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34 (4) NOUPT 4-2

2021
(Held in 2022)

NEUROPHYSIOTHERAPY

Full Marks : 100

Time : Three hours

**The figures in the margin indicate
full marks for the questions.**

1. Answer **any two** of the following :
10×2=20
 - (a) Write detailed assessment and treatment of a 45 years old male patient, who has suffered stroke 6 months ago.
 - (b) Write PT assessment and treatment of a 6 years old child, who is suffering from spastic diplegia cerebral palsy.
 - (c) Write kinetic and kinematic analysis of **any five** pathological gait in detail.

Contd.

2. Give short answer to **any ten** of the following : $5 \times 10 = 50$

- (a) GCS
- (b) Difference between spasticity and rigidity
- (c) RLA scale
- (d) PNF
- (e) CIMT
- (f) MRP
- (g) Yoga in PT
- (h) Types of Brain Tumour
- (i) Post-polio syndrome
- (j) Observational gait analysis
- (k) NDT

3. Give very short answer to **any five** of the following : $2 \times 5 = 10$

- (a) Brachial plexus palsy
- (b) Hemiballismus
- (c) Spinal stenosis

- (d) GBS
- (e) APGAR
- (f) Sensory Ataxia

4. Choose the correct answer from the clues given : $1 \times 20 = 20$

- (a) All are risk factor for impaired sensory integrity except —
 - (i) smoking history
 - (ii) substance abuse
 - (iii) lack of safety awareness in all environment
 - (iv) decrease grip strength
- (b) Electromagnetic receptor is —
 - (i) cones
 - (ii) golgi type endings
 - (iii) ruffini endings
 - (iv) Pacinian corpuscles
- (c) Following demonstrate patient with lesion of Basal Ganglia except —
 - (i) akinesia
 - (ii) athetosis
 - (iii) dysarthria
 - (iv) chorea

- (d) Ipsilateral 3rd nerve palsy with crossed hemiplegia is a feature of—
- (i) Weber syndrome
 - (ii) Horner syndrome
 - (iii) Wallenberg syndrome
 - (iv) Benedikt syndrome
- (e) Loss of sensation over the little finger of hand is due to injury of—
- (i) radial nerve
 - (ii) median nerve
 - (iii) ulnar nerve
 - (iv) None of the above
- (f) Posterior auricular nerve is a branch of—
- (i) cranial nerve X
 - (ii) cranial nerve V
 - (iii) cranial nerve IV
 - (iv) cranial nerve VII
- (g) Cock-up splint used for—
- (i) ulnar nerve palsy
 - (ii) radial nerve palsy
 - (iii) median nerve palsy
 - (iv) None of the above

- (h) Pure sensory cranial nerve is—
- (i) trochlear
 - (ii) trigeminal
 - (iii) facial
 - (iv) olfactory
- (i) Nerve of Wrisberg is the part of—
- (i) facial nerve
 - (ii) abducens
 - (iii) trochlear
 - (iv) optic
- (j) Axon grow at a rate of—
- (i) 0.5 to 3mm/year
 - (ii) 0.5 to 3mm/month
 - (iii) 0.5 to 3mm/week
 - (iv) 0.5 to 3mm/day
- (k) Neural tube closure begins in—
- (i) sacral region
 - (ii) lumbar regions
 - (iii) thoracic region
 - (iv) cervical region

(l) Failure of Brain and Cranium to develop —

- (i) spina bifida
- (ii) anencephaly
- (iii) Dandy-Walker malformation
- (iv) fetal alcohol syndrome

(m) The primary visual area is —

- (i) 19
- (ii) 18
- (iii) 17
- (iv) 22

(n) Play a role in the initiation and execution of voluntary motor activity —

- (i) thalamus
- (ii) cerebral cortex
- (iii) basal ganglia
- (iv) spinal cord

(o) Concerning spinal nerve C-8, which of the following is true —

- (i) C-8 enters/exit between vertebrae C6 and C7
- (ii) C-8 enters/exit between vertebrae C7 and C8
- (iii) C-8 enters/exit between vertebrae T1 and T2
- (iv) C-8 enters/exit between vertebrae C7 and T1

(p) Where is the safe point to insert needle into the subarachnoid space to collect CSF sample ?

- (i) between C-7 and T-1
- (ii) between L-3 and L-4
- (iii) between L-1 and L-2
- (iv) between T-12 and L-1

(q) Receptors of the utricle, saccule and semicircular canals are examples of —

- (i) chemoreceptors
- (ii) mechoreceptors
- (iii) nociceptors
- (iv) thermoreceptors

- (r) Which limb of the internal capsule contain cortical afferents ?
- (i) Anterior limb
 - (ii) Posterior limb
 - (iii) Both
 - (iv) None of the above
- (s) What is dermatome ?
- (i) Area of the skin supplied by axons from a single ventral horn
 - (ii) Any skin area innervated by C-fibres
 - (iii) Area of skin innervated by a dorsal root ganglion
 - (iv) None of the above
- (t) What does the ventricle system represent ?
- (i) Neural tube
 - (ii) Neural canal
 - (iii) Neuropore
 - (iv) None of the above