1. Which of the following is not the part of first trimester aneuploidy screen?
   A. MSAFP
   B. PAPP-A
   C. B-hCG
   D. Nuchal translucency

2. Fetal maturity for Non-stress test is typically achieved at:
   A. 28 weeks
   B. 32 weeks
   C. 34 weeks
   D. 36 weeks

3. Which of the following is not the component of Bio Physical Profile:
   A. Normal CST
   B. Amniotic fluid volume
   C. Fetal tone
   D. Fetal breathing movements

4. Oxygen concentration should be increased to 100% if bradycardia (heart rate <60 bpm) does not improve after …… seconds of total resuscitation.
   A. 60 seconds
   B. 90 seconds
   C. 30 seconds
   D. 100 seconds

5. What is formula for deciding depth of insertion of endotracheal tube
   A. Weight (kg) + 6 cm
   B. Weight (kg) + 7 cm
   C. Nasotragal length + 1 cm
   D. Nasotragal length + 2 cm
6. Regarding cord care, Evidence suggests that the use of ____% chlorhexidine is justified in community settings with high neonatal mortality rate and unclean cord practices.
   A. 2.1 %
   B. 5.1 %
   C. 7.1%
   D. 9.1%

7. Which critical congenital heart disease is not picked up by pulse oximeter screening?
   A. d transposition of great arteries
   B. Double outlet right ventricle
   C. Tetralogy of Fallot
   D. Total anomalous pulmonary venous return

8. In monozygotic pregnancy, if splitting occurs between 4 to 7 days postfertilization, resulting placenta is
   A. Diamniotic Dichorionic
   B. Monoamniotic Dichorionic
   C. Diamniotic Monochorionic
   D. Monoamniotic Monochorionic

9. Drug of Choice for Neonatal abstinence syndrome
   A. Methadone
   B. Clonidine
   C. Morphine
   D. Buprenorphine

10. Which kind of heat loss is prevented more in double wall incubators as compared to single wall incubators
    A. Conduction
    B. Convection
    C. Evaporation
    D. Radiation

11. Estimation of energy requirement of the Low-Birth-Weight Infant as resting metabolic rate is?
    A. 50-60 kcal/kg/day
    B. 20-40 kcal/kg/day
    C. 0-5 kcal/kg/day
    D. 10-20 kcal/kg/day
12. The caloric value of 20% lipid emulsions is
   A. 10 kcal/ml
   B. 20 kcal/ml
   C. 5 kcal/ml
   D. 2 kcal/ml

13. A term newborn is being managed in NICU for moderate illness. The serial weight of the newborn is increasing and urine output is decreasing. The serum sodium is <130. The next step in management is?
   A. Saline administration at 5 mmol/kg/day
   B. Frusemide therapy
   C. Fluid restriction
   D. Saline bolus challenge

14. Asymptomatic late preterm (34 to 36 6/7 weeks of gestation) newborn has an RBS of 33 mg/dl at 2 hours of life. Next step in management is
   A. Infants should be fed and RBS rechecked after 1 hour
   B. Begin IV dextrose bolus and start GIR of 6 mg/kg/min
   C. Initiate GIR of 6 mg/kg/min
   D. GIR of 4 mg/kg/min

15. Neonatal hypercalcemia is defined as?
   A. Serum total calcium level >11 mg/dL
   B. Serum ionized calcium level >1.1 mmol/L
   C. Serum total calcium level >10 mg/dL
   D. Serum total calcium level >8 mg/dL

16. Which of the following is a risk factor for neonatal hyperbilirubinemia neurotoxicity?
   A. Autoimmune hemolytic disease
   B. Acidosis
   C. Intraventricular hemorrhage
   D. Neonatal cholestasis

17. True statement while managing hyperbilirubinemia in the newborn infant 35 or more weeks of gestation with phototherapy is
   A. Use total bilirubin. Do not subtract direct-reacting or conjugated bilirubin.
   B. For well infants 35–37 6/7 weeks, can adjust TSB levels for intervention around the high-risk line.
   C. It is an option to intervene at higher TSB levels for infants closer to 35 weeks.
   D. It is an option to provide conventional phototherapy in hospital at TSB levels 2–3 mg/dL below the cut-off of phototherapy recommendations in any infant with Rh hemolytic disease.
18. In term infants, GFR reaches adult level by
   A. 1 year
   B. 6 months
   C. 2 years
   D. 4 years

19. Area under the curve of Pressure Vs time scalar reflects
   A. MAP
   B. PEEP
   C. PIP
   D. Work of breathing

20. C20/C in a PV loop means
   A. Underinflation
   B. Hyperinflation
   C. Both
   D. None

21. Pulmonary surfactant is secreted by
   A. Type I alveolar cells
   B. Type II alveolar cells
   C. Both
   D. None

22. Which of the following is used to assess systolic PA pressure?
   A. Mean left atrial pressure and MR jet velocity
   B. Mean left ventricular pressure and TR jet velocity
   C. Mean right atrial pressure and TR jet peak velocity
   D. Mean right ventricular pressure and TR jet velocity

23. One of the mechanisms of action of Inhaled Nitric Oxide used in PPHN is
   A. Reduces intracellular cyclic AMP
   B. Increases intracellular cyclic AMP
   C. Reduces intracellular cyclic GMP
   D. Increases intracellular cyclic GMP
24. A term neonate born through meconium-stained liquor developed tachypnoea after birth, needed 30% FiO2 for 36 hours, after which tachypnoea resolved. What is the severity of Meconium Aspiration Syndrome in this case

A. Moderate
B. Mild
C. Severe
D. We should label it as Transient Tachypnoea of Newborn

25. Which of the following is an approach to manage a case of pulmonary haemorrhage

A. Reduce PEEP to 3 cm H2O
B. Frequent aggressive airway suctioning
C. Provide elevated PEEP of 6 to 8 cm H2O
D. Acidosis is beneficial for management of Pulmonary Haemorrhage

26. Which of the following statements is TRUE regarding management of air leaks

A. The chest drain is advised even in asymptomatic neonates
B. Extrapulmonary air leaks do not resolve in first 7 days
C. Evidence supports the use of 100% oxygen to hasten resolution of pneumothorax
D. Oxygen should be administered only if the baby develops hypoxemia

27. The most appropriate way to define hypotension in neonates would be

A. MAP less than 60 mmHg
B. Systolic BP below the gestation of the neonate (weeks)
C. Systolic BP less than 30 mmHg
D. Low BP value accompanies by clinically detectable evidence of circulatory compromise

28. Which of the following is a phosphodiesterase III inhibitor?

A. Sildenafil
B. Milrinone
C. Vasopressin
D. Bosentan

29. The shelf life of RBC solution with SAGM additive is

A. 21 days
B. 28 days
C. 42 days
D. 35 days
30. The most common cause of early onset mild to moderate thrombocytopenia is
A. Placental insufficiency
B. Alloimmune thrombocytopenia
C. Autoimmune thrombocytopenia
D. Syndromic

31. In Kleihauer betke acid elution test, 50 ml loss of fetal blood into maternal circulation will show as % fetal cells in maternal circulation
   A. 2%
   B. 5%
   C. 1%
   D. 3%

32. The maximum haematocrit is observed at
A. Birth
B. 2 hours of age
C. 6 hours of age
D. 12 hours of age

33. The most common non catheter related pathologic thrombosis in neonates is
A. Renal vein thrombosis
B. Cerebral sino venous thrombosis
C. Portal vein thrombosis
D. Right atrial thrombosis

34. A 12-day neonate, with fetal growth restriction (FGR) presents with severe respiratory distress. On examination, baby has microcephaly, petechial spots, purpura, jaundice and mild hepatosplenomegaly. Lab investigations include thrombocytopenia, anaemia, elevated hepatic transaminases and conjugated hyperbilirubinemia. Ultrasound skull is suggestive of ventricular dilatation. Which of the following samples shall be most useful in making the diagnosis?
A. blood
B. urine
C. stool
D. Saliva

35. Which of the following is NOT the correct measure for preventing HIV transmission from mother to child?
A. Nevirapine at a dose of 2 mg/kg is recommended for a period of 6 weeks.
B. Pregnant women with CD4 counts of less than 350 should be started on a triple-drug regimen as soon as possible.
C. Begin Co-trimoxazole prophylaxis at 6 weeks of age.
D. Continue exclusive breastfeeding atleast till 6 months of age.
36. The following is TRUE regarding babies born to Hepatitis B positive mothers:
   
   A. If the mother is HBsAg positive, the baby should receive a dose of HBIG within 12 hours of birth.
   
   B. If the mother is HBsAg positive, HBeAg negative and the baby weighs 1800g, he/she should receive Hepatitis b vaccine within 24 hours of birth.
   
   C. Combined efficacy of HBIG and HBV in reducing transmission rates of hepatitis b infection is around 80%.
   
   D. Breastfeeding should be temporarily withheld for 96 hours.

37. You are evaluating a baby in NICU with diffuse petechiae. On examination, there is mild hepatosplenomegaly, bilateral cataract and a continuous murmur is noted in the parasternal area. Which of the following investigations would you do to diagnose the baby’s condition?
   
   A. RTPCR of urine sample
   
   B. Blood spot test
   
   C. IgM antibody in infant blood
   
   D. VDRL/RPR

38. Which of the following is true regarding RSV prophylaxis?
   
   A. Palivizumab (Synagis), is given intravenously every weekly @ 15 mg/kg/dose.
   
   B. All Infants who are born at <35 weeks’ gestation should be given Palivizumab during their first year of life.
   
   C. Infants who have required therapy for CLD and born <32 weeks’ gestation should be given RSV prophylaxis during their first year of life.
   
   D. Infants with Down’s Syndrome should receive RSV prophylaxis during the first two years of life.

39. Which of the following statement is true regarding neonatal COVID infection?
   
   A. Vertical transmission is common; Multiple studies show presence of the virus in the cord, amniotic fluid, and placenta.
   
   B. Horizontal transmission through breastmilk is extremely uncommon; therefore, breastfeeding should be continued.
   
   C. ELISA for detecting specific IgM COVID-19 antibodies is the diagnostic test of choice with a sensitivity and specificity of 60-70%.
   
   D. Treatment involves IVIG, dexamethasone and IV hydrocortisone.

40. Which of the following is true regarding adjuvant therapy in bacterial sepsis?
   
   A. Double volume exchange transfusion is indicated in cases with sclerema, severe sepsis DIC and metabolic acidosis, and cases with severe neutropenia secondary to sepsis.
   
   B. IVIG administration in neonatal sepsis results in decreasing the risk of secondary episodes of sepsis and reduces the risk of mortality.
   
   C. There is insufficient evidence to support the routine use of recombinant G-CSF and GM-CSF preparations in the acute treatment of neonatal sepsis
   
   D. Activated protein C leads to improved survival in preterm infants with LOS
41. Which of the following is NOT an indication for performing lumbar puncture in neonates?

A. Infants with positive blood cultures.
B. Symptomatic infants with Late onset sepsis.
C. All cases of suspected sepsis prior to starting antibiotics.
D. Infants with EOS with clinical signs & symptoms suggestive of meningitis

42. The most important independent predictor of survival in extreme prematurity is which one of the following?

A. Birth weight.
B. Sex.
C. Administration of antenatal steroids.
D. Gestation at birth

43. Most of the Intraventricular hemorrhage in preterm neonates occur within

A. 24 hrs
B. 48 hrs
C. 72 hrs
D. 12 hrs

44. Source of bleeding in Subarachnoid haemorrhage

A. Germinal matrix
B. Arteries in subarachnoid space
C. veins in subarachnoid space
D. dural venous sinus

45. Severe acidosis is defined as pH less than ______, in the context of perinatal asphyxia

A. <7.1
B. <7.0
C. <7.2
D. <6.9

46. Recommendation on folic acid for Neural tube defect prevention:

A. 1 month before conception to 3 months after conception
B. 3 months before conception to 1 month after conception
C. 1 month before conception to 1 month after conception
D. month before conception to 3 months after conception
47. Cardiac dysfunction associated with Inborn Errors of Metabolism is seen in:
   A. Organic acidemia
   B. Urea cycle defect
   C. Fatty acid oxidation defect
   D. Tyrosinemia

48. Which of the following is one of the beneficiaries under the “SUMAN” scheme
   A. All sick infants till 1 year of age
   B. Adolescent girls
   C. Postmenopausal female
   D. All mothers upto 6 weeks post delivery

49. What is the target neonatal mortality (per 1000 live births) to be achieved by 2025 as per National health policy 2017
   A. 20
   B. 16
   C. 24
   D. 10

50. Sustainable Development Goals are to be achieved by
   A. 2025
   B. 2030
   C. 2035
   D. 2040

51. All of the following conditions are covered under Rashtriya Bal Suraksha Karyakram except
   A. Congenital Heart disease
   B. CTEV
   C. Otitis Media
   D. Prematurity

52. Routine supplementation of human milk fortifier is recommended in which newborn?
   A. Birth weight <1500 g
   B. Gestational age <36 weeks
   C. Birth weight <1000 g
   D. Gestational age <34 weeks
53. For infants with suspected transient or permanent Congenital hypothyroidism dose of L-thyroxine should be initiated at?

A. 10 to 15 μg/kg/day  
B. 5 to 10 μg/kg/day  
C. 20 μg/kg/day  
D. 20 to 30 μg/kg/day

54. At what gestational age, undifferentiated gonads begin to differentiate

A. 8 weeks  
B. 7 weeks  
C. 6 weeks  
D. 12 weeks

55. What is the cut off threshold for an abnormal screen of evoked otoacoustic emissions (EOAEs), which necessitates further testing

A. ≥85 dB  
B. ≥45 dB  
C. ≥35 dB  
D. ≥15 dB

56. Big CPAM (Cystic pulmonary airway malformation) is defined if CPAM Volume ratio more than

A. More than 0.6  
B. More than 1.6  
C. More than 2.6  
D. More than 4

57. Most common type of apnea in preterm neonates is

A. Mixed  
B. Central  
C. Obstructive  
D. All of the above

58. In preterm neonates, Apneic spells occur most frequently during which sleep state

A. NREM  
B. REM  
C. Equal in both states  
D. Does not vary with sleep state
59. Which one of the following conditions is least likely to present as hydrops fetalis?
   A. α-Thalassemia
   B. β-Thalassemia
   C. Rhesus isoimmunisation
   D. Twin-to-twin transfusion

60. Which mechanism explains gas exchange between adjacent lung units with different time constants on High Frequency Oscillatory ventilation (HFOV)?
   A. Tyler Dispersion
   B. Pendelluft effect
   C. Bulk convection
   D. Molecular diffusion

61. A 32 weeks neonate is born by emergency LSCS due to maternal severe PIH. After birth baby is noted to have anuria since birth for more than 48 hours. Baby continues to remain on ventilator for severe RDS. Which of the following maternal drugs best explains this outcome?
   A. History of propranolol in pregnancy
   B. History of telmisartan in pregnancy
   C. History of labetalol in pregnancy
   D. History of clonidine in pregnancy

62. What is function of SP A protein of surfactant
   A. It activates macrophages and helps in elimination of pathogens
   B. It reduces surface tension and improves lung compliance
   C. It promotes formation of phospholipid lining in alveoli
   D. It has role in controlling lung inflammation

63. What elements are being analysed in non invasive prenatal testing in mother’s blood?
   A. RNA
   B. Cellular DNA
   C. Fragmented cell free DNA
   D. Fetal white blood cells

64. Which of the following is not a component of quadruple screening test in pregnancy
   A. Estriol
   B. PAPP
   C. Inhibin A
   D. Alpha fetoprotein
65. Which of the following is not a normal newborn variant.

A. Have erythema of the umbilical skin extending on to the abdomen
B. produce breast milk
C. have a single palmar crease
D. have an umbilical hernia

66. A couple has history of 2 male babies died in 1st week of life. They have a one healthy female child who is 3 years old. Last male baby who died was investigated and found to have hyperammonemia. Mother has delivered a male baby who is now 3 days and presented with convulsion. Which of the following condition is most likely?

A. Isovaleric acidemia
B. Medium-chain acyl-CoA dehydrogenase deficiency
C. Ornithine transcarbamylase deficiency
D. Maple Syrup Urine Disease

67. The most common postoperative complication of surgical repair of gastroschisis is

A. Abdominal compartment syndrome
B. Enterocutaneous fistula
C. Necrotizing enterocolitis
D. Short bowel syndrome

68. Bilirubin conjugated in the liver and secreted into bile can be deconjugated in the gut, then reabsorbed into the bloodstream, resulting in enterohepatic bilirubin circulation. The enzyme most responsible for contributing to enterohepatic bilirubin circulation is

A. Bilirubin hydrogenase
B. Bilirubin oxidase
C. Biliverdin reductase
D. Glucuronyltransferase

69. A baby is born with cleft palate, abnormal facies, heart murmur and hypocalcemic seizures. Which one of following investigation is not indicated in further workup?

A. 2D Echo
B. FISH Analysis
C. Skeletal Survey
D. Parathyroid hormone (PTH)

70. Blue berry muffin spot are seen in infection with all except

A. CMV
B. Rubella
C. Parvovirus
D. Toxoplasmosis
71. A baby required resuscitation at birth, 5 min APGAR was 3. Baby is hyper alert, hyperactive tendon reflexes and mydriasis. Which of the following describes his diagnosis from the list below

A. HIE stage 1
B. HIE stage 2
C. HIE stage 3
D. None of above

72. Which immunoglobulin is in highest amount in breast milk?

A. Ig E
B. Ig A
C. Ig M
D. Ig G

73. Which of the following is the flow cycled mode of ventilation?

A. Assist Control
B. Pressure Support Ventilation
C. Synchronised Intermittent Mandatory ventilation
D. SIMV with Volume Guarantee

74. Which of the following fetal blood vessels has got maximum oxygen saturation?

A. Ascending aorta
B. descending aorta
C. Inferior vena cava
D. Ductus venosus

75. Chi square test is always used to test

A. Population mean
B. Population median
C. Test of association
D. None of this

76. Which Quality Improvement method helps in root cause analysis of a problem?

A. PDSA cycle
B. Fishbone analysis
C. Six sigma approach
D. Run charts and control charts
77. What is false about Aggressive posterior retinopathy of prematurity (APROP) from following options
   A. associated with severe plus disease,
   B. flat neovascularisation in zone 3
   C. intraretinal shunting and haemorrhages,
   D. rapid progression to retinal detachment

78. Commonest cause of congenital hypothyroidism
   A. Thyroid Dysgenesis
   B. Maternal Drugs
   C. TRH deficiency
   D. Iodine deficiency

79. What is true regarding birth trauma?
   A. Erb’s palsy involves C6, C7, C8
   B. Klumpkes palsy involves C7,C8 and T1
   C. Cephalhematoma is present at birth
   D. Skull bone fracture is common occurrence

80. Maternal uniparental disomy is seen in which of the following:
   A. Angelman syndrome
   B. Prader Willi syndrome
   C. Laurence Moon syndrome
   D. Fragile X syndrome

81. Which type of congenital adrenal hyperplasia is associated with hypertension
   A. 11-Beta hydroxylase deficiency
   B. 17 ALPHA-hydroxylase deficiency
   C. 3-Beta-hydroxysteroid dehydrogenase deficiency
   D. 21-hydroxylase deficiency

82. Propranolol is used in all conditions as below except
   A. SVT
   B. Large haemangioma
   C. Severe cardiac dysfunction
   D. Tetrology of FALLOT
83. What correctly describes barlow maneuver
A. In supine position straightening both lower limbs and observe if affected side appears shorter
B. flexing infant's knees, feet touch the surface and ankles should touch the buttocks and check for level of knees
C. femoral head dislocates as hip is flexed adducted and pushed posteriorly
D. femoral head is relocated when thigh is abducted

84. What is false about shake rest (foam test) when used to assess lung maturity
A. Principle is that Ethanol generates bubbles after 15 min of there is surfactant is specimen
B. Bronchoalveolar lavage is required as a specimen for the assessment of it
C. Positive result indicate normal surfactant level
D. Presence of meconium can give false positive

85. At what point of infancy extracellular and intracellular fluid volumes are equal
A. 1 month
B. 3 month
C. 5 month
D. 9 month

86. New ballard score (NBS) is important bed side tool for assessing gestation age. Out of the neurological criteria in NBS which one has got a maximum score of 5
A. Posture
B. Arm recoil
C. Popliteal Angle
D. Scarf sign

87. Which of the following trace element is recommended from day one of starting TPN?
A. Copper
B. Manganese
C. Zinc
D. Selenium

88. Select BPD preventive strategy which is of proven benefit.
A. High frequency oscillation
B. Antenatal steroids
C. Intramuscular vitamin A
D. Fluid restriction
89. Following is true about antimicrobial stewardship programme (AMSP) except

A. De-escalation of antibiotics should be considered 48–72 h after their introduction
B. Audit and feedback is part of AMSP
C. Inappropriate antibiotic use lead to the emergence of resistance
D. Changing IV to oral route does not affect antimicrobial resistance

90. All are true about randomized control trial except?

A. Baseline characteristics of intervention and control groups must be similar
B. Investigator bias can be minimized by double blinding
C. The sample size depends on the hypothesis tested
D. Drop outs should be excluded from the analysis

91. What is not true about Vancouver style in bibliography when you write an article?

A. Number all references.
B. Arrange list in the order in which the references appear in your text.
C. If there are more than 4 authors, list the first 4 authors followed by “et al.”
D. Use official abbreviations for titles of journals if available

92. Kindly match following national health programmes with their aims

1 MAA
2 SUMAN
3 LaQshya
4 Dakshata

A. Assured delivery of quality healthcare services to any woman and newborn visiting a public health facility to end maternal and newborn deaths and morbidities
B. Empowering health care Providers for Improved MNH Care during Institutional Deliveries
C. Nationwide programme to promote breastfeeding and provision of counselling services for supporting breastfeeding
D. A quality improvement initiative in labour room & maternity OT, aimed at improving quality of care for mothers and newborn during intrapartum and immediate post-partum period

Options
A. 1a,2b,3c,4d
B. 1c,2b,3d,4a
C. 1c,2a,3d,4b
D. 1d,2c,3a,4b

93. Following are the indices used for diagnosis and assessment of post haemorrhagic ventricular dilatation on cranial ultrasound scan EXCEPT

A. Anterior Horn width
B. Thalamo occipital diameter
C. Ventricular index
D. Posterior horn width
E.
94. When is the optimal time for treatment of bilateral cataract

A. Before 6 weeks
B. 6-10 weeks
C. 4-6 months
D. 1 year

95. Baby born at term with a birth weight of 3.2 kg, presents on day 1 of life with excessive oral secretions and poor feeding. Antenatal ultrasound had demonstrated polyhydramnios. On passing NG tube it is curling up in upper oesophagus. please see the x ray and tell which variety of the underlying condition it is?

A. Type A
B. Type C
C. Type E
D. Type D
96. Which developmental screening tool is displayed?

All of the following are correct except

A. It is an IQ test
b. It can be used till the age of 6 years
C. it is not a predictor of later development
D. It assess child social skills as well
97. Please identify the cfm pattern

A. Discontinuous normal voltage
B. Burst suppression
C. Recurrent seizures
D. Low voltage trace

98.

What does this symbol represent?

A. Cochrane Collaboration
B. Indian Statistical Institute
C. Pradhan mantri Surakshit Matritva Abhyan
D. National Urban Health Mission

99. Steroid of choice used in the treatment of congenital adrenal hyperplasia?

A. Prednisolone
B. Hydrocortisone
C. Dexamethasone
D. Betamethasone
100. A term neonate requires some stimulation and brief oxygen at birth. Apgar scores are 5 at 1 minute and 9 at 5 minutes. After 5 hours, he starts having seizures which are difficult to control with medications. On examination, the baby is lethargic with some increased tone in his legs. The MRI shows increased signal in the white matter and basal ganglia suggestive of oedema.

Which of the following is the likely diagnosis?

A. Hypoxic ischemic encephalopathy
B. Transient raised ICP
C. Molybdenum cofactor deficiency
D. Organic acidemia