Program: BE Biomedical Engineering

Curriculum Scheme: Revised 2012

Examination: Fourth Year Semester VII

Course Code: BMC701 and Course Name: BMI-III

Time: 1 hour Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	The electric power required in ultrasonic therapy is usually less than
Option A:	3 w/ sq. cm. of the transducer area
Option B:	5 w/ sq. cm. of the transducer area
Option C:	7 w/ sq. cm. of the transducer area
Option D:	9 w/ sq. cm. of the transducer area
Q2.	In ultrasonic therapy, the range of applicator's diameter is
Option A:	10 to 70 mm
Option B:	70 to 130 mm
Option C:	130 to 190 mm
Option D:	190 to 260 mm
Q3.	Continuous or pulsed modes are used in
Option A:	Microwave diathermy
Option B:	Shortwave diathermy
Option C:	Ultrasound therapy
Option D:	Nerve muscle stimulator
Q4.	Absorption of ultrasonics by the tissue depends on
Option A:	Frequency of ultrasound
Option B:	Amplitude of ultrasonic waves
Option C:	Diameter of applicator
Option D:	Voltage applied to transducer
Q5.	Intensity-time curve is used in
Option A:	Microwave diathermy
Option B:	Shortwave diathermy
Option C:	Ultrasound therapy
Option D:	Nerve muscle stimulator
Q6.	The property of a neuro-muscular unit of being able to respond less strongly to a slowly increasing current impulse is
Option A:	Accommodation
Option B:	Chronaxie
Option C:	Rheobase
Option D:	Excitability

Q7.	Minimum intensity of current that will produce a response for the stimulus of infinite duration is
Option A:	Accommodation
Option B:	Chronaxie
Option C:	Rheobase
Option D:	Excitability
Q8.	Superficial tissue destruction without affecting deep-seated tissue is
Option A:	Coagulation process
Option B:	Fulguration
Option C:	Desiccation
Option D:	Cutting
Q9.	In surgical diathermy, the electrode used for cutting is
Option A:	Lancet
Option B:	Wire loop electrode
Option C:	Needle electrode
Option D:	Angulated band loop electrode
Q10.	In surgical diathermy, damped sinusoidal pulses are used for
Option A:	Coagulation process
Option B:	Fulguration
Option C:	Desiccation
Option D:	Cutting
Q11.	Patient plate is a
Option A:	Active electrode
Option B:	Dispersive electrode
Option C:	Active and dispersive electrode
Option D:	Not a part of electrosurgery
Q12.	The total blood flow through the kidneys is about
Option A:	800 mL/min
Option B:	1000 mL/min
Option C:	1200 mL/min
Option D:	1400 mL/min
Q13.	What range of pulse rate is used in synchronous pacemaker?
Option A:	60 to 80 beats/min
Option B:	5 to 8 beats/ min
Option C:	1 beat/ min
Option D:	10 beats/ min
Q14.	What do you mean by Asynchronous pacemaker?
Option A:	Harmonic
Option B:	Fixed-rate
Option C:	Modulated
Option D:	Synchronous
Q15.	The internal Pacemaker is also called as
Option A:	External

Option B:	Portable
Option C:	Point of care
Option D:	Implantable
Q16.	The pulse width duration in pacemaker is
Option A:	1 min
Option B:	2 m sec
Option C:	1 hr.
Option D:	1 s
Q17.	Maximum voltage required to charge the capacitor of Implantable defibrillator is
Option A:	400 V
Option B:	750 V
Option C:	7000 V
Option D:	4000 V
Q18.	Following component is in the schematic diagram of DC defibrillator
Option A:	Transmitter
Option B:	Diode
Option C:	X-Y Recorder
Option D:	Counters
Q19.	The square circuit of defibrillator analyzers consists of a four-quadrant
Option A:	Counter
Option B:	Divider
Option C:	Multiplier
Option D:	Transmitter
Q20.	Following circuit is used in defibrillator block diagram for a typical discharge pulse
Option A:	RLC
Option B:	Amplifier
Option C:	Wheatstone bridge
Option D:	Counter
Q21.	Proportioning pump is used in
Option A:	Heart lung machine
Option B:	Anaesthesia machine
Option C:	Ventilator
Option D:	Hemodialysis machine
Q22.	Nephrons is a part of
Option A:	Natural kidney
Option B:	Artificial kidney
Option C:	Heart lung machine
Option D:	Ventilator
Q23.	The dialyzer is the part of
Option A:	Artificial kidney system
Option B:	Natural kidney system
Option C:	Heart lung machine
Option D:	Anaesthesia machine

Q24.	Following is continuous wave operation Laser
Option A:	Ruby Laser
Option B:	Krypton Laser
Option C:	Neodymium glass Laser
Option D:	Erbium YAG laser
Q25.	Following is an extremely effective source for photocoagulation
Option A:	Argon Laser
Option B:	Ruby Laser
Option C:	Carbon dioxide Laser
Option D:	Krypton Laser