospholipids
 - (B) Triacylglycerol
 - (C) Cholesterol
 - (D) Sphingolipids
38. Full form of AEP is:
- (A) Auditory Evoked Potential.
 - (B) Auxiliary Evoked Potential.
 - (C) Ambulatory Evoked Potential.
 - (D) Audiovisual Evoked Potential.
39. Most health-care-associated infections are transmitted to patients:
- (A) From the hands of the health care workers.
 - (B) It's from dirty washrooms.
 - (C) From hospital food.
 - (D) By talking to each other.
40. Which of the following patients is at greatest risk for extravasation?
- (A) A client who is receiving potassium supplementation intravenously.
 - (B) The client who is receiving total parenteral nutrition.
 - (C) The client with cancer who is receiving endamustine.
 - (D) A patient with heart failure who is receiving Ringer's lactate.
41. Which of the following amino acids does NOT have an acidic side chain at neutral pH?
- (A) Tyrosine
 - (B) Threonine
 - (C) Glutamic acid
 - (D) Aspartic acid
42. Which of the following is NOT the property of Oxygen?
- (A) It is colorless.
 - (B) It has some pungent smell.
 - (C) It's highly explosive.
 - (D) It is highly volatile.

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43. What should be rate of compressions per minute while providing chest compressions in CPR?
- (A) 120 per minute
 - (B) 100 per minute
 - (C) 140 per minute
 - (D) 80 per minute
44. One of the methods to measure changes in the levels of consciousness during anaesthesia is known as:
- (A) Tactile Evoked Potential.
 - (B) Visual Evoked Potential.
 - (C) Speech Evoked Potential.
 - (D) Auditory Evoked Potential
45. Which part of a computer system enables human operators to connect directly to the host computer?
- (A) Keyboard
 - (B) Console
 - (C) CPU
 - (D) Printer
46. Ecosystem diversity:
- (A) Includes the things that the environment makes and people take and use.
 - (B) Involves sustaining the energy flow, food web, and recycling of nutrients.
 - (C) Is something the environment does for free that benefits people.
 - (D) Is a predictable series of changes over time in plant and animal communities.
47. Whipple procedure is performed in the case of:
- (A) Obesity
 - (B) Cancer of pancreas
 - (C) Liver disorders
 - (D) Breast cancer
48. With respect to anaesthesia, full form of PCA is:
- (A) Personal comfort Analgesia.
 - (B) Patient comfort Analgesia.
 - (C) Patient controlled Analgesia.
 - (D) Personal control Analgesia.
49. Smallest item of data is called _____.
- (A) File
 - (B) Database
 - (C) Bit
 - (D) Character

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50. Mayo's operation is done for:
- (A) Femoral hernia
 - (B) Umbilical hernia
 - (C) Epigastric hernia
 - (D) Inguinal hernia
51. What is nephrectomy?
- (A) Surgical removal of kidney
 - (B) Surgical removal of necrotic tissues
 - (C) The surgical repair of a nerve
 - (D) Surgical removal of a nerve
52. Which basic activity of daily living assistive device can be useful for the client who is affected with poor fine motor coordination?
- (A) An aphasia aid
 - (B) A word board
 - (C) A button hook
 - (D) Honey thickened liquids
53. _____ is the site of giving spinal anaesthesia.
- (A) L1 – L2
 - (B) L2 – L3
 - (C) L5 – L6
 - (D) L3 – L4
54. The perianal varicose veins:
- (A) Polyps
 - (B) Hemorrhoids
 - (C) Anorectal tumors
 - (D) Fistulas
55. Microprocessors as switching devices are for which generation computers?
- (A) First generation
 - (B) Second generation
 - (C) Third generation
 - (D) Fourth generation
56. Which of the following is NOT an input device?
- (A) Mouse
 - (B) Keyword
 - (C) Speaker
 - (D) Scanner

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57. The quadriceps exercises are the example of:
- (A) Isotonic exercises.
 - (B) Isometric exercises
 - (C) Isokinetic exercises
 - (D) ROM exercises.
58. What is the function of a nebulizer?
- (A) To facilitate the accurate supply of the gas
 - (B) Maintain the levels of individual gases
 - (C) To supply moisture in the form of droplets
 - (D) To maintain the body temperature
59. Anal and perianal procedures should be performed in which of the following positions?
- (A) Lateral
 - (B) Lithotomy
 - (C) Dorsal recumbent
 - (D) Trendelenburg
60. Which of the following procedures removes the entire breast and axillary contents but preserves the pectoral muscles?
- (A) Lumpectomy
 - (B) Radical mastectomy
 - (C) Modified radical mastectomy
 - (D) Segmental mastectomy
61. Which of the following risk factors is the most likely to be correctable?
- (A) Genetic predisposition
 - (B) An external locus of control
 - (C) Lifestyle choices
 - (D) High risk behaviors
62. An instrument placed against a patient's chest to hear both lung and heart sounds is called:
- (A) Stethoscope
 - (B) Telescope
 - (C) Otoscope
 - (D) Sphygmomanometer
63. To increase stability during the transfer of a patient, it is important to increase the base of support by:
- (A) Bending the knees
 - (B) Tensing the abdominal muscles
 - (C) Leaning slightly backward
 - (D) Spacing the feet apart.

64. Select the arterial blood gas that is NOT within normal parameters and it is also a significant change for the client.
- (A) Arterial blood pH : 7.39
 - (B) PaO₂ : 65 mm Hg
 - (C) PaCO₂ : 40 mm Hg
 - (D) SaO₂ : 96%
65. A small artery forceps used to hold small bleeders is called:
- (A) Babcock's tissue forceps
 - (B) Non-toothed dissecting forceps
 - (C) Mosquito forceps
 - (D) Allis tissue forceps
66. All of the logic and mathematical calculations done by a computer happen in/on the:
- (A) Motherboard.
 - (B) Central processing unit.
 - (C) Central control unit.
 - (D) System board.
67. In hospital, the infectious non-sharp waste i.e. soiled bandage, dressings, soiled cotton are disposed of in _____ containers.
- (A) Red
 - (B) Black
 - (C) Blue
 - (D) Yellow
68. What is the correct order of the intestinal layer, from inside to outside?
- (A) Serosa, musculature, mucosa
 - (B) Mucosa, submucosa, serosa
 - (C) Serosa, mucosa, musculature
 - (D) Mucosa, serosa, musculature
69. During denaturation, proteins will not lose their structure with regard to _____.
- (A) Quaternary structure
 - (B) Tertiary structure
 - (C) Primary' structure
 - (D) Secondary' structure
70. Preoperative or preprocedural prevention of infection is called:
- (A) Protective precautions
 - (B) Prophylaxis
 - (C) Primordial prevention
 - (D) Primary prevention

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71. Nerve block is a type of:
- (A) General anaesthesia.
 - (B) Topical anaesthesia.
 - (C) Regional anaesthesia.
 - (D) Local anaesthesia.
72. The instrument most commonly used to hold soft tissues, organs and bowel is:
- (A) Allis
 - (B) Babcock
 - (C) Kocher
 - (D) Kelly
73. In MICR, C stands for _____.
- (A) Character
 - (B) Code
 - (C) Colour
 - (D) Computer
74. Which of the following refers to a network interconnecting computers and other peripheral devices within a limited geographical area?
- (A) DSL
 - (B) USB
 - (C) LAN
 - (D) RAM
75. Which of the following is NOT true regarding pulse oximeter?
- (A) It is used to measure O₂ saturation in blood.
 - (B) It is used to measure the saturation of all the gases in the blood.
 - (C) Sensor probe can be clipped on the finger, toe or earlobe.
 - (D) It is a very sensitive monitor.
76. Which of the following is NOT the narcotic drug?
- (A) Pethidine
 - (B) Demerol
 - (C) Propofol
 - (D) Morphine sulphate
77. Which of the following lipids is NOT present in vegetable oil?
- (A) Oleic acid
 - (B) Linoleic acid
 - (C) Cholesterol
 - (D) Stearic acid

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78. While instructing the patient regarding 24 hour urine collection, which of the following should NOT be done?
- (A) Refrigeration of the specimen during collection may be required.
 - (B) The first voided urine should be discarded.
 - (C) Add some preservatives to prevent decomposition.
 - (D) The last voided urine should be discarded.
79. Which of the following instruments is used to dilate the cervix during various procedures?
- (A) Hagar's dilator
 - (B) Sims vaginal speculum
 - (C) Vulsellum forceps
 - (D) Fergusson speculum
80. In the Bhopal Gas Tragedy in the year 1984, which gas was leaked?
- (A) Methyl isocyanate
 - (B) Oleum
 - (C) Chlorine
 - (D) Ammonia
81. In hospitals, the discarded medicines and cytotoxic drugs are disposed of in
- (A) Red
 - (B) yellow
 - (C) black
 - (D) blue
82. Scurvy happens due to deficiency of _____.
- (A) Vitamin C
 - (B) Iodine
 - (C) Zinc
 - (D) Vitamin D
83. During starvation, which of the following substances does NOT increase in blood or tissue?
- (A) Glucagon
 - (B) Glycogen
 - (C) Epinephrine
 - (D) Ketone bodies
84. The sugar(s) formed as a result of sucrose digestion is/are:
- (A) Two moles of glucose.
 - (B) Fructose and glucose.
 - (C) Glucose and galactose.
 - (D) Maltose and glucose.

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85. The condition in which protrusion of a part of stomach through the thoracic cavity is observed is called:
- (A) Achalasia
 - (B) Esophageal varices
 - (C) Hiatal hernia
 - (D) Oesophagitis
86. McBumey's incision is used for:
- (A) Herniorrhaphy
 - (B) Appendectomy
 - (C) Nephrectomy
 - (D) Cholecystectomy
87. Which complication of immobility would be of most concern in case of a bedridden patient?
- (A) Hypertension
 - (B) Incontinence
 - (C) Contractures
 - (D) Dehydration
88. Which is a sign of thrombocytopenia?
- (A) The appearance of thrombophlebitis
 - (B) Elevated platelets
 - (C) Aplastic anemia
 - (D) The appearance of petechiae
89. What is the full form of DVD?
- (A) Data Video Disk
 - (B) Dynamic Video Disk
 - (C) Direct Video Disk
 - (D) Digital Video Disk
90. How many stages of anaesthesia are there?
- (A) Two
 - (B) Four
 - (C) Three
 - (D) Five
91. The removal of entire tumor/mass is known as:
- (A) Excisional biopsy
 - (B) Incisional biopsy
 - (C) Staging biopsy
 - (D) Needle biopsy

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92. The direct visualisation of the common bile duct is accomplished with the help of a:
- (A) Trocar
 - (B) Cholangiogram
 - (C) Cholangiocath
 - (D) Choledochoscope
93. What mixture of gases is used in cry of freezing anesthesia?
- (A) O₂ and CO₂
 - (B) O₂ and N₂O
 - (C) NO₂ and CO₂
 - (D) CO₂ and N₂O
94. When was the Safe Drinking Water Act enacted?
- (A) 1974
 - (B) 1971
 - (C) 1972
 - (D) 1973
95. The eyeless suturing needles are called:
- (A) Round body needles
 - (B) Atraumatic needles
 - (C) Curved cutting needles
 - (D) Taper cut needles
96. At what angle an intramuscular injection should be given?
- (A) 45°
 - (B) 30°
 - (C) 90°
 - (D) 15°
97. Reduction of oxygen in blood is called.
- (A) Anoxemia
 - (B) Apnoea
 - (C) Arrhythmia
 - (D) Anoxia
98. Which of the following is a method of collecting materials that can be broken down and reprocessed to manufacture new items?
- (A) Deep-well injection
 - (B) Composting
 - (C) Industrial ecology
 - (D) Recycling

99. The most important of the greenhouse gases is:

- (A) Carbon monoxide
- (B) Nitrous oxide
- (C) Methane
- (D) Carbon dioxide

100. Which of the following enzymes contains copper?

- (A) Cytochrome P450
- (B) Coenzyme Q
- (C) Cytochrome oxidase
- (D) Cytochrome B5