

JEPAS(PG)-2021

1101400001

Subject: Fellowship in Pain Management (FPM)

Duration: 90 minutes

Full Marks: 100

Instructions

1. All questions are of objective type having four answer options for each. Only one option is correct. Correct answer will carry full marks 1. In case of incorrect answer or any combination of more than one answer, $\frac{1}{4}$ mark will be deducted.
2. Questions must be answered on OMR sheet by darkening the appropriate bubble marked A, B, C, or D.
3. Use only **Black/Blue ball point pen** to mark the answer by complete filling up of the respective bubbles.
4. Mark answers only in the space provided. Do not make any stray mark on the OMR.
5. Write question booklet number and your roll number carefully in the specified locations of the **OMR**. Also fill appropriate bubbles.
6. Write your name (in block letter), name of the examination centre and put your full signature in appropriate boxes in the OMR.
7. The OMR is liable to become invalid if there is any mistake in filling the correct bubbles for question booklet number/roll number or if there is any discrepancy in the name/signature of the candidate, name of the examination centre. The OMR may also become invalid due to folding or putting stray marks on it or any damage to it. The consequence of such invalidation due to incorrect marking or careless handling by the candidate will be sole responsibility of candidate.
8. Candidates are not allowed to carry any written or printed material, calculator, log-table, wristwatch, any communication device like mobile phones etc. inside the examination hall. Any candidate found with such items will be **reported against** and his/her candidature will be summarily cancelled.
9. Rough work must be done on the question paper itself. Additional blank pages are given in the question paper for rough work.
10. Hand over the OMR to the invigilator before leaving the Examination Hall.



1. Pain is related to
 - A. Ventral horn.
 - B. Lateral horn.
 - C. Dorsal horn.
 - D. All of the above.

2. Pain sensation goes from the spinal cord to thalamus through
 - A. Pyramidal tract.
 - B. Extra pyramidal tract.
 - C. Spino thalamic tract.
 - D. All of the above

3. COX is inhibited by
 - A. NSAID.
 - B. OPIOD.
 - C. Both of the above.
 - D. None of the above.

4. Pain-less labour can be done by
 - A. Epidural anaesthesia.
 - B. Spinal anaesthesia.
 - C. Caudal anaesthesia.
 - D. All of the above.

5. Increased response to noxious stimulation is called
 - A. Hyperalgesia.
 - B. Hyperesthesia.
 - C. Hypesthesia.
 - D. Neuralgia.

6. Carpal tunnel syndrome is due to entrapment of
 - A. Ulnar nerve.
 - B. Median nerve.
 - C. Radial nerve.
 - D. None of the above.

7. Pure opioid antagonist is
 - A. Naloxone.
 - B. Pentazocine.
 - C. Tramadol.
 - D. Butorphanol.

8. Greater Occipital nerve has contribution from:
 - A. Ventral Primary rami of C2 & few fibers from C3.
 - B. Dorsal Primary rami of C2 & few fibers from C3.
 - C. Dorsal Primary rami of C3 & few fibers from C2.
 - D. Ventral Primary rami of C3 & few fibers from C2

9. Intense whiteness of fingers with subsequent blue coloration with coldness and red coloration on rewarming is most likely due to:
- A. Acute venous thrombosis.
 - B. Raynaud's disease.
 - C. Reflex sympathetic dystrophy.
 - D. Frostbite.
10. Artery of Adamkiewicz arises at following spinal level
- A. T1-T6.
 - B. T5-T8
 - C. T9-L2
 - D. T11-L3
11. What is the difference between nociceptive and neuropathic pain?
- A. Nociceptive pain occurs when there is tissue damage or injury. Neuropathic pain occurs when there is damage to nerves.
 - B. Nociceptive pain occurs when there is damage to nerves. Neuropathic pain occurs when there is tissue damage or injury.
 - C. Nociceptive pain is acute only and neuropathic pain is chronic only.
 - D. All answers are correct.
12. The sciatic nerve is formed by:
- A. The dorsal rami of S1-S5 spinal nerve.
 - B. The ventral rami of S1-S5 spinal nerve.
 - C. The dorsal rami of L4-S3 spinal nerve.
 - D. The ventral rami of L4-S3 spinal nerve.
13. All of the following are true regarding visceral pain except:
- A. It is slow pain conducted by A δ fibers.
 - B. It is diffuse, poorly localized.
 - C. It is often associated with nausea and autonomic reactions.
 - D. It may be referred to other sites.
14. Pain receptor is type of:-
- A. Meissner corpuscles.
 - B. Pacinian corpuscles.
 - C. Free nerve endings.
 - D. Merkel discs.
15. Which one is not a branch of Trigeminal Ganglion?
- A. Maxillary.
 - B. Glossopharyngeal.
 - C. Mandibular.
 - D. Ophthalmic.

16. Relative risk is calculated in -
- A. Case control study.
 - B. Cohort study.
 - C. Both of them.
 - D. Descriptive study.
17. First step in WHO Pain ladder, consists of;
- A. Weak opioids +/- adjuvents.
 - B. NSAIDs +/- adjuvents.
 - C. Strong opioids +/- adjuvents.
 - D. Only opioids
18. Which of the following is NOT true about fentanyl:
- A. Is a synthetic opioid.
 - B. Exerts its effects predominantly in the dorsal horn.
 - C. Is 100 times more potent than morphine.
 - D. Is metabolised to the inactive metabolite norfentanyl.
19. Which is not a part of Limbic System?
- A. Amygdala.
 - B. Hippocampus.
 - C. Thalamus.
 - D. Hypothalamus.
20. Visual analogue scale (VAS) used to measure
- A. Sedation.
 - B. Sleep.
 - C. Pain intensity.
 - D. Depth of anaesthesia.
21. The gate theory of Pain proposed by
- A. Cannon and Bard.
 - B. Gabor Racz.
 - C. Wall and melzack.
 - D. Weber.
22. The drug Lignocaine is used for -
- A. Local anaesthesia.
 - B. Treatment of cardiac arrhythmia.
 - C. Treatment of chronic pain management.
 - D. All of the above.
23. Recurrent Laryngeal Nerve is a branch of -
- A. Glossopharyngeal N.
 - B. Vagus N.
 - C. Facial N.
 - D. Lingual N.

24. The number of sodium channels per square micrometre of membrane in myelinated mammalian neurons is maximum in the
- A. Cell body.
 - B. Dendritic zone.
 - C. Initial segment.
 - D. Node of Ranvier.
25. Which one is not a part of rotator cuff muscle?
- A. Supraspinatus.
 - B. Infraspinatus.
 - C. Teres Major.
 - D. Teres Minor.
26. Which one is not a branch of Celiac trunk?
- A. Right Gastric Artery.
 - B. Left Gastric Artery.
 - C. Splenic Artery.
 - D. Common Hepatic Artery.
27. Mrs. Jones is a 78-year-old woman with a history of diabetes, treated with oral medications. Recently, she has been complaining of pain in her feet that she describes as "numbness and tingling". What is the most likely pathophysiologic type of pain in this case?
- A. Nociceptive.
 - B. Inflammatory.
 - C. Neuropathic.
 - D. Functional.
28. Which of the following has transverse process but not vertebral artery foramen?
- A. C1.
 - B. C3.
 - C. C5.
 - D. C7.
29. Which of the following produces dissociative anaesthesia?
- A. Ketamine.
 - B. Propofol.
 - C. Thiopentone.
 - D. Enflurane.
30. Management of Acute Low Back Pain includes all except –
- A. Bed rest for maximum 3 days.
 - B. NSAIDS.
 - C. Muscle Relaxants.
 - D. Traction.

31. What structure passes through foramen Rotundum?
A. Mandibular nerve.
B. Maxillary Nerve.
C. Middle Meningeal Artery.
D. Carotid Artery.
32. Most commonly used measure of central tendency is
A. Mean.
B. Median.
C. Mode.
D. Range
33. Morphine is used in -
A. Cancer pain.
B. Non-Cancer pain.
C. Both of the above.
D. None of the above.
34. Which one is not a muscle of Mastication?
A. Masseter.
B. Temporalis.
C. Medial Pterygoid.
D. Buccinator.
35. Buprenorphine acts on following receptors EXCEPT:
A. Partial μ -opioid receptor agonist.
B. κ opioid antagonist.
C. δ opioid agonist.
D. δ opioid antagonist.
36. Which of the following neurotransmitters has both excitatory and inhibitory effects -
A. GABA.
B. Glutamate.
C. Aspartate.
D. Glycine.
37. ALLODYNIA is defined as:
A. Pain is caused by stimulus that does not normally provoke pain.
B. Hypersensitivity to a painful stimulus.
C. Spontaneous pain in an anaesthetized part of body.
D. An unpleasant abnormal sensation may be spontaneous or evoked.
38. Shoulder joint is mostly supplied by?
A. Cervical plexus.
B. Suprascapular nerve.
C. Musculocutaneous nerve.
D. Intercostobrachial nerve.

39. The followings are recognised signs and symptoms of CRPS except
- A. Burning pain.
 - B. Osteoarthritis.
 - C. Atrophy of skin, hair and nail.
 - D. Vasodilation.
40. The following are risk factor for the development of chronic Post Surgical pain(CPSP) except
- A. Increasing age.
 - B. Severe post-operative pain.
 - C. Laparoscopic surgery.
 - D. Primary surgical repair.
41. Clinical feature of Fibromyalgia include all except
- A. Localised pain.
 - B. Fatigue.
 - C. Sleep disturbances.
 - D. Additional feature like stiffness and headache.
42. Regarding management of Fibromyalgia all are true except
- A. Education of the patient regarding the condition plays an important role.
 - B. Tricyclic antidepressiveagents are beneficial in treating pain.
 - C. There is strong evidence that opioids are beneficial.
 - D. Cognitive behavioral therapy is recommended.
43. Patients presents with cervical myelopathy and upper motor signs.All are true except
- A. Hoffman's sign.
 - B. Scapulohumoral reflex.
 - C. Jaw jerks.
 - D. Babinski sign.
44. Which one of the following is an indication for emergency spinal surgery
- A. Unstable vertebral fracture.
 - B. Compressed vertebral fracture.
 - C. Herniated nucleus pulposus.
 - D. None of the above.
45. Spinal cord injury resulting in hemiparesis and ipsilateral loss of prorioception and fine touch with contralateral loss of pain and temperature
- A. Brown- sequard syndrome.
 - B. Anterior - Horn syndrome.
 - C. Posterior -Horn syndrome.
 - D. Anterior cord syndrome.

46. Foraminal disc herniation causes compression of which nerve root
- A. Exiting nerve root.
 - B. Traversing nerve root.
 - C. Both.
 - D. None of the above.
47. Sacroiliac joint as a pain generator can be detected by
- A. Yergason test.
 - B. Faber test.
 - C. Sicard's test.
 - D. Freiberg's test.
48. Which of these is a medicine to prevent migraines
- A. Anticonvulsants.
 - B. Antidepressants.
 - C. Beta blockers.
 - D. All of the above.
49. Which of the following medicines used to treat trigeminal neuralgia is currently considered first choice for oral therapy
- A. Carbamazepine.
 - B. Lamotrigine.
 - C. Topiramate.
 - D. Phenytoin.
50. For sensory testing, umbilicus represents which dermatomal level
- A. T12.
 - B. T10.
 - C. T8.
 - D. L1.
51. Pain sensation is carried by which type of nerve fibers?
- A. A α and C fibers.
 - B. A β and C fibers.
 - C. A γ and C fibers.
 - D. A δ and C fibers.
52. The cell bodies of the 3rd order neuron of pain pathway are situated in
- A. Thalamus.
 - B. Pons.
 - C. Cerebral Cortex.
 - D. Dorsal Horn.
53. Substance P release from the dorsal horn neuronal elements is blocked by
- A. Endogenous opioids.
 - B. Exogenous opioids.
 - C. Both type of opioids.
 - D. Anticonvulsant medications.

54. γ -Aminobutyric acid (GABA) receptors are these types of ion channels:
- A. Calcium.
 - B. Sodium.
 - C. Chloride.
 - D. Potassium.
55. Which of the drug is not a sodium channel modulating anti-convulsant
- A. Phenytoin.
 - B. Carbamazepine.
 - C. Pregabalin.
 - D. Lamotrigine.
56. The least common adverse effects associated with TCA is
- A. Dry mouth.
 - B. Seizure.
 - C. Urinary Retention.
 - D. Feeling sleepy.
57. All are NSAIDs except
- A. Etoricoxib.
 - B. Mefenamic Acid.
 - C. Aspirin.
 - D. Duloxetine.
58. Opioids in general reduce the sympathetic output and produce a dose-dependent bradycardia. EXCEPT
- A. Morphine.
 - B. Fentanyl.
 - C. Meperidine.
 - D. Alfentanil.
59. The process by which some members of a population are selected as representative of the entire population is known as
- A. Census.
 - B. Sampling.
 - C. Survey.
 - D. Randomization.
60. Interventional epidemiological studies include
- A. Drug trial.
 - B. Vaccine trial.
 - C. Both a and b.
 - D. None.
61. Pott's spine is mostly prevalent in
- A. Cervical spine.
 - B. Dorsal spine.
 - C. Lumbar spine.
 - D. Lumbosacral spine.

62. Straight leg test positive in between 30-70 degree indicates pain most probably originating from
- A. Inter-vertebral disc prolapse.
 - B. Quadratus lumborum muscle.
 - C. Facet joint.
 - D. Sacroiliac joint.
63. All of the drugs are used during CPR except
- A. Lidocaine.
 - B. Amiodarone.
 - C. Hydrocortisone.
 - D. Epinephrine.
64. Which of the following is not a part of FLACC scale for pain assessment
- A. Crying.
 - B. Consolability.
 - C. Appearance.
 - D. Activity.
65. A young girl, 23 years old is presented with complaint of abdominal pain, menorrhagia and 18 weeks size mass arising from hypogastrium. The most likely diagnosis is:
- A. Fibroid uterus.
 - B. Pelvic inflammatory disease.
 - C. Mesenteric cyst.
 - D. Endometriosis.
66. Which peripheral nerve is unmyelinated?
- A. A Delta.
 - B. A Beta.
 - C. C.
 - D. B.
67. Sensitization of pain occur by
- A. Peripheral mechanism.
 - B. Central mechanism.
 - C. Neuroplasticity.
 - D. All of the above.
68. All the following are examples of nociceptive types of pain EXCEPT
- A. Inflammation.
 - B. Fractures.
 - C. Lacerations.
 - D. Phantom limb pain.

69. An unpleasant abnormal sensation that is either evoked by a stimulus or occurs spontaneously without sensory stimulation is called
- A. Hyperpathia.
 - B. Paresthesia.
 - C. Hypoesthesia.
 - D. Dysesthesia.
70. A patient is unable to push the examiner's hand away when the arm is flexed at the elbow. The major muscle involved in this action is
- A. Biceps.
 - B. Deltoid.
 - C. Triceps.
 - D. Brachioradialis.
71. Which part of the brain is involved in the emotional aspect of pain
- A. Thalamus.
 - B. Limbic system.
 - C. Cerebellum.
 - D. Hypothalamus.
72. Diminished biceps and brachioradialis reflexes associated with numbness and weakness of the deltoid are due to compression of which nerve root?
- A. C5.
 - B. C6.
 - C. C7.
 - D. C8.
73. Nortryptiline is an
- A. Antiarrhythmic.
 - B. Antianginal.
 - C. Anxiolytic.
 - D. Antidepressant.
74. All are neurolytic agents except
- A. Phenol.
 - B. Mannitol.
 - C. Alcohol.
 - D. Glycerol.
75. The most appropriate nonsteroidal anti inflammatory drug (NSAID) to use in a lactating female is
- A. Piroxicam.
 - B. Ketorolac.
 - C. Naproxen.
 - D. Ibuprofen.

76. Early signs of local anaesthetic toxicity after intravenous administration include all the following EXCEPT
- A. Tinnitus.
 - B. Hypotension.
 - C. Agitation.
 - D. Metallic taste.
77. True statements regarding tolerance include that it
- A. Is characteristic of opioids as a class.
 - B. Cannot occur without physical dependence.
 - C. Is defined as requiring more drug to produce the same effect.
 - D. Is synonymous with addiction.
78. Risks associated with chronic use of corticosteroids include
- A. osteoporosis.
 - B. Avascular necrosis of bone.
 - C. Hypertension.
 - D. All of the above.
79. Postherpetic neuralgia is caused by
- A. Herpes simplex type I.
 - B. Herpes simplex type II.
 - C. Varicella zoster.
 - D. Epstein-Barr virus.
80. Which of the following would support the diagnosis of an S1 nerve root lesion?
- A. Absent ankle jerk.
 - B. Weakness in heel walking.
 - C. Hypertrophy of the gastrocnemius.
 - D. Knee Pain.
81. Which one is a pivot joint?
- A. Shoulder Joint.
 - B. Atlanto-axial joint.
 - C. Hip Joint.
 - D. Lumbar facet joint.
82. Which is not a function of Piriformis muscle
- A. Abduction.
 - B. Lateral rotation.
 - C. Extension.
 - D. Adduction.
83. How are most C fibre nociceptors characterized?
- A. high threshold mechanoreceptors.
 - B. low threshold chemoreceptors.
 - C. low threshold, thermal-mechanical receptors.
 - D. high threshold, polymodal receptors.

84. What is neuropraxia?
- A. Pain due to peripheral nerve injury.
 - B. Loss of conduction of a nerve.
 - C. Abnormal signals are sent by a nerve.
 - D. Anatomical disruption of a nerve.
85. Following routes of administration avoid "first-pass" hepatic effects EXCEPT
- A. Sublingual.
 - B. Oral.
 - C. Transdermal.
 - D. Lower rectal suppositories.
86. Which of the following is a feature of opioid withdrawal?
- A. Tremors.
 - B. Goose flesh.
 - C. Dry nose and mouth.
 - D. Constipation.
87. Incidence includes
- A. New cases only.
 - B. Old cases only.
 - C. Both a and b.
 - D. None of the above.
88. In Migraine, patient suffers from
- A. Bilateral headache with photophobia.
 - B. Unilateral headache with photophobia.
 - C. Only Headache.
 - D. None of the above.
89. Contraindications to vasoconstrictors in local anaesthesia?
- A. HiatusHernia.
 - B. Epidural anaesthesia.
 - C. Digital nerve block.
 - D. Infiltration anaesthesia.
90. The complication of Colle's fracture is except-
- A. Malunion.
 - B. Nonunion.
 - C. Sudeck's atrophy.
 - D. stiffness of wrist.
91. Which of the following is associated with endometriosis?
- A. Chronic pelvic pain.
 - B. Dyspareunia.
 - C. Infertility.
 - D. All of the above.

92. Which type of nerve fibre carries Fine touch?
- A. A -alpha.
 - B. A- beta.
 - C. A- delta.
 - D. A- gamma.
93. Stellate Ganglion is composed of
- A. Sympathetic N.
 - B. Parasympathetic N.
 - C. Somatic N.
 - D. Motor N.
94. Which bone is not part of boundary of Pterygopalatine fossa?
- A. Maxilla.
 - B. Palatine.
 - C. Mandible.
 - D. Sphenoid.
95. Neurochemicals that are produced by the cell bodies of the dorsal root ganglion, and are important for signal transmission include all of the following, EXCEPT:
- A. Bradykinin.
 - B. Endorphin.
 - C. Substance P.
 - D. Calcitonin gene-related peptide.
96. Buprenorphine acts on following receptors EXCEPT
- A. Partial μ -opioid receptor agonist.
 - B. κ opioid antagonist.
 - C. δ opioid agonist.
 - D. δ opioid antagonist.
97. Bupivacaine is
- A. Cardiotoxic.
 - B. Nephrotoxic.
 - C. Hepatotoxic.
 - D. None of the above.
98. Most strongly recommended intervention for management of knee osteoarthritis is
- A. Intra articular corticosteroid.
 - B. Total Knee Replacement Surgery.
 - C. Exercise and weight reduction.
 - D. Radiofrequency ablation of genicular nerve supplying knee joints.
99. Empty can sign is positive in
- A. Subscapular tear.
 - B. Supraspinatus tear.
 - C. Infraspinatus tear.
 - D. Tear in short head of biceps.

100. Empathy identifies with
- A. Active listening.
 - B. Sympathy.
 - C. Apathy.
 - D. Telepathy.