



JAMMU AND KASHMIR PUBLIC SERVICE COMMISSION

Resham Garh, Jammu (180016)/Solina, Srinagar (190001)

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Subject: Written Examination for filling up of posts of Assistant Professor/ Tutors in various disciplines in Sher-i-Kashmir Institute of Medical Sciences (SKIMS), in Health and Medical Education Department, 2025- Provisional Answer Key(s) thereof.

Notification No. PSC/Exam/S/2026/52

Dated: 17.05.2026

In pursuance of Rule 10 (c) of the Jammu & Kashmir Public Service Commission (Conduct of Examination) Rules, 2022, as amended upto date, the Provisional Answer Key(s) of Question Papers pertaining to the Written Examination for post(s) of Assistant Professor in the disciplines of **Neuro Surgery, Urology, Medical Oncology and Tutor in SKIMS, in Health and Medical Education Department, held on 17.05.2026**, are hereby notified for seeking objections from candidates.

Provisional Answer Key

Assistant Professor (Neuro Surgery)

Test Booklet Question No. (Series A)	
Q1	C
Q2	B
Q3	D
Q4	B
Q5	C
Q6	D
Q7	D
Q8	D
Q9	C
Q10	B
Q11	A
Q12	D

Test Booklet Question No. (Series A)	
Q13	C
Q14	B
Q15	A
Q16	A
Q17	B
Q18	B
Q19	B
Q20	D
Q21	B
Q22	D
Q23	A
Q24	B

Test Booklet Question No. (Series A)	
Q25	B
Q26	D
Q27	D
Q28	C
Q29	D
Q30	A
Q31	C
Q32	A
Q33	C
Q34	B
Q35	A
Q36	B

Test Booklet Question No. (Series A)	
Q37	D
Q38	A
Q39	B
Q40	D
Q41	C
Q42	A
Q43	B
Q44	C
Q45	C
Q46	C
Q47	C
Q48	D
Q49	D
Q50	A
Q51	D
Q52	A
Q53	B
Q54	B
Q55	B
Q56	C
Q57	D
Q58	C

Test Booklet Question No. (Series A)	
Q59	A
Q60	B
Q61	A
Q62	A
Q63	D
Q64	A
Q65	C
Q66	D
Q67	D
Q68	B
Q69	B
Q70	A
Q71	B
Q72	D
Q73	C
Q74	A
Q75	A
Q76	B
Q77	B
Q78	C
Q79	C
Q80	D

Test Booklet Question No. (Series A)	
Q81	D
Q82	A
Q83	B
Q84	B
Q85	D
Q86	B
Q87	A
Q88	D
Q89	A
Q90	D
Q91	C
Q92	B
Q93	B
Q94	B
Q95	C
Q96	C
Q97	A
Q98	B
Q99	C
Q100	B

Provisional Answer Key
Assistant Professor (Urology)

Test Booklet Question No. (Series A)	
Q1	D
Q2	A
Q3	A
Q4	B
Q5	A
Q6	A
Q7	B
Q8	C
Q9	C
Q10	D
Q11	B
Q12	D
Q13	D
Q14	D
Q15	C
Q16	D
Q17	A
Q18	C
Q19	B
Q20	C
Q21	A
Q22	D
Q23	D
Q24	B
Q25	B
Q26	C
Q27	B
Q28	C
Q29	B
Q30	A
Q31	A
Q32	B
Q33	D
Q34	C

Test Booklet Question No. (Series A)	
Q35	B
Q36	B
Q37	C
Q38	B
Q39	D
Q40	B
Q41	A
Q42	B
Q43	C
Q44	C
Q45	C
Q46	B
Q47	B
Q48	B
Q49	C
Q50	D
Q51	B
Q52	A
Q53	A
Q54	A
Q55	D
Q56	B
Q57	A
Q58	B
Q59	B
Q60	D
Q61	D
Q62	A
Q63	C
Q64	B
Q65	C
Q66	D
Q67	A
Q68	D

Test Booklet Question No. (Series A)	
Q69	A
Q70	D
Q71	C
Q72	A
Q73	C
Q74	D
Q75	D
Q76	B
Q77	B
Q78	B
Q79	D
Q80	C
Q81	A
Q82	D
Q83	D
Q84	D
Q85	A
Q86	C
Q87	D
Q88	D
Q89	C
Q90	C
Q91	B
Q92	C
Q93	A
Q94	C
Q95	D
Q96	A
Q97	D
Q98	D
Q99	B
Q100	C

Provisional Answer Key
Assistant Professor (Medical Oncology)

Test Booklet Question No. (Series A)	
Q1	B
Q2	B
Q3	C
Q4	C
Q5	B
Q6	C
Q7	C
Q8	B
Q9	B
Q10	D
Q11	B
Q12	B
Q13	C
Q14	C
Q15	B
Q16	B
Q17	B
Q18	C
Q19	B
Q20	B
Q21	B
Q22	B
Q23	A
Q24	A
Q25	B
Q26	B
Q27	A
Q28	B
Q29	C
Q30	B
Q31	C
Q32	B
Q33	C
Q34	B

Test Booklet Question No. (Series A)	
Q35	C
Q36	C
Q37	C
Q38	B
Q39	B
Q40	D
Q41	B
Q42	A
Q43	A
Q44	B
Q45	B
Q46	C
Q47	A
Q48	B
Q49	B
Q50	A
Q51	B
Q52	A
Q53	B
Q54	C
Q55	C
Q56	C
Q57	B
Q58	C
Q59	B
Q60	B
Q61	A
Q62	B
Q63	B
Q64	B
Q65	C
Q66	B
Q67	B
Q68	B

Test Booklet Question No. (Series A)	
Q69	A
Q70	B
Q71	B
Q72	A
Q73	B
Q74	C
Q75	B
Q76	B
Q77	B
Q78	B
Q79	B
Q80	D
Q81	B
Q82	D
Q83	D
Q84	A
Q85	A
Q86	B
Q87	B
Q88	C
Q89	D
Q90	C
Q91	A
Q92	B
Q93	B
Q94	B
Q95	B
Q96	B
Q97	A
Q98	B
Q99	A
Q100	A

Provisional Answer Key

Tutor

Test Booklet Question No. (Series A)	
Q1	C
Q2	C
Q3	A
Q4	A
Q5	A
Q6	C
Q7	B
Q8	C
Q9	B
Q10	A
Q11	C
Q12	C
Q13	A
Q14	D
Q15	B
Q16	A
Q17	D
Q18	B
Q19	C
Q20	D
Q21	B
Q22	C
Q23	D
Q24	A
Q25	B
Q26	A
Q27	D
Q28	A
Q29	C
Q30	B
Q31	B
Q32	C
Q33	A
Q34	B

Test Booklet Question No. (Series A)	
Q35	B
Q36	A
Q37	C
Q38	C
Q39	C
Q40	D
Q41	A
Q42	B
Q43	D
Q44	A
Q45	A
Q46	A
Q47	C
Q48	D
Q49	C
Q50	C
Q51	A
Q52	D
Q53	D
Q54	A
Q55	A
Q56	A
Q57	B
Q58	B
Q59	B
Q60	B
Q61	A
Q62	C
Q63	C
Q64	B
Q65	D
Q66	D
Q67	D
Q68	C

Test Booklet Question No. (Series A)	
Q69	B
Q70	C
Q71	C
Q72	B
Q73	A
Q74	C
Q75	D
Q76	D
Q77	B
Q78	B
Q79	D
Q80	C
Q81	C
Q82	A
Q83	C
Q84	B
Q85	D
Q86	D
Q87	D
Q88	B
Q89	B
Q90	D
Q91	C
Q92	D
Q93	B
Q94	A
Q95	A
Q96	C
Q97	D
Q98	B
Q99	D
Q100	D

The candidates are advised to refer to **Question Booklet (Series A)** to match the corresponding question(s) in their respective Question Booklet Series and if any candidate feels that the key to any of the question(s) is/are wrong, he/she may represent on prescribed format/proforma annexed as **Annexure-A** along with the documentary proof/evidence (**hard copies only**) and fee of Rs.500/- per question in the form of Demand Draft drawn in favour of **COE, J&K PSC** (refundable in case of genuine/correct representation) to the Controller of Examinations, Jammu & Kashmir Public Service Commission, from Monday i.e. 18.05.2026 to 20.05.2026. **The candidates are further advised to clearly mention the question(s) objected to with reference to its serial number as it appears in the Question Booklet of Series A of the provisional answer key(s).**

Any objection/application not accompanied by the requisite Demand Draft of Rs.500/- as prescribed, shall not be considered/entertained under any circumstances. Candidates are, in their own interest, advised to adhere to these instructions and not submit any objection unaccompanied by the Demand Draft as required under extant rules. The Commission shall not entertain any such representation(s) after the expiry of the stipulated period i.e. after 20.05.2026 (Wednesday), 05.00 pm.

Further, objection(s) submitted in any other mode will not be entertained.

The provisional answer key(s) are also available on the website of the Commission <http://www.jkpsc.nic.in>.

Sachin Jamwal
17/05/26

(Sachin Jamwal) JKAS

Controller of Examinations

J&K Public Service Commission

Su

No. PSC/Ex-Secy/2026/27

Dated: 17.05.2026

Copy to the: -

1. Director, Information and Public Relations, J&K for publication of the notice in all leading newspapers published from Jammu/Srinagar.
2. P.S. to Hon'ble Chairman, J&K Public Service Commission for information of the Hon'ble Chairman.
3. P.S. to Hon'ble Member, Shri _____ for information of the Hon'ble Member.
4. P. A. to Secretary, J&K Public Service Commission for information of the Secretary.
5. Main file/Stock file/Notice Board.

Annexure-A

Representation regarding objection(s) to any Question/Answer pertaining to the Written Examination conducted for the posts of Assistant Professor in the disciplines of Neuro Surgery, Urology, Medical Oncology and Tutor in SKIMS, in Health and Medical Education Department held on 17.05.2026

(NOTE: USE SEPARATE FORMS FOR SEPARATE QUESTIONS)

Discipline: _____

Name of the Applicant: _____

Roll No. : _____

Correspondence Address : _____

Contact/Mobile No. : _____

Date of Application: _____ **.05.2026**

Demand Draft Details: No. _____ Date _____ Amount _____

Candidates Account No.(16 digit) & IFSC Code : _____

Question No. in Series A	Details of the Objection	Resource Material (copy to be enclosed)	Details of the Website (if any)
<u>Correct Answer/Option as per candidate :</u>			

Signature of the Candidate

Note : Application for each question/answer shall be made on separate page in the given format, otherwise the first question entered in the format shall only be considered.

Booklet Serial No. **350001**

Test Booklet Series

TEST BOOKLET
ASSISTANT PROFESSOR - NEURO SURGERY

A

Written Test - 2026

(51)

Time Allowed: Two Hours

Maximum Marks: 100

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer /Response Sheet. Any omission/discrepancy will render the Response Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside.
DO NOT write anything else on the Test Booklet.
4. This Test booklet contains **100** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet/Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer /Response Sheet provided. See directions in the Response Sheet.
6. **All** items carry equal marks.
7. Before you proceed to mark in the Answer /Response Sheet, the response to various items in the Test Booklet, you have to fill in some particulars in the Answer /Response Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer /Response Sheet**. You are permitted to take away with you the Test Booklet and **Candidate's Copy of the Response Sheet**.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. While writing Centre, Subject and Roll No. on the top of the Answer Sheet/Response Sheet in appropriate boxes use **"ONLY BALL POINT PEN"**.
11. **Penalty for wrong answers:**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE IN THE WRITTEN TEST (OBJECTIVE TYPE QUESTION PAPER).
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **(0.25)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

1. Best outcome for endoscopic third ventriculostomy seen in
 - A) Infants
 - B) Post infectious hydrocephalus
 - C) Obstructive hydrocephalus
 - D) Post hemorrhagic hydrocephalus

2. Best modality for motor function preservation during brain tumour surgery
 - A) Neuronavigation
 - B) Awake surgery
 - C) Cortical mapping
 - D) Electrocochicography

3. Effective modality for Craniopharyngioma management all EXCEPT
 - A) Maximal safe resection
 - B) Radiotherapy
 - C) Intracystic interferon
 - D) Systemic chemotherapy

4. True about Oberlin procedure
 - A) Very useful in pan brachial plexus injury
 - B) Good long term outcome
 - C) Can be performed with wrist and hand weakness
 - D) It is type of extra-plexal neurotisation

5. False about spinal lipoma
 - A) It is associated with neurulation and gastrulation defect
 - B) Intraoperative neuromonitoring is essential in surgical management
 - C) Prophylactic surgery is not required
 - D) Can be associated with kyphoscoliosis

6. All about growing skull fracture is true EXCEPT
 - A) Common in infants
 - B) Commonly seen in parietal region
 - C) Duroplasty is essential aspect of the surgery
 - D) Cranioplasty is mandatory

7. True about Cushing disease
- A) Pituitary macroadenoma is common
 - B) Surgery indicated only after failed medical management
 - C) Gamma knife can be given as first line management for pituitary adenoma
 - D) Central serous retinopathy is characteristic of Cushing disease
8. All the following are true about Hadad flap EXCEPT
- A) This is nasoseptal mucosal flap based on sphenopalatine artery
 - B) It must be harvested only in extended skull base approaches
 - C) Crusting is most common early problem following Hadad flap harvest
 - D) Bilateral Hadad flap must not be harvested
9. All of the following are true about chordoma EXCEPT
- A) Clival is most common site in cranium
 - B) Locally invasive tumour
 - C) Proton beam radiotherapy is not useful
 - D) Gross total excision is best treatment
10. 45 year female presenting in emergency with ruptured A Comm aneurysm with grade 3 Fischer, grade 2 WFNS and GCS of E3V4M6. Which of the following is true about vasospasm in this patient?
- A) Hypertension therapy must be started to prevent vasospasm
 - B) Securing the aneurysm will aid in better management of vasospasm
 - C) Coiling is better than clipping to prevent vasospasm
 - D) Hypervolemia will help in this patient to prevent vasospasm
11. Boundaries of Kawase quadrangle include all EXCEPT
- A) Inferior petrosal sinus
 - B) Arcuate eminence
 - C) Posterior border of V3 nerve root
 - D) GSPN

12. Which of the following is not true about MacEwen's Triangle
- A) Antero inferior border - External acoustic meatus
 - B) Surgical landmark for mastoid antrum
 - C) Superior border - Supramastoid line
 - D) Posterior border - Sigmoid sinus
13. 35 year female presenting with 6th cranial nerve palsy was diagnosed with petroclival meningioma. All the following are true regarding management of this patient EXCEPT
- A) Surgery is the best management with a chance of improvement cranial nerve palsy
 - B) Gamma knife is an option in this patient if tumour is <3cm
 - C) Gamma knife should not be considered as we don't have histopathology
 - D) Anterior petrosal or retrosigmoid approach are commonly used for surgery
14. True about carotico-cavernous fistula EXCEPT
- A) Endovascular management is preferred
 - B) High flow fistula are usually spontaneous
 - C) Direct fistula usually require intervention
 - D) Indirect fistula can be managed conservatively
15. True about Optic pathway glioma diagnosis and management
- A) Diagnosis can be made on radiological findings
 - B) Biopsy is always needed
 - C) Surgery is the main stay of treatment
 - D) NF-1 patient with optic pathway glioma have worse prognosis
16. Adult moyo moyo disease is characterised by
- A) Haemorrhage is more common in adults than children
 - B) Usually unilateral disease
 - C) Bypass is contraindicated in patients presenting with haemorrhage
 - D) Secondary causes must not be evaluated in adult before diagnosing moyo moyo disease

17. True about patient with bilateral vestibular schwannoma
- A) Patient must have skin stigmata to be diagnosed as NF2
 - B) Lip reading must be taught early before the loss of hearing
 - C) Cochlear implants can be useful in this patient
 - D) Cystic schwannomas are unusual in patient with NF2
18. All are true about grading of diffuse axonal injury EXCEPT
- A) Grade 1 - Grey and white junction involvement
 - B) Grade 2 - External capsule involvement
 - C) Grade 2 - Corpus callosal involvement
 - D) Grade 3 - Superior cerebellar peduncles involvement
19. True about Vagal nerve stimulation
- A) It is curative surgery for epilepsy
 - B) Can be used for inflammatory bowel disease
 - C) Doesn't impact cognition
 - D) Effect of VNS on epilepsy wears off with time
20. True about Pan-sutural craniosynostosis all expect
- A) Most commonly associated with genetic syndrome
 - B) Early surgery is useful
 - C) Requires multiple surgeries
 - D) Rarely has increased intracranial pressure
21. Post traumatic brachial neuralgia is
- A) DREZotomy is not useful
 - B) Common in pan brachial plexus injury
 - C) Medical management is effective
 - D) Selective dorsal rhizotomy is effective
22. Plexiform Neurofibroma management includes ALL EXCEPT
- A) Debulking surgery
 - B) MEK inhibitors
 - C) Radiation
 - D) Interferon Beta

23. Floor of third ventricle included all EXCEPT
- A) Mass intermedia
 - B) Cherry red spot
 - C) Mammillary bodies
 - D) Optic recess
24. Functional Hemispherectomy is considered for
- A) Early Rasmussen's encephalitis
 - B) Hemi-infarct
 - C) Focal cortical dysplasia
 - D) Lennox - gestaut syndrome
25. An intracranial aneurysm is classified as a giant aneurysm if its size is more than:
- A) 1.5 cm
 - B) 2.5 cm
 - C) 1 cm
 - D) 4 cm
26. During transoral decompression risk of vertebral artery injury is highest at:
- A) Drilling of c1 anterior arch
 - B) Drilling of the tip of dens
 - C) Drilling of the base of dens
 - D) Exposure and drilling at C2-3 disc level
27. Not a radiological sign of spontaneous intracranial hypotension:
- A) Pachymeningeal enhancement
 - B) Descent of cerebellar tonsils
 - C) Subdural collection
 - D) Dilated, prominent prepontine cistern

28. Not true about sphenoid ostium:
- A) Located 1.5cm above the choana
 - B) Located just behind mid part of superior turbinate
 - C) Its about 12cm from the base of the columella
 - D) Its one third below the skull base and two-thirds above the choana
29. True about spinal type 1 dural av fistula:
- A) Fistula is located on cord surface
 - B) Common in the first decade of life
 - C) Acute bleed with sudden onset motor deficits is the most common clinical presentation
 - D) Coagulation of the draining vein of the fistula is the treatment of choice
30. The content of the vidian canal is:
- A) Nerve of pterygoid canal
 - B) Infraorbital nerve
 - C) Mandibular nerve
 - D) Nervus intermedius
31. True statements regarding tuberculum sellae meningioma is:
- A) Vision loss is usually symmetric and bilateral
 - B) Dural attachment is behind the pituitary stalk
 - C) Optic nerves are pushed superolaterally
 - D) Gamma knife can be given safely in upto 3 cm size tumor
32. Which one of the clinoidal meningiomas is most difficult to dissect from the internal carotid artery?
- A) Tumor arising from the subclinoidal dura
 - B) Tumor arising from superolateral aspect of anterior clinoid process
 - C) Tumor arising from optic canal
 - D) All tumors have similar difficulty

33. One of the following approach is not used for petroclival meningioma:
- A) Anterior transpetrosal
 - B) Combined petrosal
 - C) Far lateral approach
 - D) Retrosigmoid approach
34. All of these positions are used for surgery of vestibular schwannoma EXCEPT:
- A) Supine
 - B) Prone
 - C) Sitting
 - D) Lateral
35. In a surgery, during anterior transpetrosal approach, greater superficial petrosal nerve was damaged. The patient is likely to develop which symptom in the postoperative period:
- A) Dryness of the eye
 - B) Loss of taste
 - C) Loss of strength in muscles of mastication
 - D) Tongue atrophy
36. All of the following statements are true about pituitary adenoma EXCEPT:
- A) Surgical treatment is the treatment of choice in GH-secreting adenoma
 - B) Gamma knife is effective in >95% of functional pituitary tumors
 - C) Endoscopy provides improved illumination, visualisation and helps in looking at corners
 - D) Medical management is the first treatment of choice in prolactinomas
37. Statement not true about clival chordoma:
- A) Arise from remnant of embryonic notochord tissue
 - B) Appear as gelatinous soft multilobulated mass
 - C) CT shows lytic bony destruction
 - D) Show T2 hypointense signal on MRI

38. True about traumatic CSF rhinorrhea:
- A) Most do not need surgical treatment
 - B) Putting a lumbar drain decreases pneumocephalus in these patients
 - C) When associated with facial fractures, facial fractures should not be reduced first
 - D) It cannot result from a fracture in the middle and posterior cranial base
39. The hyperdense MCA sign on CT is due to:
- A) Vasospasm
 - B) Acute thrombus
 - C) Calcification
 - D) Chronic stenosis
40. The Hounsfield Unit (HU) of fat is
- A) +100 to +200
 - B) -700 to -1000
 - C) 0 to 50
 - D) -50 to -120
41. Most effective DBS target for essential tremor:
- A) Globus pallidus internus
 - B) Subthalamic nucleus
 - C) Ventral intermediate nucleus (VIM) of thalamus
 - D) Zona incerta
42. In colloid cysts not visible at the foramen of Monro during surgery, which of the following step should be done:
- A) Division of the anterior septal vein and opening of the choroidal fissure
 - B) Removal of part of the thalamus, making posterior boundary of the foramen of Monro to enlarge it
 - C) Division of the column of fornix enlarging the foramen of Monro anteriorly
 - D) Coagulate the thalamostriate vein to expose the cyst

43. A key contraindication for DBS in Parkinson's disease:
- A) Disease duration > 5 years
 - B) Severe dementia
 - C) Levodopa responsiveness
 - D) Age > 70
44. First-line agent for status epilepticus:
- A) Phenytoin
 - B) Diazepam
 - C) Lorazepam
 - D) Levetiracetam
45. Which thalamic nucleus is most critical for pain perception from the contralateral body?
- A) Ventral anterior
 - B) Ventral lateral
 - C) Ventral posterolateral
 - D) Pulvinar
46. Axis vertebra is considered atypical. Which of the following is not a feature of axis?
- A) Its superior and inferior articular facets are not in same coronal plane
 - B) Odontoid process projects from its superior surface
 - C) C2 spinal nerve exits anterior to superior articular facet
 - D) It has a thick and bifid spinous process
47. Which of the following thoracic vertebrae exhibits the narrowest transverse pedicle diameter?
- A) T1
 - B) T3
 - C) T5
 - D) T12

48. Sagittal diameter of pedicle is highest at:
- A) T1
 - B) T4
 - C) T9
 - D) T12
49. True about the entry point for the thoracic pedicle screw is:
- A) Inferior articular facet defines the entry point
 - B) Medial angulation is about 40 degrees
 - C) Pedicles are attached to the lower half of the vertebral body
 - D) Entry point is in lateral half of the superior facet
50. True about t12 :
- A) Pedicle is straight or slightly divergent
 - B) The transverse process is very large and prominent
 - C) Rib attaches at t12-l1 level
 - D) Inferior articular facet orientation is in the coronal plane
51. Not a feature of dandy-walker syndrome:
- A) Posterior fossa cyst communicating with the fourth ventricle
 - B) Absence of a portion of the inferior vermis
 - C) Anterior rotation and upward displacement of the remaining vermis
 - D) Small posterior fossa with low attachment of torcula
52. Not true about wnt medulloblastoma:
- A) Prognosis is very poor
 - B) Histopathology shows classic morphology
 - C) Nuclear localization of beta-catenin is a hallmark
 - D) Progenitor cells in the lower rhombic lip is the cell of origin
53. Not true about growing skull fractures:
- A) Seen in children less than 3 years
 - B) During surgery -dural defect is smaller than bony defect
 - C) Ipsilateral ventriculomegaly is seen on imaging
 - D) Without treatment, it's a progressive condition

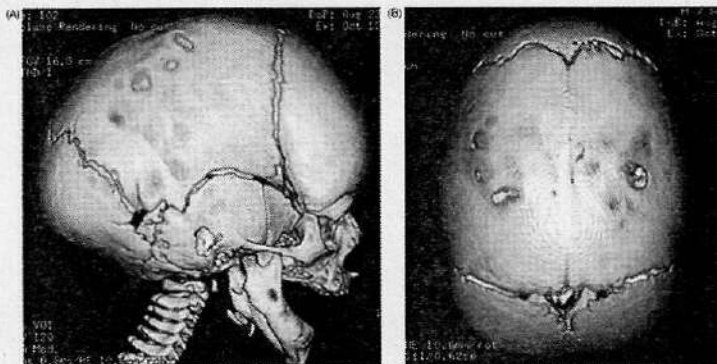
54. True about optic nerve glioma:
- A) Prognosis is poor when seen in patients with NF1
 - B) Fusiform enlargement of the optic nerve is seen
 - C) Calcification is common, unlike meningioma
 - D) Progressive, painful vision loss is seen
55. Not true about achondroplasia:
- A) Cervicomedullary bony compression is seen
 - B) Ventricles are compressed and slit like
 - C) Lumbar canal stenosis is commonly seen
 - D) It's caused by gain of function mutation of FGFR3
56. Which of the following is not a criteria for pseudotumor cerebri?
- A) Papilledema
 - B) Normal neurological examination EXCEPT cranial neuropathies
 - C) CSF showing elevated proteins and pleocytosis
 - D) Normal brain parenchyma on imaging
57. Not true about gadolinium contrast:
- A) Strongly paramagnetic
 - B) Shortens t1 relaxation time
 - C) It doesn't cross the intact blood brain barrier
 - D) Safe in pregnancy as it doesn't cross the placenta
58. Which of the following is not a correct match for the tracer used in PET scan?
- A) Fdopa - Parkinsonian syndromes
 - B) Fdg - evaluation of dementia/tumor detection, staging, response
 - C) Ga-dotanoc - evaluation of glial tumors
 - D) F-naf - bone metastases detection
59. Not true about cerebral vasospasm after subarachnoid hemorrhage(SAH):
- A) Develops 1 day after sah and peaks on day 3
 - B) Triggered by breakdown products of subarachnoid blood
 - C) More common in poor-grade SAH
 - D) Clinical vasospasm is less common than angiographic vasospasm

60. Far lateral disc herniation at L4-5 level will cause which radiculopathy:
- A) L3
 - B) L4
 - C) L5
 - D) S1
61. If conjoined nerve root is encountered during MIS-TLIF:
- A) Abort and try tlif from other side
 - B) Retract and do procedure as strong retraction is also easily tolerated
 - C) Divide nerve
 - D) Divide and repair
62. Not an advantage of TLIF over DLIF is:
- A) Bigger cage can be placed
 - B) Access surgeon not required
 - C) Direct decompression of neural elements can be performed
 - D) Pedicle screws can be placed in same approach
63. During a laminotomy for lumbar disc herniation, which of the following is the most important for identifying the correct spinal level and avoiding wrong-level surgery?
- A) The spinous process of the vertebra.
 - B) The sacral promontory.
 - C) The iliac crest, which corresponds to the L4-L5 interspace.
 - D) Intraoperative fluoroscopy or navigation with a confirmatory skin incision.
64. Hemangioblastoma: molecular and genomic mechanism. The false answer is:
- A) Mutations in IDH 1/2 genes are a common feature in hemangioblastomas.
 - B) It is frequently associated with Von Hippel-Lindau (VHL) disease.
 - C) It is characterised by the overexpression of Vascular Endothelial Growth Factor (VEGF).
 - D) Hemangioblastomas can occur sporadically.

65. Tumor location: cortical tumors. The false answer is:
- A) Pleomorphic xanthoastrocytoma.
 - B) DNET.
 - C) Primary CNS lymphoma.
 - D) Oligodendroglioma.
66. While performing long fusion with osteotomies for a patient with adult scoliosis and sagittal plane deformity, the neurophysiologist reports a change in motor-evoked potentials in the lower extremities. What is the most appropriate next step?
- A) Perform an immediate wake-up test
 - B) Continue with the surgery and reassess in 5 minutes
 - C) Administer intravenous methylprednisolone
 - D) Ensure that mean arterial blood pressure is 80 or higher
67. Not true about C1 lateral mass screw:
- A) Long screw anterior to the anterior cortex may cause hypoglossal palsy
 - B) On intraoperative lateral view x-ray, don't go beyond the posterior margin of C1 anterior tubercle
 - C) Cranial angulation above C1 anterior tubercle on the lateral view increases the risk of O-C1 joint violation
 - D) Mediolateral angulation is 20-degree lateral
68. All are true about posterior approach to spinal accessory-suprascapular nerve neurotization EXCEPT:
- A) The suprascapular nerve is located at a point mid between the superior angle of scapula and the acromion
 - B) Spinal accessory nerve is dissected proximally and suprascapular nerve is dissected distally for neurotization
 - C) Suprascapular vessels are located superficial to suprascapular foramen
 - D) Spinal accessory nerve is located at 40-44% distance from midline on a line joining midline and acromion
69. Not true about dorsal root entry zone (drez) lesioning for neuropathic pain after brachial plexus avulsion:
- A) C5-T1 laminectomy/hemilaminectomy is typically done
 - B) An incision 6mm deep and at 60 degree medial angulation is given in posterolateral sulcus
 - C) Preoperative dermatomes involved, decide the levels that need lesioning
 - D) Line joining the first and last attached dorsal root helps in finding the posterolateral sulcus during surgery in avulsion cases

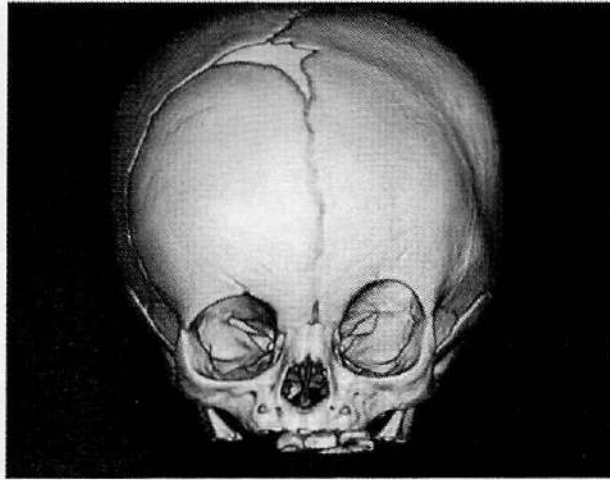
70. Not true about cerebellopontine angle epidermoid:
- A) Follow an exponential pattern of growth
 - B) May present with trigeminal neuralgia
 - C) Tends to engulf rather than displace neurovascular structures
 - D) Endoscopic assistance at the end of surgery helps in achieving maximal removal
71. Characteristic "cock robin" head position is seen in:
- A) Atlanto-occipital dislocation
 - B) Atlanto axial rotatory subluxation
 - C) Anterior atlanto axial dislocation
 - D) Posterior atlanto axial dislocation
72. The choroidal fissure, surgical openings. The false answer is:
- A) Through atrium exposes quadrigeminal and posterior part of ambient cisterns and pineal region.
 - B) Through temporal horn exposes ambient and posterior part of crural cisterns.
 - C) Through the body of lateral ventricle exposes velum interpositum and the roof of the third ventricle.
 - D) Through occipital horn exposes supracerebellar cistern.
73. Not true about choroid plexus papilloma:
- A) They are more common in the pediatric than the adult population.
 - B) Patients present with symptoms of high icp.
 - C) They are most commonly located in the third ventricle.
 - D) Homogenous enhancement on computed tomography (CT) scan

74.



- A) The CI in children with sagittal craniosynostosis generally ranges from 0.6-0.7
- B) The CI in children with sagittal craniosynostosis generally ranges from 0.75-0.85
- C) The CI in children with sagittal craniosynostosis generally ranges from 0.90 -1
- D) Cannot be determined

75. Diagnosis in the following case with CT head (VRT image) is



- A) Plagiocephaly
 - B) Trionocephaly
 - C) Brachycephaly
 - D) Scaphocephaly
76. For posterior approaches to C1-C2, which is false -
- A) Keeping patient prone with Mayfield head rest or tongs & bed in reverse Trendelenberg reduces venous pooling.
 - B) Avoid lateral exposure beyond 3 cm on C1 ring to avoid vertebral artery & cervical ganglion
 - C) Separate posterior atlanto-occipital membrane from bone off superior aspect of C1
 - D) Vertebral artery passes from transverse foramen of atlas immediately behind atlanto-occipital joint & pierces lateral angle of posterior atlanto-occipital membrane.
77. Which is true of thoracolumbar spine fractures?
- A) Burst fractures are the most common.
 - B) Fracture-dislocations involve all three columns.
 - C) Wedge compression fractures are usually associated with serious neurological injury.
 - D) Wedge compression fractures involve the middle column.

78. Which of the following is least likely to cause trigeminal neuralgia?
- A) Petroclival meningioma
 - B) Trigeminal schwannoma
 - C) Lower cranial nerve schwannoma
 - D) CP angle epidermoid
79. Which of the following is not an indication of redo surgery in a patient with recurrent glioma?
- A) Polar recurrence
 - B) Cystic recurrence
 - C) KPS < 70
 - D) WHO Grade 2 glioma
80. Which of the following fractures has the poorest prognosis for healing without surgical intervention?
- A) Hangman's fracture
 - B) Jefferson's fracture with 3 mm overhang of C1 lateral masses
 - C) Type III odontoid fracture
 - D) Type II odontoid fracture
81. The most common etiology of os odontoideum is
- A) congenital
 - B) iatrogenic
 - C) infectious
 - D) traumatic
82. Which of the following molecular subtype of medulloblastoma carries the fairest prognosis?
- A) WNT subgroup
 - B) SHH subgroup
 - C) Group 3
 - D) Group 4

83. Desmoplastic medulloblastoma corresponds to which molecular subtype according to the latest classification?
- A) WNT subgroup
 - B) SHH subgroup
 - C) Group 3
 - D) Group 4
84. A 2-year-old girl is referred to pediatric neurosurgery by her ophthalmologist for a new finding of intracranial mass. An MRI (magnetic resonance imaging) was obtained and a suprasellar intracranial mass lesion was discovered.
- The anatomic and clinical factors that need to be considered when determining optimal operative approach includes
- A) Solid tumor components do not enhance with gadolinium, and cystic components may be hyperintense or hypointense on MR T1 sequences
 - B) About 90% of tumors will demonstrate calcifications on CT imaging in a stippled and usually peripheral location on the mass.
 - C) Endocrinopathies is absent but undiagnosed at the time of clinical presentation
 - D) Displacement of posterior fossa structures is common
85. All are true about cerebellar mutism EXCEPT
- A) Delayed onset of mutism, emotional lability, and dystonia that occurs 12 to 72 hours following resection of a posterior fossa tumor
 - B) Cause of the syndrome is poorly understood
 - C) The outcome of posterior fossa syndrome is variable
 - D) Recovery typically occurs at a mean of 52 weeks
86. For brain death certification as per THOA 1994 act of India, which of the following is not true
- A) Brain death certification needs 2 positive apnea tests minimum 6 hrs apart by 4 examiners
 - B) Brain death certification needs 2 negative apnea tests minimum 6 hrs apart by 4 examiners
 - C) Absence of filling of cerebral vessels on CT angiogram showing absence of filling of bilateral MCA (M3/M4 segments), bilateral ACA (distal segments), bilateral Internal cerebral vein and Great cerebral veins, is an ancillary test
 - D) Brain death certification can be done in a 7 day old neonate also

87. Which of the following contradicts any evaluation for brain death certification?
- A) Presence of Lazarus sign suggests brain stem activity contradicting brain death certification
 - B) Systolic blood pressure of 110 mm Hg on Vasopressors/inotropic support
 - C) Presence of diabetes insipidus with Serum Na 159 meq/dl
 - D) Core Body Temperature of 36 degree Celcius
88. Which of the following is not true about Apnea test for brain death certification?
- A) Patient must be preoxygenated with 100% Oxygen for 10-30 minutes
 - B) Patient must be disconnected from ventilator for 5-10 minutes for conducting apnea test
 - C) Apnea test can also be done with CPAP ventilator mode
 - D) Apnea test can be conducted in presence of high cervical spinal cord injury
89. Which of the following is not true about pupillometry?
- A) It is a noninvasive tool to assess cognitive functions of the brain
 - B) It is a non invasive tool to assess changes in pupil size with light
 - C) It is a non invasive tool to measure intracranial pressure
 - D) It can be done with closed eyes with automated pupillometers using infrared technology
90. Which of the following is not true about cerebral microdialysis?
- A) It is a technique of biomechanical monitoring of brain using principle of diffusion
 - B) With this technique one can monitor for ischemia and mitochondrial dysfunction inside brain bedside continuously
 - C) It requires insertion of a catheter inside brain parenchyma
 - D) It is done non invasively for biochemical monitoring of metabolites similar to Magnetic resonance spectroscopy technique for brain imaging of metabolites
91. Pfeiffer's syndrome is associated with all of the below EXCEPT
- A) Cloverleaf skull
 - B) Brachydactyly
 - C) FGFR3 and FGFR4 mutation
 - D) Syndactyly of feet

92. Untrue of Crouzon syndrome
- A) Midface retrusion
 - B) Autosomal Recessive inheritance
 - C) Sutural fusion may not be very early in -utero and most marked at birth in all cases.
 - D) Exophthalmos
93. In a 3 month old child presenting with leaking meningocele and episodes of choking, one should think of associated
- A) Chiari I malformation anomaly
 - B) Chiari II malformation anomaly
 - C) Chiari III malformation anomaly
 - D) Chiari 0 malformation
94. Axial rotation movement is seen maximum at which of the following joint
- A) Occipitoatlantal joint
 - B) Atlantoaxial joint
 - C) C2-C3 joint
 - D) Subaxial spine
95. Change staging system is used for staging of
- A) Pilocytic astrocytoma
 - B) Glioblastoma multiforme
 - C) Medulloblastoma
 - D) PNET tumors
96. Not seen in Yolk sac tumors of pineal region
- A) CSF marker positivity for Placental alkaline phosphatase (PAL)
 - B) Tumor marker Keratin positivity
 - C) Beta HCG positivity
 - D) Serum positivity for alpha fetoprotein

97. Nasoethmoidal encephaloceles is a subtype of
- A) Anterior encephalocele
 - B) Supratorcular encephalocele
 - C) Infratorcular encephalocele
 - D) Parietal encephalocele
98. Which of the following is not seen in pre ganglionic brachial plexus injuries?
- A) Normal SNAP
 - B) Normal CMAP
 - C) Horner's syndrome
 - D) Pseudomeningocele on MR neurography
99. Which of the following is not true about nerve injuries?
- A) Rate of recovery in complete Axonotmesis is 1 inch per month
 - B) Rate of recovery in partial axonotmesis is 1 inch per month
 - C) Rate of recovery in neuroma in continuity is 1 inch per month
 - D) Neuropraxia recovery takes approximately 12 weeks
100. Which of the following is not true of brachial plexus neurotizations?
- A) Oberlins transfers involve nerve transfer between Ulnar nerve to Musculocutaneous nerve branch
 - B) Somsak transfers involve nerve transfers between Radial nerve branch to Ulnar nerve
 - C) Oberlins transfers involve nerve transfer between median nerve to musculocutaneous nerve branch
 - D) Intecostal nerve transfers are contraindicated in presence of simultaneous phrenic nerve transfers

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Booklet Serial No. **350029**

Test Booklet Series

TEST BOOKLET
ASSISTANT PROFESSOR - UROLOGY
SKIMS

A

Written Test - 2026

(52)

Time Allowed: Two Hours

Maximum Marks: 100

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(52)(A) /2026

[P.T.O.]

1. A 20-year-old man is undergoing retroperitoneal dissection for a testicular germ cell tumor. The inferior mesenteric artery is divided during reflection of the intestines to expose the retroperitoneum. This can be expected to result in:
 - A) Ischemia of the descending colon.
 - B) Ischemia of the sigmoid colon.
 - C) Ischemia of the transverse colon.
 - D) None of the above.

2. On a CT scan, a male patient is found to have enlarged lymph nodes along the abdominal aorta between the left renal hilum and the inferior mesenteric artery. Sites of malignancy that would commonly drain directly to these lymph nodes would NOT include the:
 - A) Bladder.
 - B) Left kidney.
 - C) Left testis.
 - D) Left renal pelvis.

3. As one proceeds outward from the adrenal medulla, the three separate functional layers of the adrenal cortex are, in correct order:
 - A) Zona reticularis, zona fasciculata, and zona glomerulosa.
 - B) Zona fasciculata, zona reticularis, and zona glomerulosa.
 - C) Zona glomerulosa, zona fasciculata, and zona reticularis.
 - D) Zona glomerulosa, zona reticularis, and zona fasciculata.

4. After blunt trauma to the right kidney, with a major laceration to the renal parenchyma and ongoing hemorrhage, the expanding hematoma contained within Gerota fascia will tend to extend:
 - A) Across the midline into Gerota fascia surrounding the left (contralateral) kidney.
 - B) Downward into the pelvis.
 - C) Anterolaterally, between the peritoneum and transversalis fascia.
 - D) Anterolaterally, deep to the transversalis fascia.

5. The sequential branches of the renal artery are, in order, the:
 - A) Segmental, interlobar, arcuate, interlobular, and afferent arteriole.
 - B) Segmental, interlobular, arcuate, interlobar, and afferent arteriole.
 - C) Segmental, subsegmental, interlobar, interlobular, arcuate, and afferent arteriole.
 - D) Segmental, arcuate, interlobar, interlobular, and afferent arteriole.

6. The most common renal vascular anomaly is a:
- A) Supernumerary left renal artery.
 - B) Supernumerary right renal artery.
 - C) Supernumerary left renal vein coursing anterior to the aorta.
 - D) Supernumerary left renal vein coursing posterior to the aorta.
7. In cases of unilateral renal agenesis, the ipsilateral adrenal gland is commonly:
- A) Absent.
 - B) found in its normal anatomic position in the upper retroperitoneum.
 - C) found in association with the contralateral adrenal gland.
 - D) found in an ectopic, intrathoracic location.
8. Which of the following would be considered diagnostic for renal angiomyolipoma?
- A) Hyperechoic pattern on ultrasonography.
 - B) Enhancement of more than 30 Hounsfield Units (HU) on CT.
 - C) Small area of less than -20 HU on nonenhanced CT.
 - D) Aneurysmal changes on renal arteriogram.
9. A 24-year-old man presents with a solid, painless, right intratesticular mass confirmed by scrotal ultrasonography. His left testis is normal. Serum tumor markers show a human chorionic gonadotropin (hCG) value of 96 mU/mL (upper limit: <5 mU/mL) and an α -fetoprotein (AFP) value of 58 ng/mL (upper limit: <11 ng/mL). The most likely histologic finding in the right testis is:
- A) Pure teratoma.
 - B) Pure seminoma.
 - C) Pure embryonal carcinoma.
 - D) Choriocarcinoma.
10. A 52-year-old woman with a remote history of Carcinoma In Situ (CIS) for which she received Bacille Calmette-Guérin (BCG) treatment has a new T1G3 tumor completely resected. There is scant un-involved muscularis propria in the transurethral resection of the bladder tumor (TURBT) specimen. The next step is:
- A) Reinduce with BCG plus maintenance BCG.
 - B) Administer intravesical Gem+Doce treatment.
 - C) Have the patient receive intravesical chemotherapy with valrubicin or gemcitabine.
 - D) Re-resect with muscularis propria in the specimen.

11. Which of the following immunohistochemistry profiles in bladder cancer is associated with the most aggressive tendencies?
- A) High p53 and Rb staining, low Ki67 and E-cadherin.
 - B) High p53 and Ki67 staining, absent Rb and E-cadherin.
 - C) High Rb and E-cadherin, low p53 and Ki67.
 - D) High Ki67 and Rb, low p53 and E-cadherin.
12. The sirolimus analogues temsirolimus and everolimus act primarily on which of the following pathways?
- A) Vascular Endothelial Growth Factor (VEGF).
 - B) Platelet-Derived Growth Factor (PDGF)
 - C) Raf-1.
 - D) Mechanistic Target of Rapamycin (m-TOR).
13. A 27-year-old man evaluated for infertility has a normal sperm count and motility but sperm morphology reveals only round-headed sperm. Testis volume is normal bilaterally, serum FSH is within normal limits, and he has a moderate-sized left varicocele. His wife is 25-years-old and has a normal evaluation. The next step is:
- A) Varicocele repair.
 - B) Intrauterine insemination.
 - C) In vitro fertilization.
 - D) ICSI.
14. A 62-year-old healthy woman with metastatic urothelial carcinoma receives gemcitabine/cisplatin chemotherapy with disease stabilization. Six months later, she has disease progression. Her creatinine is 1.8 mg/dL. The next step is:
- A) Observation.
 - B) Gemcitabine/carboplatinum.
 - C) Dose-dense M-VAC Chemotherapy.
 - D) Pembrolizumab/nivolumab immunotherapy.
15. A 3 year old male child having recurrent Urinary tract infection, on evaluation is diagnosed with bladder diverticula. Following syndromes are associated with bladder diverticulum except :
- A) William syndrome.
 - B) Menkes syndrome.
 - C) Klinefelter syndrome.
 - D) Prune belly syndrome.

16. A 28-year-old infertile man has a semen volume of 2 ml, sperm density of 5 million/ml, and decreased sperm motility. Physical examination demonstrates a grade 3 left varicocele and grade 2 right varicocele. His partner's evaluation is normal. The next step is:
- A) Transrectal ultrasonography.
 - B) Intrauterine insemination
 - C) Left varicocelectomy.
 - D) Bilateral varicocelectomy
17. 42 year old patient with lower urinary tract symptoms diagnosed with Chronic Pelvic Pain Syndrome (CPPS), Which of the following is false about CPPS?
- A) CPPS includes a homogenous group of patients.
 - B) Phenotypic classification is also called snowflake hypothesis.
 - C) UPOINT is abbreviation used for the six clinical domains of this classification.
 - D) 'P' stands for urodynamically measured pressure.
18. A 36-year-old man has a 4-month history of dull perineal and suprapubic discomfort, postejaculatory pain, and moderate obstructive voiding symptoms. A pre-prostatic massage urine sample was sterile, and microscopic evaluation of the sediment showed 2 WBCs/high-powered field (hpf). No EPS was obtained during an uncomfortable digital rectal examination. A post-prostatic massage urine sample grew 100 Staphylococcus epidermidis organisms per milliliter, and microscopy of the sediment showed 10 to 12 WBCs/hpf. What is the NIH chronic prostatitis classification?
- A) Category I.
 - B) Category II.
 - C) Category IIIA.
 - D) Category IIIB.
19. A 42-year-old man was treated for cystitis but continued to have dysuria, ejaculatory pain, and perineal/testicular discomfort after 7 days of antibiotics. The prostate examination was unremarkable. A midstream urine sample was sterile, but culture of a drop of EPS produced moderate growth of Enterococcus faecalis. A post-prostatic massage urine sample grew 100 E. faecalis organisms, and microscopic examination of the sediment showed 12 WBCs/hpf. What is the NIH classification?
- A) Category IV.
 - B) Category II.
 - C) Category IIIA.
 - D) Category IIIB.
20. What is the most common cause of cloudy urine?
- A) Bacterial cystitis.
 - B) Significant proteinuria.
 - C) Phosphaturia.
 - D) Alkaline urine.

21. The MRI signal intensity seen for various parts of the prostate on T2-weighted images are best described as:

Peripheral Zone	Central Zone	Seminal Vesicles
A) High	Intermediate	High
B) Intermediate	High	High
C) High	Intermediate	Intermediate
D) High	High	Intermediate

22. During staging pelvic lymphadenectomy for prostatic carcinoma, a delicate nerve, anterior and lateral to the right external iliac artery and lying along the anterior surface of the psoas muscle, is inadvertently severed. The expected ipsilateral neurological deficit is:
- A) Inability to adduct the thigh.
 - B) Inability to abduct the thigh.
 - C) Inability to flex the thigh.
 - D) Anesthesia of the anterior thigh and lateral scrotum.
23. A 56-year-old man with a palpable nodule on DRE and a PSA of 15.2 ng/ml has Gleason 8 prostate cancer. The administration of six months of neoadjuvant hormone ablation therapy prior to radical retropubic prostatectomy has been shown to result in:
- A) Prolonged biochemical-free survival.
 - B) Prolonged overall survival.
 - C) Decreased local recurrence.
 - D) Decreased positive margins.
24. A 64-year-old man with clinical T1c Gleason 6 prostate cancer and PSA of 5.0 ng/ml desires active surveillance. He has a microscopic focus of cancer in one of 12 biopsy cores. His prostate gland size is estimated to be 50 ml. The next step is:
- A) Repeat biopsy only for rising PSA.
 - B) Repeat biopsy within one year.
 - C) Antibiotics, repeat PSA.
 - D) Treat prostate cancer.
25. Mortality of patients of CKD with ESRD is high even when they are on regular maintenance dialysis support. What is the most common comorbid medical condition associated with patients with CKD?
- A) Diabetes mellitus.
 - B) Cardiovascular disease.
 - C) Hypertension.
 - D) Urinary tract infection.

26. With the availability of effective and safer immunosuppressive agents and refinement in techniques of organ preservation and transplantation, the scope of renal transplantation has widened. Which of the following is an absolute contraindication to Kidney transplantation?
- A) Human immunodeficiency virus infection.
 - B) H/o radical nephrectomy for RCC 10 years earlier.
 - C) Ongoing chemotherapy for metastatic cancer.
 - D) Recent coronary artery stent placement.
27. A live related renal transplant recipient, six months following transplant operation presented with gradual rise in serum creatinine from 1.2 mg/dl to 2.6 mg/dl within a period of seven weeks. He has no fever and has been following advised immunosuppression medications regularly. An USG showed the graft kidney hydronephrotic with dilated renal pelvis. No perinephric or pelvic collection was noted. What is the most likely diagnosis?
- A) Chronic allograft rejection.
 - B) Ureteral stricture.
 - C) Pelvic lymphocele.
 - D) Recurrent glomerulonephritis.
28. The retroperitoneum can be entered through dorsal lumbotomy incision for exposure of renal pelvis and upper ureter. This approach uses a vertical incision on the back, lateral to the erector spinae muscle. In this approach which important tissue layer/ muscle need to be incised for entering the retroperitoneum ?
- A) Quadratus lumborum.
 - B) Latissimus dorsi.
 - C) Lumbodorsal fascia.
 - D) Fascia transversalis.
29. Perioperative chemotherapy versus Surveillance in Upper Tract Urothelial Cancer (POUT trial) evaluated what?
- A) Role of neo-adjuvant chemotherapy in high risk UTUC.
 - B) Role of adjuvant chemotherapy in high risk UTUC.
 - C) Role of Gemcitabine in metastatic UTUC.
 - D) Role of Gemcitabine and Cis-platinum in metastatic UTUC.
30. Which of the following agents is not suitable for topical instillation chemotherapy for prevention of recurrence of UTUC?
- A) Cisplatin.
 - B) BCG.
 - C) Gemcitabine.
 - D) Mitomycin.

31. The retroperitoneum is a potential space posterior to posterior parietal peritoneum. This space is important to urologist. What is the cranial boundary of retroperitoneum?
- A) The diaphragm.
 - B) The crura of the diaphragm.
 - C) Quadratus lumborum.
 - D) 12th rib and 11th ribs.
32. Non-Muscle Invasive Bladder Cancer (NMIBC) can be of several types. What is the predominant variety of NMIBC?
- A) PUNLMP.
 - B) Low grade.
 - C) High grade.
 - D) Carcinoma In Situ (CIS).
33. Urothelial Cancers (UC), in many cases, are directly linked to environmental factors. Which of the following lifestyle modifications is not a preventive strategy for UC?
- A) Cessation of smoking.
 - B) Low fat diet.
 - C) Increased hydration.
 - D) Use of Multivitamins.
34. Indian Journal of Urology is the official publication of the Urological Society of India. Which year the Indian Journal of Urology was established?
- A) 1944.
 - B) 1964.
 - C) 1984.
 - D) 2004.
35. Which group of individuals are more commonly affected by sexually transmitted diseases?
- A) <15 years.
 - B) 15 - 24 years.
 - C) 40-50 years.
 - D) >50 years.
36. Chlamydia trachomatis is a common agent causing NGU in younger men. Which of the following is a reliable specimen for detection of C. trachomatis infection?
- A) Urethral swab.
 - B) Clean catch first-void stream urine.
 - C) Clean catch mid-stream urine.
 - D) Blood sample from the patient.

37. Nitrofurantoin is an effective agent for suppressive prophylaxis against UTI. What is the basis for this?
- A) It is rapidly excreted in the urine.
 - B) Minimum systemic side effect.
 - C) Minimal effect on resident bowel and vaginal flora.
 - D) Development of resistance against it is rare.
38. Asymptomatic bacteriuria in pregnant women should be adequately treated as there is high incidence of development of acute pyelonephritis. When does such acute pyelonephritis most often develop during pregnancy?
- A) Second trimester.
 - B) Third trimester.
 - C) During early post-natal period.
 - D) Anytime during pregnancy.
39. Following live related kidney transplantation, a 45-years man was well for two years. His serum creatinine is stable between 1.0 -1.2 mg/dl. An USG suggested slight fullness of PCS of graft kidney and on MCU grade II reflux is documented. A DTPA renal scan showed good isotope uptake, concentration and free drainage into the bladder. He denied any LUTS and has a normal uroflowmetry with PVR of 30 ml. What would you advise the family about the VUR?
- A) Suppressive antibiotic prophylaxis for six months.
 - B) Endoscopic submucosal injection of macroplastic.
 - C) Revision of Ureteroneocystostomy.
 - D) Reassurance and regular follow up.
40. Four months following renal transplant operation a 50-years-old gentleman developed right sided pedal oedema. Evaluation revealed a lymphocele of 8.0 × 5.0 cm size, medial to the external iliac vessel on the right side. His Hb, serum creatinine, blood sugar and urinalysis are normal. What is the best initial treatment for this gentleman?
- A) Observation and follow up.
 - B) USG guided aspiration and sclerotherapy.
 - C) USG guided aspiration and stent placement.
 - D) Laparoscopic decortication and peritoneal window creation.
41. Micropapillary variant is an aggressive form of urothelial tumour of urinary bladder. What amount of micropapillary urothelial carcinoma element should be present in the histopathological tissue examined for it to be defined as micropapillary and clinically managed as such?
- A) Any amount.
 - B) >5% of tissue examined.
 - C) At least 10% of tissue examined.
 - D) At least 20% of tissue examined.

42. Tobacco exposure contributes to the development of upper Urinary Tract Urothelial Carcinoma (UTUC). Routine Tobacco exposure increases the relative risk for UTUC by how many folds?
- A) 2 times.
 - B) 2 to 10 times.
 - C) 10 to 20 times.
 - D) >20 times.
43. Urothelial carcinomas are known to occur anywhere along the length of ureter. The common site of ureteral tumour is:
- A) Upper ureter.
 - B) Mid ureter.
 - C) Lower ureter.
 - D) Any part of ureter.
44. Bosniak classification system is commonly used method to characterize renal cysts and their risk of malignancy. This classification is based on what imaging?
- A) Abdominal USG.
 - B) Contrast enhanced USG.
 - C) Non-contrast and contrast enhanced CT scan.
 - D) MR Imaging with use of contrast enhancement.
45. In the preoperative preparation of Pheochromocytoma when should be beta adrenergic blockers be started?
- A) Along with alpha blocker.
 - B) One week prior to initiation of alpha blocker.
 - C) To control the tachycardia and caused by alpha blocker.
 - D) It should never be used.
46. Myelolipoma of adrenal gland are mostly benign tumour. Beside adipose tissue what is the other major tissue component is seen on histology?
- A) Smooth muscles.
 - B) Haematopoietic tissue.
 - C) Nerve tissue.
 - D) Connective tissue.
47. Both glucocorticoids and mineralocorticoids are easily available for steroid supplementation. Which of the following reason justify partial adrenalectomy for bilateral adrenal tumour?
- A) Increased chance of local recurrence.
 - B) Poor quality of life with continuous steroid supplementation.
 - C) Following total adrenalectomy patients need care in ICU.
 - D) Bilateral adrenalectomy is complicated operation.

48. Following TURP, a 67 years man was voiding very satisfactorily. Three months later he returned with symptoms of poor urinary flow and prolonged urination time. Clinically EUM, urethral palpation, DRE and urine c/s were normal. What may the most likely diagnosis?
- A) Underactive detrusor.
 - B) Sub meatal urethral stricture.
 - C) Regrowth of prostatic adenoma.
 - D) Bladder neck contracture.
49. Ejaculatory dysfunctions are among the commonly reported adverse event by patients who are on alpha adrenergic blockers for management of LUTS due to BPH. Such adverse event is more frequently seen with which of the following?
- A) Tamsulosin.
 - B) Alfuzosin.
 - C) Silodosin.
 - D) Prazosin.
50. Phosphodiesterase-5 inhibitor (Tadalafil) have been approved for management of men with LUTS caused by BPH. Which of these parameters is documented to improve with PDE5 inhibitor treatment?
- A) Episodes of AUR.
 - B) Preservation of kidney function.
 - C) Post void residual urine.
 - D) IPSS.
51. Multiple agents have been used for pharmacotherapy of symptomatic patients with detrusor underactivity DUA. Which of these agents is not useful for managing men with DUA?
- A) Muscarinic receptor agonists.
 - B) Beta adrenergic agonists.
 - C) Alpha adrenergic blockers.
 - D) Phosphodiesterase-5 inhibitors.
52. A 8 year old boy with a duplicated collecting system is found to have an ectopic ureter. Among the following ,where will the terminal portion of the ectopic ureter most likely be found ?
- A) Posterior urethra.
 - B) Seminal vesicle.
 - C) Orthotopic location.
 - D) Perineum.

53. In a 15-year old boy with a complete ureteral duplication with a normal upper pole moiety and a refluxing lower pole moiety undergoing ureteral reimplantation, which of the following is true regarding reimplantation?
- A) Ureters to be reimplanted together.
 - B) Ureters to be reimplanted atleast 2 cm distance from each other.
 - C) Reimplantation is necessary only for refluxing lower pole moiety ureter.
 - D) Lower pole moiety nephrectomy is the treatment of choice.
54. A 10-year old boy is diagnosed to have horseshoe kidney in pelvic location, When does the kidney reach its adult location?
- A) 12th week of gestation.
 - B) 1 year after birth.
 - C) 28th week of gestation.
 - D) At birth.
55. A 43 year old woman wishes to donate a kidney to her husband who. She is ABO blood type A, and he is ABO blood type O. All are possible solutions to this problem EXCEPT:
- A) Plasmapheresis.
 - B) Immunoabsorption.
 - C) Immunoglobulin administration.
 - D) Anti-cd 37 antibody administration.
56. A 38 year old deceased donor kidney transplant recipient has a serum creatinine of 1.8 mg/dL. A large, asymptomatic perigraft fluid collection is aspirated, and the creatinine level is 2.0 mg/dL. What is the most likely diagnosis ?
- A) Urinoma.
 - B) Lymphocele.
 - C) Perinephric abscess.
 - D) Hematoma.
57. 45 year old kidney transplant recipient male patient has low threshold for tacrolimus toxicity and cost concern also. Which of the following two drugs have been used to reduce calcineurin inhibitor dosing and cost while maintaining blood levels and immunosuppressive effect?
- A) Diltiazem and ketoconazole.
 - B) Prednisone and azathioprine.
 - C) Basiliximab and daclizumab.
 - D) Mycophenolate mofetil and azathioprine.

58. 39 year old patient underwent live related kidney transplantation. Post transplant he was on immunosuppressants and on follow up he developed hemorrhagic cystitis. In an immunosuppressed patient which of the following viruses has been most commonly associated with this?
- A) Cytomegalovirus.
 - B) Adenovirus.
 - C) Herpes simplex virus type 1.
 - D) Herpes simplex virus type 2.
59. A 62 year-old man was diagnosed to have carcinoma prostate and underwent radical prostatectomy. By using the Kattan postoperative nomogram, which of the following contributes most to the risk of biochemical recurrence after radical prostatectomy?
- A) Positive surgical margin.
 - B) Pretreatment serum PSA of 17 ng/mL.
 - C) Established capsular penetration.
 - D) Seminal vesicle invasion.
60. A 3 year old child was having left flank pain and hydronephrosis with narrowing at pelviureteric junction on ultrasound abdomen, he was further evaluated with DTPA renogram. According to the Society for Fetal Urology and the Pediatric Nuclear Medicine Council what is not true regarding "Well-Tempered Renogram"?
- A) Small field of view gamma camera is used for pediatric studies.
 - B) If the child is younger than 4 months, MAG-3 should be the radioisotope used for the study.
 - C) Hydration is a part of the study for this protocol.
 - D) The child's bladder need not be catheterized.
61. 18-year-old female with ESRD underwent related kidney transplant from her mother. In postoperative period her creatinine was started rising, after evaluation she was diagnosed as acute cellular rejection. All of the following are true for this rejection except?
- A) The frequency of acute cellular rejection is 20% to 25%.
 - B) It occurs most frequently 1 to 3 months post-transplant.
 - C) This has good prognosis.
 - D) For diagnosis renal biopsy is not required in all cases.

62. A 36 year old male patient received a renal transplant 10 days ago. The postoperative course was complicated by wound drainage and a urine leak was diagnosed. He is taken to the operating room to repair the leak and upon exposing the ureterovesical anastomosis site, the distal one-third of the ureter is found to be ischemic. What is the best management option for him?
- A) Pyelovesicostomy.
 - B) Pyeloureterostomy to the patients ipsilateral native ureter.
 - C) Ureteric reimplantation.
 - D) Transuretero-ureterostomy.
63. A 45-year-old farmer presents for a kidney transplant. He has end-stage renal disease secondary to diabetes. During your evaluation you discover that he was recently treated for a squamous cell carcinoma on the back of his neck, which was completely excised. No nodal disease is present on examination. Assuming the rest of his evaluation is normal, true regarding his eligibility for transplant?
- A) He is not a candidate for transplant.
 - B) Transplant can be performed after 2 years for him.
 - C) Nonmelanotic skin lesions are not a contraindication to transplantation.
 - D) Transplantation can be done after 1 year in Non skin malignancy.
64. A 11-year-old girl underwent a deceased donor renal transplant. She received antithymocyte globulin induction therapy and then was started on prednisolone and azathioprine. Her postoperative course was unremarkable and her creatinine decreased to 2.7 mg/dl on day 3 after surgery. What are the next steps for this girl?
- A) No need to add calcineurin inhibitor.
 - B) For her tacrolimus is better choice between cyclosporine and tacrolimus.
 - C) Both cyclosporine and tacrolimus are equivalent for her.
 - D) All of above are true.
65. A 6-year-old boy has end-stage renal disease secondary to chronic obstruction from recurrent renal calculi. A metabolic work up for his stones reveals high serum and urinary oxalate levels consistent with type 1 primary hyperoxaluria. He has no evidence for urinary tract infection. What is not true recommendation regarding his candidacy for a renal transplant?
- A) Renal transplantation alone can be performed.
 - B) It has deleterious effect via oxalate deposition in the graft.
 - C) Combined kidney and liver transplant is recommended.
 - D) It needs Intensive hemodialysis and postoperative diuresis.

66. A 69-year-old diabetic man with peripheral neuropathy has LUTS and urgency urinary incontinence despite treatment with tamsulosin. He has a 25 gm benign prostate. CMG shows a bladder capacity of 850 mL and terminal detrusor overactivity. On pressure-flow study, maximum flow rate is 8 mL/sec, voiding pressure is 88 cm H₂O, and PVR is 380 mL. Cystourethroscopy reveals mild trilobar prostatic enlargement. The best treatment is:
- A) CIC.
 - B) CIC and oxybutynin.
 - C) sacral neuromodulation.
 - D) TURP.
67. A 55 year old man has lower urinary tract symptoms with raised PSA. During performance of a TRUS of the prostate for biopsy, decreasing the transducer frequency from 7.5 to 4.5 MHz would:
- A) Decrease resolution and increase depth of penetration.
 - B) Increase resolution and decrease depth of penetration.
 - C) Decrease resolution and decrease depth of penetration.
 - D) Increase resolution and increase depth of penetration.
68. Six days after an uneventful transurethral resection of prostate, a 75-year-old man with metastatic prostate cancer is confused. He is afebrile and vital signs are normal. Serum Na is 119 mEq/L, K 4.0 mEq/L, Cl 85 mEq/L, and HCO₃ is 30 mEq/L. Serum osmolality is 240 mOsm/L, and urine osmolality is 600 mOsm/L. Urinary Na is 30 mEq/L. The next step is:
- A) I.V.NS.
 - B) I.V. 3% saline.
 - C) Steroid and mineralocorticoid replacement.
 - D) Fluid restriction and add salt intake.
69. A 63 year old gentleman has been planned for brachytherapy for a locally advanced prostate cancer. For dosimetry planning for brachytherapy, the most accurate method to estimate prostate volume by ultrasound is based on:
- A) Planimetry.
 - B) A sphere.
 - C) An ellipse.
 - D) A prolate sphere.

70. A 63-year old man with castration-resistant metastatic prostate cancer receives oral abiraterone acetate and prednisone. The toxicity most likely to require dose reduction or discontinuation abiraterone is:
- A) hypertension.
 - B) fluid retention.
 - C) hypokalemia.
 - D) hepatotoxicity.
71. A 57-year old with lower urinary tract symptoms, underwent TRUS guided biopsy because of hard prostate on DRE. Biopsy report suggestive of prostatic ductal adenocarcinoma. Compared to typical prostate adenocarcinoma, prostatic ductal adenocarcinoma often exhibits:
- A) less aggressiveness and lower PSA.
 - B) abnormal DRE and higher PSA.
 - C) more aggressiveness and more frequent obstructive symptoms.
 - D) should be treated with neoadjuvant systemic chemotherapy.
72. A 66-year-old man has bothersome lower urinary tract symptoms started combined medical treatment for benign enlargement of prostate. The effect of finasteride on serum and intraprostatic testosterone is:
- A) Serum Testosterone: <UP>; Intraprostatic Testosterone: <UP>.
 - B) Serum Testosterone: <SAME>; Intraprostatic Testosterone: <SAME>.
 - C) Serum Testosterone: <DOWN>; Intraprostatic Testosterone: <DOWN>.
 - D) Serum Testosterone: <UP>; Intraprostatic Testosterone: <DOWN>.
73. A 58-year-old man has a transrectal ultrasound guided biopsy of the prostate which reveals small cell carcinoma. Metastatic workup is negative. The next step is:
- A) Radical prostatectomy.
 - B) LH-RH agonist.
 - C) Chemotherapy.
 - D) External Beam Radiation Therapy (EBRT).
74. A four-year-old boy lost one-half of his scrotal skin after a dog attack two hours ago. His testicles, penis, and urethra are spared. Best management includes antibiotics, debridement, and:
- A) Split-thickness skin graft.
 - B) Full-thickness skin graft.
 - C) Placement of testicles in the thigh.
 - D) Scrotal closure with drainage.

75. A 53-year-old man takes selenium and Vitamin E. He should be informed that his risk of:
- A) High-grade PIN will decrease.
 - B) Prostate cancer will decrease.
 - C) Non-genitourinary cancers are increased.
 - D) Prostate cancer is unchanged.
76. The site of origin associated with the worst prognosis in pediatric rhabdomyosarcoma is:
- A) Uterus.
 - B) Prostate.
 - C) Vagina.
 - D) Bladder.
77. A 68-year-old man with a 45 gram benign prostate has frequency, urgency, and urge incontinence six months after TUMT. His AUA Symptom Score is 20 with a high degree of bother while taking an alpha-blocker. PVR is 175 cc. Pressure flow study shows detrusor overactivity with incontinence, a voiding pressure of 55 cm H₂O and a flow rate of 7 ml/sec. The best treatment is:
- A) CIC.
 - B) TURP.
 - C) Antimuscarinic and 5-alpha-reductase inhibitor.
 - D) Repeat tumt.
78. A 61-year-old asymptomatic man with a serum PSA of 5.0 ng/ml has a normal DRE. TRUS is normal and prostate biopsy reveals Gleason 3+3 adenocarcinoma in two biopsy cores from the left base and two biopsy cores from the right apex. The remaining biopsies show benign prostate tissue. According to the 2010 AJCC TNM classification, the clinical T stage is:
- A) cT1b.
 - B) cT1c.
 - C) cT2a.
 - D) cT2b.
79. In 55-year old patient, on prostate ultrasound, calcifications within the prostate known as corpora amylacea can be visualized between which zones:
- A) Transitional and anterior.
 - B) Central and peripheral.
 - C) Transitional and peripheral.
 - D) Central and transitional.

80. A 63-year old man with castrate-resistant prostate cancer and bone metastases is on leuprolide acetate injections and intravenous zoledronic acid injections. Zoledronic acid injections must be stopped if the patient develops:
- A) Fever.
 - B) Severe osteoporosis.
 - C) A tooth abscess.
 - D) A pathologic fracture.
81. 66-year old man planned for nerve sparing radical prostatectomy. The neurovascular bundles on the prostate travel between the following two layers of fascia:
- A) Levator and prostatic.
 - B) Denonvilliers' and levator.
 - C) Denonvilliers' and prostatic.
 - D) Lateral pelvic and prostatic.
82. A 12-year old child with left pelviureteric junction obstruction planned for robot assisted laparoscopic pyeloplasty. Which of the following statements appropriately reflects the impact of the pneumoperitoneum on the immune response?
- A) Polymorphonuclear cells and macrophages, as well as levels of interleukin-6 (IL-6), are increased locally due to the effect of pneumoperitoneum across the entire abdominal wall, as compared with open surgery.
 - B) Pediatric patients have a greater degree of benefit toward a blunted immune response following laparoscopy as compared with adult patients.
 - C) Peritoneal signs following laparoscopy are heightened as compared with open surgery, likely owing to the local acidotic environment following CO₂ insufflation.
 - D) Systemic C-Reactive Protein (CRP) and IL-6 levels are decreased following laparoscopy as compared with open surgery.
83. An 8-year-old girl presents with 6-month history of recurrent UTIs, daytime urinary incontinence, urgency, dysuria, and enuresis. Mother states that her daughter will have wet clothes 3 to 4 times per week. Mother states that she will often "wait until the last minute" to void. There are no febrile UTIs, and urine cultures from her pediatrician's office reveal multiple organisms on 2 separate occasions in the last 3 months. A renal/bladder ultrasound demonstrates normal upper urinary tracts. The best next step for her is:
- A) Anticholinergics.
 - B) Moisture alarm.
 - C) Alpha blockers.
 - D) Biofeedback.

84. Weiss criteria is being widely used for differentiating benign from malignant adrenal tumors. Which of the following is not included in Weiss criteria?
- A) High nuclear grade.
 - B) High mitotic rate.
 - C) Diffuse architecture of tumor cells.
 - D) Absence of perineural invasion.
85. A 48-year-old lady is diagnosed to have vault prolapse following hysterectomy. She has been planned for robotic sacrocolpopexy, the structure most likely to be injured during this surgery is the:
- A) Left common iliac vein.
 - B) Right common iliac artery.
 - C) Ureter.
 - D) Internal Iliac artery.
86. A 45-year-old lady is having left renal mass of size 3 cm at upper pole with RENAL score of 7a. She has been planned for Robot assisted laparoscopic partial nephrectomy. Absolute contraindications to laparoscopic surgery include all of the following EXCEPT:
- A) Uncorrectable coagulopathy.
 - B) Hemodynamic instability.
 - C) Extensive prior abdominal or pelvic surgery.
 - D) Suspected malignant ascites.
87. A 38-year-old lady developed Vesico-Vaginal Fistula (VVF) after hysterectomy 3 years back. She has been planned for robot-assisted laparoscopic VVF repair. Which of the following statements regarding pneumoperitoneum insufflation is TRUE?
- A) CO₂ as an insufflant can be dangerous because it can support combustion.
 - B) CO₂ is most commonly used because it is insoluble in the blood.
 - C) In patients with chronic respiratory disease, CO₂ is advantageous because it does not accumulate in the bloodstream.
 - D) Nitrous oxide has previously been used for insufflation; however, it is no longer routinely used because of the potential for intra-abdominal explosion.
88. A 56-year-old lady is undergoing robot assisted left uretero-ureterostomy for tubercular stricture. Which of the following is a common physiologic effect that has been observed after the establishment of pneumoperitoneum?
- A) Increase in diaphragmatic motion.
 - B) Increase in disturbances of gastrointestinal motility.
 - C) Alkalosis.
 - D) Decrease in urinary output.

89. Laparoscopic surgery can potentially cause thermal bowel injury during as a direct result from all of the following EXCEPT:
- A) Capacitive coupling.
 - B) Insulation failure.
 - C) Electrode resistance.
 - D) Coupling to another instrument
90. When a postoperative bladder injury is diagnosed following surgery for benign condition, what is the most effective method of treatment?
- A) Transurethral indwelling Foley catheter if it is an intraperitoneal injury of the bladder.
 - B) Open repair if it is an extraperitoneal injury of the bladder.
 - C) Laparoscopic or open repair if it is an intraperitoneal injury to the bladder.
 - D) Laparoscopic repair if it is an extraperitoneal injury to the bladder.
91. A-25-years-old boy is having grade-IV varicocele on left side and causing significant discomfort to him and undergoing laparoscopic varicocelectomy. The most likely neurologic deficit following nerve injury at the time of surgery is:
- A) Numbness on the base of the penis and anterior scrotum.
 - B) Numbness on the anterior thigh.
 - C) Numbness on the lateral thigh.
 - D) Inability to extend the knee.
92. During a procedure using the da Vinci Robotic System, the robot malfunctions and one of the grasping forceps is closed on a vital structure. The system is completely unresponsive. The appropriate action to safely disengage the instrument from the vital structure is to:
- A) Use the surgeon's console to override the system and robotically disengage the grasper.
 - B) Remove the robotic instrument from the robotic arm.
 - C) Use the sterile Allen wrench provided by the company to manually disengage the instrument and then remove it from the robotic arm.
 - D) Use a handheld laparoscopic instrument to pry open the jaws of the robotic instrument.
93. The basic principles of Hem-o-Lok clip placement include all of the following EXCEPT:
- A) Partial circumferential dissection of the vessel.
 - B) Visualization of the curved tip of the clip around and beyond the vessel.
 - C) Confirmation of the tactile snap when the clip engages.
 - D) During transaction of vessels, only a partial division is performed initially to confirm hemostasis before complete transaction.

94. A 22-year-old man has erectile dysfunction following penile trauma. His examination is unremarkable and Doppler ultrasound reveals a peak systolic velocity of 42.27 cm/s and an end-diastolic velocity of 1 cm/s. The most likely cause of his erectile dysfunction is:
- A) Arterial insufficiency.
 - B) Venous leak.
 - C) Psychogenic.
 - D) Arteriovenous fistula.
95. A 52-year-old man sustains an electrical burn to the penis while repairing a high voltage power line. Four hours after the injury, the penile shaft and glans are erythematous with superficial skin sloughing and blistering. The next step is:
- A) Observation.
 - B) Retrograde urethrogram.
 - C) Urethral catheter.
 - D) Suprapubic cystostomy.
96. A 45-year-old lady was stabbed at back and hemodynamically she is stable. CT urography revealed isolated mid-ureter transection. What is the best option for repair?
- A) Ureteroureterostomy.
 - B) Transureteroureterostomy.
 - C) Nephrostomy.
 - D) Cutaneous ureterostomy.
97. A 28-year-old woman was undergoing left ureteroscopic lithotripsy. Which maneuver is a common cause of ureteral injury during stone basketing?
- A) Ureteroscopy without dilating the ureteral orifice first.
 - B) Ureteroscopy in nondilated systems.
 - C) Use of the holmium laser.
 - D) Persistence in stone basketing attempts in the face of a ureteral tear.
98. A 45-year-old lady met an accident while crossing the road. What is the appropriate management for renal arterial avulsion, hemodynamic instability, and a normal contralateral kidney?
- A) Vascular surgery intervention.
 - B) Angiography with stenting.
 - C) Observation.
 - D) Nephrectomy.

99. Ten days after an abdominal hysterectomy for cervical cancer, a 64-year-old woman has leakage of urine and purulent material from the vagina. A cystogram is normal, but a retrograde pyelogram demonstrates a left ureterovaginal fistula and marked hydronephrosis. The right upper tract is normal. The next step is antibiotics and:
- A) Percutaneous nephrostomy tube.
 - B) Ureteral stent placement.
 - C) Vaginal cuff drain placement.
 - D) Ureteroneocystostomy.
100. A 45-year-old gentleman fell from second floor of his house. He was brought to the hospital and on evaluation found to have spinal cord injury. Immediately following a T4 spinal cord injury, the bladder is most likely to behave in which of the following ways?
- A) Filling at low pressure, reflex emptying once full to capacity, complete emptying.
 - B) Filling at high pressure, overactive detrusor contractions, unable to empty.
 - C) Filling at low pressure, no detrusor contractions, unable to empty.
 - D) Filling at low pressure, continuous urinary leakage, no retention.

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Test Booklet Series

TEST BOOKLET
ASSISTANT PROFESSOR
MEDICAL ONCOLOGY - SKIMS

A

Written Test - 2026

(53)

Time Allowed: Two Hours

Maximum Marks: 100

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(53)(A) /2026

[P.T.O.]

1. A genetic test on a patient with suspected hereditary cancer identifies a variant with insufficient evidence for pathogenicity or benignity. The lab classifies it as a "VUS" and the treating oncologist considers including it in the patient's active problem list. According to ACMG/AMP classification guidelines, how should this variant be managed clinically?
 - A) Used to guide definitive cancer management decisions
 - B) Documented for reference, with no change in clinical action
 - C) Considered likely pathogenic
 - D) Treated as a benign variant

2. A 28-year-old woman is diagnosed with high-grade soft tissue sarcoma of the thigh. She has no significant past medical history. Her mother was diagnosed with premenopausal breast cancer at age 38. No other family members have major cancers. You are asked about genetic testing referral. According to the latest Chompret criteria guidelines, what is the appropriate next step?
 - A) No further genetic action is necessary if the patient does not meet classic Li-Fraumeni syndrome criteria
 - B) Offer germline TP53 genetic testing because she meets Chompret criteria for possible Li-Fraumeni syndrome
 - C) Recommend only surveillance, as Chompret criteria require BOTH sarcoma and multiple relatives with cancer
 - D) Recommend BRCA1/2 testing only, as family history is limited to breast cancer.

3. A 37-year-old woman with a strong family history of breast and ovarian cancer is referred to a cancer genetics clinic. During the initial session, she expresses anxiety about the possibility of testing positive for a BRCA1 mutation and asks the genetic counselor, "What would you do if you were me?" The counselor carefully outlines the risks, benefits, and limitations of genetic testing but avoids giving direct advice on what decision to make. Which principle of genetic counselling is being emphasized in this scenario?
 - A) Encouragement of universal genetic testing
 - B) Directive counseling for decision-making
 - C) Respect for patient autonomy and non-directiveness
 - D) Mandatory disclosure of results to all family members

4. A 60-year-old smoker with new-onset facial swelling, plethora, and dyspnea is found to have a right mediastinal mass compressing the Superior Vena Cava (SVC) on CT scan. Vitals: stable, oxygenating normally. What is the optimal next step in management before starting empiric radiation or steroids?
 - A) Start IV heparin and escalate to radiotherapy urgently
 - B) Immediate radiotherapy-histologic diagnosis can wait
 - C) Obtain tissue diagnosis (biopsy) whenever possible before initiating therapy
 - D) Place endovascular stent before biopsy

5. A 58-year-old man with metastatic prostate cancer presents with new-onset bilateral lower limb weakness and urinary retention. MRI confirms Metastatic Spinal Cord Compression (MSCC) at the T7 level. He has a good performance status and life expectancy exceeding 3 months. According to the latest evidence and guidelines, what is the MOST appropriate initial management plan regarding corticosteroid dosing and radiotherapy schedule?
- A) Start dexamethasone 16 mg daily and refer for single-fraction 8 Gy radiotherapy
 - B) Start dexamethasone 16 mg daily and refer for 5 sessions of 4 Gy (total 20 Gy) radiotherapy over 1 week
 - C) Initiate high-dose dexamethasone bolus (100 mg), then 24 mg/day, and refer for 10×3 Gy (total 30 Gy) over 2 weeks
 - D) Withhold steroids due to lack of benefit and refer for 15×2.633 Gy (total 39.5 Gy) over 3 weeks
6. A 50-year-old male with acute myeloid leukemia, ANC <100 , develops fever and hypotension 8 days after induction chemotherapy. Central line in situ; examination: tachycardia, no lung infiltrate, no skin signs. Current guideline-based initial management includes which antibiotic regimen?
- A) High-dose oral ciprofloxacin plus amoxicillin
 - B) Empiric IV carbapenem \pm vancomycin
 - C) IV cefepime or piperacillin-tazobactam, addition of vancomycin only if specific indications
 - D) IV vancomycin monotherapy
7. A 62-year-old woman with metastatic breast cancer presents with confusion, vomiting, and weakness. Labs: calcium 15.2mg/dL, PTH suppressed, creatinine 1.9mg/dL. She is receiving abemaciclib plus letrozole. After 2L IV saline, her mental status remains impaired. What is the next MOST appropriate intervention?
- A) Immediate hemodialysis
 - B) Urgent intravenous bisphosphonate administration
 - C) Subcutaneous calcitonin plus bisphosphonates
 - D) High-dose oral steroids alone
8. A patient with relapsed diffuse large B-cell lymphoma is treated with polatuzumab vedotin, an anti-CD79b ADC. The tumor board discusses ADC design, focusing on "bystander effect" and role of linkers. Which statement best explains the design?
- A) Only non-cleavable linkers trigger a bystander effect by preventing payload release
 - B) Cleavable linkers allow the cytotoxic drug to diffuse into neighbouring cells after release, thus killing adjacent antigen-negative tumor cells
 - C) ADCs with cleavable linkers have no risk of off-tumor toxicity
 - D) Non-cleavable linkers always result in systemic drug exposure

9. A 46-year-old woman with a strong family history of cancer (mother with early-onset breast cancer, father with colorectal cancer) seeks advice during a preventive oncology consultation. Her lifestyle includes a high-calorie processed diet, sedentary behavior, moderate alcohol use, and she is overweight (BMI 31). She does not smoke, has no history of viral hepatitis or HPV, and is up-to-date on vaccines and recommended cancer screenings. Based on the most recent 2025 WHO, and national cancer prevention guidelines, which one of the following statements BEST integrates current knowledge on major modifiable and non-modifiable cancer risk factors and their prevention?
- A) Her cancer risk is driven almost exclusively by family history and genetics, making lifestyle or behavioral changes minimally impactful
 - B) Making sustained changes to diet, physical activity, and alcohol use could substantially reduce her risk of developing several common cancers, despite her genetic predisposition
 - C) Only environmental carcinogens (e.g., radiation, air pollution) and viral infections (HBV, HPV) are modifiable cancer risk factors; lifestyle-related factors are not
 - D) The only proven preventive measure in her scenario is screening; lifestyle modification and vaccination are not effective
10. A 60-year-old epidemiologist reviews recent global cancer incidence data and notes disparities across regions. While Asia accounts for the largest absolute number of new cancer cases due to population size, certain cancers show much higher age-standardized incidence rates in high-income countries. Based on recent GLOBOCAN data, which of the following statements BEST describes this pattern?
- A) Lung cancer incidence rates are uniformly high worldwide due to tobacco use prevalence.
 - B) Breast cancer has the highest absolute incidence in Asia, but the highest age-standardized incidence in high-income countries.
 - C) Stomach cancer is mainly a disease of high-income countries with high ASR.
 - D) Liver cancer incidence is higher in low- and middle-income countries, reflecting HBV/HCV burden.
11. 50-year-old public health trainee is tasked with presenting the most recent global cancer incidence statistics to policymakers. She needs to highlight the three most common cancers worldwide by total new cases (both sexes combined) according to GLOBOCAN 2022 data. Which of the following lists correctly ranks the top three cancers in order of global new incident cases?
- A) Breast, Lung, Prostate
 - B) Lung, Breast, Colorectum
 - C) Colorectum, Lung, Stomach
 - D) Prostate, Breast, Thyroid

12. Recent epidemiological analyses project changes in childhood cancer incidence in India by 2025. Which statement best represents current trends, according to GLOBOCAN and NCRP data?
- A) Childhood cancer incidence is decreasing due to improved infectious disease control
 - B) The number of new childhood cancer cases is increasing, with a projected 12-13% rise from 2020 to 2025
 - C) Leukemia rates are declining while solid tumors are rising.
 - D) There is no significant change in the childhood cancer burden in recent years.
13. A 69-year-old woman with relapsed multiple myeloma has progressed after three prior therapies, including a PI, IMiD, and anti-CD38 antibody. She has significant comorbidities but retains functional status. Her clinician discusses trial options and biotherapeutic approaches. Based on the latest advances, which treatment strategy is supported by recent evidence for such a patient?
- A) Immediate repeat of initial induction regimen
 - B) Bortezomib retreatment
 - C) BCMA-directed CAR T-cell therapy or bispecific antibody (BsAb) therapy, as available
 - D) Autologous stem cell transplant as sole consolidation regardless of prior therapies.
14. A molecular diagnostics laboratory is deciding between implementing Ion Torrent and Illumina platforms for NGS-based cancer panels. The technical lead summarizes the main chemistries of each platform to the team. Which of the following correctly matches the core NGS methodology to its platform?
- A) Ion Torrent uses sequencing by synthesis with reversible dye-terminators and optical detection; Illumina uses semiconductor-based pH detection
 - B) Ion Torrent uses bridge amplification and four-color cyclic reversible termination; Illumina uses nanopore sequencing
 - C) Ion Torrent uses semiconductor-based pH detection of hydrogen ions during nucleotide incorporation; Illumina uses sequencing by synthesis with reversible dye-terminators and optical fluorescence detection
 - D) Both Ion Torrent and Illumina use nanopore translocation detection.

15. A geneticist is reviewing NGS data for a patient's hereditary cancer panel. She is asked to explain the meaning of 500× read depth at a mutation hotspot in BRCA1. Which statement MOST accurately explains the significance of sequencing depth in NGS?
- A) Read depth refers to the number of unique DNA fragments amplified, regardless of sequence accuracy
 - B) Read depth represents the number of times each nucleotide is sequenced; higher depth increases variant detection accuracy and confidence at that position
 - C) Read depth measures the proportion of the target region covered by at least one sequencing read ("breadth of coverage")
 - D) Depth is only relevant for whole-genome sequencing and not for targeted gene panels
16. Which of the following BEST defines Variant Allele Frequency (VAF) in NGS assays?
- A) The percentage of cells in a sample carrying the variant, estimated by counting individual cells
 - B) The percentage of sequencing reads at a specific genomic position that contain the variant allele relative to the total reads covering that position
 - C) The frequency of the variant allele in the general population across all individuals
 - D) The probability that the variant is pathogenic based on computational prediction
17. A 52-year-old man is diagnosed with primary plasma cell leukemia (pPCL), presenting with high tumor burden and normal organ function. Cytogenetic testing reveals the presence of del(17p) and t(11;14). The transplant team assesses him as eligible for intensive therapy. According to 2025 guidelines and recent studies, which induction and consolidation approach is recommended for this patient?
- A) Cyclophosphamide, dexamethasone, thalidomide (CTD) followed by maintenance alone
 - B) CD38 monoclonal antibody-based quadruplet regimen (anti-CD38 antibody, proteasome inhibitor, immunomodulatory drug, dexamethasone), followed by tandem Autologous Stem Cell Transplantation (ASCT), consolidation, and maintenance
 - C) Lenalidomide monotherapy for induction and maintenance
 - D) CD38 monoclonal antibody-based triplet regimen (anti-CD38 antibody, proteasome inhibitor, dexamethasone), followed by tandem Autologous Stem Cell Transplantation (ASCT), consolidation, and maintenance

18. A 46-year-old man underwent allogeneic stem cell transplantation for high-risk AML. He achieved full donor chimerism but relapsed in the bone marrow 9 months post-transplant. His disease is morphologically evident, he remains in good performance status, and there is no active graft-versus-host disease (GvHD). The transplant multidisciplinary team discusses possible interventions. Which of the following is the BEST established indication for donor lymphocyte infusion in this scenario?
- A) To treat minimal residual disease only, not frank hematologic relapse
 - B) To prevent relapse in all patients regardless of risk
 - C) As pre-emptive therapy in mixed chimerism or for relapsed disease without active GvHD
 - D) As first-line treatment for acute GvHD post-transplant
19. A 41-year-old man with relapsed AML is being prepared for haploidentical transplant. He has three potential family donors: his 18-year-old daughter, 45-year-old brother, and 66-year-old mother. All are HLA-haploidentical matches, and all are CMV-seronegative. Donor-specific anti-HLA antibodies (DSA) are negative for all. The daughter is the only available donor with an HLA-B leader mismatch. Which donor selection strategy is most strongly supported by current evidence to optimize survival and reduce post-transplant complications?
- A) Prefer the brother due to similar age and gender
 - B) Prefer the daughter for younger age, despite HLA-B leader mismatch
 - C) Prefer the mother as parent donors have traditionally been preferred
 - D) Select at random, since all are haploidentical
20. A 43-year-old with multiply relapsed AML is considered for GIAC-based haplo-SCT. What do clinical outcomes in GIAC trials indicate for patients with high/very-high risk disease?
- A) GIAC significantly lowers relapse and improves survival versus PTCY in this setting
 - B) No significant difference in relapse, NRM, or survival between GIAC and other regimens in high/very-high risk patients
 - C) GIAC is contraindicated in high-risk disease
 - D) GIAC increases relapse risk but reduces GvHD
21. A 10-year-old child with high-risk T-ALL (high WBC, CNS involvement) is being treated per most recent protocols. Which modification is made to standard induction regimens for high-risk or T-ALL cases?
- A) Omitting asparaginase
 - B) Adding an anthracycline (daunorubicin)
 - C) Using high dose cytarabine exclusively
 - D) Early inclusion of methotrexate as sole CNS prophylaxis

22. Which of the following best describes mixed chimerism after allogeneic hematopoietic stem cell transplantation?
- A) Only donor-derived hematopoietic cells are detected in the patient's blood or bone marrow
 - B) Both recipient and donor-derived hematopoietic cells coexist in the patient's blood or bone marrow, each contributing at least 1% of the total cell population
 - C) Only recipient-derived hematopoietic cells are detected after transplant
 - D) Donor-derived cells are present at <1%, with recipient cells making up most of the population
23. A 17-year-old with T-ALL is found to have an intragenic IKZF1 deletion (exons 4-7). The MDT discusses its significance in T-ALL compared to B-ALL. Which statement best describes the difference in the effect of this alteration by lineage?
- A) In T-ALL, most IKZF1 deletions cause haploinsufficiency rather than dominant negative effects common in B-ALL
 - B) IKZF1 deletions always result in a dominant negative phenotype in all ALL subtypes
 - C) Only B-ALL shows adverse prognosis from IKZF1 loss
 - D) There is no impact on gene expression or outcome
24. A 9-year-old child with B-cell Acute Lymphoblastic Leukemia (ALL) completes induction chemotherapy including pegaspargase, but develops acute pancreatitis characterized by severe abdominal pain and elevated serum amylase and lipase (>3 times upper normal limit). Imaging excludes necrosis and pseudocyst. After 10 days of supportive care, the child's symptoms resolve, pancreatic enzymes normalize, and repeat imaging is clear. The treating team consults current international guidelines to determine if asparaginase can be safely reintroduced. According to the latest consensus and guideline recommendations, under which of the following circumstances is asparaginase rechallenge considered appropriate in pediatric ALL after asparaginase-associated pancreatitis?
- A) Only if initial pancreatitis was classified as mild or non-severe (resolved within 48 hours), with complete clinical, laboratory, and radiologic recovery, and in the absence of pseudocyst or necrosis
 - B) In all patients, regardless of severity or duration, once abdominal pain improves
 - C) Never, as any asparaginase-induced pancreatitis is a permanent contraindication to further exposure
 - D) Only after completion of all other chemotherapy agents, regardless of recovery from pancreatitis

25. A 15-year-old girl with B-ALL has t(12;21) ETV6-RUNX1 rearrangement, low WBC at diagnosis, achieves CR after induction. How is her risk category classified and what is the expected prognosis?
- A) High risk; poor prognosis
 - B) Standard risk; favorable prognosis
 - C) Adverse risk; early transplant
 - D) Ph-positive; poor survival
26. A 41-year-old man is treated with gilteritinib for relapsed FLT3-mutated AML. He develops fever, neutropenia, and thrombocytopenia. Which of the following is the most common serious complication of this therapy?
- A) Renal failure
 - B) Anemia, thrombocytopenia, febrile neutropenia
 - C) Severe allergic reaction
 - D) Cytokine release syndrome
27. A 47-year-old woman presents with fatigue, bruising, WBC 90,000, 70% blasts, low platelets. Flow cytometry confirms myeloid phenotype, NPM1 wildtype, FLT3 negative. She is afebrile. Next step on admission?
- A) Start IV fluids, TLS prophylaxis/management and cytotoxic chemotherapy
 - B) Blood culture, start IV fluids and antibiotics immediately
 - C) Rule out CNS infiltration
 - D) Rule out sweet's syndrome
28. A 54-year-old male newly diagnosed with AML has normal karyotype. Molecular workup shows NPM1 and FLT3-ITD mutations (high allelic ratio), without adverse cytogenetics. How is this patient's risk classified per ELN 2022 guidelines, and what is the key implication for consolidation therapy?
- A) Favorable risk; consider standard consolidation
 - B) Intermediate risk; consider allogeneic HSCT
 - C) Adverse risk; proceed to allogeneic HSCT in first remission
 - D) Favorable risk; intensive therapy not required

29. A 56-year-old man presents with a rapidly enlarging thyroid mass. Histology after total thyroidectomy reveals features of Poorly Differentiated Thyroid Carcinoma (PDTC): solid/trabecular growth, necrosis, and high mitotic index. Molecular testing detects an HRAS Q61R mutation, with no BRAF or TERT promoter mutations. Which of the following statements best represents the clinical and prognostic significance of this finding?
- A) RAS mutation is most common in papillary thyroid microcarcinoma and predicts favorable outcome
 - B) HRAS mutation is characteristic of medullary thyroid carcinoma and predicts response to RET inhibitors
 - C) RAS mutations in PDTC are common and indicate potential sensitivity to MAPK pathway inhibitors; they carry intermediate prognosis
 - D) No molecular alterations are relevant in PDTC
30. A 37-year-old female presents with a slow-growing, painless mass in the parotid gland. MRI shows a well-circumscribed lesion. Histology reveals a mixture of tubular, ductal, and solid areas with clear cytoplasm. FISH analysis identifies an ETV6-NTRK3 gene fusion. What is the MOST accurate integrated diagnosis according to current molecular pathology and which targeted therapy may be effective in metastatic disease?
- A) Salivary duct carcinoma; HER2 blockade
 - B) Secretory carcinoma; NTRK inhibitor
 - C) Mucoepidermoid carcinoma; NTRK inhibitor
 - D) Adenoid cystic carcinoma; CDK4/6 inhibitor
31. A 28-year-old male with relapsed B-ALL is found to have IKZF1 and PAX5 deletions. What is the main significance of these findings?
- A) Associated with favorable cytogenetics
 - B) Hallmark of T-ALL
 - C) Predict high risk of relapse and poor prognosis
 - D) Indicate high sensitivity to methotrexate
32. A 46-year-old man presents with seizures and is found to have a right frontal mass. Pathology reveals a diffusely infiltrating glioma. Molecular testing shows IDH1 and IDH2 mutations, 1p/19q codeletion, TERT promoter mutation, and wildtype ATRX. Which integrated diagnosis and therapeutic implication is correct?
- A) Astrocytoma, IDH-mutant, ATRX-mutant; temozolomide plus radiation
 - B) Oligodendroglioma, IDH-mutant and 1p/19q codeleted; temozolomide plus radiation, prolonged survival expected
 - C) Glioblastoma, IDH-wildtype; consider bevacizumab addition
 - D) Pilocytic astrocytoma, BRAF fusion; may consider targeted BRAF inhibitors

33. A 66-year-old woman with metastatic NSCLC has discordant results: initial PCR shows EGFR L858R, but NGS panel fails to confirm EGFR mutation, instead revealing a RET fusion. The case is referred to the MTB for interpretation. What is the most appropriate role of the MTB in resolving this discrepancy?
- A) Ignore the NGS result as likely artefactual
 - B) Recommend therapy solely based on initial PCR.
 - C) Integrate all molecular findings with clinical-pathologic context and may suggest confirmatory or orthogonal testing.
 - D) Escalate directly to targeted RET therapy.
34. A 58-year-old woman with advanced EGFR-mutant NSCLC, well-controlled on osimertinib, develops progression in two new lung nodules with no other spread after 18 months of response. The core MDT (oncology, thoracic surgery, radiation therapy, interventional radiology) reviews her case. What is the recommended, guideline-concordant MDT strategy?
- A) Discontinue targeted therapy and begin chemotherapy
 - B) Continue osimertinib and use local ablative therapy (surgery or SBRT) to progressing sites
 - C) Switch from osimertinib to chemotherapy plus immunotherapy
 - D) Offer hospice care
35. A 54-year-old man with stage IV NSCLC and ALK fusion is found to have multifocal bone and lung metastases and a single, asymptomatic brain metastasis. The MDT (including neurosurgery, radiation oncology, medical oncology, and neuroradiology) convenes to determine local and systemic therapy. What is the preferred management for his disease?
- A) Whole-brain radiotherapy (WBRT) followed by chemotherapy
 - B) Stereotactic radiosurgery (SRS) followed by alectinib
 - C) Upfront alectinib alone
 - D) Surgery plus WBRT and immunotherapy
36. A 70-year-old patient with metastatic Non-Small Cell Lung Cancer (NSCLC) is found to have a MET exon 14 skipping mutation on NGS testing. He is started on a MET inhibitor as first-line therapy. According to recent clinical trials (VISION and GEOMETRY), which of the following are acceptable drugs for this condition?
- A) Capmatinib
 - B) Tepotinib
 - C) Both of the above
 - D) None of the above

37. A 45-year-old never-smoker is diagnosed with stage II NSCLC, ALK fusion positive. The MDT is convened after radiology, pathology, and surgery reviews. Surgical resection is performed (R0). The team debates adjuvant therapy options. According to current 2025 practice, which adjuvant therapy should the MDT most strongly consider?
- A) Observation without adjuvant therapy
 - B) Chemotherapy only
 - C) Adjuvant alectinib
 - D) Adjuvant immunotherapy
38. A 61-year-old with potentially resectable stage IIIB NSCLC is enrolled in a trial of neoadjuvant chemoimmunotherapy followed by "conversion" surgery. Based on 2025 data, which result best reflects expectations after such a regimen?
- A) Conversion surgery feasible in < 20% of cases
 - B) Conversion surgery feasible in ~70% of cases, with high rates of pCR and 2-year OS over 85% after surgery
 - C) No benefit in surgical outcomes
 - D) High rates of surgical mortality (>20%)
39. A 54-year-old with resectable stage IIIA ALK+ NSCLC wants to know if targeted therapy is evidence-based in the neoadjuvant/adjuvant setting. According to recent ALINA and ALNEO trials, which statement is correct?
- A) Platinum chemotherapy is still preferred in the adjuvant setting
 - B) Adjuvant or perioperative alectinib offers superior DFS versus chemotherapy
 - C) Adjuvant EGFR TKI is used for all non-squamous NSCLC
 - D) ALK inhibitors are contraindicated perioperatively
40. A 65-year-old non-smoker is diagnosed with metastatic non-small cell lung cancer harboring an EGFR exon 19 deletion, PDL1CPS -10 with brain and liver metastasis. The multidisciplinary tumor board is discussing first-line treatment options according to the latest (2025) guidelines and trial data. Which of the following treatment approaches currently represents the standard of care first-line therapy for this patient?
- A) Osimertinib monotherapy
 - B) Osimertinib monotherapy or osimertinib combined with platinum-doublet chemotherapy
 - C) Amivantamab with Lazertininb
 - D) all of the above

41. A 53-year-old woman who has been newly diagnosed with T4N1 triple negative breast cancer. What is the appropriate initial management?
- A) Upfront surgery followed by systemic therapy
 - B) Neoadjuvant chemoimmunotherapy followed by surgery and adjuvant radiotherapy
 - C) Neoadjuvant chemotherapy followed by surgery
 - D) Neoadjuvant olaparib if BRCA-mutated
42. A patient with metastatic gastric cancer has progressed after two lines of therapy. He undergoes tissue-agnostic testing; results are negative for MSI, TMB-high, common fusions/mutations, but show a PIK3CA-activating mutation. Which clinical approach would be most appropriate?
- A) Molecularly assigned basket trial of PI3K inhibitors regardless of tumor origin
 - B) Standard phase III gastric cancer trial
 - C) Treat with PIK3CA inhibitors off trial
 - D) RT to the primary and metastatic sites
43. A 52-year-old with metastatic gastric adenocarcinoma, HER2 IHC 3+, progressed after trastuzumab, and pembrolizumab (MSI-high). NGS reveals no new drivers. What is the recommended next tissue-agnostic therapy?
- A) Fam-trastuzumab deruxtecan-nxki (T-DXd)
 - B) Capecitabine
 - C) Sorafenib
 - D) Further anti-PD1 monotherapy
44. A Patient with metastatic duodenal adenocarcinoma, histology-agnostic NTRK and RET fusions detected simultaneously, no prior targeted therapy. Given the choice of tissue-agnostic drugs, what is supported by emerging data?
- A) Dual TRK/RET inhibitor combination trial
 - B) Target first actionable fusion (either NTRK or RET inhibitor monotherapy)
 - C) Standard chemotherapy
 - D) EGFR TKI
45. A 28-year-old man with a prior history of nonseminomatous germ cell tumor (NSGCT) treated with curative chemotherapy 2 years prior presents with a single brain metastasis, no extracranial disease, and rising tumor markers. What is the recommended initial management?
- A) WBRT or SRS alone
 - B) High-dose cisplatin-based chemotherapy plus local brain therapy
 - C) Surgery alone
 - D) Surveillance and salvage immunotherapy

46. A 51-year-old woman presents with stage IIIB Non-Small Cell Lung Cancer (NSCLC). Molecular profiling reveals PDL1 TPS/CPS-20. EGFR mutation testing failed and repeat test result is pending. MDT— including medical oncology, thoracic surgery, radiation oncology, pulmonology, and molecular pathology— discusses treatment. She is clinically fit, without comorbidities, and requests organ-preserving options. Based on the latest guidelines and MDT recommendations, what is the most evidence-based initial management plan?
- A) Chemoradiation followed by immunotherapy f/b Osimertinib
 - B) Upfront surgery followed by adjuvant chemotherapy
 - C) Chemoradiation followed by wait for EGFR mutation result
 - D) Systemic chemotherapy only
47. A 49-year-old with heavily pretreated, metastatic jejunal adenocarcinoma harbors dMMR, high TMB, and a rare KRAS G12C mutation. What is the initial line of management?
- A) PD-1 monotherapy
 - B) 5FU based chemotherapy
 - C) KRAS inhibitors
 - D) Ipilimumab monotherapy
48. A 62-year-old patient with well-differentiated gastroenteropancreatic neuroendocrine tumor (GEP-NET) is exploring treatment options to delay progression. Which combination therapy currently offers the best evidence for improving progression-free survival?
- A) Lanreotide monotherapy
 - B) Everolimus combined with lanreotide
 - C) Sunitinib plus capecitabine
 - D) Temozolomide monotherapy

49. A 60-year-old patient with HER2-negative, MMR proficient, CLDN18.2-positive advanced gastric cancer with CPS<1%. Which of these is an acceptable first line therapy?
- A) Nivolumab plus modified FOLFOX (mFOLFOX)
 - B) Zolbetuximab+5FU-based therapy
 - C) Givastomig (CLDN18.2/4-1BB bispecific antibody) plus nivolumab and mFOLFOX
 - D) Trastuzumab deruxtecan plus capecitabine
50. A 56-year-old is diagnosed with metastatic pancreatic ductal adenocarcinoma (PDAC) with a germline BRCA2 mutation. What is the current preferred first line of therapy?
- A) Platinum-based chemotherapy followed by PARP inhibitor maintenance
 - B) Upfront PARP inhibition
 - C) FOLFIRINOX alone
 - D) Platinum-based chemotherapy with addition of PARP inhibitor only if the tumor shows homologous repair deficiency
51. A 62-year-old man with HER2-positive metastatic gastric cancer previously treated with trastuzumab-based therapy presents with progressive disease. According to the DESTINY-Gastric04 trial outcomes, what is now the recommended second-line systemic therapy to improve survival in this setting?
- A) Ramucirumab plus paclitaxel
 - B) Fam-trastuzumab deruxtecan-nxki (T-DXd)
 - C) FOLFOX chemotherapy
 - D) Pembrolizumab immunotherapy

52. 68-year-old male with metastatic castration-resistant prostate cancer (mCRPC) presents with pain from multiple bone metastases and ECOG performance status 1. He previously received primary Androgen Deprivation Therapy (ADT), followed by first-line enzalutamide for mCRPC, but now has documented radiographic progression and rising PSA. He has no visceral metastases, a normal full blood count, and preserved renal function. Genetic testing is negative for BRCA1/2 and other DNA repair mutations. He has not received any cytotoxic chemotherapy or radionuclide therapy. According to the latest recommendations, which is the most evidence-based next systemic therapy?
- A) Cabazitaxel chemotherapy
 - B) Sipuleucel-T
 - C) Abiraterone
 - D) Pembrolizumab
53. According to current EAU guidelines, in suspected prostate cancer, transperineal biopsy is now:
- A) Replaced with transrectal for all patients
 - B) The preferred standard for initial diagnosis
 - C) Advised only in metastatic disease
 - D) Routinely combined with open prostatectomy
54. A 67-year-old with metastatic castration-resistant prostate cancer (mCRPC) and no DNA damage repair mutation is being considered for combination therapy. Which recent trial supports adding PARP inhibition to androgen receptor pathway blockade in this setting?
- A) ENZAMET
 - B) PROfound
 - C) TALAPRO-2
 - D) VISION
55. A 52-year-old male with cT3N0M0 Upper Tract Urothelial Carcinoma (UTUC), normal renal function, and no contraindications to systemic therapy. Which statement about perioperative systemic therapy is supported by recent evidence?
- A) Neoadjuvant platinum-based chemotherapy is not beneficial
 - B) Adjuvant chemotherapy should be omitted in pathologic high-risk disease
 - C) Adjuvant platinum-based chemotherapy improves survival for high-risk features
 - D) Single-agent immunotherapy is standard of care

56. Which of the following agents is not listed as a first-line option for hormone-sensitive metastatic prostate cancer in combination with androgen deprivation therapy?
- A) Enzalutamide
 - B) Apalutamide
 - C) Cabazitaxel
 - D) Abiraterone
57. A 72-year-old man with metastatic castration-resistant prostate cancer has been treated with Lutetium-177 PSMA-617 radioligand therapy (RLT). He completed two treatment cycles and is being evaluated for survival outcomes based on recent evidence. According to recent clinical studies and retrospective analyses, which of the following best describes the median Overall Survival (OS) observed with Lutetium-177 PSMA RLT in metastatic prostate cancer patients?
- A) Median OS of approximately 6 months, with high toxicity limiting therapy
 - B) Median OS of approximately 14.5 months, with manageable toxicity profile and potential benefit from retreatment
 - C) Median OS exceeding 40 months uniformly across treated cohorts
 - D) No survival benefit compared to conventional chemotherapy
58. A 52-year-old woman with stage III colon cancer characterized by deficient mismatch repair (dMMR) undergoes curative resection. The oncology team discusses adjuvant therapy options to reduce recurrence risk. Based on the ATOMIC trial results, which adjuvant therapy approach has recently demonstrated improved disease-free survival in this patient population?
- A) Adjuvant FOLFOX chemotherapy alone
 - B) FOLFOX plus bevacizumab
 - C) FOLFOX combined with atezolizumab (an anti-PD-L1 antibody)
 - D) Capecitabine plus oxaliplatin (CAPEOX)
59. A 66-year-old man underwent radical cystectomy for MIBC, pathology revealed bladder (T3), prostate, and seminal vesicle involvement. He wants to know about organ-sparing protocols for sexual function. What do current amendments to the 2024 AUA guidelines recommend regarding organ-sparing cystectomy procedures?
- A) Radical removal of all adjacent reproductive organs in all patients
 - B) Organ-sparing considered on an individual basis if negative margins achievable
 - C) Preservation not recommended due to high recurrence risk
 - D) Organ-sparing only for men under 50

60. A 48-year-old woman with a large renal mass and pulmonary nodules is diagnosed with metastatic clear cell RCC. She was previously treated with pembrolizumab and axitinib and now has progressive disease. Next best line of management?
- A) Nivolumab
 - B) Cabozantinib
 - C) Sunitinib plus temsirolimus
 - D) Sorafenib plus bevacizumab
61. 62-year-old woman with high-risk non-muscle-invasive bladder cancer (Ta/T1 high grade, CIS) fails BCG therapy. She is being considered for a new FDA-approved immunotherapeutic option. What will you advise as her primary oncologist?
- A) Pembrolizumab is FDA approved for BCG-unresponsive NMIBC
 - B) Radical cystectomy remains the only standard of care
 - C) No further intravesical therapy is recommended
 - D) Maintenance BCG at lower doses is standard
62. Which of the following best describes the advantage of using multistate models in oncology survival analysis?
- A) They simplify the analysis by ignoring intermediate disease states
 - B) They model transitions between multiple disease states (e.g., remission, relapse, death) allowing complex dynamic risk assessment
 - C) They require fewer assumptions than Kaplan-Meier estimates
 - D) They are restricted to binary outcomes only
63. Which of the following statements about landmark analysis in survival studies is correct?
- A) It uses all patients' follow-up data from time zero
 - B) It compares survival starting at a fixed time point to reduce immortal time bias
 - C) It ignores patients who experience events before the landmark time
 - D) It violates the proportional hazards assumption

64. Which of the following describes the main difference between Intent-To-Treat (ITT) and Per-Protocol (PP) analysis in oncology clinical trials?
- A) ITT analyzes only patients who completed treatment protocol, PP includes all randomized patients
 - B) ITT includes all randomized patients regardless of adherence, PP includes only those who completed the assigned treatment
 - C) ITT ignores censoring, PP takes censoring into account
 - D) ITT is only used in Phase I trials; PP in Phase III trials
65. In survival data with non-proportional hazards, which method provides a more valid test for treatment effect than the Cox model?
- A) Kaplan-Meier curves with log-rank test
 - B) Stratified Cox regression ignoring time-dependency
 - C) Time-dependent Cox regression or Accelerated Failure Time (AFT) model
 - D) Simple group comparison of median survival
66. In the management of retroperitoneal sarcoma, what does the latest guideline recommend as the standard primary treatment?
- A) Definitive radiotherapy without surgery
 - B) Surgical resection with curative intent when feasible
 - C) Neoadjuvant targeted therapy alone
 - D) Watchful waiting due to low relapse risk
67. In the 8th edition AJCC staging system for soft tissue sarcoma, which factor has been newly incorporated and plays a major role in prognostic stratification?
- A) Molecular genetic markers specific to each subtype
 - B) Tumor size divided into four distinct size categories
 - C) Presence of lymph node metastasis as stage III disease
 - D) Use of PET-CT for staging all cases

68. In urothelial carcinoma, which chromosomal deletion is most commonly seen?
- A) 1p36
 - B) 9p21
 - C) 13q14
 - D) 17p13
69. Which of the following correctly pairs the four main molecular subtypes of endometrial cancer with their defining characteristics?
- A) NSMP: Low mutation burden, variable prognosis, Usually ER-positive
 - B) POLEultramutated: Low tumour burden
 - C) NSMP: High tumour burden, poor prognosis.
 - D) P53: Low mutation burden, High hormone receptor expression
70. Following the SHAPE trial, what is considered the appropriate surgical management for select low-risk early-stage cervical cancer patients?
- A) Radical hysterectomy only
 - B) Simple hysterectomy as non-inferior to radical Hystrectomy
 - C) Radical trachelectomy in all cases.
 - D) No surgery, chemoradiation only
71. According to ESGO 2023-2024 guidelines, what is the principle for surgical management of advanced ovarian cancer?
- A) Always upfront cytoreduction.
 - B) Decide between upfront and interval debulking surgery based on operability and patient condition
 - C) Surgery is no longer recommended
 - D) Surgery only after chemotherapy

72. Which assumption is crucial for the validity of the Cox proportional hazards regression model?
- A) Hazard ratios are constant over time (proportional hazards)
 - B) Survival times are normally distributed
 - C) Censoring is informative
 - D) Covariates are independent of each other
73. Which measure of central tendency is most appropriate for summarizing overall survival time in an oncology clinical trial with censored data?
- A) Mean survival time
 - B) Median survival time
 - C) Mode survival time
 - D) Arithmetic mean of observed survival times only
74. In a patient with surgically staged FIGO 2023 stage II endometrial cancer, which combination of adjuvant therapies is most appropriate for a high-grade, deep myometrial invasion tumor with lymphovascular space invasion (LVSI) with aberrant p53 on immunohistochemistry?
- A) Chemotherapy alone
 - B) Vaginal brachytherapy alone
 - C) Combined external beam radiotherapy (EBRT) and chemotherapy
 - D) Observation only
75. Which of the following statements correctly matches each type of randomisation with its key feature in a randomised controlled trial?
- A) Simple randomisation ensures equal allocation in every group for all sample sizes and prevents imbalance due to covariates.
 - B) Block randomisation maintains equal numbers in each arm by grouping participants into blocks and randomising within each block.
 - C) Stratified randomisation is used solely to achieve random allocation in the presence of unequal participant numbers.
 - D) Covariate adaptive randomisation ignores participant characteristics and assigns groups independently of prior assignments.

76. Which molecular event is a recognized cause of acquired resistance to PARP inhibitors in cancer therapy?
- A) Upregulation of EGFR signaling
 - B) Restoration of homologous recombination function
 - C) Increased PARP expression
 - D) Downregulation of DNA ligase IV
77. A Phase II clinical trial in oncology reports a p-value of 0.04 for the difference in response rates between two arms. Statistically, this means:
- A) The null hypothesis is proven true
 - B) There is a 4% chance the results are due to random variation if the null is true
 - C) The treatment caused improved survival
 - D) The results are clinically significant
78. Logistic regression is most appropriately used in oncology clinical trial analyses to:
- A) Model time-to-event outcomes
 - B) Predict the probability of a binary (yes/no) response (e.g., response vs no response) from covariates
 - C) Compare medians between groups
 - D) Measure continuous outcomes directly
79. Which statement best describes the mechanism by which PARP inhibitors exert selective lethality in BRCA1/2-mutated cancer cells?
- A) Inhibit DNA double-strand break repair via homologous recombination
 - B) Trap PARP proteins on DNA, prevent single-strand break repair, causing lethal double-strand breaks in HR-deficient cells
 - C) Block apoptosis by interfering with p53 signaling
 - D) Enhance immune cell infiltration into the tumor microenvironment

80. Which of the following methods cannot meaningfully be used for assessing measurable disease in multiple myeloma?
- A) Multiparametric Flow Cytometry (MFC) or Next-Generation Flow (NGF) in bone marrow with sensitivity up to 10^{-5} or 10^{-6}
 - B) Next-Generation Sequencing (NGS) of immunoglobulin gene rearrangements in bone marrow with sensitivity up to 10^{-6}
 - C) Mass spectrometry of serum M-protein with sensitivity up to 10^{-5} (emerging, not yet standard)
 - D) Fluorescence in situ hybridization for characteristic cytogenetic abnormalities
81. A 68-year-old male presents with fatigue, anemia (hemoglobin 9.5 g/dL), elevated serum IgM, and symptoms of hyperviscosity including blurred vision and headache. Bone marrow biopsy confirms lymphoplasmacytic lymphoma consistent with Waldenström macroglobulinemia. Genetic testing reveals a MYD88 L265P mutation and wild-type CXCR4. There is no significant neuropathy or renal dysfunction. Which of the following is the most appropriate first-line therapy for this patient?
- A) Rituximab monotherapy
 - B) Ibrutinib-based therapy (e.g., ibrutinib plus rituximab)
 - C) Bendamustine plus rituximab
 - D) Plasmapheresis alone followed by observation
82. Which of the following is considered a recently recognized emerging hallmark of cancer, reflecting the importance of a dynamic tumor microenvironment and systemic interactions in tumor progression?
- A) Sustaining proliferative signaling
 - B) Deregulating cellular energetics
 - C) Avoiding immune destruction
 - D) Tumor-promoting inflammation

83. Which option correctly defines TMB, CPS, and TPS as used in immunotherapy biomarker assessment? (correction of spacing)
- A) TMB: Somatic mutations per megabase of tumor DNA
 - B) TPS: % of tumor cells with PD-L1 expression
 - C) CPS: $(\text{PD-L1-positive tumor} + \text{immune cells}) \div \text{total tumor cells} \times 100$
 - D) All of the above
84. According to the 2021 ESMO/ESPEN practical guidelines for clinical nutrition in cancer patients, which of the following is the most appropriate nutritional management strategy?
- A) Initiate nutritional counseling and oral nutritional supplements early in patients at risk of malnutrition, aiming for an energy intake of 25-30 kcal/kg/day and protein intake of 1.2-1.5 g/kg/day.
 - B) Delay any nutritional intervention until severe malnutrition develops, as early intervention shows no survival benefit.
 - C) Routine high-dose micronutrient supplementation (e.g., vitamins, antioxidants) is recommended for all cancer patients irrespective of deficiency status.
 - D) Parenteral nutrition should be the first-line choice in all patients receiving chemotherapy.
85. Which of the following immune-related adverse events is most commonly associated with immune checkpoint inhibitors, and what is the first-line management strategy if grade 3 toxicity occurs in the relevant organ system?
- A) Pneumonitis; High-dose corticosteroids with immunotherapy discontinuation
 - B) Hypophysitis; Observation only without corticosteroids
 - C) Colitis; Continue immunotherapy and start low-dose aspirin
 - D) Thyroiditis; Immediate thyroidectomy

86. What is the approximate mortality rate and median survival from diagnosis reported in patients with steroid-refractory acute GVHD?
- A) $\leq 20\%$ mortality; median survival >2 years
 - B) $\sim 70\%$ mortality; median survival about 4 months (~ 117 days)
 - C) 50% mortality; median survival >1 year
 - D) Nearly 0% mortality with novel therapies
87. Which of the following best describes a key difference between CD19-directed CAR T-cell therapy and CD20-directed CAR T-cell therapy in B-cell malignancies?
- A) CD20 CAR T-cell therapy is FDA-approved for Acute Lymphoblastic Leukemia (ALL), whereas CD19 CAR T-cell therapy is approved only for lymphoma.
 - B) CD19 CAR T-cells target a protein expressed from early B-cell progenitors to mature B-cells, while CD20 CAR T-cells target a protein predominantly expressed on mature B-cells with variable expression in tumors
 - C) CD19 CAR T-cells generally cause fewer immune-related adverse events than CD20 CAR T-cells.
 - D) CD20 CAR T-cells have a higher complete remission rate than CD19 CAR T-cells in relapsed/refractory diffuse large B-cell lymphoma.
88. In patients with relapsed/refractory diffuse large B-cell lymphoma (DLBCL) treated with CD19-directed CAR T-cell therapy (axicabtagene ciloleucel (axi-cel) or tisagenlecleucel (tisa-cel). what is the approximate 2-year Overall Survival (OS) reported in pivotal clinical trials and large cohorts?
- A) 15%
 - B) 30%
 - C) 50%
 - D) 70%

89. Which of the following statements about neurological toxicity (ICANS) associated with CAR T-cell therapy and its management is TRUE?
- A) Tocilizumab is the first-line treatment for isolated severe neurotoxicity without cytokine release syndrome.
 - B) Seizure prophylaxis with levetiracetam is recommended for all patients receiving CAR T-cell therapy at risk for neurotoxicity.
 - C) Neurologic toxicity typically occurs several months after CAR T-cell infusion and rarely requires hospitalization.
 - D) High-dose corticosteroids are the mainstay of treatment for moderate to severe CAR T-cell-related neurotoxicity.
90. In which subtype of sarcoma listed below is immunotherapy not considered an acceptable treatment line?
- A) Undifferentiated pleomorphic sarcoma
 - B) De-differentiated liposarcoma
 - C) Osteosarcoma
 - D) Alveolar soft part sarcoma
91. In the management of soft tissue sarcoma, what is the primary advantage of intraoperative radiation therapy (IORT) when combined with limb-sparing surgery and External Beam Radiation Therapy (EBRT)?
- A) Allows delivery of a high single dose of radiation precisely to the tumor bed while sparing nearby critical structures, improving local control with acceptable toxicity
 - B) Replaces the need for any postoperative radiation therapy entirely
 - C) Is only effective for superficial sarcomas and contraindicated in retroperitoneal sarcomas
 - D) Increases wound healing complications significantly compared to EBRT alone

92. Which of the following best describes the current standard management protocol for unilateral, favorable histology Wilms tumor in a child following radical nephrectomy?
- A) Observation only without chemotherapy or radiation therapy for all stages
 - B) Chemotherapy with vincristine and dactinomycin (EE-4A) for stage I or II without loss of heterozygosity (LOH) at 1p and 16q, with radiation reserved for higher stages or unfavorable histology
 - C) Immediate radiotherapy alone without chemotherapy
 - D) Multi-drug chemotherapy including doxorubicin, cyclophosphamide, and etoposide for all stages regardless of histology or LOH status
93. In confirmatory Phase III oncology trials, which statistical method is used to handle competing risks during survival analysis?
- A) Kaplan Meier analysis
 - B) Fine and Gray hazards regression
 - C) Cox proportional hazards regression
 - D) Logistic regression
94. A 3-year-old with medulloblastoma and CSF positive for tumor cells is to undergo craniospinal irradiation. What is the recommended radiation dose to the spine in this scenario?
- A) 18 Gy
 - B) 23.4 Gy
 - C) 36 Gy
 - D) 45 Gy
95. Which of the following best describes the principle of theranostics in medical oncology?
- A) Combining chemotherapy and immunotherapy to treat advanced cancers
 - B) Using paired radiopharmaceuticals for both precise tumor imaging and targeted radionuclide therapy based on molecular biomarkers
 - C) Performing surgery followed by standard external beam radiation therapy in all solid tumors
 - D) Administering systemic radiation non-selectively to all cancer patients

96. Which of the following best describes the current management approach for newly diagnosed lymphoma with flow cytometric finding of CD19+, CD20 bright+, CD5+, CD23-, FMC7+, surface light chain restriction (usually kappa), cyclin D1 (detected by intracellular staining) positive, and weak or absent CD200 expression in a fit patient under 65 years with classical (TP53 wild-type) disease?
- A) Observation with active surveillance regardless of symptoms or stage
 - B) Induction with dose-intensified chemoimmunotherapy (e.g., R-CHOP alternating with high-dose cytarabine) followed by Autologous Stem Cell Transplantation (ASCT) and maintenance rituximab
 - C) Immediate palliative chemotherapy with chlorambucil and rituximab without transplantation
 - D) Single-agent Bruton Tyrosine Kinase (BTK) inhibitor therapy without combination chemotherapy
97. Which of the following best describes the current role of immunotherapy in the frontline treatment of advanced-stage classical Hodgkin Lymphoma (cHL)?
- A) Immunotherapy agents such as nivolumab (a PD-1 inhibitor) combined with standard chemotherapy (e.g., AVD) have shown improved progression-free survival and are becoming part of new standard regimens, potentially reducing the need for radiotherapy.
 - B) Immunotherapy is only used as salvage therapy after failure of multiple lines of chemotherapy and stem cell transplant.
 - C) Brentuximab vedotin replaces chemotherapy entirely in the first-line setting for all stages of Hodgkin lymphoma.
 - D) Nivolumab and pembrolizumab are currently not approved or recommended in any treatment setting due to high toxicity.
98. Which of the following best describes the current standard perioperative treatment approach for resectable gastric and gastroesophageal junction (GEJ) adenocarcinoma?
- A) Surgery alone followed by observation in all patients regardless of stage
 - B) Perioperative chemotherapy combined with immunotherapy (e.g., PD-1/PD-L1 inhibitors like durvalumab or pembrolizumab) alongside radical gastrectomy with D2 lymphadenectomy
 - C) Radiotherapy alone without chemotherapy or surgery
 - D) Adjuvant immunotherapy without chemotherapy for all stages

99. Which of the following combinations includes the most well-established and significant risk factors for the development of gastric cancer?
- A) Helicobacter pylori infection, high salt intake, smoking, family history of gastric cancer, and Epstein-Barr virus infection.
 - B) Low dietary salt, absence of H. pylori, high fruit and vegetable intake, and no family history
 - C) Young age (<30 years), exclusive vegetarian diet, and no history of smoking or alcohol
 - D) Obesity, frequent antibiotic use, and low intake of processed meats only
100. Which of the following best reflects the median Overall Survival (OS) outcomes associated with current first-line systemic therapies for advanced hepatocellular carcinoma (HCC) according to recent clinical studies and guidelines?
- A) Sorafenib monotherapy results in a median OS of approximately 11.7 months, while the combination of atezolizumab plus bevacizumab (Atezo+Bev) improves median OS up to about 21 months.
 - B) Immunotherapy alone has no survival benefit compared to placebo in advanced HCC.
 - C) Nivolumab monotherapy shows superior median OS compared to Atezo+Bev and sorafenib in first-line setting.
 - D) Median OS with first-line therapy is under 6 months regardless of regimen due to poor liver function.
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DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

Booklet Serial No. **350097**

Test Booklet Series

**TEST BOOKLET
TUTOR -SKIMS
Written Test - 2026
(54)**

A

Time Allowed: Two Hours

Maximum Marks: 100

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4. This Test booklet contains **100** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet/Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
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(54)(A) /2026

[P.T.O.]

1. One hour after newborn's admission to the nursery, the nurse observes the baby having spontaneous jerky movements of the limbs. Which of the following action will the nurse take **first**?
 - A) Offer the newborn formula or breast feeding
 - B) Call the neonatologist immediately
 - C) Determine blood glucose level
 - D) Observe closely for lethargy and poor sucking reflex

2. The nurse provides care for a patient diagnosed with head injury. The nurse notes the patient's urinary output is 1000 mL in three hours. Which action by the nurse is **best**?
 - A) Contact the treating neurosurgeon
 - B) Administer IV 0.9% NaCl at 100 mL/Hr
 - C) Measure the urine specific gravity
 - D) Obtain the patient's weight

3. The nurse provides care for a pediatric patient immediately following tonsillectomy. The nurse notices that the child is restless, agitated and swallowing frequently. Which of the following action will the nurse take first?
 - A) Observe the throat of child
 - B) Call the ENT surgeon
 - C) Reposition the child
 - D) Check vital signs

4. A patient report sudden chest pain during deep inspiration and shortness of breath to the nurse. The patient's ABG report is pH 7.33, PaCO₂ 48 mmHg, and HCO₃ 23 mEq/L. Which action will the nurse take first?
 - A) Obtain an electrocardiogram (ECG)
 - B) Give oxygen at 7 liters per minute with simple face mask for 10 minutes
 - C) Administer furosemide 40 mg IV STAT
 - D) Instruct the patient to take slow, deep breath and cough three times every 5 minutes

5. The nurse provides care for a patient with a chest tube. The nurse notes that the fluid in the water-seal chamber does not fluctuate. Which action will the nurse take first?
 - A) Visually inspect the entire length of the tubing beginning at the insertion site
 - B) Increase suction regulation pressure until vigorous bubbling is seen in the water-seal chamber
 - C) Add 1 to 2 cm of sterile water to the water-seal chamber
 - D) Carefully squeeze and release the chest drainage tubing beginning at the insertion site

6. The nurse will assign which of the following pediatric patient to a private room or isolation room when received on the unit?
- A) A child with hemoglobin level of 7 g/dL
 - B) A child with RBC count of 4 million/ mm^3
 - C) A child with a WBC count of 20,000/ mm^3
 - D) A child with platelet count of 3,50,000/ mm^3
7. The nurse provides care for a patient diagnosed with a compound fracture of the left femur. The patient's vital signs are blood pressure 80/60 mm Hg, pulse 120 beats/min, and respiration 26 breaths/min. Which IV fluid prescription does the nurse question?
- A) Ringer's Lactate (RL)
 - B) 0.45 sodium chloride
 - C) 0.9% sodium chloride
 - D) Hydroxyethyl starch
8. The physician orders a blood transfusion for a patient. The nurse should anticipate using an I.V. access device of which size?
- A) 23G
 - B) 21G
 - C) 18G
 - D) 25G
9. In cleansing the perineal area around the site of catheter insertion, the nurse should:
- A) Wipe the catheter toward the urinary meatus
 - B) Wipe the catheter away from the urinary meatus
 - C) Apply a small amount of talcum powder after drying the perineal area
 - D) Gently insert the catheter another $\frac{1}{2}$ inch after cleansing to prevent irritation from the balloon
10. While assessing a patient's right leg wound during a dressing change, the nurse observes **redness, swelling, and induration** at the site. Which of the following conditions do these signs most likely indicate?
- A) Infection
 - B) Dehiscence
 - C) Hemorrhage
 - D) Evisceration

11. A 3-year old child is hospitalized with burns covering her trunk and lower extremities. Which of the following would the nurse use to assess adequacy of fluid resuscitation in the burned child?
- A) Blood pressure
 - B) Serum potassium level
 - C) Urine output
 - D) Pulse rate
12. Which of the following ECG changes would be seen as a positive myocardial stress test response?
- A) Hyperacute T wave
 - B) Prolongation of the PR interval
 - C) ST-segment depression
 - D) Pathological Q wave
13. Hematotympanum and otorrhea are associated with which of the following head injuries?
- A) Basilar skull fracture
 - B) Subdural hematoma
 - C) Epidural hematoma
 - D) Frontal lobe fracture
14. A 38-year-old pregnant woman at 30 weeks of gestation, visits a local clinic for her regular prenatal check-up. The nurse should be alert to which condition related to her age?
- A) Iron-deficiency anemia
 - B) Sexually transmitted disease
 - C) Intrauterine growth retardation
 - D) Pregnancy-induced hypertension
15. When assessing a child with diabetes insipidus, the nurse should be aware of the cardinal signs of this disease are:
- A) Anemia and vomiting
 - B) Polyuria and polydipsia
 - C) Irritability relived by feeding formula
 - D) Hypothermia and azotaemia

16. The nurse cares for a patient diagnosed with diabetes insipidus being treated with Vasopressin. Which action should the nurse include in the patient's care plan?
- A) Record daily weight
 - B) Test urine for glycosuria
 - C) Reduce fluid intake
 - D) Monitor patient for constipation
17. A schizophrenic patient who is experiencing thoughts of having special power states that "I am a messenger from another planet and can rule the earth." The nurse assesses this behaviour as:
- A) Ideas of reference
 - B) Delusions of persecution
 - C) Thought broadcasting
 - D) Delusions of grandeur
18. A new-born infant is exhibiting signs of respiratory distress. Which of the following would the nurse recognize as the early clinical signs of respiratory distress?
- A) Cyanosis
 - B) Increased respirations
 - C) Sternal and subcostal retraction
 - D) Decreased respirations
19. A physician's order reads: 0.45 normal saline at 50 mL/Hr until discontinued. The nurse is using a micro-drip tubing set. How many drops per minute should the nurse administer?
- A) 05 drops/min
 - B) 10 drops/min
 - C) 50 drops/min
 - D) 100 drops/min
20. The physician prescribes phenytoin for a patient with seizure disorder. Phenytoin can only be mixed with which of the following solutions?
- A) Ringer's lactate
 - B) D5 in water
 - C) D5 with ringer's lactate
 - D) Normal saline

21. The physician has prescribed metoclopramide; when assessing the patient, the nurse would expect to find which of the following responses?
- A) Increase in gastric secretions
 - B) Increase in peristalsis
 - C) Disorientation
 - D) Drowsiness
22. A patient had a transurethral resection of the prostate a day before. He is concerned about the small amount of blood that is still in his urine. The nurse explains that the blood in his urine:
- A) Should not be there on the second day
 - B) Will stop when the Foley's catheter is removed
 - C) Is normal and he need not be concerned about it
 - D) Can be removed by irrigating the bladder
23. A baby who was diagnosed with pyloric stenosis is continued to have projectile vomiting. With prolonged vomiting the infant is prone to develop:
- A) Respiratory acidosis
 - B) Respiratory alkalosis
 - C) Metabolic acidosis
 - D) Metabolic alkalosis
24. Succinylcholine chloride is ordered prior to electroconvulsive therapy treatment for a depressed patient. The nurse explains to patient that the purpose of the drug is to:
- A) Relax muscles
 - B) Relieve anxiety
 - C) Reduce secretions
 - D) Act as an anaesthetic
25. A registered nurse found an infant unresponsive. Which of the following artery she is expected palpate to check the pulse of unresponsive infant?
- A) Carotid artery
 - B) Brachial artery
 - C) Femoral artery
 - D) Radial artery

26. Mrs. Savita Rani, 21-year old, is in acute renal failure after a large loss of blood from injuries he received in a car accident. Her 24-Hour urine output is 275 ml. Her serum BUN is 60 mg/100 ml and her serum creatinine is 2.5 mg/dL. Mrs. Savita Rani fails to respond to therapy to correct her acute renal failure. She goes into chronic renal failure, with the prospect of having to start dialysis or have a kidney transplant. Which of the following indicators would you expect to see in Mrs. Savita Rani as the renal failure becomes more severe?
- A) Anemia
 - B) Hypokalemia
 - C) Diaphoresis
 - D) Hypotension
27. Which of the following are the three components of the Glasgow Coma Scale (GCS)?
- A) Pupil reaction, motor response and limb strength
 - B) Pupil reaction, verbal response and level of consciousness
 - C) Eye opening, limb strength and level of consciousness
 - D) Eye opening, verbal response and motor response
28. After 5-days of diuretic therapy with 20mg of furosemide (Lasix) daily, a patient begins to exhibit fatigue, muscle cramping and muscle weakness. These symptoms probably indicate that the patient is having:
- A) Hypokalemia
 - B) Anorexia
 - C) Hyperkalemia
 - D) Dysphagia
29. Small, frequent feedings of which type of diet would the nurse recommend for patient experiencing dumping syndrome:
- A) Low protein, high fat, high carbohydrate diet
 - B) High protein, high fat, high carbohydrate diet
 - C) High protein, high fat, low-carbohydrate diet
 - D) Low protein, low fat, high- carbohydrate diet
30. A patient is treated with isoniazid (INH) 300 mg p.o., and rifampin (RMP). Which vitamin would the nurse expect this patient to receive to prevent the peripheral neuritis that may occur with INH therapy?
- A) Ascorbic acid (vitamin C)
 - B) Pyridoxine (vitamin B6)
 - C) Vitamin E
 - D) Vitamin B₁₂

31. A patient on prolonged bed rest has developed a pressure ulcer. The wound shows no signs of healing even though the patient has received skin care and has been turned every 2-hours. Which factor is most likely responsible for the failure to heal?
- A) Inadequate vitamin D intake
 - B) Inadequate protein intake
 - C) Inadequate massaging of the affected area
 - D) Low calcium level
32. A scrub nurse in the operating room has the responsibility of:
- A) Positioning the patient
 - B) Assisting with gowning and gloving
 - C) Handing surgical instruments to the surgeon
 - D) Applying surgical drapes
33. When changing a sterile surgical dressing, the nurse must first:
- A) Wash the hands
 - B) Apply sterile gloves
 - C) Remove the old dressing with clean gloves
 - D) Open sterile package, and moisten the dressings with sterile saline solution
34. Which of the following size of Foley's catheter should be ideally used for an adult woman?
- A) 8-10 Fr
 - B) 14-16 Fr
 - C) 16-18 Fr
 - D) 10-12 Fr
35. A 46 years-old man is admitted to the hospital with fracture of right femur. He is placed in balanced suspension traction with a Thomas splint and Pearson attachment. During the first 48 hours, the nurse should assess the patient for which of the following complication?
- A) Pulmonary embolism
 - B) Fat embolism
 - C) Avascular necrosis
 - D) Malunion

36. When measuring for crutch length, the nurse should remember that the top of the crutch should be:
- A) 2-3 fingers below the axilla
 - B) 5-6 fingers below the axilla
 - C) Even with the axilla
 - D) 6 inches below the axilla
37. The nurse is aware that nutrition is an important aspect of care for a patient with hepatitis. which of the following diets would be most therapeutic for the patient?
- A) High protein and low carbohydrates
 - B) Low calorie and low protein
 - C) High carbohydrates and high calories
 - D) Low carbohydrates and high calories
38. Which of the following pulse rate can be considered as normal in a healthy adult person?
- A) 42
 - B) 50
 - C) 66
 - D) 112
39. Which of the following can be considered as normal report for a haemoglobin in a healthy young adult woman?
- A) 10 g/dl
 - B) 11 g/dl
 - C) 12 g/dl
 - D) 17 g/dl
40. Which of the following bone is used for hearing in the human beings?
- A) Fibula
 - B) Tarsals
 - C) Maxilla
 - D) Incus
41. Which of the following drug is considered as antipyretic?
- A) Paracetamol
 - B) Ranitidine
 - C) Omeprazole
 - D) Pyrazinamide

42. Which of the following position is recommended for a COPD patient, admitted with breathing difficulty in an emergency?
- A) Supine
 - B) Fowler's
 - C) Sims'
 - D) Prone
43. The nurse is documenting abdominal examination findings of Mr. Ram Singh based on the anatomical areas on abdomen. The total number of anatomical areas on abdomen are:
- A) Six
 - B) Seven
 - C) Eight
 - D) Nine
44. A patient's assessment of risk factors is important because it provides the nurse with necessary information for the development of a plan of care. Which one of the following assessment findings indicates a non-modifiable risk factor?
- A) Gender
 - B) Exercise
 - C) Diet
 - D) Rest and Sleep
45. A nurse has an order to take the core temperature of a patient. At which of the following sites would a core body temperature can be measured?
- A) Tympanic membrane
 - B) Oral cavity
 - C) Axillary cavity
 - D) Skin surface at forehead
46. Which of the following nursing intervention will be included for the care of a substances abuse patient experiencing alcohol withdrawal delirium?
- A) Maintaining seizure precautions
 - B) Restricting fluid intake
 - C) Increasing sensory stimuli
 - D) Applying ankle and wrist restraints

47. As the nurse assesses a male adolescent with chlamydia, the nurse determines that a sign of chlamydia is:
- A) Enlarged penis
 - B) Secondary lymphadenitis
 - C) Epididymitis
 - D) Hepatomegaly
48. Which of the following medications may requires close observation for bronchospasm in the patient with chronic obstructive pulmonary disease or asthma?
- A) Verapamil
 - B) Amrinone
 - C) Epinephrine
 - D) Propranolol
49. A 7-year old child is brought to the Emergency Room at midnight by his mother after symptoms appeared abruptly. The nurse's initial assessment reveals a temperature of 104.5F (40.3°C) difficulty swallowing, drooling, absence of a spontaneous cough, and agitation. These symptoms are indicative of which one of the following?
- A) Acute tracheitis
 - B) Acute spasmodic group
 - C) Acute epiglottitis
 - D) Acute laryngotracheobronchitis
50. A woman is pregnant with her second child. Her last menstrual period began on January 15. Her expected date of delivery would be?
- A) October 8
 - B) October 15
 - C) October 22
 - D) October 29
51. A male patient is started on IV anticoagulant therapy with heparin. Which of the following laboratory studies will be ordered to monitor the therapeutic effects of heparin?
- A) Partial thromboplastin time
 - B) Hemoglobin
 - C) Red Blood Cell (RCB) count
 - D) Prothrombin time

52. A nurse should carefully monitor a patient for which of the following side effect of $MgSO_4$?
- A) Visual blurring
 - B) Tachypnea
 - C) Epigastric pain
 - D) Respiratory depression
53. A postpartum patient complains of rectal pressure and severe pain in her perineum; this may be indicative of:
- A) Afterbirth pains
 - B) Constipation
 - C) Cystitis
 - D) A hematoma of the vagina or vulva
54. The nurse is assessing and getting a history from a patient treated for depression with a monoamine oxidase (MAO) antidepressant. The most serious side effect associated with this antidepressant and the ingestion of tyramine in aged foods may be:
- A) Hypertensive crisis
 - B) Severe rash
 - C) Severe hypotension
 - D) Severe diarrhea
55. On a second postpartum day of a woman after having a vaginal delivery, the nurse-midwife is preparing to assess her perineum and anus as part of her daily assessment. The best position for the woman to be placed in for this assessment is:
- A) Sims'
 - B) Fowler's
 - C) Prone
 - D) Left side-lying
56. A male patient has been hospitalized with congestive heart failure. Medical management of heart failure focuses on improving myocardial contractility. This can be achieved by administering which of the following medicine?
- A) Digoxin 0.25 mg p.o. every day
 - B) Furosemide (Lasix) 40 mg p.o. every morning
 - C) O_2 @ 2L/min via nasal cannula
 - D) Nitroglycerin 1-inch topical application, every 4-hour

57. A patient was admitted with rib fractures and a pneumothorax, which were sustained as a result of a motor vehicle accident. A chest tube was placed on the left side and he was transferred to higher centre. The patient is having bloody sputum, develops increasing hypoxemia, and his chest X-ray shows patchy infiltrates. The nurse analyses these symptoms as being consistent with:
- A) Pneumonia
 - B) Pulmonary contusions
 - C) Pulmonary edema
 - D) Tension pneumothorax
58. A child is to receive atropine 0.15mg as part of his preoperative medication. A vial containing atropine 0.6 mg/mL is on hand. How much atropine should be given?
- A) 0.06 mL
 - B) 0.25 mL
 - C) 2.7 mL
 - D) 3.7 mL
59. A 47-year old male patient is admitted for colon surgery. Intravenous antibiotics are begun 2-hour prior to surgery. He has no known infection. The rationale for giving antibiotic prior to surgery is to:
- A) Provide cathartic action the colon
 - B) Reduce the risk of wound infection from anaerobic bacteria
 - C) Relieve the patient's concern regarding possible infection
 - D) Reduce the risk of intraoperative fever
60. A child with celiac disease is being discharged from the hospital. The mother demonstrates knowledge of nutrition needed of her child when she states that "my child will need.....":
- A) Lactose-restrict diet
 - B) Gluten-restricted diet
 - C) Phenylalanine-restricted diet
 - D) Fat-restricted diet
61. Which of the following clinical manifestations are seen as early evidence of septic shock in children?
- A) Fever, tachycardia, and tachypnea
 - B) Respiratory distress, cold skin and pale extremities
 - C) Elevated blood pressure, hyperventilation and thread pulses
 - D) Normal pulses, hypotension and oliguria

62. A 35-year old patient is receiving psychopharmacological treatment of his major depression with tranylcypromine sulfate, which is a monoamine oxidase(MAO) inhibitor. The nurse teaches the patient that while he is taking this type of antidepressant, he needs to restrict his dietary intake of:
- A) Potassium rich foods
 - B) Tryptophan
 - C) Tyramine
 - D) Saturated fats
63. When preparing insulin for IV administration. The nurse identifies which kind of insulin to use?
- A) LPH
 - B) Human or pork
 - C) Regular
 - D) Long acting
64. A woman undergoes admission to the postpartum unit after the vaginal delivery of a 4.2 kg newborn. Which of the following will be the priority action by the nurse when providing care to this woman?
- A) Check vital signs
 - B) Observe the amount and colour of lochia
 - C) Gently massage the fundus every 4-hour
 - D) Encourage direct contact with newborn through teaching demonstration
65. The nurse palpates the abdomen of a pregnant woman who has 36-week gestation. The woman says. "I am dizzy. I am feeling like I am going to faint." Which of the following action does the nurse take **first**?
- A) Elevate the woman's legs
 - B) Begin oxygen at 2-liters per minute by nasal cannula
 - C) Ask woman to breath into her cupped hands
 - D) Help woman to turn to her left side
66. The critical care nurse provides care for a patient diagnosed with septic shock. Which of the following observation **most** concerns the nurse?
- A) Serum glucose 120 mg/dL
 - B) WBC count 15,000/mm³
 - C) Skin is warm, dry and flushed
 - D) Bleeding noted around venipuncture site

67. The nurse provides care for a patient with an endotracheal tube and positive pressure mechanical ventilation. Which of the following observation requires intervention by the nurse?
- A) The intern nurse report that the patient's weight has increased 1.36 kg over past 72 hours
 - B) The patient gags and bites the endotracheal tube
 - C) The endotracheal tube cuff pressure is 22 cm H₂O
 - D) The intern nurse drain ventilator tubing condensation towards the endotracheal tube connection
68. A patient's ABG result is pH 7.33, PaCO₂ 48 mmHg, and PaO₂ 58 mmHg. The patient receives 5 L/min of oxygen by nasal cannula and is placed in the high fowler's position. An hour later, repeated ABG shows result of pH 7.35, PaCO₂ 38 mmHg, and PaO₂ 60 mmHg. Which action will the nurse take first?
- A) Deliver oxygen at 10 L/min with a non-rebreather mask
 - B) Transfer the patient to the Intensive Care Unit (ICU)
 - C) Place an oxygen saturation monitor on the patient's left middle finger
 - D) Reposition patient in the left lateral recumbent position
69. The nurse provides care for a patient with IV 0.9% NS infusing at 125 mL/Hr. Two hours after the infusion begin, the patient's Central Venous Pressure (CVP) reading is 18 cm H₂O. It is most important for the nurse to take which action?
- A) Administer furosemide 40 mg IV
 - B) Stop the IV 0.9% NS infusion
 - C) Document CVP reading in medical record
 - D) Check the patient's urine specific gravity
70. An older adult patient tells the nurse, "I have pressure in my chest" The patient's Blood Pressure (BP) is 150/90 mmHg, PR 88/min, RR 20/ min. The nurse administers nitroglycerin 0.4 mg sublingually as prescribed. Which of the following finding does the nurse expect to observe?
- A) BP 160/100 mmHg, PR 120/min, RR 16/min
 - B) BP 150/90 mmHg, PR 60/min, RR 28/min
 - C) BP 100/60 mmHg, PR 96/min, RR 20/min
 - D) BP 90/60 mmHg, PR 60/min, RR 24/min

71. The nurse provides care for a patient during an autologous blood transfusion. The patient reports chills thirty minutes after the transfusion began. The patient's blood pressure has decreased from 122/84 mmHg to 108/62 mmHg. Which action the nurse take first?
- A) Administer IV Imipenem Cilastatin sodium 500 mg
 - B) Administer 0.9% sodium chloride 100 mL/Hour IV
 - C) Stop the transfusion and remove the blood infusion tubing immediately
 - D) Check the patient's oral temperature and oxygen saturation level
72. A patient diagnosed with a bacterial infection reports hives and difficulty in breathing after starting amoxicillin 10 years ago. The patient reports a history an allergy to sulfonamides. Which prescription does the nurse question?
- A) Tetracycline hydrochloride
 - B) Cephalexin
 - C) Azithromycin
 - D) Ciprofloxacin
73. To collect a clean-catch midstream urine culture specimen from a female patient, the nurse instructs her to clean the area at the external urinary meatus with an antiseptic swab. How should the patient do this?
- A) Swabbing the labia minora from front to back
 - B) Cleaning the labia minora from back to front
 - C) Cleaning the labia majora from back to front
 - D) Swabbing the entire perineal area
74. How often should rescuers switch roles when performing two-rescuer CPR?
- A) After every cycle of CPR
 - B) After every two cycles of CPR
 - C) After every five cycles of CPR
 - D) After every 10 cycles of CPR
75. Which type of solution, when administered I.V. would cause a shift of fluid from body tissues to the bloodstream?
- A) Hypotonic
 - B) Isotonic
 - C) Sodium chloride
 - D) Hypertonic

76. Which of the following position is considered as best after the procedure of liver biopsy?
- A) High fowler's
 - B) Prone
 - C) Supine
 - D) Right lateral
77. A patient is being discharged with albuterol and beclomethasone dipropionate to be administered via inhalation three times a day and at bedtime. Patient teaching regarding the sequential order in which the drugs should be administered includes:
- A) Glucocorticoid followed by the bronchodilator
 - B) Bronchodilator followed by the glucocorticoid
 - C) Alternate successive administrations
 - D) According to the patient's preference
78. A patient brought to trauma centre, who has had road traffic accident and suspected for having cervical spinal injury. Which of the following will be a priority intervention during primary assessment in emergency room?
- A) Stabilization of the cervical spine
 - B) Airway maintenance with cervical spine stabilization
 - C) Confirmation of spinal cord injury
 - D) Normalization of intravascular volume
79. An 8-year old child comes to the outpatient department complaining of swelling and pain in the knees. His mother says, "The swelling occurred for no reason, and it keeps getting worse." The initial diagnosis is Lyme disease. When talking to the mother and child, questions related to which of the following would be important to include in the initial history?
- A) A decreased urinary output and flank pain
 - B) A fever of over 103° F occurring over the last 2-3 weeks
 - C) Rashes covering the palms of the hands and the soles of the feet
 - D) Headaches, malaise or sore throat

80. A 7-months old child on breast-feeding and weaning formula milk feeding having complaints of diarrhea. While teaching her mother about the importance of preventing dehydration the nurse would inform the mother about the importance of feeding her child with:
- A) Fruit juices
 - B) Diluted carbonated drinks
 - C) Soy-based, lactose-free formula
 - D) Regular formulas mixed with electrolyte solution
81. When assessing a patient with cardiovascular illness, the nurse notes that he regularly needs to sit upright to breath comfortably. This behaviour is most indicative of which of the following condition?
- A) Pericarditis
 - B) Myocarditis
 - C) Congestive heart failure
 - D) Unstable Angina
82. On admission, the patient has signs and symptoms of pulmonary edema. Which of the following position is MOST recommended for the patient with pulmonary edema?
- A) High fowler
 - B) Lying on the left side
 - C) Sim's position
 - D) Supine with feet elevated
83. A patient is being treated for congestive heart failure. His medical regimen consists of digoxin 0.25 mg p.o. daily and furosemide 20mg p.o. bid. Which laboratory test should the nurse monitor?
- A) Intake and output
 - B) Calcium
 - C) Potassium
 - D) Magnesium
84. A 70-year old homeless woman is admitted with pneumonia. She is weak, emaciated and febrile. The physician orders enteral feeding intermittently by nasogastric tube. When inserting the nasogastric tube, once the tube passes through the oropharynx the nurse will instruct the patient to:
- A) Tilt her head backwards
 - B) Swallow as tube passes
 - C) Hold breath us tube passes
 - D) Cough as tube passes

85. The nurse is caring for a patient with pancreatitis. Which of the following intravenous medications would the nurse expect the physician to prescribe for control of pain in this patient?
- A) Morphine sulfate
 - B) Kerolac tromethamine
 - C) Promethazine
 - D) Meperidine
86. A patient had a hemicolectomy performed two days ago. Today, when the nurse assesses the incision, a small part of the abdominal viscera is seen protruding through the incision. Which of the following term will used by the nurse to document this finding of the wound?
- A) Excoriation
 - B) Dehiscence
 - C) Eventration
 - D) Evisceration
87. A 48-year old female patient is going to have a cholecystectomy in the morning. In planning for their postoperative care, the nurse is aware that a priority nursing diagnosis for her will be:
- A) Impaired nutrition
 - B) Urinary retention
 - C) Impaired physical mobility
 - D) Ineffective breathing pattern
88. An 18-year old patient enters the emergency room complaining of coughing, chest tightness, dyspnea, and sputum production. On physical assessment, the nurse notes agitation, nasal flaring, tachypnea, and exploratory wheezing. These signs should alert the nurse to:
- A) Tension pneumothorax
 - B) Asthma attack
 - C) Pneumonia
 - D) Pulmonary embolus
89. A patient has returned to the unit following a left femoral popliteal bypass graft. Six hours later, his dorsalis pedis pulse cannot be palpated, and his foot is cool and dusky; in this situation what the nurse should do:
- A) Continue to monitor the foot
 - B) Notify the physician immediately
 - C) Reposition and reassess the foot
 - D) Assure the patient that his foot is fine

90. The nurse evaluates the teaching given to the elderly patient receiving 'Ranitidine' p.o. Which of the following comments, if made by patient to the nurse, indicate a need for further teaching?
- A) "I may experience diarrhea while taking this medicine."
 - B) "Confusion is a side-effect of this medicine in my age group."
 - C) "Smoking decreases the effect of this medicine."
 - D) "I can take this medicine with an antacid."
91. A 79-years old patient is being transported to the trauma center after being involved in a motor vehicle crash. The patient is confused, has a splinted fracture femur with normal neurovascular status and possible abdominal injuries. The patient has history of coronary artery disease. Vital signs are: BP 110/90, PR 78, RR 24. The patient's skin is cold and clammy with capillary refill time of 5 seconds. What type of shock is suspected in this patient?
- A) Neurogenic
 - B) Distributive
 - C) Hypovolemic
 - D) Cardiogenic
92. A continuous intravenous infusion of heparin is administered to a patient; it is most important for the nurse to have which of the following medications available in the unit?
- A) Digitalis
 - B) Vitamin K
 - C) Magnesium sulfate
 - D) Protamine sulfate
93. Forty-eight hours after a nephrectomy, a patient complains of increasing nausea and abdominal pressure. The nurse's first intervention will be to:
- A) Change the patient's position to relieve abdominal pressure
 - B) Auscultate bowel sounds
 - C) Administer morphine 6 mg, as ordered for the relief of discomfort
 - D) Provide lemon water to drink
94. Which ECG changes would the nurse anticipate for a patient who is in chronic renal failure and his potassium level is 6.5 mEq/L?
- A) Peaked T waves
 - B) Flattened T waves
 - C) ST segment depression
 - D) ST-segment elevation

95. To correctly administer a tuberculin skin test, the nurse would inject 5 TU (tuberculin units) of PPD (purified protein derivative) of tuberculin:
- A) Intradermally
 - B) Subcutaneously
 - C) Intramuscularly
 - D) Subdermally
96. A patient has an abdominal wound with a drain. When cleaning around the drain, the nurse should wipe in which direction?
- A) Laterally, from the center to the opposite side
 - B) From top to bottom
 - C) In a circle, from the center to outward
 - D) In a circle, from the outer border to the center
97. Which intervention would be contraindicated for a patient who develops a temperature of 102°F?
- A) Monitoring temperature every 4-hours
 - B) Increasing fluid intake
 - C) Covering the patient with a light sheet
 - D) Providing a low-calorie diet
98. A female patient is readmitted to the hospital with a warm, tender, reddened area on her right calf. Which of the following contributing factors would the nurse recognize as most important?
- A) History of increased aspirin use
 - B) Recent pelvic surgery
 - C) An active daily walking program
 - D) A history of diabetes mellitus

99. While assessing a patient with a stage-2 pressure ulcer, the nurse observes which of the following criteria?
- A) The skin is red and intact
 - B) There is full-thickness skin loss
 - C) Sinus tracts have developed
 - D) The ulcer is superficial like a blister
100. To enhance the percutaneous absorption of nitroglycerine, it would be most important for the nurse to select a site that is:
- A) Over a bony prominence
 - B) Muscular
 - C) Near heart
 - D) Non-hairy
-