

पुस्तिका में पृष्ठों की संख्या-32  
No. of Pages in Booklet -32  
पुस्तिका में प्रश्नों की संख्या-180  
No. of Questions in Booklet -180

Paper Code : 07

SUBJECT : Renal Transplantation  
(Urology)  
(Super Speciality)

SSAP-22

1000761

प्रश्न पुस्तिका संख्या /  
Question Booklet No.

समय: 3.00 घण्टे  
Time: 3.00 Hours

अधिकतम अंक: 180  
Maximum Marks: 180

प्रश्न-पत्र पुस्तिका के पेपर सील/ पॉलिथिन बैग को खोलने पर परीक्षार्थी यह सुनिश्चित कर लें कि प्रश्न पुस्तिका संख्या तथा ओ.एम.आर. उत्तर-पत्रक पर अंकित बारकोड समान हैं। इसमें कोई भिन्नता हो तो परीक्षार्थी वीक्षक से दूसरा प्रश्न-पत्र प्राप्त कर लें। ऐसा सुनिश्चित करने की जिम्मेदारी अभ्यर्थी की होगी।

**On opening the paper seal/ polythene bag of the Question Booklet the candidate should ensure that Question Booklet Number and Barcode of OMR Answer Sheet must be same. If there is any difference, candidate must obtain another Question Booklet from Invigilator. Candidate himself shall be responsible for ensuring this.**

### परीक्षार्थियों के लिए निर्देश

- सभी प्रश्नों के उत्तर दीजिए।
- सभी प्रश्नों के अंक समान हैं।
- प्रत्येक प्रश्न का केवल एक ही उत्तर दीजिए।
- एक से अधिक उत्तर देने की दशा में प्रश्न के उत्तर को गलत माना जाएगा।
- प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं, जिन्हें क्रमशः 1, 2, 3, 4 अंकित किया गया है। अभ्यर्थी को सही उत्तर निर्दिष्ट करते हुए उनमें से केवल एक गोले अथवा बबल को उत्तर-पत्रक पर नीले बॉल प्वाइंट पेन से गहरा करना है।
- OMR** उत्तर-पत्रक इस परीक्षा पुस्तिका के अन्दर रखा है। जब आपको परीक्षा पुस्तिका खोलने को कहा जाए, तो उत्तर-पत्रक निकाल कर ध्यान से केवल नीले बॉल प्वाइंट पेन से विवरण भरें।
- प्रत्येक गलत उत्तर के लिए प्रश्न अंक का 1/3 भाग काटा जायेगा। गलत उत्तर से तात्पर्य अशुद्ध उत्तर अथवा किसी भी प्रश्न के एक से अधिक उत्तर से है। किसी भी प्रश्न से संबंधित गोले या बबल को खाली छोड़ना गलत उत्तर नहीं माना जायेगा।
- मोबाइल फोन अथवा इलेक्ट्रॉनिक यंत्र का परीक्षा हॉल में प्रयोग पूर्णतया वर्जित है। यदि किसी अभ्यर्थी के पास ऐसी कोई वर्जित सामग्री मिलती है, तो उसके विरुद्ध आयोग द्वारा नियमानुसार कार्यवाही की जायेगी।
- कृपया अपना रोल नम्बर ओ.एम.आर. पत्रक पर सावधानी पूर्वक सही भरें। गलत अथवा अपूर्ण रोल नम्बर भरने पर 5 अंक कुल प्राप्तांकों में से काटे जा सकते हैं।
- यदि किसी प्रश्न में किसी प्रकार की कोई मुद्रण या तथ्यात्मक प्रकार की त्रुटि हो, तो प्रश्न के हिन्दी तथा अंग्रेजी रूपान्तरों में से अंग्रेजी रूपान्तर मान्य होगा।

**चेतावनी :** अगर कोई अभ्यर्थी नकल करते पकड़ा जाता है या उसके पास से कोई अनधिकृत सामग्री पाई जाती है, तो उस अभ्यर्थी के विरुद्ध पुलिस में प्राथमिकी दर्ज कराते हुए विविध नियमों-प्रावधानों के तहत कार्यवाही की जाएगी। साथ ही विभाग ऐसे अभ्यर्थी को भविष्य में होने वाली विभाग की समस्त परीक्षाओं से विवर्जित कर सकता है।

### INSTRUCTIONS FOR CANDIDATES

- Answer all questions.
- All questions carry equal marks.
- Only one answer is to be given for each question.
- If more than one answers are marked, it would be treated as wrong answer.
- Each question has four alternative responses marked serially as 1, 2, 3, 4. You have to darken only one circle or bubble indicating the correct answer on the Answer Sheet using **BLUE BALL POINT PEN**.
- The OMR Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars carefully with **blue ball point pen** only.
- 1/3 part of the mark(s) of each question will be deducted for each wrong answer.** A wrong answer means an incorrect answer or more than one answers for any question. Leaving all the relevant circles or bubbles of any question blank will not be considered as wrong answer.
- Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt as per rules.
- Please correctly fill your Roll Number in O.M.R. Sheet. **5 Marks** can be deducted for filling wrong or incomplete Roll Number.
- If there is any sort of ambiguity/mistake either of printing or factual nature, then out of Hindi and English Version of the question, the English Version will be treated as standard.

**Warning :** If a candidate is found copying or if any unauthorized material is found in his/her possession, F.I.R. would be lodged against him/her in the Police Station and he/she would liable to be prosecuted. Department may also debar him/her permanently from all future examinations.

इस परीक्षा पुस्तिका को तब तक न खोलें जब तक कहा न जाए।  
**Do not open this Test Booklet until you are asked to do so.**

1. The major complication of MRI with gadolinium in patients with CKD is -
  - (1) Seizures
  - (2) Hepatotoxicity
  - (3) Anaphylaxis
  - (4) Nephrogenic system fibrosis
2. Most significant complication of CAPD is -
  - (1) Bowel injury
  - (2) Sepsis
  - (3) Peritonitis
  - (4) Bleeding
3. Furosemide acts on which part of Nephron?
  - (1) PCT
  - (2) DCT
  - (3) Collecting Duct
  - (4) Ascending loop of Henle
4. First Laparoscopic donor nephrectomy was performed by -
  - (1) Peter Morris
  - (2) James P. Hunter
  - (3) Ratner et. al.
  - (4) Barry Warshaw
5. Following are side effects of OKT-3, EXCEPT -
  - (1) Cytokine release syndrome
  - (2) Non-cardiogenic pulmonary edema
  - (3) Aseptic meningitis
  - (4) Thrombocytopenia
6. As compared to surgical AVF creation, true about percutaneous AVF creation is -
  - (1) in percutaneous AVF the time to first cannulation is shorter
  - (2) percutaneous AVF gives maximal flow rates of 500 ml/min
  - (3) percutaneous AVF maturation is inferior to surgical AVF
  - (4) Percutaneous AVF has more short term complication

7. While recipient selection following is to be matched, EXCEPT -
- (1) Body surface area of donor and recipient not requires matching
  - (2) Hyper filtrate markers
  - (3) Age matching
  - (4) Histopathology of donor's kidney
8. While declaring deceased as brain dead following cranial nerves needs to be examined for brainstem reflex, EXCEPT -
- (1) III
  - (2) X
  - (3) VIII
  - (4) XI
9. A 40-year-old woman is willing to donate her kidney to her daughter with type II diabetes. Her BMI is 38 kg/m<sup>2</sup> BP-142/92 mmHg and 24 hours proteinuria of 310 mg and she has a history if recurrent calcium oxalate stones. Which one of the following statement regarding her kidney donation is incorrect?
- (1) She is best donor if HLA matched
  - (2) Her proteinuria indicates underlying glomerular disease
  - (3) Her uncontrolled BP and high BMI exclude her from donation
  - (4) She is at risk for surgical complications
10. Behavioural risk factors of transplant waitlisted patients are all, EXCEPT -
- (1) Sexual behaviour
  - (2) Dietary adherence
  - (3) Physical activity
  - (4) Weight management
11. The most common cancer after kidney transplantation is -
- (1) Skin
  - (2) Cervix
  - (3) Kaposi sarcoma
  - (4) Thyroid
12. The wait list of patients needing transplant is prepared considering following points, EXCEPT -
- (1) Hospital wise list and age wise list
  - (2) Organ and blood group wise list
  - (3) Profession wise list
  - (4) Seniority in wait list first in first out

13. Pseudo rejection occurs in -
- (1) Hyperglycemia
  - (2) Dehydration
  - (3) Cyclosporine toxicity
  - (4) Infection
14. Most cost effective treatment for ESRD is -
- (1) Renal Transplant
  - (2) Peritoneal Dialysis (CAPD)
  - (3) Maintenance Dialysis
  - (4) Dialysis through central vein
15. Preservative solution should be all, EXCEPT -
- (1) Rich in colloid
  - (2) High in calcium
  - (3) Having good buffering agent
  - (4) Rich in citrate
16. In brain death "Cushing reflex" denotes -
- (1) Tachycardia with hypotension
  - (2) Bradycardia with hypertension
  - (3) Tachycardia with hypertension
  - (4) Bradycardia with hypotension
17. What is Gold standard method to check for GFR measurement to know renal function?
- (1) Measurement of GFR by chromium labelled EDTA
  - (2) Measurement of GFR by iothalamate clearance
  - (3) Measurement of GFR by inulin clearance
  - (4) 24 hours urine collection for creatinine clearance
18. The best renal imaging protocol for a living renal donor to define renal anatomy and renal vasculature and to rule out renal stone is -
- (1) KUB x-ray with arteriography
  - (2) Plain and CECT abdomen and pelvis (Helical CT)
  - (3) Renal ultrasonography and selective renal arteriography
  - (4) Magnetic resonance nephrotomography with angiography

19. What is "Lazarus sign"?
- (1) in deceased donor it is false movement of eyes
  - (2) in deceased donor it is false chest movement while apnea test
  - (3) in deceased donor it is false movement of extremities and neck and shoulder while giving painful stimuli
  - (4) in deceased donor it is change of cardiac parameters while giving painful stimuli to the donor
20. Deceased donor score having 7 variable out of which 5 are used in score they all, EXCEPT -
- (1) Age
  - (2) Hypertension
  - (3) Infection as cause of death
  - (4) HLA mismatch
21. All of the following are side effects of tacrolimus, EXCEPT -
- (1) Diabetes mellitus
  - (2) Hyper kalemia
  - (3) Hyper vricemia
  - (4) Hyper cholesterolemia
22. What is recommendation for bladder reconstruction in candidate of renal transplant?
- (1) Bladder reconstruction should be done after transplantation
  - (2) Bladder reconstruction should be done at the time of renal transplantation
  - (3) Bladder reconstruction should be done several weeks prior of transplantation
  - (4) None of the above
23. How often is preterm delivery expected in pregnant kidney transplant recipient?
- (1) 50%
  - (2) 90%
  - (3) 20%
  - (4) 75%
24. Early cell mediated rejection most commonly presents as -
- (1) Asymptomatic rise in serum creatinine
  - (2) Oliguria
  - (3) Mild fever
  - (4) Graft tenderness

25. Which is not component of hemodialyser system?
- (1) Dialyser
  - (2) Dialysate
  - (3) Renal Biopsy
  - (4) Blood delivery system
26. What is true about the revascularization of donor graft?
- (1) Always first do arterial anastomosis
  - (2) Always first do venom anastomosis
  - (3) Arterial or venous anastomosis first depends on the final position of the kidney and ease with which the second anastomosis may be done
  - (4) None of the above
27. Function of NOTTO will be all, EXCEPT -
- (1) Lay down policies and guidance and protocols
  - (2) It allocate the surgical team for transplant
  - (3) Data complication from regional and state organisation
  - (4) Coordinate and organise various training programs
28. Which of the following statements about AV fistula is true?
- (1) Risk of infection is lower than with a dialysis catheter
  - (2) Thrill should only be felt during systole
  - (3) It is contraindicated if LVEF is less than 40%
  - (4) Blood flow is good if it remains full of blood when arm is elevated
29. Before starting brain death examination following are prerequisite, EXCEPT -
- (1) There should be catastrophic evidence of brain injury
  - (2) Core body temperature  $< 32^{\circ}\text{C}$
  - (3) Patient should not have history of alcohol intoxication in recent event
  - (4) Patient should not have neurological illness like locked-in syndrome, akinetic mutism
30. In a patient of Anuria or Oliguria post-transplant from live donor, true statement is -
- (1) Urgent Doppler USG needs to be done
  - (2) USG can be delayed
  - (3) DTPA should be done
  - (4) Bladder catheter needs adjustment

31. Prophylaxis against Pneumocystis infection is best achieved with -
- (1) Trimethoprim - sulfamethoxazole
  - (2) Erythromycin
  - (3) Ciprofloxacin
  - (4) Cephalexin
32. Commonest malignancy paediatric post-transplant is -
- (1) EBV induced lymphoproliferative malignancy
  - (2) Skin cancer
  - (3) Leukaemia's
  - (4) GI malignancy
33. DAMP (Danger Associated Molecular Pattern) includes -
- (1) RNA
  - (2) Flagellin
  - (3) ATP
  - (4) Lipoteichoic acid
34. Survival rates for patients on dialysis are better than those for patients receiving renal allograft in the following circumstances -
- (1) A living related donor is available
  - (2) A cadaver donor must be used
  - (3) The recipient's renal failure is secondary to diabetes
  - (4) None of the above
35. Following renal transplantation, ureteral stricture formation occur mostly at the level of -
- (1) Proximal ureter
  - (2) Middle part of ureter
  - (3) Ureterovesical anastomosis
  - (4) UPJ
36. Kidney transplant patient with chronic rejection presents with constipation. The contraindicated treatment is -
- (1) Oral docusate calcium
  - (2) Oral psyllium
  - (3) Polyethylene glycol – electrolyte solution
  - (4) Phospho - soda enema

37. Prophylaxis against cytomegalovirus infection is best done with -
- (1) Erythromycin
  - (2) Ganciclovir
  - (3) Trimethoprim – sulfamethoxazole
  - (4) Minocycline
38. Following statements are true, EXCEPT -
- (1) First kidney allograft was performed in UK.
  - (2) Azathioprine became available for human use in 1961.
  - (3) Jean Doucet first described an antigen MAC.
  - (4) Cyclosporine is discovered to be powerful immune suppressor by Borel.
39. Earliest ECG changes in Hyperkalemia -
- (1) Flattened P wave
  - (2) Prolonged PR interval
  - (3) Decreased ST segment
  - (4) Tall T wave
40. A frequent symptom associated with hyperphosphatemia is -
- (1) Seizures
  - (2) Headache
  - (3) Diarrhoea
  - (4) Conjunctival itching
41. The renal structure at greatest risk of ischemic injury is -
- (1) Proximal convoluted tubule
  - (2) Distal convoluted tubule
  - (3) Afferent arteriole
  - (4) JG apparatus
42. In renal failure commonly ABG suggestive of -
- (1) Metabolic acidosis
  - (2) Metabolic alkalosis
  - (3) Respiratory acidosis
  - (4) Respiratory alkalosis
43. The optimum treatment of renal artery stenosis at mid portion of main arterial trunk in a transplanted kidney producing hypertension resistant to the medical therapy is -
- (1) Nephrectomy
  - (2) Percutaneous dilatation of artery
  - (3) Surgical bypass of arterial stenosis
  - (4) Heparinization with medical treatment of hypertension



44. What are the incidences of nephrolithiasis in renal transplant recipient?
- (1) 1% - 5%
  - (2) 5% -10%
  - (3) 15% - 20%
  - (4) > 20%
45. Incidence of lymphocele can be minimised by -
- (1) Pelvic dissection
  - (2) Ligating lymphatic's
  - (3) Avoiding sirolimus in early Postop period
  - (4) All of the above
46. Most common cause of graft rejection in paediatric patient -
- (1) Chronic rejection
  - (2) Acute rejection
  - (3) Sub-acute rejection
  - (4) Immediate rejection
47. Indication of maintenance haemodialysis -
- (1) Hypokalemia
  - (2) Metabolic alkalosis refractory to medical therapy
  - (3) Estimated GFR below 10 ml/1.73 m<sup>2</sup>
  - (4) Along with PD for better control
48. Which is ROTTO for Rajasthan?
- (1) SGPGI Lucknow
  - (2) PGI Chandigarh
  - (3) SMS Jaipur
  - (4) AIIMS Jodhpur
49. Five years after successful renal transplant a 55 years old man is referred to you because of total gross hematuria. Each of the following is an important part of the workup, EXCEPT -
- (1) Urine cytology
  - (2) Imaging of native as well as transplanted kidney
  - (3) Urine PCA 3 determination
  - (4) Urethrocystoscopy

50. Most common early opportunistic infection in renal transplant recipients -
- (1) Aspergillus
  - (2) Hepatitis B
  - (3) B.K. virus
  - (4) Pneumocystis carinii
51. Transplantation of Human Organ Act is passed and amended in -
- (1) 1994, 2010
  - (2) 1994, 2011
  - (3) 1996, 2011
  - (4) 1990, 2011
52. All are true regarding erectile dysfunction in renal transplant recipient, EXCEPT -
- (1) Because of side effect of immunosuppression and decrease in cavernosal blood supply
  - (2) Sildenafil decrease GFR
  - (3) Intracorporeal injection are effective
  - (4) Penile prosthesis is chosen if there is stable graft function for at least 6 months
53. Source of free radicals generation in deceased donor are all, EXCEPT -
- (1) Xanthin oxidase
  - (2) Superoxide dismutase
  - (3)  $H_2O_2$
  - (4)  $H_2O_2$  with iron
54. Which of the following investigations would you not routinely perform on a 67-year-old man to assess his suitability to donate a kidney to his wife?
- (1) Urine microscopy
  - (2) Colonoscopy
  - (3) Hepatitis serology
  - (4) Electrocardiogram
55. Calciphylaxis occurs when  $Ca \times PO_4$  is >
- (1) 30
  - (2) 40
  - (3) 50
  - (4) 60
56. The treatment options of stones in transplanted kidney -
- (1) PCNL
  - (2) URSL/RIRS
  - (3) ESWL
  - (4) All of the above

57. In renal transplantation recipient if pre transplant evaluation suggestive of poor urinary flow and high residual urine. What is most useful investigation?
- (1) Uroflowmetry and residual urine assessment by USG
  - (2) Cystomanometry with EMG of pelvic floor
  - (3) Videourodynamics
  - (4) Cystourethroscopy
58. Lymphoproliferative disorder are associated with which virus?
- (1) EBV
  - (2) CMV
  - (3) HIV
  - (4) HSV
59. Overall reported mortality rate in first year after transplant is -
- (1) 20%
  - (2) 10%
  - (3) 25%
  - (4) 5%
60. Haemorrhagic cystitis in immunocompromised patient is associated with which virus?
- (1) EBV
  - (2) CMV
  - (3) Adenovirus
  - (4) Rhinovirus
61. Steroid resistant rejection is often treated with -
- (1) Sirolimus
  - (2) Mycophenolate mofetil
  - (3) Basiliximab
  - (4) Antilymphocyte globulin
62. Which of the following is required for cellular sodium potassium pump to maintain high intracellular concentration of  $K^+$  and low intracellular concentration of  $Na^+$ ?
- (1) ADP
  - (2) CMP
  - (3) ATP
  - (4) Nitric oxide
63. What is a surrogate marker for pancreases rejection in simultaneous pancreases-kidney transplant?
- (1) Decrease amylase level
  - (2) Hyperglycaemia
  - (3) Raised creatinine level
  - (4) All of the above

64. Chronic antibody-mediated rejection –
- (a) May be C4d negative in graft biopsy samples
  - (b) Has specific histopathologic features
  - (c) Is found more often in patients nonadherent to immunosuppressive medication
  - (d) Can be mediated only by HLA alloantibodies
  - (e) Is targeted by reduction of immunosuppression

Code -

- (1) Only (a) and (b) are correct
  - (2) Only (a), (b), (c) and (d) are correct
  - (3) Only (a), (b) and (c) are correct
  - (4) All are correct
65. While managing the donor (cadaveric) following are the goals of mechanical ventilations, except -
- (1) Fraction of inspired oxygen 0.40
  - (2) Normal arterial pH
  - (3) Plateau pressure >35cm H<sub>2</sub>O
  - (4) Tidal volume 8-10ml/kg
66. What is the method of donor ureteric re-implantation in augmented bladder?
- (1) Donor ureter should be implanted in native bladder
  - (2) Donor ureter should be implanted in ileum or caecum component of augmented bladder
  - (3) Donor ureter should be anastomose with native ureter
  - (4) Transplant is not possible as ureter cannot be implanted in augmented bladder
67. All these are risk factors for chronic allograft nephropathy, EXCEPT -
- (1) Histocompatibility mismatch
  - (2) Older age of donor
  - (3) Female recipient
  - (4) Donor and recipient size mismatch
68. Which preservation modality is used for renal allografts from older donors?
- (1) Hypothermic pulsatile storage
  - (2) Cold storage
  - (3) Either of the above
  - (4) None of the above
69. Most important cytokine involved in the rejection process -
- (1) IL - 1
  - (2) IL - 2
  - (3) IL - 5
  - (4) Interferon-gamma

70. Following is true about renal artery thrombosis, EXCEPT -
- (1) Seen in patients multiple arteries
  - (2) Occurs 2 weeks after transplant
  - (3) Painless cessation of urine flow
  - (4) Sudden rise in creatinine and hyperkalemia
71. True of hypotension, ↓ Haematocrit and pain after transplant should raise suspicion of -
- (1) Post-operative bleeding
  - (2) Coronary artery disease
  - (3) Acute rejection
  - (4) Urine leak
72. What is not true about graft survival?
- (1) Adolescents have best 5 yrs results of any age
  - (2) African-American ethnicity is associated with worse outcome
  - (3) Long term survival in paediatric patients is best with HLA identical sibling
  - (4) Graft failure increase by 30% with more than 5 transfusions pre-transplant
73. Which state has not accepted THOA?
- (1) Rajasthan
  - (2) Andhra Pradesh
  - (3) Kerala
  - (4) Sikkim
74. After living donor nephrectomy, the renal donor is expected to have what level of total renal function?
- (1) 50%
  - (2) 60%
  - (3) 80%
  - (4) 100%
75. Most common acute complication of haemodialysis -
- (1) Hypotension
  - (2) Muscle cramps
  - (3) Infection
  - (4) Anaphylactoid reaction

76. All of the following place a deceased donor into the Centers for Disease control's "high-risk" category, EXCEPT -
- (1) Man who has had sex with another man during the previous month.
  - (2) Donor who has smoked crack cocaine with the last year.
  - (3) History of intravenous heroin use 3 years ago.
  - (4) Man who was released from prison after a 15-year sentence 5 days before the pronouncement of brain death.
77. Most common form of early rejection is -
- (1) Antibody mediated
  - (2) Cell mediated
  - (3) Vascular rejection
  - (4) Subclinical rejection
78. What is Sarcopenia?
- (1) decrease in sleep in patient on dialysis
  - (2) reduced skeletal mass in patient on dialysis
  - (3) reduced fat in patient on dialysis
  - (4) poor nutrition in patient on dialysis
79. Following statements regarding renal failure and RRT is correct, EXCEPT -
- (1) The expected life span once RRT started is approximately 8 year for individuals between 40-44 years and 4.5 years for individuals between 60-64 years.
  - (2) For patients starting haemodialysis all cause mortality peaks at the second month of treatment and decrease thereafter.
  - (3) Quality of life is better with PD than HD than transplant.
  - (4) Patient begins of PD experience gradual increase in mortality risk with in first 12 months of treatment.
80. Which of the following is false regarding preoperative assessment for AVF creation?
- (1) Inflow arterial assessment should be carefully done if implanted cardiac device is present
  - (2) Preoperative assessment improves outcomes of both surgical and percutaneous AVF
  - (3) Depth and tortuosity of target conduit is an important factor
  - (4) Venography is helpful in selected patients with suspected central venom stenosis

81. Peritransplantation abscess generally occurs within.....weeks after transplantation.
- (1) 4-5
  - (2) 1-2
  - (3) 8-10
  - (4) 7-8
82. ACCOMMODATION in renal transplant surgery refers to -
- (1) Paired kidney transplant
  - (2) Transplant in ABO incompatible patient
  - (3) Transplant in HLQ incompatible patient
  - (4) Combined kidney and pancreas transplant
83. THOA 1994 was amended later, following is included in amendment, EXCEPT-
- (1) Near relative include grand-children and grand-parents
  - (2) Tissue have been included along with organ
  - (3) Mandatory to have transplant coordinator
  - (4) Mandatory to have either neurologist or neurosurgeon in brain death board
84. Genes that determine the rejection or acceptance of grafts are present in locus on chromosome -
- (1) 16
  - (2) 10
  - (3) 6
  - (4) 4
85. What is true about the cancer development in kidney transplant recipient?
- (1) Risk of cancer is development is great in patient who are older when they first undergo transplant.
  - (2) Risk of cancer development is great in patient who are younger when they first undergo transplant.
  - (3) Risk of cancer is not related with age at transplant.
  - (4) None of the above
86. Clinical manifestations of chronic antibody-mediated rejection are -
- (a) A rise in serum creatinine
  - (b) A rise in protein excretion
  - (c) Specific for chronic antibody-mediated rejection
  - (d) Often late signs that occur after significant allograft damage has already occurred
- Code -
- (1) Only (a) is correct
  - (2) (a) and (b) are correct
  - (3) All answers are correct
  - (4) (a), (b) and (d) are correct

87. Approx. 50% of Hospitalization of dialysis dependent patients are of multiple reasons after the first hospitalization these patients are readmitted mainly of these following reasons, EXCEPT-
- (1) Acute myocardial infarction
  - (2) Septicaemia
  - (3) Surgical complications
  - (4) Diabetes
88. Post-transplant patient showed signs of pallor and worsening shock. What is false about management of bleeding post-transplant?
- (1) Source may be small hilar vessels
  - (2) Occult coagulopathy should be ruled out
  - (3) Administration of blood, efficient dialysis, estrogen infusion and adrenaline may help
  - (4) Late profound haemorrhage is generally due to mycotic aneurysmal rupture
89. After donor nephrectomy common abnormality seen in donors urine routine examination after few months will be -
- (1) Haematuria
  - (2) Pyuria
  - (3) Albuminuria
  - (4) Glycosuria
90. Which of the following recipient factors is an absolute contraindication to transplantation?
- (1) Active sepsis
  - (2) HIV infection
  - (3) Obesity
  - (4) Age older than 70 years
91. If the first transplant has failed because of FSGS, than chances of second transplant failure because of the disease is -
- (1) Nearly 50%
  - (2) Nearly 80%
  - (3) Rare
  - (4) Never occurs
92. In the event of multiple organs to be retrieved, the organ to be removed last is -
- (1) Heart
  - (2) Lung
  - (3) Liver
  - (4) Kidneys



93. Before stating Apnea test following are prerequisite, EXCEPT -
- (1) Normotensive
  - (2) Eucapnea PaCO<sub>2</sub> 35-45 mm Hg
  - (3) Hypothermic
  - (4) There should be no hypoxia
94. Hypothermia (0° to 4°C) is a critical component of successful organ cold storage, because -
- (1) Oxygen is more soluble in cold solutions and provides a continual supply for energy metabolism.
  - (2) There is no way to suppress microbial growth except by cooling and slowing the growth rate.
  - (3) Hypothermia diminishes energy requirements and allows the limited energy reserve to keep the organ.
  - (4) It slows metabolism and the enzymic processes that would destroy the cell.
95. DNA based typing has following advantages over serology, EXCEPT -
- (1) Greater accuracy
  - (2) Reproducibility
  - (3) Can be done on any nucleated cells
  - (4) None of the above
96. In case of severe Hyperlipidemia post-transplant which drug may not need reduction or withdrawal -
- (1) Cyclosporine
  - (2) Prednisolone
  - (3) Tacrolimus
  - (4) Azathioprine
97. Clinical presentation of stone disease in transplant kidney are all, EXCEPT -
- (1) Asymptomatic
  - (2) Renal colic
  - (3) Gross Haematuria
  - (4) Reduced or absent urine output
98. Which of the following distinguish MHC class I from MHC class II antigens?
- (1) MHC class I and class II antigens are encoded in different regions of the MHC complex.
  - (2) MHC class I antigens are expressed on specialized antigen presenting cells, whereas MHC class II antigens are expressed on all cells.
  - (3) MHC class I and class II are members of different supergene families.
  - (4) MHC class I are considered to be the major histocompatibility antigens and MHC class II the minor histocompatibility antigens.

99. Native kidney nephrectomy best done in -
- (1) At the time of transplantation
  - (2) 6 weeks before transplantation
  - (3) 12 weeks before transplantation
  - (4) 6 weeks after transplantation
100. Patients on haemodialysis are required to maintain their serum phosphorus level at -
- (1) Less than equal to 8 mg/dl
  - (2) Less than equal to 4 mg/dl
  - (3) Less than equal to 6 mg/dl
  - (4) Less than equal to 12 mg/dl
101. What is usual time of cancer presentation in kidney transplant patient?
- (1) 2 years
  - (2) 4-5 years
  - (3) 6-10 years
  - (4) 10-15 years
102. True statement about warm ischemia time is -
- (1) Period between circulatory arrest and commencement of cold storage
  - (2) Zero in brain dead donors
  - (3) Kidney may function after upto 60 minutes of warm ischemia
  - (4) All of the above
103. Which of the following renal disease has high probability of recurrence in patients with a kidney transplant resulting in failure of kidney graft?
- (1) Chronic glomerulonephritis
  - (2) Focal segmental glomerulosclerosis
  - (3) IgA Nephropathy
  - (4) Alport syndrome
104. Following infection in deceased donor is absolute contraindication for organ donation -
- (1) HIV
  - (2) HBV and HCV
  - (3) Both of the above
  - (4) Nothing is absolute contraindication
105. Histocompatibility system of greatest importance in the renal transplant is -
- (1) ABO
  - (2) HLA
  - (3) Both
  - (4) None of the above

106. Which of the following drugs have been shown to have proved fetal risk?
- (1) Azathioprine
  - (2) Steroids
  - (3) Sirolimus
  - (4) Basiliximob
107. What is absolute contraindication of PD?
- (1) Inflammatory bowel disease and encapsulating peritoneal sclerosis
  - (2) Obesity and advanced age
  - (3) Stomas, COPD
  - (4) Abdominal hernias
108. Most common urological malignancy in transplant recipient -
- (1) Prostate malignancy
  - (2) Bladder tumor
  - (3) Renal cell carcinoma
  - (4) Testicular malignancy
109. Which one of the following immunological barriers should not be considered for successful kidney transplant?
- (1) Blood group incompatibility
  - (2) HLA mismatch
  - (3) Anti-donor HLA antibody in recipient
  - (4) Rhesus factor positivity
110. Commonest early complication in donor nephrectomy -
- (1) Bleeding
  - (2) Hernia
  - (3) Bowel obstruction
  - (4) Splenic injury
111. In peritoneal dialysis the catheter tip should be placed in -
- (1) Morrison's pouch
  - (2) Paracolic gutter in Rt. iliac fossa
  - (3) Paracolic gutter in left iliac fossa
  - (4) Rectovesical pouch
112. Which is prerenal cause of acute renal injury?
- (1) Vasculitis
  - (2) Nephrotoxic medications
  - (3) Congestive heart failure
  - (4) Renal stone disease

113. Not true about malignancies post renal transplant is -
- (1) Common in chronic dialysis patients
  - (2) All malignancies arise de novo
  - (3) Risk of transmission of malignancy from donor is extremely low
  - (4) Lung cancer is more common than general population
114. Patients administered IVIG should be monitored for following -
- (1) Aseptic meningitis
  - (2) Osmotic nephrosis
  - (3) Impaired renal function
  - (4) All of the above
115. Urinomas may occur due to any of this following causes, EXCEPT -
- (1) Acute rejection
  - (2) Incomplete bladder closure
  - (3) Collecting system ischemia
  - (4) Post biopsy injury
116. Which of the following is most important HLA before renal transplant?
- (1) MHC-III
  - (2) HLA DQ
  - (3) HLA DR
  - (4) HLA DP
117. Pre-transplant cholecystectomy is indicated in all of the following conditions, EXCEPT -
- (1) Symptomatic gall stones
  - (2) Multiple small gall stones
  - (3) Single asymptomatic gall stones
  - (4) Cholelithiasis with gall bladder wall thickening
118. Manifestation of transplant renal artery stenosis can be any of the following, EXCEPT -
- (1) Erythrocytosis
  - (2) Hypotension
  - (3) Allograft bruit
  - (4) Edema

119. Large volume of urine on the early post-operative course of renal transplant patients -
- (1) Result from osmotic stimuli to diuresis
  - (2) May signify reversible polyuric acute tubular necrosis
  - (3) Facilitate the diagnosis of rejection and obstruction of the renal artery and/or collecting system
  - (4) All of the above
120. Cross match testing is necessary prior to surgical transplantation to detect anti HLA antibodies in recipient. Which one of the following test is not used to detect anti HLA antibodies in recipient?
- (1) Panel reactive antibody test
  - (2) Anti-human globulin enhanced test
  - (3) Competent-dependent cytotoxicity test
  - (4) Solid phase bead or ELISA assay
121. A patient underwent transplant is into 4<sup>th</sup> week of post-transplant. On follow up his creatinine is 2.3 mg/dl. Biopsy shows fibrosis, Arteriopathy hyalinization, atrophic tubules, ischemic collapse of glomeruli. He is suffering from -
- (1) Chronic CNI toxicity
  - (2) ATN
  - (3) Arterial Antibody Mediated Rejection
  - (4) Acute CNI toxicity
122. Regarding management of recurrent FSGS -
- (1) First-line therapy includes a 3-day course of daily intravenous pulses of methylprednisolone
  - (2) Cyclophosphamide should be commenced once recurrence is confirmed
  - (3) In a patient who develops nephrotic-range proteinuria 2 weeks after transplant, a biopsy specimen that is normal on light microscopy excludes the diagnosis of recurrent FSGS
  - (4) Plasma exchange should be commenced once a diagnosis of recurrent FSGS is made, with a plan to complete approximately nine cycles of therapy
123. True about concomitant kidney-liver transplantation -
- (1) Not necessary to routinely cross match unsensitised patients before LKT
  - (2) Liver transplant provides a form of immunological protection
  - (3) Fear of recurrent disease greater than rejection
  - (4) All of the above

124. Following are immediate complications of donor nephrectomy, EXCEPT -
- (1) Pulmonary thromboembolism
  - (2) Renal ischemia leading to graft rejection
  - (3) Wound infections
  - (4) Hematoma
125. Most common indication for treatment of Lymphocele -
- (1) Bleeding
  - (2) Ureteral obstruction
  - (3) Pain in local area
  - (4) None of the above
126. Actuarial survival is a -
- (1) Method of calculating how long a patient will live after kidney transplant failure
  - (2) Statistical method of maximizing the information available for analysis of outcome from a group of patients and events
  - (3) Way of making "actual results" seem more plausible
  - (4) Statistical method to estimate the outcomes of patients who are lost to follow-up
127. To improve outcome with marginal kidney graft, following is correct statement -
- (1) We need to accept the poor outcome
  - (2) Reduction of cold ischemia time with better recipient selection
  - (3) We should use calcineurin inhibitor for immune suppression
  - (4) Use single kidney for transplant only
128. Indication for graft nephrectomy is -
- (1) Irreversibly damaged graft kidney which is symptomatic
  - (2) Chronically rejected asymptomatic graft to withdraw immunosuppression
  - (3) To prevent development of HLA antibodies
  - (4) All of the above
129. Improved kidney surviving strategy includes all, EXCEPT -
- (1) decreasing warm ischemia rather than cold ischemia
  - (2) age matching of donor and recipient
  - (3) use of pulsatile perfusion machine
  - (4) use of protective agents in solution

130. What has been described as the footprint for presence of antibody mediated rejection?
- (1) C4d
  - (2) C3
  - (3) C3b
  - (4) C1q
131. Expanded criteria for donor kidney, which is true?
- (1) Allocated according to multiple parameters
  - (2) Offered to those who agree to accept them
  - (3) Kidneys have similar graft survival to others
  - (4) 2 year graft survival is 90%
132. Ideal cold ischemia time for kidney transplantation is -
- (1) 16 hrs.
  - (2) 18 hrs.
  - (3) 20 hrs.
  - (4) Less than 12 hrs.
133. Acute nephritic syndrome include all, EXCEPT -
- (1) Post streptococcal glomerulonephritis
  - (2) Lupus nephritis
  - (3) Alport syndrome
  - (4) IgA nephropathy
134. Following is true statement for deceased donor optimization-
- (1) Plasma sodium should be above 160 mmol/Lit
  - (2) Urine output should be 0.5-3ml/kg/hr
  - (3) Euglycemia < 120mg/dL
  - (4) Hypothermia
135. Donor renal vein is sewn to which vessel?
- (1) Internal iliac vein
  - (2) External iliac vein
  - (3) Either of above
  - (4) Inferior vena cava
136. Which is less common in CKD?
- (1) Hyperkalemia
  - (2) Hyperphosphatemia
  - (3) Hypocalcemia
  - (4) Hypokalemia

137. Which of the following has been associated with higher incidences of mortality in living donor nephrectomy?
- (1) Open donor nephrectomy
  - (2) Ligation of the renal vein with Endo-GIA stapling device
  - (3) Ligation of renal artery with single Hem-o-lok clip
  - (4) Retroperitoneoscopic donor nephrectomy
138. Gold standard diagnosis of transplant renal artery stenosis is -
- (1) USG Doppler
  - (2) Angiography
  - (3) Re-exploration
  - (4) MRI
139. In small children (wt.< 20kg) which is true statement for renal transplant?
- (1) Kidney placement as usual extraperitoneal pelvic location
  - (2) Kidney placement intra peritoneal with vascular anastomosis with Infrarenal IVC and aorta
  - (3) Vascular anastomosis to common iliac artery and vein
  - (4) Native nephrectomy done and kidney transplanted orthotopically
140. Most common type of peritransplant collection is -
- (1) Haematoma
  - (2) Urinoma
  - (3) Lymphocele
  - (4) Abscess
141. Most common technique for ureteric anastomosis is -
- (1) Lich Gregoir
  - (2) Cohen
  - (3) Paquin
  - (4) Ledbetter-Politano
142. What is treatment of choice in proteinuria with hypertension?
- (1) Angiotensin receptor blockers
  - (2) Calcium channel blockers
  - (3)  $\beta$  blocker
  - (4)  $\alpha$  blocker



143. Delayed consequences of AKI are all, EXCEPT -
- (1) Recurrent AKI
  - (2) HTN
  - (3) DM type 2
  - (4) Incident ESRD
144. Warm ischemia is because of -
- (1) Surgical trauma
  - (2) Failure of oxidative phosphorylation
  - (3) Cold irrigation trauma
  - (4) None of the above
145. All are true, EXCEPT -
- (1) Functionalized augmentation is preferable to dry augmentation.
  - (2) Urothelium lined augmentation is best.
  - (3) Augmentation is indicated when there is decreased bladder capacity.
  - (4) Augmented bladder do not require CIC.
146. The expanded criteria of donor kidney is -
- (1) Kidney from deceased donor older than 60 year
  - (2) Deceased donor aged 50-59 years with two additional risk factors
  - (3) Allocated according to waiting time alone
  - (4) All of the above
147. Most common hereditary renal disorder leading to ESRD is -
- (1) Autosomal recessive polycystic kidney
  - (2) Hypo plastic kidneys
  - (3) Medullary cystic disease
  - (4) ADPKD
148. ACE inhibitors are indicated in CKD patients to -
- (1) Improve renal function
  - (2) Improve cardiac function
  - (3) To prevent progressive kidney disease
  - (4) To control blood lipids

149. Which surgical technique is being used today for pancreas kidney transplant?
- (1) Pancreas and duodenum venous anastomose iliac vein and duodenoenterostomy for exocrine drainage
  - (2) Pancreas and duodenum venous anastomosis to iliac vein and duodenocholecystostomy for exocrine drainage
  - (3) Whole pancreas duodenal transplantation with portal venous drainage and duodenojejunostomy for exocrine drainage
  - (4) None of the above
150. Rapidly rising cause of chronic renal failure in India is -
- (1) Hypertension
  - (2) Renal infections
  - (3) Diabetes insipidus
  - (4) Diabetes mellitus
151. All are true, EXCEPT -
- (1) Lateral lymphoceles are easy to access laparoscopically.
  - (2) Lymphocele are best treated by unroofing into peritoneal cavity.
  - (3) Lymph has creatinine similar to that of blood.
  - (4) Lymph has creatinine less than that in urine.
152. What is the strongest risk factor for development of stone disease in transplanted kidney?
- (1) Non-absorbable sutures in urinary tract
  - (2) Retained stent
  - (3) Persistent UTI
  - (4) Female gender with previous history of stone disease
153. All except one is contraindication for the use of desirable side for renal transplant -
- (1) Previous venous thrombosis of one leg of that side
  - (2) History of prolong venous cannulation in one leg of that side
  - (3) Previous abdominal incision on that side
  - (4) That side lower limb is fractured
154. Prior to renal transplant following are the indications of UDS, EXCEPT -
- (1) Patients with history of lower urinary tract symptoms
  - (2) De functionalized bladder
  - (3) Patient with history of kidney stone disease
  - (4) Complex urological history

155. During organ harvesting following statement is true in case of deceased donation -
- (1) Liver, pancreas to be harvested in last
  - (2) Kidney to be harvested in last
  - (3) Kidney to be harvested first as surgeon wants to prevent it for ischemia
  - (4) Right kidney to be harvested first then liver, pancreas and then left kidney
156. What is divided in last during donor nephrectomy?
- (1) Ureter
  - (2) Renal artery
  - (3) Gonadal vein
  - (4) Renal vein
157. Which of the following statement about post transplantation malignancy is correct?
- (1) Certain immunosuppressive agents increase the incidence of malignancy in transplant recipient, whereas others do not.
  - (2) Those malignancies most commonly seen in the general populations (breast, colon) are substantially more common in transplant recipients.
  - (3) Lymphoproliferative states and B-lymphomas are associated with Epstein – Barr virus.
  - (4) None of the above
158. True about Pharmacokinetics of calcineurin inhibitors -
- (1) Tacrolimus levels can decrease by 25% with discontinuation of steroids
  - (2) Diltiazem and ketoconazole helps in achieving therapeutic levels
  - (3) Sevelamer may increase levels
  - (4) Bioavailability of oral cyclosporine is 70%
159. Points which preclude donation are -
- (1) Proteinuria > 250mg/day
  - (2) Total GFR < 80 ml/minute
  - (3) Current pregnancy
  - (4) All of the above
160. During cold ischemia and/or warm ischemia following is pathophysiology of cell damage, EXCEPT-
- (1) Cell swelling due to poor function of  $\text{Na}^+/\text{K}^+$  ATPase
  - (2) Acidosis due to anaerobic metabolism
  - (3) Reactive free radicals
  - (4) Improperly functioning of  $\text{Mg}^{++}$  pump

161. Which of the following interferes with the tubular secretion of creatinine and can cause an increase in serum creatinine levels?
- (1) Azathioprine
  - (2) Trimethoprim
  - (3) Mycophenolate mofetil
  - (4) Basiliximab
162. Advantages of Laparoscopic donor nephrectomy over open donor nephrectomy are all, EXCEPT -
- (1) Improved donor satisfaction
  - (2) Less donor morbidity
  - (3) Improved graft outcomes
  - (4) It increases living donation rate
163. Reported mortality of donor nephrectomy is -
- (1) 0.0001%
  - (2) 0.03%
  - (3) 0.1%
  - (4) 1%
164. Renal blood flow normally drains -
- (1) 30% of cardiac output
  - (2) 20% of cardiac output
  - (3) 40% of cardiac output
  - (4) 35% of cardiac output
165. According to the Banff working classification of Renal allograft Pathology, which of the following patterns would be recognized as acute antibody-mediated rejection?
- (1) Circulating donor-antibodies, severe tubulitis, interstitial inflammation
  - (2) Peritubular capillary C4d deposition, peritubular capillaritis, interstitial inflammation
  - (3) Circulating donor-specific antibodies, mild-moderate large vessel intimal arteritis, moderate interstitial fibrosis
  - (4) Peritubular capillary C4d deposition, circulating donor-specific antibodies, peritubular capillaritis
166. Treatment of choice for primary oxalosis causing ESRD -
- (1) Renal treatment
  - (2) Liver treatment
  - (3) Renal and liver treatment
  - (4) None of the above

167. Regarding allograft nephrectomy which of the following statement is true?
- (1) Allograft nephrectomy is indicated for all failed kidney transplant.
  - (2) Allograft nephrectomy is a relatively simple procedure and can be performed without significant prior experience.
  - (3) Levels of circulating anti HLA antibody may be reduced by allograft nephrectomy if the transplant fails within one year.
  - (4) Allograft nephrectomy is mandatory if candidate for second renal transplant.
168. Not true about peritoneal dialysis -
- (1) In PD, 1.5-3lit. of dextrose solution is infused in peritoneal cavity and allow to dwell for at least 2-4 hrs.
  - (2) In initial PD it is done along with HD for better outcome.
  - (3) PD may be carried out as CAPD, CCPD or combination.
  - (4) PD solution are available in volume typically.
169. Most common causes of death following kidney transplant in order are -
- (1) heart disease, sepsis and stroke
  - (2) kidney failure, sepsis and cancer
  - (3) sepsis, cancer and heart disease
  - (4) heart disease, cancer and stroke
170. A 40-year-old woman is evaluated for kidney donation all pertinent tests are negative except for microscopic hematuria. She has menstrual cycle 15 days ago. Urine sediment shows six dysmorphic RBCs on phase constant microscopy. Which one of the following test you recommend for this donor?
- (1) Renal Biopsy
  - (2) CT scan of kidneys
  - (3) Malignancy workup
  - (4) Workup for renal stones
171. A 54-year-old male with ESRD due to type 2 DM has been on haemodialysis for 2 years and is referred for transplant evaluation. Which of the following is an absolute contraindication to renal transplantation?
- (1) Gleason 3+3 prostate cancer treated by radical prostatectomy 1 year ago
  - (2) Recent development of a gangrenous toe
  - (3) A T1a N0Mx Fuhrman grade 2 RCC treated by radical nephrectomy 1 year ago
  - (4) History of below knee amputation 4 years ago now moving with prosthesis

172. A 30-year-old man with type 1 diabetes and creatinine of 4.1 mg/dl (eGFR 18ml/min) ask you about transplant options. Which one of the following is considered the best option for this patient?
- (1) Living – related kidney transplant alone
  - (2) Cadaveric transplant alone
  - (3) Simultaneous pancreas and kidney transplant
  - (4) Pancreas after kidney transplant
173. False about tacrolimus is -
- (1) Macrolide antibiotic
  - (2) Isolated from Streptomyces-Tsukubaensis
  - (3) They are myelosuppressive
  - (4) Previously called FK-506
174. Kidney transplant survival rates are poorest for which of the following donor categories?
- (1) Sibling
  - (2) Parent
  - (3) Spouse
  - (4) Expanded criteria deceased
175. Which of the following is true regarding urologic complications after renal transplantation?
- (1) Urologic complications are less common than vascular complications
  - (2) Urologic complications invariably manifest early
  - (3) Re-exploration and surgical reconstruction are always required for urine leaks
  - (4) Transplant ureteral stenosis is associated with BK polyoma virus infection
176. Probable risk factors in developing malignancy in transplanted patients are all, EXCEPT-
- (1) Immunosuppression
  - (2) Infection with organic virus
  - (3) Loss of 'T' suppressor function
  - (4) Presence of diabetes mellitus
177. Most common preservative for all abdominal organs is -
- (1) UW Solution
  - (2) Saline
  - (3) Bouins fluid
  - (4) Liquid nitrogen

178. In which state of India highest no. of deceased donation and transplantation is done?
- (1) Kerala
  - (2) Telangana and Andhra
  - (3) Tamil Nadu
  - (4) Karnataka
179. Following are preservative solutions used for transporting harvested kidney, EXCEPT -
- (1) University of Wisconsin solution
  - (2) Celsior solution
  - (3) Histidine - Tryptophan - Ketoglutarate solution
  - (4) Histidine - Ringer lactate - Citrate solution
180. False about living donor evaluation process -
- (1) Undergoing evaluation is a commitment to donate
  - (2) Physician may turn me down as donor and will be informed why
  - (3) Information obtained is confidential
  - (4) I can stop at any time

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**Space for Rough Work**