

AOE

PROVISIONAL ANSWER KEY (CBRT)

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Instructions / સૂચના

Candidate must ensure compliance to the instructions mentioned below, else objections shall not be considered: -

- (1) All the suggestion should be submitted in prescribed format of suggestion sheet Physically.
- (2) Question wise suggestion to be submitted in the prescribed format (Suggestion Sheet) published on the website.
- (3) All suggestions are to be submitted with reference to the Master Question Paper with provisional answer key (Master Question Paper), published herewith on the website. Objections should be sent referring to the Question, Question No. & options of the Master Question Paper.
- (4) Suggestions regarding question nos. and options other than provisional answer key (Master Question Paper) shall not be considered.
- (5) Objections and answers suggested by the candidate should be in compliance with the responses given by him in his answer sheet. Objections shall not be considered, in case, if responses given in the answer sheet /response sheet and submitted suggestions are differed.
- (6) Objection for each question shall be made on separate sheet. Objection for more than one question in single sheet shall not be considered & treated as cancelled.

ઉમેદવારે નીચેની સૂચનાઓનું પાલન કરવાની તકેદારી રાખવી, અન્યથા વાંધા-સૂચન અંગે કરેલ રજૂઆતો ધ્યાને લેવાશે નહીં

- (1) ઉમેદવારે વાંધા-સૂચનો નિયત કરવામાં આવેલ વાંધા-સૂચન પત્રકથી રજૂ કરવાના રહેશે.
- (2) ઉમેદવારે પ્રશ્નપ્રમાણે વાંધા-સૂચનો રજૂ કરવા વેબસાઈટ પર પ્રસિધ્ધ થયેલ નિયત વાંધા-સૂચન પત્રકના નમૂનાનો જ ઉપયોગ કરવો.
- (3) ઉમેદવારે પોતાને પરીક્ષામાં મળેલ પ્રશ્નપુસ્તિકામાં છપાયેલ પ્રશ્નક્રમાંક મુજબ વાંધા-સૂચનો રજૂ ન કરતા તમામ વાંધા-સૂચનો વેબસાઈટ પર પ્રસિધ્ધ થયેલ પ્રોવિઝનલ આન્સર કી (માસ્ટર પ્રશ્નપત્ર)ના પ્રશ્ન ક્રમાંક મુજબ અને તે સંદર્ભમાં રજૂ કરવા.
- (4) માસ્ટર પ્રશ્નપત્ર માં નિર્દિષ્ટ પ્રશ્ન અને વિકલ્પ સિવાયના વાંધા-સૂચન ધ્યાને લેવામાં આવશે નહીં.
- (5) ઉમેદવારે જે પ્રશ્નના વિકલ્પ પર વાંધો રજૂ કરેલ છે અને વિકલ્પ રૂપે જે જવાબ સૂચવેલ છે એ જવાબ ઉમેદવારે પોતાની ઉત્તરવહીમાં આપેલ હોવો જોઈએ. ઉમેદવારે સૂચવેલ જવાબ અને ઉત્તરવહીની જવાબ ભિન્ન હશે તો ઉમેદવારે રજૂ કરેલ વાંધા-સૂચન ધ્યાનમાં લેવાશે નહીં.
- (6) એક પ્રશ્ન માટે એક જ વાંધા-સૂચન પત્રક વાપરવું. એક જ વાંધા-સૂચન પત્રકમાં એકથી વધારે પ્રશ્નોની રજૂઆત કરેલ હશે તો તે અંગેના વાંધા-સૂચનો ધ્યાને લેવાશે નહીં.

001. A very successful dermatologist who has many celebrities as his clients puts up an advertisement proudly claiming to have 100% success rate with hair transplant and puts up a list of celebrities who have been his patients. He is served a notice by the Medical Council. What are the unethical acts he has committed?
- (A) Violation of Patient Confidentiality and Advertising
(B) Violation of Patient Confidentiality and patent and copyright
(C) Advertising and Human rights violation
(D) None of the above
002. Before a medical practitioner participates in research projects funded by pharmaceutical and allied healthcare industries he has to make sure all the following criteria are satisfied except
- (A) Ensure that such a research project(s) has the clearance of national/ state / institutional ethics committees / bodies
 (B) Ensure that the source and amount of funding is publicly disclosed at the end of the study
(C) Ensure that proper care and facilities are provided to human volunteers
(D) He will able to maintain Professional Autonomy
003. As per the Professional Conduct, Etiquette and Ethics Regulations, 2002 of Indian Medical Council one has to maintain inpatient records of his patient for a period of
- (A) 3 years (B) 7 years
(C) 1 year (D) 10 years
004. Which of the following organs does not have draining lymph node?
- (A) Tonsil (B) Kidney
(C) Liver (D) Spleen
005. When initiating peripheral parenteral nutrition, all of the following are true *except*:
- (A) Aim for minimal osmolar load with maximum caloric density
(B) Observe a maximum dextrose concentration of 12.5%, but usually start at much lower levels
 (C) Eliminate lipids as a calorie source to avoid carbon dioxide retention
(D) Use filters in a closed infusion circuit to minimize micro emboli and contamination
006. The inclusion criteria for fetal Meningocele repair as per the MOMS trial include all of these except
- (A) Gestational age between 19 weeks to 25 weeks 6 days
(B) Maternal age more than 18yrs
 (C) Lesion only confined between L1 to S5 vertebra
(D) Hind brain herniation
007. The fertility preservation options for children requiring cancer treatment include all except
- (A) Testicular tissue cryopreservation (B) Testicular sperm extraction
(C) Pre treatment egg cryopreservation (D) Pre treatment stem cell preservation

008. Which option below is not usually effective or recommended in the treatment of TPN-induced hyperglycaemia?
- (A) Decrease in rate
 (B) Add insulin to TPN
 (C) Decrease dextrose concentration in TPN
 (D) Increase the concentration of linoleic acid in TPN
009. The following CT findings is/are marker/s of mesenteric or bowel injury following trauma
- (A) Liver laceration with empty gall bladder
 (B) Mesenteric fluid or moderate to large volume free fluid with otherwise normal CT
 (C) Fluid in lower abdomen
 (D) Both (A) and (B)
010. Failure to demonstrate transition zone on contrast enema in a patient of Hirschsprung's disease may be due to
- (A) Doing the procedure during episode of enterocolitis
 (B) Doing the study after stopping washes for 24 hours
 (C) Slow injection of contrast into the rectum
 (D) All of the above
011. The Chiari malformation associated with myelodysplasia is
- (A) Chiari I malformation (B) Chiari II malformation
 (C) Chiari III malformation (D) Chiari IV malformation
012. The Endoscopic Third Ventriculostomy success score calculation includes all the following parameters except
- (A) Age of the patient
 (B) Etiology of hydrocephalus
 (C) Previous shunting or not
 (D) Choroid plexus coagulation carried out or not at time of ETV
013. The commonest site to be involved in Type I Split Cord malformation (Diastematomyelia) is
- (A) Lumbar (B) Thoracic
 (C) Cervical (D) Lumbosacral
014. The age at which children with Lipomeningomyelocele are operated is
- (A) Before 6 months (B) After 1 year
 (C) When symptoms appear (D) After 6 years
015. Maternal serum alpha fetoprotein levels, an increase of which implies open neural tube defects should optimally be checked during the period of
- (A) 8-12 weeks (B) 12-16 weeks
 (C) 16-18 weeks (D) 20-24 weeks

016. The Radiological features of Dandy Walker Malformation include all the following except
- (A) Absence of a portion of the inferior vermis
 - (B) Anterolateral displacement of the cerebellar hemispheres
 - (C) A large posterior fossa
 - (D) Large posterior fossa cyst communicating with lateral ventricle
017. In a term infant the PDA closes by
- (A) 6 hours
 - (B) 12-24 hours
 - (C) 48-72 hours
 - (D) 7-14 days
018. The sequence of correction of club foot in a neonate is
- (A) Metatarsal adduction, varus and equinus
 - (B) Metatarsal adduction, equinus and varus
 - (C) Varus, equinus and Metatarsal adduction
 - (D) Equinus, Metatarsal adduction and Varus
019. The commonest deformity resulting from of segmentation defect of the vertebra is
- (A) Lordosis
 - (B) Kyphoscoliosis
 - (C) Scoliosis
 - (D) Kyphosis
020. The frequency with which a new event occurs in a defined population over time is called
- (A) Proportion
 - (B) Prevalence
 - (C) Incidence proportion
 - (D) Incidence rate
021. In a randomized trial comparing effect of drug A and effect of drug B on a disease, the test used to check if significant differences exist between the 2 groups in variables is the
- (A) t test
 - (B) ANOVA (Analyses of Variance)
 - (C) Linear Regression
 - (D) Kruskal Wallis
022. A study that Statistically combines results of related quantitative studies is
- (A) Umbrella review
 - (B) Meta narrative
 - (C) Meta analysis
 - (D) Critical review
023. About what number of children with spinal injury have no radiological evidence of the same (SCIWORA-Spinal cord injury without Radiological Abnormality)
- (A) 5%
 - (B) 10%
 - (C) 20%
 - (D) 50%
024. The most practical and useful method to determine the hydration and intravascular volume status of a 5-week-old baby being resuscitated for pyloric stenosis is:
- (A) urine output/kg/hr
 - (B) blood pressure and heart rate
 - (C) skin turgor
 - (D) mental status

025. A 26-week-old premature baby on a ventilator is receiving TPN through a right atrial catheter inserted through the right common facial vein. On day 10 she suddenly becomes hypotensive, tachycardia and hypoxic. The pulse pressure narrows significantly and chest X-ray confirms a widened mediastinum. What is the next best diagnostic manoeuvre?
- (A) Repeat chest X-ray to rule out barotrauma.
 (B) Check urine output to rule out fluid overload.
 (C) Echocardiogram to rule out pericardial effusion with tamponade.
 (D) Abdominal X-ray to rule out pneumatosis with pneumoperitoneum.
026. What type of thoracic traumatic injury is the most frequent in children?
- (A) Rib fractures (B) Flail chest
 (C) Lung contusion (D) Pneumothorax
027. Palpating the contraction of the abductor pollicis brevis and opponens pollicis muscles as the patient forms an "O" with the index finger and thumb is a test used to check injury to
- (A) Median nerve (B) Ulnar nerve
 (C) Radial nerve (D) Flexor pollicis tendon
028. Which of the following is a true statement regarding branchial arch embryology?
- (A) Third cleft anomalies are the most common.
 (B) Anomalies of first pouch typically have their external orifice inferior to the ramus of the mandible.
 (C) Overall, cleft anomalies are more commonly right-sided.
 (D) Sinuses of third arch anomalies common pass anterior to the carotid bifurcation up to the piriform fossa.
029. Escalated therapy for traumatic brain injury include all of the following except
- (A) CSF drainage
 (B) Moderate hyperventilation with target PaCO₂ of 30-35mm of Hg
 (C) Decompressive craniotomy
 (D) Osmotic therapy including hypertonic saline
030. The best age to repair pectus excavatum using the minimally invasive technique is:
- (A) 3–6 years (B) 7–10 years
 (C) 11–14 years (D) 15–20 years
031. In calculating body surface area(BSA) of burn, the infant's head contributes to
- (A) 9% of BSA (B) 12% of BSA
 (C) 19% of BSA (D) 25% of BSA
032. The common side effect of Silver sulfadiazine is
- (A) Methemoglobinemia (B) Leukopenia
 (C) Hypokalemia (D) All of the above
033. Which of the following is true regarding Gastroschisis?
- (A) The defect is usually to the left of the midline.
 (B) It is usually associated with chromosomal anomalies.
 (C) The most common association is intestinal atresia.
 (D) Cardiac anomalies are seen in 10% of cases.

034. Pyloric atresia. Which of the following statements is true?
(A) A common presentation is bilious vomiting in first few days of life.
(B) Radiological features are similar to duodenal atresia.
 (C) It is often associated with epidermolysis bullosa.
(D) Pyloromyotomy is the treatment of choice.
035. A child is admitted with history of ingestion of caustic soda in Paediatric ICU. On the 7th day, you are consulted for further management. You would recommend
(A) Endoscopy to assess severity of esophageal injury
 (B) Assess clinically and decide about starting feeds if stable
(C) Ask for a nasogastric tube insertion and start enteral feeds
(D) Do a contrast study to look for strictures before starting feeds
036. Which of the following is true regarding gastric perforation in the newborn?
(A) Most cases are secondary to stress-related peptic ulcer disease.
(B) Perforation due to duodenal ulcer occurs on the posterior wall of duodenum.
(C) Perforation due to gastric ulcer occurs along the greater curvature.
 (D) Spontaneous gastric perforations usually occur along the greater curvature.
037. Which of the following has been associated with a postnatal cause for Small-bowel atresia?
(A) Umbilical arterial catheter placement
(B) Umbilical venous catheter placement
(C) Internal hernia
 (D) Iatrogenic umbilical clamping of an occult omphalocele
038. Which of these statements is true about antenatal intervention for spina bifida
 (A) It significantly decreases the need for post natal ventriculo peritoneal shunting
(B) The best results are seen when operated after 26 weeks
(C) It completely reverses the sensory deficits but not motor deficits
(D) The incidence of retethering is significantly less compared to post natal repair
039. Ladd's bands are:
 (A) Congenital bands from a high caecum to the lateral peritoneal wall, causing obstruction of the duodenum
(B) Congenital bands along the lateral border of the duodenum that retroperitonealises the duodenum
(C) Bands across the transverse colon in the case of reverse rotation
(D) Bands along the caecum and ascending colon predisposing to caecal volvulus
040. The non-operative treatment of meconium ileus was first described by:
(A) Wilson (B) Noblett
(C) Neuheiser (D) Bishop

041. Which of the following is the most common association with alimentary tract duplications (ATDs)?
(A) VACTERL association
(B) CHARGE association
 (C) Spinal anomalies
(D) Mayer–Rokitansky–Kuster–Hauser’s syndrome
042. When dealing with diffuse NEC and indeterminate bowel viability, the best surgical option is:
 (A) ‘Clip and drop’ technique
(B) Resection of all suspect areas and creation of a stoma
(C) Resection of all suspect areas and creation of multiple primary anastomoses
(D) Resection of all suspect areas and creation of multiple primary anastomoses over a silicon catheter
043. Calretinin positive fibrils imply
 (A) Presence of normal ganglion cells
(B) Confirmation of Hirschsprung’s disease
(C) Confirms co existing Intestinal Neuronal dysplasia
(D) All of the above
044. The length of the small intestine in a full-term infant is:
(A) 100–150 cm (B) 150–200 cm
 (C) 200–250 cm (D) 250–300 cm
045. Presence of calcification in the region of the recto sigmoid in a neonate with anorectal malformation implies
(A) Associated meconium ileus (B) Associated Trisomy 21
 (C) Presence of Recto urinary tract fistula (D) None of the above
046. After cleft palate repair the incidence of velopharyngeal dysfunction is about
(A) <5% (B) 10%
 (C) 20% (D) 70%
047. Cleft palate repair should be ideally done at the age of
(A) 3-4 months (B) 6-9months
 (C) 9-12months (D) 18-24months
048. The clinical triad of micrognathia, glossoptosis and airway obstruction is typical of
 (A) Pierre Robin Sequence (B) CHARGE syndrome
(C) Apert’s syndrome (D) Crouzon’s syndrome
049. What is the best way to administer an enema for the management of faecal incontinence?
 (A) With a large Foley catheter with the balloon inflated
(B) With a large rubber tube introduced as far as possible
(C) With a thin rubber tube introduced no more than 5 cm
(D) With the patient in supine Position

050. Which of the following is not a potential site of haemorrhage leading to hypotensive shock in children?
 (A) Intracranial (B) Thorax
 (C) Abdomen (D) Pelvis
051. The BASM (Biliary atresia Splenic malformation) syndrome includes all the following anomalies except:
 (A) Biliary Atresia (B) Absent Inferior Vena Cava
 (C) Annular Pancreas (D) Renal anomalies
052. The anti epileptic drug which causes Acute Pancreatitis is
 (A) Phenytoin Sodium (B) Phenobarbitone
 (C) Sodium Valproate (D) Lorazepam
053. What is the GCS score of a child who opens his eyes to pain, moans in response to pain, and has abnormal flexion in response to pain?
 (A) 4 (B) 5
 (C) 6 (D) 7
054. Tropical Pancreatitis, common in Kerala is caused by the vegetable
 (A) Cassava (B) Sweet potato
 (C) Jackfruit (D) Banana
055. The amount of residual normal healthy liver required for recovery after hepatic resection is
 (A) 2 anatomical segments (B) 3 anatomical segments
 (C) 1 lobe (D) 4 Anatomical segments
056. In a healthy liver, Pringle manoeuvre can be applied for up to
 (A) 15 minutes (B) 30 minutes
 (C) 60 minutes (D) 120 minutes
057. Which finding is not suspicious for cardiac tamponade?
 (A) Decreased heart sounds (B) Jugular venous distension
 (C) Widened mediastinum (D) Decreased bilateral breath sounds
058. In 24 hours pH monitoring for reflux, the most relevant parameter is
 (A) Number of reflux episodes lasting more than 5 minutes
 (B) Total number of reflux episodes
 (C) Duration of longest reflux episode
 (D) Reflux index
059. Which diagnostic study is now considered the study of choice for aortic dissection?
 (A) Chest CT (B) Chest CT angiography
 (C) Aortography (D) Transthoracic echocardiography
060. A 14-year-old female presents with a 7 cm rapidly growing mass of the left breast. On examination, there is significant left breast distortion, overlying warmth with dilatation of superficial breast veins. Differential diagnoses include all of the following *except*:
 (A) Breast cancer (B) Giant fibroadenoma
 (C) Cystosarcomaphyllodes (D) Prolactinoma

061. A 2-year-old child undergoes micro laryngoscopy and rigid bronchoscopy for acute airway obstruction. The examination demonstrates wart-like lesions obstructing the airway. What is the organism associated with this lesion?
- (A) *Haemophilus influenzae* (B) Respiratory syncytial virus
 (C) Human papilloma virus (D) Human immunodeficiency virus
062. Typically the meconium of meconium ileus babies differ from normal meconium in
- (A) Decreased pancreatic enzymes (B) Decreased Albumin
 (C) Increased sucrase levels (D) All of the above
063. The following are all findings expected in patients with malrotation in upper GI contrast studies except
- (A) DJ junction to the left of the spine (B) Corkscrew appearance
 (C) Beak appearance (D) DJ junction below the level of gastric outlet
064. Which of the following is *false* regarding umbilical cord hernia?
- (A) The contents include midgut and liver.
 (B) The abdominal wall above the defect is normal.
 (C) It is associated with malrotation.
 (D) It occurs due to failure of the midgut to return to the peritoneal Cavity.
065. With regard to gastric volvulus which of the following is false? Organoaxial gastric volvulus is rotation about the gastric short axis.
- (A) In mesenteroaxial volvulus the pylorus is seen to lie higher than the Gastro-oesophageal junction.
 (B) In organoaxial volvulus the greater curvature lies higher than the lesser curvature.
 (C) It is associated with Ivemark's syndrome.
 (D) None of the above
066. Jejunoileal atresia has been associated with maternal use of all of the following *except*:
- (A) Non-steroidal anti-inflammatory drugs (NSAIDs)
 (B) Pseudoephedrine
 (C) Pseudoephedrine in combination with acetaminophen
 (D) Caffeine
067. The APT test(Alum precipitated toxoid) is used to differentiate
- (A) Upper GI and Lower GI bleeds (B) Hemoptysis and Hematemesis
 (C) Melena and Hematochezia (D) Maternal and Fetal haemoglobin
068. Which of the following does not describe an acute midgut volvulus?
- (A) Sudden onset of bilious vomiting (B) Blood per rectum
 (C) Antenatal diagnosis of 'double bubble' (D) Metabolic alkalosis
069. Histopathological findings that might confirm the diagnosis of cystic fibrosis (CF)–associated meconium ileus in the neonate include:
- (A) Absent sweat glands on skin biopsy
 (B) Islet cell inflammation on pancreatic biopsy
 (C) An anatomically normal Meckel's diverticulum
 (D) An appendix characterised by sub mucosal gland mucus accumulation

070. Transfusion associated NEC is characterised by
 (A) Most generally occur within 48 hours of transfusion
 (B) More common in term neonates
 (C) Occurs early neonatal period
 (D) All of the above
071. The radiological sign known as pneumatosis intestinalis (PI) refers to which of the following?
 (A) Presence of gas in the portal vein
 (B) Presence of intramural gas dissecting the bowel layers
 (C) Bowel perforation
 (D) Presence of an ileus
072. While performing appendicectomy for perforated appendicitis one should always:
 (A) Bury the stump
 (B) Leave a drain
 (C) Look for and remove any faecoliths
 (D) Irrigate with saline plus antibiotic solution
073. Appendicectomy is usually performed as part of which procedure?
 (A) Gastroschisis repair
 (B) Congenital diaphragmatic hernia repair
 (C) Ladd's procedure
 (D) Laparotomy for meconium obstruction
074. Regarding capsule endoscopy which of the following is not true?
 (A) High-definition pictures are obtained.
 (B) Strictures and dilatation can also be seen.
 (C) Incomplete visualisation can be a problem.
 (D) Biopsy can be freely taken.
075. The commonest chest wall deformity is
 (A) Poland's syndrome
 (B) Pectus Carinatum
 (C) Pectus excavatum
 (D) Sternal cleft
076. A previously well 3-year-old presented with an upper respiratory tract infection and had been retching and vomiting small amounts of blood. She is growing well and has a normal examination. The most likely diagnosis is:
 (A) Non-steroidal anti-inflammatory drug gastropathy
 (B) Mallory–Weiss's tear
 (C) Haemorrhagic gastritis
 (D) Peptic ulcer
077. Bilateral choanal atresia account for what proportion
 (A) Half
 (B) One third
 (C) Two thirds
 (D) Three fourths
078. With regard to enterocolitis in Hirschsprung's disease, which of the following is true?
 (A) It occurs rarely after a pull-through procedure.
 (B) Recurrent enterocolitis after a pull-through procedure warrants further investigation.
 (C) Oral metronidazole is ineffective.
 (D) Enterocolitis is better treated with enemas than irrigations.

079. The new drug which has been found to be effective in Kaposiform Hemangioendothelioma and Kasabach Meritt Phenomenon is
(A) Vincristine (B) Sirolimus
(C) Alpha interferon (D) Picibanil
080. When a patient suffers from faecal and urinary incontinence, what is the best course of action?
(A) Treat the problem of urinary incontinence first and then manage the faecal incontinence.
(B) Take care of the faecal incontinence problem first and then evaluate the urinary tract.
(C) Take care of both problems at the same time.
(D) Offer the patient a permanent colostomy.
081. The most common type of congenital pulmonary airway malformation is
(A) Type 1 (B) Type 2
(C) Type 3 (D) Type 4
082. Fetal lobectomy for congenital pulmonary airway malformation if indicated is usually done at
(A) 20 weeks (B) 24 weeks
(C) 28 weeks (D) 32 weeks
083. A neonate is referred to you immediately after delivery with lumbosacral meningomyelocele(MMC) and on evaluation has gross hydrocephalus. The management options include the following except
(A) Ventriculoperitoneal shunt and MMC repair simultaneously, immediately
(B) Ventriculoperitoneal shunt followed by MMC repair in same admission
(C) External ventricular drainage with MMC repair in same admission
(D) None of the above
084. In neonates with imperforate anus, when the clinical information does not allow one to make a decision about the opening of a colostomy, the next most valuable study is:
(A) Magnetic resonance imaging (MRI)
(B) CT scan
(C) Invertogram
(D) Cross-table lateral film with patient in prone position
085. A study population was divided into 2 groups based on their habits as smokers and non smokers. The frequency of Chronic Obstructive Pulmonary Disease(COPD) was evaluated in the two groups to check if smoking and COPD had a causal relationship. This type of study is
(A) Case-control study (B) Cross-sectional studies
(C) Longitudinal studies (D) Cohort study
086. Selecting all people of the state of Karnataka, in the age group 20-30 years belonging to one particular religion for a study is an example of
(A) Simple random sampling (B) Systemic random sampling
(C) Stratified random sampling (D) None of the above

087. Which one of the following urologic problems is more frequently associated with an anorectal malformation?
- (A) Hypospadias (B) Absent kidney
(C) Cryptorchidism (D) Ureteropelvic obstruction
088. Typical example of cumulative and not completely reversible toxicity of chemotherapeutic drugs is
- (A) Adriamycin cardiotoxicity (B) Myelosuppression by Actinomycin D
(C) Alopecia by Cyclophosphamide (D) All of the above
089. Haemorrhagic cystitis is usually caused by
- (A) Vincristine (B) Vinblastine
(C) Ifosfamide (D) Cisplatin
090. As per the response criteria for Solid tumours the term "Partial Response" refers to
- (A) Tumor volume reduction $\geq 90\%$ but $<100\%$
(B) Tumor volume reduction $\geq 66\%$ but $<89\%$
(C) Tumor volume reduction $>33\%$ but $<66\%$
(D) $<33\%$ tumor volume reduction
091. Digits with acrosyndactyly and discrepant length digits or with phalangeal fusion should be separated by age of
- (A) 3 months (B) 6 months
(C) 1 year (D) 3 year
092. A neonate was admitted with lumbar meningomyelocele. On evaluation child was found to be lying persistently in opisthotonic posture, had frothing and inability to swallow saliva and stridor. The baby possibly has
- (A) Meningitis (B) Laryngomalacia
(C) Severe Gastroesophageal reflux (D) Chiari II malformation
093. Children with imperforate anus in Down's syndrome is most frequently associated with:
- (A) Perineal fistula (B) Rectourethral fistula
(C) Recto-bladderneck fistula (D) Imperforate anus with no fistula.
094. The two main causes of cholestatic jaundice in early infancy are
- (A) Idiopathic neonatal hepatitis and biliary atresia
(B) Gilbert's disease and biliary atresia
(C) Haemolytic disease and biliary atresia
(D) Haemolytic disease and Gilbert's disease
095. 2 children with mass abdomen suggestive of neuroblastoma with apparent bone marrow involvement are seen, one less than 1 year old and the other, 5 years old. As per the COG protocol which of these won't be required for the older child
- (A) Bone marrow biopsy (B) Tumour biopsy
(C) Both of the above (D) None of the above

096. "The Second victim" in healthcare is
 (A) The healthcare provider whose patient experiences an adverse outcome
 (B) The patient's immediate relative
 (C) The patient who is operated after surgery on a patient who has had an adverse outcome
 (D) None of the above
097. Which of these is not a complication of choledochal cyst?
 (A) Sclerosing cholangitis (B) Portal hypertension
 (C) Cholelithiasis (D) Pancreatitis
098. During Laser lithotripsy using Holmium laser using low pulse energy and high frequency is called
 (A) Fragmentation technique (B) Dusting technique
 (C) Popcorn technique (D) Moses technique
099. Intervention for Pseudocysts of the pancreas is recommended if
 (A) Symptomatic
 (B) Asymptomatic but more than 5 cms in diameter
 (C) Asymptomatic but located at head of pancreas
 (D) All of the above
100. The sensitivity of ERCP can be improved by administration of
 (A) Cholecystokinin (B) Proton pump inhibitors
 (C) Secretin (D) Pentagastrin
101. Ventilation in CDH involves all the following tenets except
 (A) Permissive hypercapnoea with target PaCO₂ of 40 – 60 mmHg
 (B) Postductal oxygen saturation goal of 85-95%
 (C) Minimize barotrauma with a PIP less than 25cmH₂O
 (D) Use of HFO as alternative to conventional ventilation
102. All statements about minimally invasive fetal surgery are true except
 (A) Procedure can be percutaneous or fetoscopic
 (B) Anaesthesia may be needed for both individuals - mother and fetus
 (C) Real time ultrasound is critical
 (D) Anteriorly placed placenta is a contraindication to fetal intervention
103. Patients excluded from a diagnosis of Preterm NEC
 (A) Infants known to have SIP (B) Infants with complex congenital anomalies
 (C) Infants being fed < 80 ml/kg/day (D) Infants >= 32 weeks gestation

111. Most important intracellular buffer system is
(A) Protein (B) Haemoglobin
(C) Carbonic anhydrase (D) Phosphate
112. The most common aetiology of gallbladder disease in the paediatric population is:
(A) Congenital abnormality of the biliary tract
(B) Concurrent haematological disorder
(C) Primary cholelithiasis
(D) Prolonged total parenteral nutrition (TPN) use
113. Indication for splenectomy in a 9 year old boy with weight of 25 kg and height of 130cm with B-thalassemia is
(A) 1 transfusion of 300 ml packed cells once a month
(B) 1 transfusion of 300 ml packed cells once a fortnight
(C) 1 transfusion of 300 ml packed cells once a month with one unit platelet transfusion once a month
(D) 1 transfusion of 300 ml packed cells once every 45 days
114. Preventing ET tube block by regular suctioning is vital in a post operative neonate on ventilator. For that, the following is essential
(A) Preoxygenate with 100% FiO₂
(B) Suction catheter must occlude the ET tube completely during suction
(C) Suction catheter must have side hole
(D) Good suction requires applying suction while introducing catheter
115. Airway obstruction in Pierre-Robin Sequence is due to
(A) Obstruction caused by posteriorly displaced tongue
(B) Obstruction due to tracheal stenosis
(C) Obstruction due to macroglossia
(D) Obstruction due to aspirations resulting from cleft palate
116. A 25 day old baby is brought with history of inspiratory stridor since birth. Probable diagnosis is
(A) Laryngeal cleft (B) Tracheomalacia
(C) Subglottic stenosis (D) Vocal cord palsy
117. Infection of wound post surgery is called Surgical site infection (SSI) upto
(A) 2 weeks post surgery (B) 1 week post surgery
(C) 25 days post surgery (D) 30 days post surgery
118. Which statement is true for proximal fistula in esophageal atresia with trachea esophageal fistula?
(A) Incidence of proximal fistula in a clinically suspect pure atresia is 0.5%
(B) Upper fistula ends higher on the trachea and distally in the esophagus
(C) Cannot be detected preoperatively
(D) Bronchoscopy has no role in suspect cases

128. Regarding the present PALS guidelines which statement is false
- (A) The order of resuscitation is Circulation-Airway-Breathing
 (B) Chest compressions at a rate of 100-120 per minute
 (C) Chest compressions must be stopped for rescue breaths once airway is secured
 (D) Early defibrillation is the single most important therapy for survival of cardiac arrest
129. An asymptomatic 8-year-old male is having a right upper quadrant ultrasound to evaluate apparent hepatomegaly on pre-sports physical examination. During the ultrasound a 3 cm cystic mass is seen in the portahepatis. The liver is normal in appearance. What should be the next step in management?
- (A) ERCP (B) Exploratory laparoscopy
 (C) HIDA scan (D) Endoscopic ultrasound
130. Which of the following is not associated with annular pancreas?
- (A) Oesophageal atresia (B) Hypertrophic pyloric stenosis
 (C) Duodenal web (D) Trisomy 21
131. Millard Cleft lip repair principles are all except
- (A) Inferior rotation of the lateral lip segment with an advancement of the medial lip segment
 (B) Rotation of nasal base medially
 (C) Lengthening of columella
 (D) Minimal sacrifice and discarding of tissues
132. Omega shaped epiglottis seen in
- (A) Laryngocele (B) Vocal cord palsy
 (C) Laryngomalacia (D) Type 1 laryngotracheal cleft
133. A 6 month old child presents with a gradually increasing swelling in parotid region. Most likely diagnosis and test is
- (A) Haemangioma / MRI
 (B) Lymphangioma / CECT
 (C) Adenoma / Fine needle aspiration cytology
 (D) Vascular malformation / Ultrasound Doppler
134. Secondary effect of torticollis in an infant is
- (A) Scaphocephaly (B) Plagiocephaly
 (C) Trignocephaly (D) Brachiocephaly
135. Umbilical hernias associated with all these except
- (A) Beckwith-Weidman's syndrome (B) Congenital hypothyroidism
 (C) Down's syndrome (D) Marfan's syndrome
136. Which technique is best avoided in laparoscopic herniotomy in a boy
- (A) Z stitch (B) Purse-string suture
 (C) Inversion and end loop (D) Interrupted sutures

137. Which of the following is true regarding pancreas divisum (PD)?
 (A) The frequency of PD in the general population is less than 1%.
 (B) PD results when the dorsal and ventral pancreatic ducts fail to fuse properly and there is inadequate drainage through a small dorsal duct (Santorini).
 (C) The majority of patients with PD present with recurrent pancreatitis.
 (D) Endoscopic sphincterotomy is the procedure of choice in children with symptomatic PD.
138. Which genes have a prognostic significance?
 (A) WT1 and WT2 (B) nMYC
 (C) nMYC and WT1 (D) WT2
139. Which of the following is the most likely diagnosis in a 1-year-old patient with an incidentally discovered large, well-circumscribed, cystic mass involving the pancreatic body and tail?
 (A) Pancreaticoblastoma
 (B) Solid pseudo papillary tumour
 (C) Intraductal papillary mucinous neoplasm
 (D) Congenital pancreatic cyst
140. Which is not a small round blue cell tumor
 (A) Germ cell tumor (B) Ewing's sarcoma
 (C) Neuroblastoma (D) Lymphoma
141. Regarding opsoclonus / myoclonus – which is false
 (A) Is a paraneoplastic syndrome
 (B) 50% of them will have neuroblastoma
 (C) Most have localized disease with good prognosis
 (D) Neurologic function recovers once tumor is removed
142. In an infant of 4 months which liver tumor is unlikely
 (A) Hepatocellular carcinoma (B) Mesenchymalhamartoma
 (C) Hemangioendothelioma (D) Hepatoblastoma
143. At CECT imaging for suspected hepatoblastoma the left lateral segment is involved with tumor. What pretext staging is that?
 (A) Pretext I (B) Pretext II
 (C) Pretext III (D) Pretext IV
144. Which testicular tumor is seen in undescended testis?
 (A) Germinoma (B) Yolk sac tumor
 (C) Teratoma (D) Seminoma
145. Which rhabdomyosarcoma has a favourable prognosis
 (A) Embryonal (B) Alveolar
 (C) Botryoid (D) Pleomorphic
146. A rapidly involuting congenital hemangioma
 (A) Is a vascular malformation (B) Is a vascular tumor
 (C) Can be classified as either (D) Is not a part of vascular anomalies

147. The gold standard for gastro esophageal reflux diagnosis is
 (A) Contrast swallow (B) Lower Oesophageal Sphincter manometry
 (C) 24 hour oesophageal pH monitoring (D) Radioisotope milk scan
148. The most common functioning pancreatic islet cell neoplasm is which of the following?
 (A) Insulinoma (B) Gastrinoma
 (C) Somatostatinoma (D) VIPoma
149. The most common pancreatic islet cell neoplasm seen in patients with multiple endocrine neoplasia 1 (MEN1) is which of the following?
 (A) Insulinoma (B) Gastrinoma
 (C) Somatostatinoma (D) VIPoma
150. Ultrasound findings in malrotation would be
 (A) SMA anterior and medial to SMV (B) SMV to left and anterior to SMA
 (C) SMA to right and anterior to SMV (D) SMV to left and posterior to SMA
151. In neonatal necrotizing enterocolitis the pneumatosis intestinalis is due to
 (A) Mucosal edema and detachment from submucosa
 (B) Bacterial metabolism resulting in release of hydrogen
 (C) Gut reactivity to toxins resulting in release of carbon dioxide
 (D) Perforation and submucosal tracking of gas
152. Active bile leak demonstrable best by which study?
 (A) CECT with oral contrast (B) Ultrasound with
 (C) Hepatobiliary Scintigraphy (D) MRCP
153. Which statement is true
 (A) MAG3 is preferred over DTPA for dynamic scintigraphy as it has better kidney to background ratio
 (B) DTPA and MAG3 are eliminated by tubular secretion
 (C) EC is the other terminology for DTPA in India
 (D) MAG3 passively diffuses depending on GFR of kidneys
154. Tc 99- DMSA is used for
 (A) Estimation of GFR by Gates formula
 (B) Cortical imaging of kidneys
 (C) Assessment of PUJ obstruction
 (D) Grading of VUR based on functioning parenchyma
155. Which of the following is the most sensitive non-invasive study to localise a gastrinoma?
 (A) Abdominal ultrasound (B) MRI
 (C) Hepatobiliary iminodiacetic acid scan (D) Somatostatin receptor scintigraphy
156. During third trimester urine constitutes what percentage of liquor
 (A) 75% (B) 100%
 (C) 80% (D) 90%

157. A 2 month old is followed up for antenatally suspected gross unilateral cystic/ hydronephrotic kidney. Postnatally the finding which confirms hydronephrosis is
- (A) Large central cyst/pelvis with small peripheral cysts with thinned out parenchyma
 (B) Large kidney with loss of reniform shape and multiple cysts
 (C) Large central cyst / pelvis contiguous with peripheral cystic areas
 (D) Contralateral enlarged echogenic kidney
158. A 1 week old premature infant of diabetic mother, with suspected sepsis has gross haematuria and ultrasonography shows oedematous kidney with minimal but present arterial wave form. A renal scan reveals an enlarged kidney with decreased blood flow and function. The most likely diagnosis is:
- (A) Renal trauma during delivery (B) Renal vein thrombosis
 (C) Renal artery thrombosis (D) Congenital mesoblasticnephroma
159. Which of these primitive kidneys do not function during development?
- (A) Pronephros (B) Mesonephros
 (C) Metanephros (D) All function at sometime
160. The inferior vena cava at the level of the renal veins is formed by
- (A) Fusion of right and left subcardinal veins
 (B) Persistence of right supracardinal vein
 (C) Fusion of right and left posterior cardinal veins
 (D) Persistence of right subcardinal vein
161. An ERCP performed on a 15-year-old male with chronic pancreatitis demonstrates a diffusely dilated, 6 mm pancreatic duct with stones. What is the best surgical management?
- (A) ERCP with stent placement
 (B) Pancreaticoduodenectomy
 (C) Distal pancreatectomy
 (D) Longitudinal pancreaticojejunostomy with Roux-en-Y reconstruction
162. The preferred solution to preserve abdominal organs for transplantation is
- (A) Heparinized Ringer lactate (B) University of Wisconsin solution
 (C) Sach's solution (D) Euro collin's solution
163. Regarding congenital mesoblasticnephroma (CMN), which is false?
- (A) Partial nephrectomy has a role as tumor is benign
 (B) There is a small but real risk of local recurrence in patients with a cellular variant of congenital mesoblasticnephroma
 (C) Renal hilum is the most common site for invasion and local recurrence
 (D) Most common solid tumor of infancy
164. Ultrasound in a 1 year old girl with recent febrile culture proven UTI showed mild right hydronephrosis and suspected small ureterocoele. What next for this child?
- (A) Observation and ultrasound at follow up (B) Micturatingcystourethrogram
 (C) MR urography (D) DTPA scan

165. In a one month old baby with antenatally detected left gross hydroureteronephrosis, confirmed on post natal ultrasound, EC scan shows a VUJ obstruction with 19% function. What is the next plan?
- (A) Percutaneous nephrostomy (B) Observation and serial scans
 (C) End ureterostomy (D) Left ureteric reimplantation
166. A 12 year boy with operated spina bifida on CIC and oxybutynin for bladder management and enemas for bowel care shows first leak at 70 ml volume and detrusor pressure of 40 cm H₂O which increases to 60 at leaks profusely at 200cc. His MRI spine is normal. He requires
- (A) Addition of alpha blockers to oxybutynin and CIC
 (B) Bladder augmentation
 (C) Bladder neck repair
 (D) Increase frequency of CIC to 2 hourly from 3
167. A 4 year old girl with no other past history presents to OPD with left inguinal hernia and at repair a testis is found. Diagnosis and karyotype are
- (A) True hermaphrodite / 46XY (B) CAIS / 46XY
 (C) PMDS / 46XX (D) MGD / 46X0
168. Which of the following statements is true regarding blunt splenic trauma in children?
- (A) Splenectomy is indicated in a haemodynamically stable patient with free fluid in the pelvis and an isolated grade 3 splenic laceration on computed tomography scan.
 (B) Non-operative management of splenic trauma has led to increased hospital lengths-of-stay.
 (C) Non-operative management of splenic trauma has resulted in increased rates of transfusion.
 (D) Non-operative management of isolated splenic injuries is associated with decreased mortality compared with patients with isolated splenic injuries undergoing splenectomy.
169. A 4-week-old baby is referred for assessment of bilateral hydroceles. On examination, he is also found to have ascites, and massive scrotal and peripheral oedema. What further test and investigation is *not* required?
- (A) Blood pressure measurement (B) Blood test for urea, creatinine and electrolytes
 (C) Blood test for serum albumin (D) Urine culture
170. In a boy with mid penile hypospadias and a 3 mm urethral plate and no chordee, choice of surgery would be
- (A) Tubularized incised plate urethroplasty (B) Thierch Duplay urethroplasty
 (C) Onlay flap using inner prepuce (D) Ducket tube from inner prepuce
171. All are true of Hellers myotomy except
- (A) It causes reduction in LES tone
 (B) GER is known complication
 (C) It improves peristalsis of esophagus
 (D) Laparoscopic Heller's myotomy is the current gold standard
172. The most common type of renal cystic disease is:
- (A) Developmental (B) Malignant
 (C) Simple cyst (D) Genetic

173. Which of these conditions does not often present with evidence of bladder outlet obstruction?
 (A) PUV (B) Sphincter dyssynergia
 (C) Posterior urethritis (D) Prolapsing ureterocele
174. Which statement about tumor marker is false
 (A) May be produced by the tumor as a byproduct
 (B) May be produced by the body in response to tumor
 (C) May be used as targets for therapeutic intervention
 (D) May be diagnostic and prognostic but not screening tool
175. Which of the following is true regarding PUVs?
 (A) When detected before 32 weeks' gestation they are best treated with intra-amniotic shunt.
 (B) Valve ablation should be performed immediately after the diagnosis is made.
 (C) Bilateral hydronephrosis in a baby male should always be investigated with urgent micturatingcystogram.
 (D) They always present with bilateral upper tract dilatation.
176. Regarding Lactate dehydrogenase, which statement is true
 (A) Enzyme which reversibly converts glutamate to lactate
 (B) High serum concentration seen in 70-80% of children with malignant tumors
 (C) LDH activity increases with age and more in adults than children
 (D) In neuroblastoma increased levels of LDH seen in very early disease
177. Which one of these is not a nuclear scintigraphy
 (A) SPECT (B) Tc99m-MDP
 (C) MIBG (D) STIR sequence
178. Which of the following is true for ureterovesical junction (UVJ) obstruction in an infant?
 (A) It may resolve after temporary stenting of the UVJ with a double stent.
 (B) It is more common in females.
 (C) The ureteric orifice inserts laterally to the trigone.
 (D) It is commonly bilateral.
179. Identify the wrong statement
 (A) Cyclophosphamide is an alkylating agent (B) Methotrexate is an enzyme
 (C) Vincristine is an alkaloid (D) Doxorubicin is an enzyme
180. Most common extra gonadal teratoma location is
 (A) Sacrococcyx (B) Mediastinum
 (C) Retroperitoneum (D) Cervicothoracic
181. Regarding Wilm's tumor all are true except
 (A) In NWTS staging is pre-treatment surgical staging
 (B) SIOP classification is based on post chemotherapy histology
 (C) Lymph node involvement is a determinant for intensity of adjuvant chemotherapy in NWTS
 (D) As per SIOP classification blastemal type is low risk

182. Regarding neuroblastoma which statement is false
 (A) Racoon eyes seen in metastasis to the peri-orbital and retrobulbar area
 (B) Opsoclonus seen in metastasis to posterior fossa
 (C) In 4S, skin nodules are metastatic deposits
 (D) Nearly 70% have metastatic disease at diagnosis
183. High risk as per risk stratification in current SIOPEL for hepatoblastoma are all except
 (A) Serum AFP < 100 mg/L (B) Pretext IV
 (C) M1 (D) Embryonal subtype
184. Regarding operative guidelines for ovarian tumors in children as per COG which statement is true
 (A) Always biopsy the contralateral ovary
 (B) Mandatory sampling of lymph nodes
 (C) Ascites or peritoneal washings collected for cytology
 (D) Routine core biopsy of liver and omental biopsy
185. Which Rhabdomyosarcoma has a good prognosis
 (A) Botryoid (B) Alveolar
 (C) Embryonal (D) Pleomorphic
186. Regarding central venous access which is false
 (A) Pneumothorax while cannulating subclavian vein more likely on right side
 (B) Patient is kept in a trendelenberg position while cannulating IJV or Subclavian vein
 (C) Head is turned to contralateral side
 (D) Ideal to use ultrasound to locate the vein
187. Regarding totally implantable long term venous access device all are true except
 (A) Has a self sealing silicone dome (B) Only 23G 5cc needle to be used for access
 (C) Allows freedom for routine activities (D) Infection rate is low
188. All are true regarding ectopic ureter except
 (A) Enters at bladder neck or caudally
 (B) Arises due to caudal insertion of ureteric bud on mesonephric duct
 (C) Majority are associated with a duplicated system
 (D) Clinical problems are more common in girls
189. Drooping lily sign seen in
 (A) Duplex system with upper moiety hydronephrosis and lower moiety reflux
 (B) Duplex system with upper moiety reflux and lower moiety obstruction
 (C) Wilmstumor with pelvic extension
 (D) Reflux into dysplastic kidney
190. In a girl with a complaint of continuous urinary incontinence despite a normal voiding pattern, the likely diagnosis is
 (A) Ectopic ureter (B) Vaginal voiding
 (C) Female hypospadias (D) Bladder neck incompetence

191. 13 year old girl with lower abdominal mass had the following findings on MRI – absent left kidney, normal right kidney, 2 hemiuteri and cervixes, left hemivagina hydrocolpos. Probable diagnosis is
- (A) MRKH (B) Turner's
(C) PMDS (D) CHIVIRA
192. Most serious dyselectrolytemia in refeeding syndrome refers to
- (A) Hypokalemia (B) Hyponatremia
(C) Hypermagnesemia (D) Hypophosphatemia
193. Limitation of pulseoximetry are all except
- (A) Inability to detect hyperoxemia
(B) Abnormal haemoglobin interferes with SPO₂ estimation
(C) Always requires calibration
(D) Motion artefacts can lead to errors
194. Neonatal hypoglycemia is defined as a glucose level lower than
- (A) 80 mg/dl (B) 70 mg/dl
(C) 60 mg/dl (D) 50 mg/dl
195. Prolonged indirect hyperbilirubinemia is seen in all EXCEPT
- (A) Biliary atresia (B) Hypothyroidism
(C) Crigler-Najjar Syndrome (D) Pyloric stenosis
196. A decrease in systemic vascular resistance (SVR) is seen in
- (A) Haemorrhagic shock (B) Cardiogenic shock
(C) Septic shock (D) Hypovolemic shock
197. When pneumoperitoneum is created for laparoscopy, the physiological changes seen are all EXCEPT
- (A) Decrease in systemic vascular resistance (B) Decrease stroke volume
(C) Increase pulmonary vascular resistance (D) Increase PCO₂
198. A 2 kg neonate with posterior urethral valve has a Serum Potassium of 6.9 mEq/l. 1ml of 10% Calcium gluconate is administered intravenously slowly. Role of Calcium gluconate here is
- (A) To shift potassium into intracellular compartment
(B) To eliminate excess potassium through kidneys
(C) To protect the heart
(D) To treat the acidosis in combination with NaHCO₃
199. Prothrombin time is a measure of
- (A) Intrinsic and common pathway (B) Only intrinsic pathway
(C) Extrinsic and common pathway (D) Common pathway
200. In the natural progression of the exudative stage of parapneumonic effusion the next stage is
- (A) Pleuritis stage (B) Organized stage
(C) Fibrinopurulent stage (D) Resolution stage