



The University of Fiji

(An Entity of Arya Pratinidhi Sabha of Fiji)



Umanand Prasad School of Medicine & Health Sciences

2025

FINAL EXAMINATION PAPER

ALSB 506: Allied Subjects

Important Instructions to Students:

1. Read the questions, and instructions carefully and answer the questions.
2. You are allowed an **extra 10 minutes of reading time** (during this time, you are not allowed to write with a pen) and **180 minutes (3 Hours) to complete this paper**.
3. Silent, non-programmable calculators are allowed but not supplied.
4. Write all your answers in the answer booklet provided. If you need extra sheets, please ask the supervisor. Write your name, course code, and student identification number in the answer booklet and the attendance sheet.
5. This Final Course Examination Paper is worth 100 marks and contributes 40% of the total course assessments. Students must at least score 50% in this final exam to pass the course.
6. This paper contains three sections A, B and C. All questions are compulsory to answer.
7. Write all your answers legibly. The marker has the right to award a zero for answers that are not legible.
8. This is a **Closed Book Examination**. The University views plagiarism, cheating, and dishonest practice as serious offenses and if found, offenders are penalized.

Examination Paper Content (Format):

<u>Section</u>	<u>Question</u>	<u>Content</u>	<u>Marks</u>	<u>Suggested Time</u>
A	1-60	Multiple Choice	60	100 minutes
B	61-65	Short Question Answer	10	30 minutes
C	66-68	Long Question Answer	30	50 minutes
		TOTAL	100	180 Minutes

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Registration Certificate Number (RGN0020/11)

A. Multiple Choice Question: Choose the best answer (60 marks)

1. The following patients will be suspicious of an AC joint problem, EXCEPT:
 - A. A football player that is tackled at the side of the arm
 - B. A tennis player experiencing pain during a serve
 - C. A child who falls on the ground
 - D. None of the above

2. The patient is in sitting position while the examiner cups his or her hands over the deltoid muscle with one hand on the clavicle and the other hand on the spine of the scapula. The examiner then squeezes the heels of the hand together. Abnormal movement is a positive test. This is used to test for:
 - A. AC joint dislocation
 - B. AC joint degeneration
 - C. Both of these
 - D. None of these

3. A patient with anterior shoulder dislocation is now cleared for resistance training based on PT eval. To initially start the strengthening program, you should first strengthen the:
 - A. External rotators and abductors
 - B. Internal rotators and adductors
 - C. Flexors and Extensors
 - D. Extensors and Internal rotators

4. To test posterior joint capsule laxity, the PT should:
 - A. Apply downward force on the humerus of an abducted shoulder of a patient in standing
 - B. Apply a downward force in the humerus of a flexed shoulder of a patient in supine
 - C. Apply traction and pull the humerus of a patient in standing
 - D. Ask the patient to do seated push ups

5. Seth is a baseball star pitcher at the minor league who cannot play a game without taking Advil, an NSAID. When asked why, he told you that he has been experiencing moderate to severe right shoulder pain for over 4 years now since he started playing amateur baseball. The next day, he consulted you for an advice regarding his condition because he wants to play normally without taking medications anymore. PT evaluation revealed painful anterolateral right shoulder during the cocking phase of the throw. Postural evaluation revealed patients have a rounded shoulder and increased thoracic kyphosis. What is your probable diagnosis?
 - A. Shoulder dislocation
 - B. Thoracic outlet syndrome
 - C. Shoulder Impingement syndrome
 - D. Deltoid tear

6. Based on patient presentation in number 5, what result can you expect from the xray?
 - A. Presence of a soft tissue damage
 - B. Presence of swelling on anterior shoulder
 - C. Positive hooked acromion process
 - D. Hypertrophy of the R subscapularis
7. Without proper intervention, the shoulder impingement syndrome can lead to this condition causing more impingement on the structures below the acromion:
 - A. Pectoralis Major tear
 - B. Calcific tendinitis
 - C. Brachialis heterotrophic ossification
 - D. TOS
8. The most important initial management at this stage for this patient should be:
 - A. Rotator cuff strengthening
 - B. Pain and inflammation management
 - C. Postural correction program
 - D. Pectoralis Major release
9. A patient presents to an outpatient clinic with complaints of shoulder pain. The PT observes a painful arc between 70 degrees and 120 degrees of active abduction in the involved shoulder. This finding is most indicative of what shoulder pathology?
 - A. Rotator cuff tear
 - B. AC joint separation
 - C. Impingement
 - D. Labrum tear
10. Which of the following statements is TRUE about rotator cuff tear (surgical repair):
 - A. It is not necessary for the patient to wear a sling after the sling.
 - B. Resistance exercises for the rotator cuff may begin after the 4th week of repair.
 - C. Begin with closed-chain isometric resistance exercises in strengthening the rotator cuff muscles
 - D. Begin with fully active motions during the early weeks after the repair
11. 11. A 40-year-old man was evaluated on the R shoulder who experiences pain upon overhead reaching actively and passively. Reported no significant trauma before. Which of the following is the probable diagnosis?
 - A. Bicipital tendinitis
 - B. Shoulder dislocation
 - C. Surgical neck fracture
 - D. Subacromial bursitis

12. A patient with chronic adhesive capsulitis of the shoulder is to be treated with joint mobilization to increase joint range of motion. Which of the following would be the MOST appropriate to increase shoulder external rotation?
- A. Anterior
 - B. Posterior
 - C. Inferior
 - D. Superior
13. During your postural evaluation for chronic shoulder pain in a recreational swimmer, you observe excessive internal rotation of the shoulders and winging of the scapula during overhead motion intervention should focus on:
- A. Strengthening middle and lower trapezius and stretching the Pectoralis muscles
 - B. Strengthening of the pectoral muscles and stretching of upper trapezius.
 - C. Strengthening of upper trapezius and stretching of pectoral muscles
 - D. Strengthening of rhomboids and stretching the upper trapezius
14. You are evaluating a patient who has shoulder pain, the patient told you that pain started while he was stocking shelves that are overhead and claimed that pain is not apparent when stocking shelves at waist or chest level. In what muscle can you MOST likely expect weakness?
- A. Pectoralis Minor
 - B. Upper Trapezius
 - C. Deltoid
 - D. Rhomboid Major
15. A bull riding champion fell during one of his game with the right shoulder slamming on the floor. He immediately felt sharp, aching pain on the area but still continued to play. That night, patient reported of severe pain on the site with 10/10 on the VRS. Patient came to consult you regarding his condition. Upon observation, there is none to minimal pain on all shoulder motions up to 90 degrees. Pain is elicited only in terminal ranges of motion. What is the likely diagnosis?
- A. Anterior shoulder dislocation
 - B. AC joint sprain
 - C. SC joint sprain
 - D. Deltoid tear
16. Which of the following procedures will elicit the pain?
- A. Maintenance of shoulder abduction at 80 degrees
 - B. Squeezing the anterior and posterior R shoulder area using B hands
 - C. Reaching the opposite pocket of the patient's pants
 - D. Scratching the small of the back

17. A patient with Anterior shoulder dislocation is now clear for resistance exercises based on your eval. To initially start the strengthening the program, you should first strengthen the:
- A. Ers and Abd
 - B. IRs and Add
 - C. Flexors and Extensors
 - D. Ext and IRs
18. A patient with tenderness on the anterior shoulder has pain and discomfort during repetitive forward elevation of the arm. Patient also reports of "popping sensation on the shoulder and pain is aggravated with resisted elbow flexion. Patients MOST likely have:
- A. Rotator cuff injury
 - B. Bicipital tendinitis
 - C. Adhesive capsulitis
 - D. Shoulder dislocation
19. A PT is screening a patient who complains of pain at the anterior L shoulder region. The pain is increased when the examiner instructs the patient to position the L arm by his side with the elbow flexed at 90 degrees to actively supinate the forearm against resistance (provided by the examiner). What test is being performed?
- A. Froment's sign
 - B. Yergason's test
 - C. Waldron test
 - D. Wilson test
20. A patient with chronic adhesive capsulitis of the shoulder is to be treated with joint mobilization to increase joint range of motion. Which of the following would be the MOST appropriate to increase shoulder ER?
- A. Anterior
 - B. Posterior
 - C. Inferior
 - D. Superior
21. MRI should be used with caution in patients with:
- A. Acute stroke
 - B. Brainstem lesions
 - C. Demyelinating disease
 - D. Cardiac pacemaker
22. Least resolution is observed in:
- A. Conventional x-ray
 - B. US
 - C. CT
 - D. MR

23. Increased density on x-ray film denotes:
- A. A black shadow
 - B. White shadow
 - C. Increased radiolucency
 - D. None of the above
24. Barium enema is a diagnostic procedure in disease:
- A. Anal canal
 - B. Rectum
 - C. Colon
 - D. None of the above
25. Maximum radiation exposures is caused by:
- A. Sonography
 - B. CT scan
 - C. Chest x-ray
 - D. MRI
26. Ultrasound is not useful in:
- A. Neonatal patients
 - B. Obstetric patients
 - C. Obese patients
 - D. Adult patients
27. Pathognomic x-ray feature of chronic pancreatitis is:
- A. Air under diaphragm
 - B. Sentinel loop
 - C. Widening of C loop of duodenum
 - D. Calcification of pancreas
28. Splenomegaly is seen in all except:
- A. Pneumonia
 - B. Malaria
 - C. Infectious mononucleosis
 - D. Hydatid cyst
29. Dilated jejunal loops on plain x-ray abdomen are identified by:
- A. Haustrations
 - B. Valvulae conniventes
 - C. Characterless bowel
 - D. Air fluid level

30. Coffee bean sign indicates:
- A. Toxic megacolon
 - B. Volvulus of colon
 - C. Strangulation of incompletely obstructed loop of small bowel
 - D. Mesenteric artery embolism
31. Football sign is seen in:
- A. Porcelain GB
 - B. Ascites
 - C. Pneumoperitoneum
 - D. Portal vein thrombosis
32. Colon is identified on x-ray by:
- A. Haustra
 - B. Valva conniventes
 - C. Characterless
 - D. None of the above
33. Simple diagnostic aid in differentiating solid from cystic renal mass is:
- A. USG
 - B. CT scan
 - C. MRI
 - D. Plain x-ray
34. Recognized features of diabetic retinopathy include:
- A. Flame haemorrhages
 - B. Arteriovenous nipping
 - C. New blood vessels overlying the optic discs
 - D. Macular oedema
35. 30-year-old female presents to the eye clinic with an acute history of pain and blurring in the right eye. Examination reveals a visual acuity of 6/36 in the right eye but 6/6 in the left eye, a central scotoma in the right eye, with a right swollen optic disc. What is the most likely diagnosis?
- A. Compression of the optic nerve
 - B. Cavernous sinus thrombosis
 - C. Glaucoma
 - D. Optic neuritis
36. When considering diabetic retinopathy which of the following statements is most accurate:
- A. Microaneurysms represent saccular dilatation of retinal arterioles.
 - B. Hard exudates represent calcium deposits in the retina.
 - C. Cotton wool spots represent infarcts of the nerve fiber layer of the retina.
 - D. Haemorrhages close to the fovea are not potentially sight threatening

37. Corneal transparency depends on:
- A. Metabolic pump in endothelium
 - B. Zonular occludens in endothelium
 - C. Glycosaminoglycans in stroma
 - D. Irrigation by calcium free solution in anterior chamber during operation
38. All of the following can be seen with ocular adenoviral infection except:
- A. Preauricular lymphadenopathy
 - B. Large central geographic corneal erosions
 - C. Multifocal subepithelial infiltrates
 - D. Enlarged corneal nerves
39. Distichiasis is:
- A. Misdirected eyelashes
 - B. Accessory row of eyelashes
 - C. Downward drooping of upper lid
 - D. Outward protrusion of lower lid
40. Irrespective of the etiology of a corneal ulcer, the drug always indicated is:
- A. Corticosteroid
 - B. Atropine
 - C. Antibiotics
 - D. Antifungal
41. Fleischer ring is found in:
- A. Keratoconus
 - B. Chalcosis
 - C. Argrosis
 - D. Buphthalmos
42. Which drug from the following should you give to a patient with non-acute increased intraocular pressure and history of asthma.
- A. Acetazolamide
 - B. Timolol
 - C. Levobunolol
 - D. Furosemide
43. Ptosis in Horner's syndrome, is due to paralysis of:
- A. Riolan's muscle
 - B. Horner's muscle
 - C. Muller's muscle
 - D. The levator palpebral muscle

44. What management option is often used for herpes simplex conjunctivitis?
- A. Topical corticosteroid
 - B. Oral antihistamine
 - C. Avoiding direct contact to prevent spread as is it very infectious
 - D. Topical acyclovir
45. Corneal Herber's pits are found in:
- A. Mucopurulent conjunctivitis
 - B. Phlyctenular keratoconjunctivitis
 - C. Active trachoma
 - D. Spring Catarrh
46. 3-month-old infant with watering lacrimal sac on pressing causes regurgitation of mucopus material. What is the appropriate treatment?
- A. Dacryocystorhinostomy
 - B. Probing
 - C. Probing with syringing
 - D. Massage with antibiotics up to the age of 6 months
47. Which of the following presentations is most likely due to bacterial conjunctivitis?
- A. Positive preauricular nodes, rapid onset, and mucopurulent discharge
 - B. Positive preauricular nodes and slow onset, watery discharge, and sore throat.
 - C. Negative preauricular node, stingy discharge, itchiness
 - D. Positive preauricular nodes, watery discharge, urethral discharge.
48. Which one of the factors below is not part of the 'Triad of anesthesia'?
- A. Hypnosis
 - B. Muscle relaxation
 - C. Euthanasia
 - D. Analgesia
49. Below are the three main types of anesthesia EXCEPT
- A. General anesthesia
 - B. Ketamine sedation
 - C. Hypnotics
 - D. Regional anesthesia

50. Ketamine can be given as a sole anaesthetic agent since it produces:
- A. General anesthesia
 - B. Dissociative anaesthetic
 - C. Regional anesthesia
 - D. Muscle relaxant
51. Rapid sequence induction is done for unfasted patients where the ultimate goal is to:
- A. Keep the patient awake
 - B. Complete the surgery
 - C. Ensure good analgesia
 - D. Secured airway with endotracheal tube
52. Spinal block is classified under what type of anesthesia?
- A. Regional anesthesia
 - B. General anesthesia
 - C. Ketamine anesthesia
 - D. None of the above
53. Which of the drugs given below is a depolarizing muscle relaxant?
- A. Vecuronium
 - B. Suxamethonium
 - C. Pancuronium
 - D. Atracurium
54. Which gas below is a volatile agent used for general anesthesia?
- A. Nitrous oxide
 - B. Isoflurane
 - C. Oxygen
 - D. Medical air
55. Which one is a safety feature of the anaesthetic machine?
- A. Colour coding
 - B. Pin index
 - C. Oxygen failure alarm
 - D. All the above
56. Which one is a predictor of difficult bag mask ventilation?
- A. Presence of beard
 - B. Facial trauma
 - C. Receding jaw
 - D. All the above

57. Bleeding in surgery is a common cause of which type of shock?
- A. Hypovolemic
 - B. Obstructive
 - C. Distributive
 - D. Cardiogenic
58. In the management of anaphylaxis, which of the following is NOT recommended?
- A. Administering IV adrenaline bolus in cardiac arrest
 - B. Using oral sedating antihistamines
 - C. Laying the patient flat
 - D. Giving high-flow oxygen
59. What is the recommended dose of adrenaline for a 10 kg child based on weight?
- A. 0.01 mg
 - B. 0.1 mg
 - C. 0.15 mg
 - D. 0.3 mg
60. Which of the following is NOT a clinical diagnostic criterion for anaphylaxis?
- A. Acute onset of urticaria with respiratory involvement
 - B. Acute hypotension without skin features
 - C. Persistent cough and dizziness
 - D. Isolated abdominal pain without other symptoms

B. Short Answer: Filling the blanks and enumeration: (10 points)

61. You are called for a 37-year-old male with a severe nosebleed. He recalls no trauma to the nose. What is the most common cause of nosebleeds? _____ (2 points)
62. What is the most effective way to stop a nosebleed _____ (2 points).
63. What is the difference between a posterior and an anterior nosebleed, and why is this important? _____ (2 points)
64. A patient with a toothache for several days now is having difficulty swallowing. His right face is swollen and tender. What do you need to worry about? _____ (2 points)
65. The patient states that he was choked during the fight. What is one of the best signs of laryngeal edema in these patients? _____ (2 points)

C. Essay (30 points)

66. A seven-year-old child presents with fever, earache, and pain in the left posterior auricular area. The ENT Surgeon who's your "Boss" has been diagnosed with mastoiditis.

- A. Describe the pathophysiology involved in this disease. **(5 marks)**
- B. Detail the principles of treatment. **(10 marks)**

67. Discuss the details of management of Ludwig's Angina? **(10 points)**

68. Discuss the details of the Rhine's test and Weber test? **(5 points)**