**ELECTROPHYSICAL AGENTS 2**

1. Which of the following bands of ultraviolet ray’s spectrum is only found in UVC?
2. 330 nm
3. 310 nm
4. **270 nm**
5. 400 nm
6. Which two quantities specify the magnetic fields in short wave diathermy?
7. **Magnetic flux density and magnetic field strength**
8. Magnetic field strength and power density
9. Power density and Magnetic flux density
10. Power density and energy distribution
11. Which of the following conditions is not a contraindication of shortwave diathermy treatment?
12. Ischaemic tissues
13. Pyrexia
14. Areas of hemorrhage
15. **Recent injuries**
16. Four students were asked to state the biological effects of low intensity laser treatment. Which one of the following is NOT?
17. Formation of erythema
18. Hyperplasia
19. **Photokeratitis**
20. Tanning
21. What name is given to the treatment that uses dry heating agents which transfer heat by convection?
22. Infrared lamp
23. Cryotherapy
24. **Fluidothrapy**
25. Paraffin wax
26. Four students were studying the ionic effect of electrical current on pain control. Each was asked to identify the effects by name.Which of the given answers is correct?
27. Iontophoresis
28. Phonophoresis
29. **Galvanotaxis**
30. Depolarization
31. Jane is a physiotherapist at Kyulu District Hospital. She is assessing a patient who had a Sports injury. The patient presents with severe swelling on the right calf muscles. After assessment, she decides to use a low frequency current for stimulation to achieve a muscle pump effect. Which of the following parameters of TENS will she apply;
32. Modulated
33. **Burst**
34. Continuous
35. A and B
36. Which of the following statements is true about dipolar molecules in relation to magnetic field effect?
37. During exposure to shortwave the electron cloud become distorted but negligible heat is produced.
38. During exposure to shortwave field causes the charged molecules to be accelerated along the lines of electrical force
39. **Shortwave field causes rotation of this molecules as the charge of the plates alters rapidly**
40. The high frequency field causes charged molecules to oscillate about mean position
41. A 30-year old female with one month old hand laceration injury has been referred to you for paraffin wax treatment and mobilization exercises. What is the ideal treatment temperature of paraffin wax treatment?
42. 30 0C
43. **52 0C**
44. 40 0C
45. 126 oC
46. Mwangi bought an electrical stimulation machine whose purpose was to relieve pain for patients, which a patient can safely use for long hours. What is the name of this type of electrical modality?
47. High voltage pulse stimulation
48. Russian stimulation
49. **Transcutaneous electrical nerve stimulation**
50. Low volt stimulation
51. While perusing an Electro physical agent’s text book Diblo came across the term Lewis hunting reaction**.** This reaction is synonymous with which modality?
52. **Cryotherapy**
53. Infrared radiation
54. Shortwave diathermy
55. Laser therapy.
56. A senior student in physiotherapy was asked to classify electro physical agent’s modalities. Which of the following modalities did he classify under light therapy modalities?
57. Luminous Infrared radiation
58. **Ultraviolet radiation**
59. Shortwave diathermy
60. Ultrasound therapy
61. The space average intensity of ultrasound produced from a transducer head is measured in;
62. Watts/cm3
63. **Watts/cm2**
64. 1MHz
65. 3 MHz
66. Which of the following is an example of a water cooled mercury vapour lamp ultraviolet generator?
67. High pressure mercury vapour burner
68. **Kromayer lamp**
69. Theraktin tunnel
70. Spectrum of high pressure mercury vapour burner.
71. When ultrasonic beam is passed through a medium, its intensity is attenuated by;
72. Absorption and Reflection
73. Scatter and dosage
74. **Absorption and scatter**
75. Reflection and coupling media
76. During a strength duration curve procedure, Mary defined Rheobase as;
77. The stimulus duration that produces a response
78. The unit voltage of the strength duration
79. **The minimum, stimulus strength that produces a response**
80. The prick stimulus produced.
81. During an Electro physical agents lesson, Omwami noted that Short wave Diathermy has various frequencies. Which of the following is the most widely used frequency due to its widest frequency band?
82. 40.68 MHz
83. **27.12 MHz**
84. 13.56MHz
85. 20KHz
86. A50 year old male patient comes to the physiotherapy outpatient clinic with 6/52 old hemiparesis seeking treatment of foot-drop. Which is the most appropriate modality for his condition?
87. Transcutaneous electrical nerve stimulation (TENS)
88. Short wave diathermy(SWD)
89. **Functional electrical stimulation (FES)**
90. interferential current stimulation(IFS)
91. Which of the following electro physical agents modality is the most preferred for treatment of bilateral rheumatoid arthritis?
92. Hot packs
93. Cryotherapy
94. **Paraffin wax bath**
95. Fluidotherapy
96. Which of the following is not a type of short wave diathermy application method?
97. Coil method
98. Drum method
99. **Circuit method**
100. Cable method

**PHYSICS**

1. While discussing Acoustics, Mende discovered that bats detect the obstacles in their path by receiving the reflected \_\_\_\_\_\_.
   1. Radio waves
   2. Infrasonic waves
   3. **Ultrasonic waves**
   4. Electromagnetic waves
2. The buoyant force on an object is dependent on;
3. The object’s density
4. **The submerged volume of the object**
5. The mass of the object
6. The shape of the object
7. Moses asked a patient to bend his forearm at the elbow while holding a dumb bell. Which class of lever does this action represent?
8. Class 1 lever
9. Class 2 lever
10. **Class 3 lever**
11. Class 4 lever
12. Mwanasawa, a senior student in physiotherapy, correctly identified the function of a transformer as;
    1. **Altering voltage**
    2. Smoothening circuits
    3. Rectifying an Alternating current
    4. Regulating current intensity
13. A bar magnet shown below is divided in two pieces. Which statement is true? 
14. The bar magnet is demagnetized.
15. The magnetic field of each separated piece becomes stronger.
16. The magnetic poles are separated.
17. **Two new bar magnets are created**.