Obstetrics & Gynaecology

SBAs and MCQs Made Easy

A detailed guide for final MBBS and ERPM

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Mathanky Theeparupan

Vol : 1
First Edition

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Title : Obstetrics & Gynaecology

Subject : SBAs and MCQs Vol : 1

Editor in Chief : S.Sivachandran

Copy rights : S.Sivachandran

Pages : 144

1st Edition : 01st of October

Printed by : S.P.M Printers, V.M.Road, Point Pedro.
T.P.No: 0212260055

Cover Design : Dr.Mathurange Krishnapillai

ISBN No: 978-955-38914-1-9

Price : 750/=

Preface

Preparing for an examination is an art. Although clinical experience is vital for any medical exam, but, it is not enough to face an exam since it will also require adequate exposure and practice on model exam questions and past papers. Especially MCQs and SBAs are easier when one practices the art of answering these questions. Though SBAs have been included in the final examination for a long time now, Sri Lankan students have no appropriate guidance on how to approach and score the best out of these questions.

I personally have seen most of the students looking for a hand to find answers for the model questions. Texts will not be able to provide all the answers and explanation for the questions involving clinical scenarios. In such instances clinical experience will be necessary. I have tried my best to include the common clinical scenarios in the questions in this book and provide the explanation for any student to understand answer similar questions in the future too. I hope this little book will be a step towards the successful outcome of your final MBBS and ERPM.

Sivachandran S

1. Which of the following is/are true regarding routine antenatal care?
   a. A positive VDRL test warrants immediate treatment with penicillin
   b. Dating scan is best performed between 7-9 weeks of gestation
   c. Nuchal translucency is best measured between 14-16 weeks of gestation
   d. Screening for HIV is recommended for all pregnant women in Sri Lanka
   e. Triple test includes assessment of serum AFP, beta hCG and estriol

2. Which of the following conditions indicate anti D prophylaxis for a Rh-negative woman?
   a. Amniocentesis
   b. Ectopic pregnancy
   c. Induction of labor
   d. Intrauterine death
   e. Therapeutic termination of pregnancy

3. Which of the following are true regarding management of a pregnancy complicated by epilepsy?
   a. Delivery is indicated at 38 weeks of gestation
   b. Prophylaxis of folic acid 5mg daily, at least 3 months before conception.
   c. Monotherapy of antiepileptics is preferred to polytherapy
   d. All women should be offered anomaly scans
   e. Antiepileptics should be withheld during the first trimester

4. A patient presented with fever and severe abdominal pain one week after caesarean section. Physical examination revealed a tender abdomen and an offensive vaginal discharge. Initial management should include
   a. USS abdomen and pelvis

b. Exploratory laparotomy
c. IV antibiotics
d. High vaginal swab
e. Withhold breast feeding

5. Which of the following are considered as contraindications for vacuum delivery?
a. Face presentation
b. Gestational age less than 34 weeks
c. Maternal immune thrombocytopenia
d. Occipito-transverse position
e. Previous caesarean section

6. Which of the following are true regarding occipito-posterior (OP) position?
a. Face to pubis delivery occurs in persistent OP position
b. May lead to deep transverse arrest
c. May lead to prolonged second stage of labour
d. Majority of cases rotate to occipito-anterior position
e. The presenting diameter is suboccipito-bregmatic

7. Which of the following are diagnostic tests for trisomy 21?
a. Amniocentesis
b. Chorionic villous sampling
c. Detection of absent nasal bone on ultrasound scan
d. Nuchal translucency by ultrasound scan
e. Serum beta hCG and AFP measurement

8. Risk factors for fetal growth restriction include,
a. Asymptomatic bacteriuria
b. Gestational diabetes mellitus
c. Hypothyroidism
d. Multiparity
e. Teenage pregnancy

9. Regarding chicken pox in pregnancy,
   a. Immunity must be confirmed by detecting IgG antibodies in the maternal serum in all affected women.
   b. Infection at term is an indication for immediate delivery
   c. Is prevented by post exposure administration of acyclovir
   d. Is complicated by maternal pneumonia
   e. Maternal infection before 20 weeks of gestation carries a risk of congenital varicella syndrome

10. Complication of warfarin therapy during pregnancy include,
    a. Fetal intracranial hemorrhage
    b. Hypoplasia of fetal nasal bridge
    c. Maternal osteoporosis
    d. Maternal thrombocytopenia
    e. Postpartum hemorrhage

11. Which of the following are causes for primary amenorrhea with normal development of secondary sexual characteristics?
    a. Androgen insensitivity syndrome
    b. Gonadal agenesis
    c. Imperforate hymen
    d. Kallman's syndrome
    e. Mullerian agenesis

12. Regarding endometrial carcinoma,
    a. Continuous usage of combined hormone replacement therapy is a risk factor
    b. Endometrioid adenocarcinoma is the commonest histological type
    c. It is familial in majority of cases
    d. Serous type has a better prognosis than endometrioid type
    e. Tamoxifen reduces the risk

13. Which of the following are benign epithelial ovarian tumors?
    a. Androblastoma
    b. Brenner tumor
    c. Granulosa cell tumor
    d. Mature teratoma
    e. Serous cystadenoma

14. Regarding male factor infertility,
    a. Hyperprolactinaemia causes abnormal seminal fluid parameters
    b. Obstruction of the vas deferens causes dry ejaculation
    c. Pre-pubertal mumps very commonly leads to impaired spermatogenesis in later life
    d. Retrograde ejaculation is a cause
    e. Unprovoked early morning erection in a man with erectile dysfunction suggest a non-organic pathology

15. Subdermal contraceptive implant,
    a. Causes irregular vaginal bleeding
    b. Contains estrogen and progestogen
    c. There will be a delay in return of fertility after removing it
    d. Overall, it increases the risk of ectopic pregnancy
    e. Is contraindicated in women with uncontrolled hypertension

16. Which of the following usually causes multiple painful genital ulcers?
    a. Bacterial vaginosis
    b. Chancroid
    c. Genital herpes
    d. Lymphogranuloma venereum (LGV)
    e. Primary syphilis

17. Regarding endometriosis,
    a. Drainage of an endometrioma compared to cystectomy reduces the risk of recurrence

b. Hormone replacement therapy is contraindicated following hysterectomy and bilateral salpingo-oophorectomy
c. It is treated with gonadotropin releasing hormone analogues
d. It is treated with combined oral contraceptive pills
e. Medical treatment improves fertility.

18. Regarding menopause and hormone replacement therapy (HRT),
    a. A level of FSH more than 30 IU/L indicates ovarian failure
    b. Combination of estrogen and progestogen containing HRT is recommended for a woman with an intact uterus
    c. HRT is contraindicated if there is a past history of breast carcinoma
    d. Testosterone is effective in reduced libido
    e. The role of progestogen in HRT is endometrial protection

19. Complication of mid urethral sling procedure include,
    a. Acute retention of urine
    b. De novo bladder over activity
    c. Injury to the ureter
    d. Tape erosion
    e. Thigh pain

20. Steps to prevent acid aspiration syndrome during caesarean section?
    a. Application of cricoid pressure during induction of general anesthesia
    b. Fasting for solid food for 4 hours
    c. Premedication with atropine
    d. Premedication with sodium citrate
    e. Use of spinal anesthesia

21. Physiological factors that influence oxygen supply to the fetus
    a. 2,3-DPG level in maternal blood
    b. Hb concentration in the fetus
    c. Oxygen affinity of the fetal Hb

d. Secondary trophoblastic invasion
e. Uterine blood flow

22. Pregnancy is best avoided in
a. Previous peripartum cardiomyopathy
b. Mafran's syndrome with aortic root dilatation
c. Pulmonary HTN
d. Mitral valve replacement
e. Secundum ASD with L-R shunt

23. A second degree perineal tear
a. Always extends into the perineal body
b. Involves the anal mucosa
c. Involves anal sphincter
d. Is avoided by episiotomy
e. Is avoided by forceps delivery

24. Regarding face presentation
a. Anencephaly is a recognized cause
b. Diagnosed by palpable nose & alveolar margins
c. Causes shoulder dystocia
d. Neck is extended
e. Mento-posterior position is delivered vaginally

25. Direct causes of maternal death includes
a. Amniotic fluid embolism
b. Heart disease complicating pregnancy
c. Road traffic accidents
d. PPH
e. Rupture of ectopic pregnancy

26. Risk factors for endometrial CA
a. COCP
b. Combined HRT
c. PID
d. Diabetes mellitus
e. PCOS

27. Mature cystic teratoma
    a. Torsion is common than endometrioma
    b. 10% are bilateral
    c. Is malignant
    d. Most common tumor of the ovary in women aged less than 30 years
    e. Release of contents causes chemical peritonitis

28. Contraindications for COCP
    a. Cardiomyopathy
    b. Glaucoma
    c. Previous history of DVT
    d. Liver tumors
    e. Peptic ulcer disease

29. Management of urodynamic stress incontinence
    a. Cystoplasty
    b. Oxybutyline
    c. Duloxetine
    d. Pelvic flow exercises
    e. Tension free transvaginal tape

30. Factors that increase the risk of acid aspiration at general anesthesia during pregnancy include,
    a. Absence of laryngeal reflex
    b. Application of cricoid pressure
    c. Increase in gastric motility
    d. Obesity
    e. Reduction of the lower oesophageal sphincter tone

31. Risk of which of the following complication is higher in monochorionic over dichorionic twins
    a) DM
    b) Congenital abnormalities
    c) IUGR
    d) IUD
    e) PPH

32. Regarding face presentation with mento-anterior position,
    a) Caesarian section is recommended
    b) Low forceps delivery is contraindicated
    c) Chin is the denominator
    d) Neck is hyperextended
    e) Presenting diameter is submento-begmatic diameter

33. Which of the following investigations are indicated in a patient with 1st trimester recurrent miscarriage?
    a) Anticardiolipin antibodies
    b) Factor V Laden mutation
    c) Karyotyping of the couples
    d) Screening for rubella
    e) Blood sugar assessment

34. Regarding ovarian tumors
    a) Endodermal sinus tumor secretes AFPs
    b) Fibroma secretes alpha anti-tripsin
    c) Leydig-sertoli cell tumor secretes androgens
    d) Dermoid cyst secretes estrogens
    e) Theca-granulosa cell tumors predominantly secrete progesterone

35. Which of the fallowing diagnostic features are correctly paired?
    a) Chlamydia trachomatis - urethral swabs for PCR (Nucleic acid amplification test)
    b) Gonorrhea - High vaginal swab for culture and ABST
    c) HPV - koilocytic cells in PAP smear
    d) Trichomonas - clue cells
    e) Bacterial vaginosis- whiff test

36. Endometriosis
    a) Is premalignant
    b) Effectively diagnosed by pelvic ultrasound scan
    c) Treated with levenorgestrel releasing intrauterine device
    d) Causes anovulation
    e) Commonly occurs in multipara

37. Regarding utero-vaginal prolapse,
    a) If fundus is palpable out of the introitus, it's known as 3rd degree
    b) It may occur in young women with connective tissue disease
    c) Pelvic floor exercise is effective for symptom control
    d) Predispose the woman for uterine cancer
    e) Sexually active women should never be offered a pessary

38. Which of the following instruments are correctly matched with its use?
    a) Cusco's speculum - visualize the cervix during colposcopy
    b) Green Armitage forceps - repair of cervical tears
    c) Uterine sound – assess the position and size of the uterus
    d) Wilkinson cannula – intra uterine insemination
    e) Kielland's forceps – rotational delivery

39. The following are situations in which Anti D prophylaxis is recommended for Rhesus negative women
    a. Abruptio placentae
    b. Birth of a Rhesus positive baby to a Rhesus sensitized mother
    c. Ectopic pregnancy
    d. External cephalic version at 37 weeks of gestation
    e. Spontaneous miscarriage at 6 weeks of gestation

40. Hyperthyroidism in pregnancy is
    a. A cause of foetal growth restriction
    b. A complication of hydatidiform mole
    c. Due to Graves' disease in the majority
    d. Monitored by total thyroxine levels
    e. Treated with propylthiouracil

41. A primigravida with a twin pregnancy has delivered the first baby vaginally. The second twin does not show any evidence of hypoxia. Subsequent management of this patient include
    a. Artificial rupture of the membranes
    b. Augmentation of the uterine activity with oxytocin
    c. Breech extraction
    d. Correction of the lie of the foetus
    e. Delivery of the second twin within 10 minutes

42. Application of Wrigley's forceps is contraindicated when
    a. Cervical dilatation is 9 cm
    b. Fetal heart rate is 100 beats per minute
    c. Fetal head is in right occipito-lateral position
    d. Gestational age is 34 weeks
    e. 2/5th of the fetal head is palpable abdominally

43. In face presentation
    a. Fetal goitre is an etiological factor
    b. Persistent mento-posterior position is an indication for caesarean delivery
    c. The head is delivered by extension
    d. The occipital bone is considered as the denominator
    e. Vacuum delivery is contraindicated

44. Causes of excessive vomiting at 10 weeks of gestation include
    a. Gestational trophoblastic disease
    b. Infective hepatitis
    c. Multiple fibroids
    d. Threatened miscarriage
    e. Urinary tract infection

45. Fetal growth restriction
    a. If due to chromosomal anomalies, causes an asymmetrical growth pattern
    b. Is defined as birth weight below the 10th percentile for the gestational age
    c. Is detected in the first trimester
    d. Is known to be caused by alcohol abuse
    e. Requires umbilical artery Doppler studies for management

46. Management of pre-term labor with intact membranes at 32 weeks of gestation includes
    a. Dexamethasone injections
    b. Estimation of C-reactive protein
    c. Hourly cardiotocography
    d. Oral erythromycin 250 mg six hourly
    e. Oral nifedipine

47. Magnesium sulphate
    a. Is excreted by the kidneys
    b. Is the drug of choice for management of eclampsia
    c. Must not be used with nifedipine
    d. Toxicity is treated with calcium gluconate
    e. Toxicity causes tachypnoea

48. Hypothalamo-pituitary-ovarian axis is influenced by
    a. GnRH analogues
    b. Mefenamic acid
    c. Nutrition
    d. Thyroid hormones
    e. Tranaxamic acid

49. Risk factors for ovarian cancer include
    a. Combined oral contraceptive pill
    b. Hysterectomy
    c. Nulliparity
    d. Presence of BRCA-1 gene
    e. Tamoxifen

50. Leiomyoma
    a. Has a 5% risk of sarcomatous change
    b. If 2 x2 cm in size and submucosal, is best treated by hysteros copic resection
    c. Is best treated with uterine artery embolization in sub fertile women
    d. Is the commonest benign tumor of the uterus
    e. Regresses with the use of combined oral contraceptive pills for six months

51. Epithelial ovarian tumours include
    a. Brenner tumour V
    b. Fibroma
    c. Mature cystic teratoma
    d. Mucinous cystadenoma
    e. Serous cystadenoma

52. Causes of anovulation include
    a. Body mass index of 20 kg/m^2
    b. Breastfeeding
    c. Endometriosis
    d. Levonorgestrel containing intra uterine system
    e. Polycystic ovary syndrome

53. Chlamydia] infection of the genital tract
    a. Causes cervical ectropion
    b. Causes chronic pelvic pain
    c. Causes endosalpingitis
    d. Is diagnosed by ELISA test
    e. Is treated with metronidazole

54. Changes in polycystic ovarian syndrome include
    a. Elevated luteinizing hormone levels
    b. Elevated sex hormone binding globulin levels
    c. Elevated testosterone levels
    d. Low basal insulin levels
    e. Low serum estrogen levels

55. Hormone replacement therapy protects postmenopausal women against
    a. Atrophic vaginitis
    b. Cerebral hemorrhage
    c. Colorectal cancer
    d. Deep vein thrombosis
    e. Osteomalacia

56. Urodynamic stress incontinence
    a. Improves with bladder training
    b. Is the involuntary passage of urine during increased abdominal pressure in the absence of detrusor contractions
    c. Is treated with Burch colposuspension
    d. Responds to oxybutynin treatment
    e. Results from damage to the pelvic floor

57. Laparoscopy is performed
    a. By inflating the peritoneal cavity with nitrous oxide
    b. For investigating unexplained abdominal pain
    c. For postpartum sterilization
    d. For treatment of endometriosis
    e. Under spinal anesthesia

58. Regarding uterine inversion,
    a. Inappropriate management of the 3rd stage is an important cause
    b. Can cause severe bleeding
    c. Patient may develop shock without bleeding
    d. Correction (replacement of the fundus) should only be attempted after the maternal condition is stabilised
    e. laparotomy is necessary in most cases

59. Regarding uterine inversion,
    a. Increased length of the umbilical cord is a risk factor
    b. Placenta should be left in place until replacing the fundus
    c. Shock primarily occurs due to nerve stretch
    d. Manual reduction should be attempted early
    e. Oxytocin should not be given following manual reduction.

60. Regarding deep vein thrombosis in pregnancy,
    a. Pregnancy is a risk factor for DVT
    b. Enoxaparin is not teratogenic compared to warfarin
    c. All women admitted with hyperemesis gravidarum and ovarian hyper stimulation syndrome should be given DVT prophylaxis irrespective of the POA
    d. Dehydration increases the risk of DVT
    e. A primi mother who developed DVT during pregnancy should be advised against a second pregnancy

61. Regarding inutero fetal death,
    a. Ultrasound assessment is adequate to confirm the diagnosis
    b. Cause can be identified in the majority of cases
    c. DIC is a known complication
    d. Anti-Rh D gammaglobulin should be administered as soon as possible to all Rh negative non-sensitised mothers
    e. Postmortem examination is a valuable test

62. Which of the following criteria should be fulfilled to define a woman having hyperemesis gravidarum?
    a. 5%of pre-pregnancy weight loss
    b. Dehydration
    c. Electrolyte imbalance
    d. Ketone bodies in the urine
    e. A live fetus

63. Regarding antenatal corticosteroids,
    a. Reduce the incidence of the respiratory distress syndrome in preterm deliveries
    b. Most effective in reducing respiratory distress syndrome(RDS) in pregnancies that deliver 24 hours after and up to 7 days after administration
    c. Antenatal corticosteroids have no known benefits for the mother.
    d. Increases the risk of PPH
    e. Double dose should be given for multiple pregnancies

64. Risk factors for PPH,
    a. Past history of PPH
    b. Polyhydramnios
    c. Pre-eclamsia
    d. Spinal anaesthesia
    e. Episiotomy

65. Which of the following surgical methods are used to manage a PPH?
    a. Intrauterine tamponade
    b. B lynch sutures
    c. Uterine artery ligation
    d. External iliac artery ligation
    e. Burch colposuspension

66. Which of the following are characteristic features of placenta previa?
    a. Unengaged head at term
    b. Abnormal lie
    c. Painful bleeding
    d. Fetal distress
    e. Fetal growth restriction

67. Regarding placenta previa,
    a. All woman should undergo antenatal placental localization by ultrasound
    b. MRI should be used to confirm the diagnosis if available
    c. All the cases of placenta previa needs cesarean delivery
    d. Fetal compromise is earlier than maternal compromise
    e. Eisk of PPH is increased

68. Regarding placental abruption,
    a. Can be associated with PIH
    b. Can cause early fetal compromise
    c. Caesarean delivery is mandatory in all cases
    d. Most common obstetric cause for DIC in obstetrics
    e. Can present without bleeding

69. Which of the following tests recommended to diagnose anti-phospholipid syndrome?
    a. Lupus anticoagulant (LA)
    b. Anticardiolipin antibody (aCL)
    c. Anti- B2 glycoprotein I
    d. Protein C level
    e. Karyotyping

70. Regarding anaemia in pregnancy,
    a. Most common pathological cause is iron deficiency
    b. All pregnant woman should be screened for anaemia at booking and 28 weeks in Sri Lanka
    c. Frequency of screening for anaemia should be more in multiple pregnancy
    d. Antenatal correction of the anaemia may improve the maternal mortality rate in developing countries
    e. Pregnancy is contraindicated in a woman with thalassemia major

71. Regarding physiological changes of pregnancy,
    a. Plasma volume is increased relatively more than RBC volume
    b. Pregnancy is a hypercoagulable state
    c. Plasma osmolality is increased
    d. Neutrophil leucocytosis occurs
    e. BMR is decreased

72. The following parameters are increased in pregnancy
    a. Plasma osmolality
    b. Plasma volume
    c. Platelet count
    d. Respiratory rate
    e. Stroke volume

73. Which of the following are considered as risk factors for pelvic organ prolapse?
    a. Age

b. Vaginal delivery
c. Obesity
d. Certain ethnic groups
e. Working as a computer operator

74. Which of the following conditions require early delivery before the expected date of delivery?
    a. Twin pregnancy
    b. Type 1 DM
    c. Preeclampsia
    d. Previous section awaiting VBAC
    e. Pre-labor rupture of membranes

75. Which of the following/s are true about induction of labor?
    a. It is defined as the initiation of contractions in a pregnant woman who is not in labor to help her achieve a vaginal birth within 72 hours.
    b. The goal of induction is to achieve a successful vaginal delivery that is as natural as possible
    c. Cervical ripening is the use of pharmacological or other means to soften, efface or dilate the cervix
    d. Hyper stimulation refers to excessive uterine contractions (tachysystole or hypertonia) with abnormal FHR changes.
    e. Misoprostol is the common drug used in the Sri Lanka for the induction of the labor

76. Which of the following are risk factors for shoulder dystocia?
    a. Diabetes mellitus
    b. Prolonged 1st stage of the labor
    c. Prolonged second stage of the labor
    d. Instrumental delivery
    e. VBAC

77. Which of the following are regarded as complications of shoulder dystocia?
    a. Brachial plexus injury in the baby
    b. Postpartum hemorrhage
    c. Fetal hypoxia
    d. Retain placenta
    e. Uterine rupture

78. Regarding molar pregnancies,
    a. Complete moles are diploid and androgenic in origin
    b. Definitive diagnosis is made at histology
    c. Fetal heart beat may be seen in partial mole
    d. Compared to a partial mole, risk of progression to invasive mole is high with a complete mole
    e. Medical evacuation is preferred over surgical evacuation in complete mole

79. Which of the following are correct regarding seminal fluid analysis?
    a. Patient should be advised to be abstinent for 3 days
    b. It should be delivered to the laboratory within 4 hours of collection
    c. If the 1st sample revealed severe oligospermia, repeat sample should be taken in 3 months to confirm it
    d. Sperm concentration above 15 million/ml is considered normal
    e. 30% of sperm should be in normal form

80. Polycystic ovarian disease,
    a. Rotterdam consensus criteria is used to diagnose PCOD
    b. Predispose to GDM
    c. Clomiphene may be beneficial if woman is having subfertility
    d. Increase the risk for ovarian cancer
    e. INcrease the risk of endometrial CA

Answers

1. F F F T T

VDRL is used as a screening test in Sri Lanka, when it is positive further tests may be needed to confirm active disease as VDRL may be positive for some time, after the completion of the treatment of disease or false positives can occur due to various reason.

Serological tests for syphilis can be classified as nontreponemal (NTTs) and treponemal (TTs) tests. NTTs are usually used for screening and monitoring of the therapy, while TTs are used to confirm the diagnosis. The two commonly used nontreponemal tests are the Venereal Disease Research Laboratory (VDRL) and the Rapid Plasma Reagin (RPR) tests. False-positive reactions can occur because of pregnancy, autoimmune disorders, and infections.

NTTs are usually positive in 75% of cases of primary syphilis. NTTs usually become negative one year after receiving adequate treatment of primary syphilis and within two years with secondary syphilis. In a small percentage of patients' low positive titers persist despite receiving adequate therapy. TTs include the fluorescent treponemal antibody absorption (FTA-ABS) test, the treponemal-specific microhemagglutination test (MHATP) and Treponema pallidum particle agglutination test (TP-PA). These tests are positive in 75% (TP-PA) to 85% (FTA-ABS) of patients with primary syphilis and in 100% of patients with secondary syphilis. False-positive tests can occur in patients with Lyme disease, leptospirosis, and diseases caused by other pathogenic Treponema spp. TTs usually remain positive for life.

Pregnant women should be offered an early ultrasound scan between 10 + 0 and 13 + 6 weeks to establish accurate gestational age
NT must be done between 11 to 13 + 6-week.
It is recommended that all Sri Lankan women should undergo screening for syphillis and HIV before 12 weeks of POA.
Triple test includes AFP, hCG, and estriol.

2. T T F T T

Anti D prophylaxis should be given to a non-sensitized Rh negative women following a condition which can cause feto-maternal hemorrhage.

It should b be given early as possible following the events, (It is recommended within 72 hours). Before 20 weeks, 250 IU and after 20 weeks, 500 IU are recommended. After 20 weeks, following anti D administration Kleihauer test should be performed to check the adequacy of the dose.

It is also recommended to offer routine anti D at 28 weeks to all women, which is not practiced in Sri Lanka at this moment due to the cost-effectiveness issue. Recommended routine prophylactic doses are 1500 IU as a single dose at 28 weeks or 500 IU at 28 and 34 weeks.

Potentially sensitising events in pregnancy which requires anti D prophylaxis. (Green top guide line)

- Amniocentesis, chorionic villus biopsy and cordocentesis
- Antepartum haemorrhage/ uterine (PV) bleeding in pregnancy
- External cephalic version
- Abdominal trauma (sharp/ blunt, open/closed)
- Ectopic pregnancy
- Evacuation of a molar pregnancy
- Intrauterine death and stillbirth
- In-utero therapeutic interventions (transfusion, surgery, insertion of shunts, laser)
- Miscarriage, threatened miscarriage
- Therapeutic termination of pregnancy
- Delivery – normal, instrumental or Caesarean section
- Intra-operative cell salvage

3. F T T T F

Pregnancy in a woman with epilepsy should be considered as high risk pregnancy. She should be given a high dose of folic acid as antiepileptics increase the risk of neural tube defects.

She should be assed for the risk of seizures during pregnancy and patient should be advised that she has to continue the drug during the whole pregnancy. Advice should be offered to avoid precipitating factors for epilepsy.
Monotherapy with lowest possible dose is recommended whenever possible as combination of drugs increases the risk of anomalies.
It is also recommended to consider more pregnancy friendly drugs such as carbamazepine and lamotrigine.
Although traditionally it was taught that congenital anomaly risk is increased in a woman with epilepsy, recent green top guideline mentions that congenital anomaly risk is increased only in a woman who is treated with antiepileptics. But the risk of epilepsy in her fetus is increased.

Mode or time of delivery is not altered by epilepsy, but measures should be taken to prevent seizure during labor. She has to avoid precipitating factors during labor such as, sleeplessness, dehydration, fasting or pain. She should continue her antiepileptic treatment during the labor. In a woman who is at high risk of seizure (had a seizure during past year) prophylaxis with clobazam is recommended.

Indications for higher dose (5mg) of folic acid prophylaxis

- Previous history of NTD
- Preexisting DM
- Antiepileptic treatment
- Sickle cell disease

4. T F T T F

A pelvic infection with or without sepsis is the likely diagnosis. In the case of postpartum sepsis, patient should be stabilized initially as in any emergency applying the A, B, C rule.
IV fluids, investigations to identify the focus of infection, broad spectrum intravenous antibiotics are the initial management. Ultrasound scan is necessary to identify the pelvic abscess or retained products in the uterus.

Laparotomy may only be considered after initial management in case of persistent pelvic abscess which does not respond to antibiotics. Maternal infection is not an indication to withhold breastfeeding

Contra Indications for vacuum delivery

- Preterm (< 34 weeks)
- Face presentation
- Fetal bleeding disorders (e.g. alloimmune thrombocytopenia)
- predisposition to fracture (e.g. osteogenesis imperfecta)

5. T T T F F

Vaccum delivery is recommended to a woman who needs instrumental delivery with occipito-transverse position, as this may assist the rotation of the head. Past section is not a contraindication for either vacuum or forceps delivery.

Blood-borne viral infections of the mother are not contraindications to operative vaginal delivery. However, it is better to avoid difficult operative delivery where there is an increased chance of fetal abrasion or scalp trauma and to avoid fetal scalp clips or blood sampling during labor.

6. T T T T F

Presenting diameter is occipito-frontal (11.5cm) or suboccipito-frontal (10cm) in OP position. 80 % of OP positions rotates to OA during labor.

In occipitio-posterior (OP) position head can undergo a long internal rotation of 135° and deliver as occipito-anterior (OA), but in the case of persistent occipito-posterior position, delivery would be face to pubis. Due to the long internal rotation, second stage may be prolonged. Deep transverse arrest occurs during the long internal rotation.

7. T T F F F

Diagnostic tests are amniocentesis, chorionic villus sampling or cordocentesis where fetal or placental cells are taken. Ultrasound scanning for NT, nasal bone or maternal serum markers or maternal

cell free DNA tests are screening tests, when they indicate a high risk, further diagnostic tests should be done to confirm the trisomy

8. F F T F F
Risk factors for FGR

Minor risk factor

- Maternal age > 35
- IVF singleton pregnancy
- Nulliparity
- BMI < 20
- BMI 25 – 34.9
- Smoker 1 – 10 / day
- Low fruit intake pre pregnancy
- Previous pre-eclampsia
- Pregnancy interval < 6 months
- Pregnancy interval > 60 months

Major risk factors

- Maternal age > 39 years
- Smoker >11/ day
- Paternal SGA
- Maternal SGA
- Cocaine
- Daily vigorous exercise
- Previous SGA
- Chronic HTN
- DM with vascular disease
- Renal impairment
- APS
- Heavy bleeding similar to menses
- PAPP-A < 0.4 MoM
- Fetal echogenic bowel

Overt hypothyroidism causes reduced fertility, and an increased rate of 1st trimester miscarriage. If pregnancy does occur it can be

associated with **pre-eclampsia, raised BP, pre-term delivery and postpartum hemorrhage.** Neuropsychological and cognitive impairment have also been reported in infants born to mothers with overt hypothyroidism. Subclincal hypothyrodism refers to an elevated TSH but with a normal free T4. This is more common, but though the risks listed above are lower, they may still be present.

Thyroxine requirements increase in pregnancy in many patients (typically by 30-50%). It is therefore recommended that the pre-pregnancy dose to be increased by 25mcg on the diagnosis of pregnancy. This will most likely be in the community, however, this should be initiated if patient is seen in the 1st trimester e.g. in EPAU. TFTs should be taken at booking and patients should be seen in a general antenatal clinic (unless the diagnosis follows surgery or treatment with radioiodine). Aim keep to keep TSH <2 iu/L in patients on replacement therapy. It is not necessary to monitor T4 levels in these patients. (For women not on treatment, the normal range remains < 3.5iu/l)

TFTs should be checked at each trimester: this can be arranged by writing to the GP. They should be repeated after 6 weeks if the dose is adjusted.

Complications of hypothyroidism in pregnancy

Maternal

Anemia
Postpartum hemorrhage
Cardiac dysfunction
Pre-eclampsia
Placental abruption
Fetal distress in labor

Fetal

Prematurity
Low birth weight
Neurodevelopmental delay
Congenital hypothyroidism (if autoimmune)

Congenital malformations
Perinatal death
Stillbirth

9. F F F T T
If mother has a reliable history of previous chicken pox, further testing is not necessary to confirm the immunity, but if mother does not remember the history, immediate assessment of IgG will assist to assess the immunity.

3rd trimester infection is not an indication for delivery. A **planned delivery** should normally be avoided for **at least 7 days after** the onset of the maternal rash to allow for the passive transfer of antibodies from mother to child, provided that continuing the pregnancy does not pose any additional risks to the mother or baby.

Acyclovir is used as treatment to reduce the disease severity. It is not used to prevent the disease. VZIG is used to prevent the disease after an exposure during the pregnancy. It is recommended to be given within 10 days of exposure.

It can cause pneumonia, hepatitis and meningitis in a pregnant woman.

Risks to the fetus from varicella infection in pregnancy
Chickenpox **does not increase spontaneous miscarriage even i**n the first trimester.
If a pregnant woman develops varicella or shows serological conversion in the first 28 weeks of pregnancy, she has a small risk of fetal varicella syndrome (FVS).
FVS is characterised by one or more of the following:

- Skin scarring in a dermatomal distribution;
- Eye defects (microphthalmia, chorioretinitis or cataracts);
- Hypoplasia of the limbs
- Neurological abnormalities (microcephaly, cortical atrophy, mental retardation or dysfunction of bowel and bladder sphincters).

10. T T F F T

Adverse effects of warfarin in the fetus

- Warfarin embryopathy (6 - 12 weeks)
- Nasal hypoplasia
- Stippled epiphyses
- Saddle-nose deformity
- Mental retardation
- Optic atrophy
- Frontal bossing
- Hypertelorism
- High-arched palate
- Short neck
- Short stature
- Fetal loss
- Bleeding

Long-term unfractionated heparin therapy is associated with thrombocytopenia and osteoporosis but warfarin does not cause this.

11. F F T F T

In androgen insensitivity syndrome there will be an asynchronous development of secondary sexual characteristics with normal breast development and absence of pubic hair development.
Gonadal dysgenesis, premature ovarian failure, hypopituitarism, CNS tumor, Kallmann's disese and hypothyroidsm are associated with immature secondary sexual characteristics.

Mullerian agenesis or outflow tract obstructions such as imperforate hymen, vaginal septum, cervical stenosis, are associated with normal secondary sexual characteristics

12. F T F F F

The most common cell type of endometrial CA is endometrioid which accounts for 75% to 80% of cases. More aggressive variants of endometrial carcinomas are serous and clear cell carcinoma. Serous carcinoma is a relatively uncommon type of endometrial carcinoma, accounting for about 5% to 10% of cases.

Unopposed estrogen is proposed to be the main etiological factor for endometrial cancer. In continuous combine therapy, progesterone is added, so risk is not increased or sometimes reduced.
Familial endometrial cancers constitute less than 1% of cancers.

Tamoxifen induces the endometrium and increases the risk of endometrial cancer.

Oher risk factors of endometrial CA

Well-documented conditions known to be associated with an increased risk of endometrial carcinoma include obesity, nulliparity, early menarche, and late menopause. Obesity appears to pose the greatest risk, especially patients 50 or more pounds over their ideal body weight. Aromatization of androstenedione to estrone, which occurs in peripheral fat appears to be the source of increased circulating levels of estrogen in obese patients. Diabetes mellitus, hypertension, family history, a high-fat diet, and previous radiation have all been implicated in the increased incidence of endometrial carcinoma. Interestingly, a decreased rate of occurrence is seen in cigarette smokers; this has been explained by endometrial atrophy. However, smoking in conjunction with the use of exogenous estrogen significantly multiplies the risk of developing endometrial carcinoma, especially in thin women

13. F T F F T

Arrhenoblastomas, also known as Sertoli-Leydig cell tumors or androblastomas is a sex cord stromal cell tumour. It is generally considered as a malignant tumor. They secrete androgens and cause virilization in females.
Brenner tumor (transitional epithelial tumor) arise from the surface epithelium. Although rarely it can be a malignant tumor, generally it is considered as benign.
Granulosa cell tumors are sex cord stromal cell tumors
Teratoma is a germ cell tumor. Mature teratoma is considered as benign and immature terotama indicates the malignant variant.

Serous cystadenoma and mucinous cystadenoma arise from surface epithelium. Malignant counterparts of these tumors are serous cystadenocarcinoma and mucinous cystadenocarcinoma.

14. T F F T T

Hypeprolactinaemia can interfere with pulsatile secretion of the GnRh which may cause abnormal sperm counts (oligospermia or azoospermia). Hyperprolactinemia also can cause male infertility by decreasing the libido and causing impotence. It can be effectively treated by carbogoline or bromocriptine. Seminal fluid is made up of secretions from various parts of the male genital tract. Obstruction of the vas prevents sperm entering the ejaculate but still secretions from other parts (seminal vesicle and prostate) can cause ejaculation even though vas is obstructed

Mumps virus can cause orchitis which can lead to impairment in sperm production. This risk is minimal in prepubertal mumps.
Retrograde ejaculation can occur due to previous bladder neck surgery, prostate surgery, diabetes, multiple sclerosis, Parkinson's disease and spinal cord injury,
Early morning erection is a good sign that indicate an organic pathology is unlikely.

15. T F F F T

Subdermal implants are small plastic rods or capsules, each about the size of a matchstick, that release a progestin like the natural hormone progesterone in a woman's body. It does not have estrogen.

Types of implants:
" Jadelle: 2 rods, effective for 5 years
" Implanon: 1 rod, effective for 3 years (studies are underway to see if it lasts 4 years)
" Norplant: 6 capsules, labeled for 5 years of use (large studies have found it is effective for 7 years)
" Sinoplant: 2 rods, effective for 5 years

Main mode of action of implants are,
– Thickening cervical mucus (this blocks sperm from meeting an egg)
– Disrupting the menstrual cycle, including preventing the release of eggs
from the ovaries (ovulation)

The most common irregularity was infrequent bleeding (33.3%), followed by amenorrhea (21.4%), prolonged bleeding, and frequent bleeding.

It does not delay the fertility after removal unlike injectable progesterone. Overall progesterone containing contraceptives reduces the risk of ectopic pregnancy as normal pregnancy.
But if a woman conceives while using progesterone contraceptives risk of ectopic is increased compared to a woman who conceives while not using progesterone.

Contraindications

- Known or suspected pregnancy
- Current thrombophlebitis or thromboembolic disorders
- Liver tumors (benign or malignant) or active liver disease
- Undiagnosed abnormal uterine bleeding
- Known or suspected breast cancer, personal history of breast cancer, or other progestin-sensitive cancer, currently or in the past
- Hypersensitivity

Discourage women with a history of hypertension-related diseases or renal disease from using hormonal contraception.
For women with well-controlled hypertension, use of implant can be considered. Closely monitor women with hypertension who use implant. If sustained hypertension develops during the use of an implant or if a significant increase in blood pressure does not respond adequately to antihypertensive therapy, remove the implant.

16. F T-. T F F

CHARCT -ERISTIC	SYPHILIS	HERPES	CHANCROID	LGV	DONOVA -NOSIS
Primary lesion	Papule	Vesicle	Pustule	Papule, Vesicle pustule	Papule
Number of lesions	Usually 1	Multiple	Multiple	Single	Variable
Diameter	5-15 mm	1-2mm	Variable	2-10 mm	Variable
Edges	Sharpl demarcated elevated	Erythemat ous Polycylic	Undermined Regged	Elevated Round or oval	Elevated Irregular
Depth	Superficial or deep	Superficial	Excavated	Superficial Or deep	Elevated
Base	Smooth Non-purulent Covered with serous eud ate	Erythemat ous	Purulent Dirty grey Base	Variable	Red Velvety Bleeds easily
Induration	Button hole	None	not indurated	not indur -ated	not indurated

17. F F T T F

Endometriosis is the presence of endometrial tissue outside the endometrial cavity. It can be managed medically with NSAIDs to control pain. Menstrual suppression by OCP. progesterone (oral and intrauterine), Danazol, GNRH analogues may be used to control the symptoms. When it is associated with endometriomas (more than 3cm) cystectomy and biopsy is recommended rather than aspiration as the recurrence risk is high with aspiration. Medical management of endometriosis does not improve the fertility in a subfertile woman

due to endometriosis. Conservative treatment or surgical treatment should be considered in subfertility due to endometriosis.

Following removal of ovaries (with or without uterus) in a woman with endometriosis, estrogen only HRT is contraindicated but she can be offered combine (estrogen + progesterone) HRT.

18. T T T T T

Ovarian failure causes increased FSH due to the absence of negative feedback. Two FSH levels more than 30 iu in at least one-month interval is used to confirm ovarian failure. Estrogen alone is adequate to treat all symptoms of menopause, but in a woman with an intact uterus progesterone should be added with estrogen to prevent the risk of endometrial malignancy.

Estrogen therapy is contraindicated when there is a history of breast cancer or DVT.

Testosterone can be used in a post-menopausal woman with low libido.

Contra indications for HRT

Although there is no clear consensus about absolute contraindications for HRT, avoiding or discontinuing HRT is advisable in following situations:

1. History of breast cancer

   The risk of breast cancer recurrence and of new breast cancers may be increased with HRT (the risk of breast cancer recurrence is increased in Tibolone)

   Patients who are taking HRT should be counseled about the increased risk of breast cancer after four to five years of use

2. History or known high risk of venous or arterial thromboembolic disease, stroke and cardiovascular disease

Stroke risk is increased in older women who use Tibolone
A transdermal preparation with minimal oestrogen is the preferred choice in this group .

3. Uncontrolled hypertension

The following conditions require caution when using HRT

1. Abnormal vaginal bleeding

   HRT should not be commenced in women with undiagnosed abnormal vaginal bleeding

   combined HRT itself may cause unscheduled bleeding in the first six months of use but if it is persistent or new onset (after six month), pelvic disease should be excluded

2. Abnormal liver function - since oral HRT products are metabolised in the liver

3. Migraine - although not a contraindication for HRT, low dose transdermal preparations are favored

4. History of endometrial or ovarian cancer - specialist advice should be sought before HRT use

5. High risk of gall bladder disease - the risk may be increased further with HRT (the risk may be lower with transdermal therapy)

19. T T F T T

<u>Complications of midurethral slings</u>

- Bladder and urethral injury.
- Rarely, bowel and nerve injury
- Leg pain due to nerve injury or hematoma
- Acute retention of urine
- de novo urge incontinence
- Extrusion or erosion of the mesh

20. T F F T T

For elective procedures, the standard starvation times (6 hours for solids, 4 hours for liquids and 2 hours for water) should be observed.
Ranitidine is a selective histamine H2-receptor antagonist that decreases the acidity and volume of gastric acid. Time until onset of action is 1 hour; duration of action 24 hours.
Sodium citrate is a non-particulate antacid that neutralizes gastric acid that is already present in the stomach. Onset of action is immediate; duration of action 10 minutes.
Metoclopramide is a dopamine antagonist that reduces nausea and vomiting and increases gastric emptying.

21. T T T T T

22. T T T F F

Conditions in which is pregnancy contraindicated

- Pulmonary arterial hypertension of any cause
- Severe systemic ventricular dysfunction (LVEF <30%, NYHA class III–IV)
- Previous peripartum cardiomyopathy with any residual impairment of left ventricular function
- Severe mitral stenosis, severe symptomatic aortic stenosis
- Marfan syndrome with aortic root dilation > 45 mm
- Aortic dilatation >50 mm in aortic disease associated with bicuspid aortic valve
- Native severe coarctation

23. F F F F F

<u>Classification of perineal tears</u>

First-degree tear: Injury to perineal skin and/or vaginal mucosa.

Second-degree tear: Injury to perineum involving perineal muscles but not involving the anal sphincter.

Third-degree tear: Injury to perineum involving the anal sphincter complex:

Grade 3a tear: Less than 50% of external anal sphincter (EAS) thickness torn.

Grade 3b tear: More than 50% of EAS thickness torn.
Grade 3c tear: Both EAS and internal anal sphincter (IAS) torn.
Fourth-degree tear: Injury to perineum involving the anal sphincter complex (EAS and IAS) and anorectal mucosa.
Perineal body is a midline structure; it is only damaged by tears extending towards midline.
Episiotomy itself a second degree tear. Instrumental deliveries increase the risk of perineal tears.

24. T T F T F
Face presentation occurs due to complete extentension of the neck. Presenting diameter is submento-bregmatic diameter (9.5cm).

<u>Causes for face presentations</u>

- Anencephaly: due to absence of the bony vault of the skull and the scalp while the facial portion is normal.
- Loops of cord around the neck.
- Tumors of the foetal neck e.g. congenital goitre.
- Hypertonicity of the extensor muscles of the neck.
- Dolicocephaly: long antero-posterior diameter of the head, so as the breadth is less than 4/5 of the length
- Dead or premature foetus.
- Idiopathic
- Contracted pelvis particularly flat pelvis which allows descent of the bitemporal but not the biparietal diameter leads to extension of the head.
- Pendulous abdomen or marked lateral obliquity of the uterus.
- Other causes of malpresentations as polyhydramnios and placenta previa.

Diagnostic features

- supra-orbital ridges
- the malar processes
- the nose (rubbery and saddle shaped)
- the mouth with hard areolar ridges
- the chin

Management

Mento anterior – vaginal delivery is possible
Mento posterior – vaginal delivery is not possible with persistent mento-posterior presentation.

25. T F F T T
Maternal death is defined as the death of a woman while pregnant or within 42 days of a termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.
Causes of maternal death are classified as direct, indirect, and incidental.
Direct maternal death is the result of complications or management of the pregnancy and delivery: e.g pre-eclampsia/eclampsia, haemorrhage, puerperal sepsis, etc.
Indirect maternal mortality is defined as a pregnancy-related death in a mother with a pre-existing or newly developed health problem unrelated to pregnancy, such as cardiac disease, HIV/AIDS or chronic hypertension.
Incidental or non-obstetrical maternal deaths are deaths unrelated to pregnancy, such as death in a road traffic accident.

26. F F F T T

Risk factors for endometrial cancer (also see question No.12)

- Older age
- Nulliparity
- PCOD
- Unopposed estrogen therapy/ estrogen only HRT
- Obesity
- DM/ Hypertension (metabolic syndrome)
- Lynch syndrome
- Estrogen secreting tumours

OCP increases the risk of breast and cervical cancer

OCP reduces the risk of ovarian, uterine and colorectal cancer

27. T T F T T
Mature teratoma is a benign germ cell tumor. This is the commonest tumor among in young women. Immature teratoma indicate the malignant counterpart. 10% of cases are bilateral. Torsion is common with teratoma due to its long pedicle. Release of it contents are known to cause chemical peritonitis but incidence is very rare.

28. T F T T F

Absolute Contraindications for OCP

- Breastfeeding less than 6 weeks postpartum
- Age 35 or older and smokes 15 cigarettes per day or more
- Elevated blood pressure reading (160/100 mm Hg or more)
- Blood pressure reading 160/100 mm Hg or more

- History of or current deep vein thrombosis or pulmonary embolism or known thrombogenic mutations
- Major surgery with prolonged immobilization
- Current and history of ischemic heart disease and stroke
- Complicated valvular heart disease
- Migraine headaches with aura
- Current breast cancer
- Viral hepatitis, severe cirrhosis, hepatocellular adenoma, or malignant liver tumors
- Combined oral contraceptive-related cholestasis
- Peripartum cardiomyopathy (with residual cardiac dysfunction)

Estrogen has been known to cause a decrease in intraocular pressure, and hence, a decrease in the risk of development of open-angle glaucoma.

29. F F T T T

Stress incontinence occurs due to the unstable bladder neck caused by damage in the pelvic floor muscles.

Pelvic floor exercises help to strengthen the pelvic floor muscles.

In contrast to urge incontinence, stress incontinence is treated primarily by surgery.

Midurethral tape surgeries such as trans vaginal tape or trans obturator tape are the less invasive 1st line surgical options.

Burch colposuspencion is an alternative abdominal procedure for stress incontinence.

Dulexetine is a recommended drug for stress incontinence but it is only used where surgery is not suitable.

Oxybutynin and cystoplasty are the treatment options for the urge incontinence.

30. T F F T T

31. F T T T F

Structural congenital abnormalities are higher in the monochorionic twins.

Placental interconnection leads to several placenta related problems in monochorionic twins such as selective fetal growth restriction, twin to twin transfusion and twin anemia/ polycythemia sequences. All of these complications may lead to increased risk of fetal loss in monochorionic twins.

32. F F T T T

33. T T T F T

Initial blood tests for all patients with recurrent miscarriage could include:

FBC, Blood group and antibodies, antiphospholipid antibodies

Although some national guidelines do not recommend routinely screening for thyroid disorders, diabetes, and hyperprolactinemia in the absence of symptoms, these are easily treatable conditions where there is a potential to improve pregnancy outcome.

Screening for thrombophilia (factor V Leiden gene mutation, prothrombin gene mutation, protein S and C assays, activated protein C resistance assay, and antithrombin assay) may identify an associated condition.

It is important to ascertain the karyotype of a miscarried fetus, as the finding of an abnormal karyotype provides for a better prognosis in a future pregnancy.

Another cytogenetic investigation would be the karyotype of both partners to exclude balanced Robertsonian translocations.

It is not necessary or beneficial to universally perform a high vaginal swab on every patient with recurrent miscarriage to detect vaginal infections, including bacterial vaginosis

A 2D pelvic ultrasound scan, either trans abdominally or trans vaginally, be arranged for all patients as part of the initial investigations, to exclude obvious congenital uterine malformation

34. T F T F F

1. Epithelial Ovarian Cancer (90%)
    - Serous/Papillary serous (80%)
    - Mucinous (10%)
    - Endometrioid (10%)
    - Clear Cell
    - Brenner Tumors
    - Borderline Tumors
2. Germ Cell Tumors
    - Dysgerminoma
    - Yolk Sac Tumors/ Endodermal sinus tumor
    - Embryonal Carcinoma
    - Choriocarcinoma
    - Teratoma
3. Sex-cord Stromal Tumors
    - Granulosa Cell Tumors
    - Fibrosarcoma
    - Sertoli-Leydig Tumors

Germ cell tumors of the ovary (OGCT)

Subtypes	Frequency of OGCT	Benign/ malignant	Tumor markers
Dysgerminoma	35 - 50	Malignant	Lactate dehydrogenase Beta HCG
Endodermal sinus tumor	20	Malignant	α -fetoprotein (AFP) alpha 1 anti-trypsin
Embryonal carcinoma	Rare	Malignant	AFP and HCG
Polyembryoma	Rare	Malignant	AFP and HCG
Choriocarcinoma	Very rare	Malignant	HCG
Teratoma	Immature account for the 20% of OGCT		Immature teratomas sometimes secrete AFP, LDH and CA 125

Sex-cord Stromal Tumors

Subtypes	Hormone secreted or tumor markers
Sertoli-Leydig Tumor (arrhenoblastoma and androblastoma)	Serum testosterone
Granulosa cell tumor	Estradiol, Inhibin A or B

Ovarian fibroma is a solid **benign tumor** that belongs to sex-cord stromal cell tumors of the ovary.

35. T T T F T

The Whiff test is performed by adding a small amount of potassium hydroxide to a microscopic slide containing the vaginal discharge. A characteristic fishy odor is considered a positive whiff test and is suggestive of bacterial vaginosis.

Clue cells are vaginal squamous epithelial cells coated with the anaerobic gram-variable coccobacilli Gardnerella vaginalis and other anaerobic bacteria causing bacterial vaginosis.

36. F F T F F

In contrast to adenomyosis, endometriosis commonly occurs in nulliparous women and it causes subfertility. Ultrasound is less sensitive to diagnose endometriosis. It is not regarded as premalignant.

37. T T T F F

Pelvic organ prolapse commonly occurs in multiparous old women. Rarely it may occur in young nulliparous women with connective tissue disease. It does not increase the risk of malignancy. Women can have sexual intercourse with ring pessaries.

38. T T T F T

Wilkinson cannula is used to inject dye or contrast medium into the uterine cavity during tubal patency test (hysterosalpingogram or laparoscopic tubal dye test)

39. T F T T F (See Question No.2)

40. T T T F T

Hyperthyroidsm affects 1 in 500 pregnant women, 90% of whom have Graves' disease. Women with well treated disease rarely have maternal complications. The disease may remit during the latter trimesters such that treatment may need to be reduced or stopped. In the postpartum period the disease may flare up.

Complications of poorly controlled hyperthyroidism,

- Maternal thyrotoxic crisis
- Miscarriage
- Gestational hypertension
- Preeclamsia
- Intrauterine growth restriction
- Total thyroxine is not reliable during pregnancy. Disease status should be monitored with TSH and free thyroxine levels.
- Principle drugs used to treat hyperthyroidism during pregnancy are propylthiouracil and carbimazole.
- Hyperthyroidsm is a rare complication of molar pregnancy.

41. T T F T F

Following delivery of the 1st twin, lie of the second twin should be checked and corrected if there is an abnormal lie.

Artificial rupture of membranes and oxytocin is recommended following correction of the lie.

Second twin should be delivered within 20 – 30 minutes following delivery of the 1st twin.

This time may be extended if the maternal wellbeing and fetal well-being are satisfactory with the favourable features for successful progression. Breech extraction should be considered only if there is a severe fetal distress.

42. T F T F T

For forceps delivery following should be fulfilled,

- Maternal consent
- Adequate analgesia
- Trained operator
- Bladder should be empty
- Head not palpable abdominally or 1/5 palpable
- Full dilatation of cervix
- Station below the ischial spine (station 0)
- Sagittal suture is in the midline or less than 45 degrees from the midline (occipito-anterior or occipito-posterior position)

When the the head is occipito-lateral, rotational forceps, such as kiellands, may be attempted but non rotational forceps can't be applied.

Reduced fetal heart rate in the second stage is an indication for forceps delivery.

Vacuum delivery is contraindicated in prematurity, but foceps may be applied.

43. T T F F T

Mento-anterior can be delivered vaginally, but mento-posterior needs Caesarean delivery.

Head is delivered by flexion.

Mentum is the denominator

Vacuum is contraindicated but forceps may be attempted for face presentation.

44. T T F F T

<u>Uncommon causes for vomiting in pregnancy</u>

Acute fatty liver of pregnancy

Addison disease

Appendicitis

Central nervous system tumors

Degenerating uterine leiomyoma
Diabetic ketoacidosis
Hypercalcemia
Intestinal obstruction
Meniere disease
Ovarian torsion
Porphyria
Pseudotumor cerebri
Uremia
Vestibular lesions

Common causes for vomiting in pregnancy
Cholecystitis
Gastroenteritis
Gastroesophageal reflux
Migraine headaches

Less common causes for vomting in pregnancy
Biliary tract disease
Drug toxicities or intolerances
Hepatitis
Hyperthyroidism
Kidney stones
Molar pregnancy
Pancreatitis
Peptic ulcer disease
Preeclampsia/HELLP syndrome
(hemolysis, elevated liver enzymes, and low platelet count)
Pyelonephritis

45. F T F T T
Fetal growth restriction is defined as estimated fetal weight or abdominal circumference is below 10th centile. It is diagnosed in late pregnancy.

Most growth retarded infants have asymmetric growth restriction. First there is restriction of weight and then length with a relative “head sparing” effect. This asymmetric growth is more commonly due to extrinsic influences that affect the fetus later in gestation, such as preeclampsia, chronic hypertension, and uterine anomalies.
Symmetric growth retardation affects all growth parameters. In the human brain, most neurons develop prior to the 18th week of gestation. Early gestational growth retardation would be expected to affect the fetus in a symmetric manner, and thus have permanent neurologic consequences for the infant. Examples of etiologies for symmetric growth retardation includes genetic or chromosomal causes, early gestational intrauterine infections (TORCH) and maternal alcohol use.
Delivery timing is decided by Doppler prarameters. Most commonly used Doppler is umbilical artery Doppler.

46. T F F F T

Tocolytics (Nifidipine, Atosiban, Terbutalin) can be given for preterm labour. All woman with preterm labour should be given dexamethasone or betamethasone to improve the fetal respiratory system development.
If woman progress to active labour, continuous electronic fetal monitoring is recommended. There is no role for hourly CTG.
CRP and FBC (WBC count) assessment is necessary only if the membranes are ruptured. If the membranes are ruptured, tocolytics should be avoided, but dexamethasone should be given. Also erythromycin is recommended only for the cases where membranes are ruptured to prevent intrauterine infection.

47. T T F T F

Magnesium sulfate (MgSO4) is the agent most commonly used for the treatment and prophylaxis of eclampsia in patients with severe pre-eclampsia. It is usually given by either the intramuscular or intravenous routes. The intravenous regimen is given as a 4 g bolus dose, followed by a maintenance infusion of 1 to 2 g/h by controlled infusion pump.

Magnesium is almost exclusively excreted in the urine, with 90% of the dose excreted during the first 24 hours after an intravenous infusion of $MgSO_4$.

The clinical effect and toxicity of $MgSO_4$ can be linked to its concentration in plasma. A concentration of 1.8 to 3.0 mmol/L has been suggested for treatment of eclamptic convulsions. The actual magnesium dose and concentration needed for prophylaxis has never been estimated. Maternal toxicity is rare when MgSO4 is carefully administered and monitored. The first warning of impending toxicity in the mother is loss of the patellar reflex at plasma concentrations between 3.5 and 5 mmol/L. Respiratory paralysis occurs at 5 to 6.5 mmol/L. Cardiac conduction is altered at greater than 7.5 mmol/L, and cardiac arrest can be expected when concentrations of magnesium exceed 12.5 mmol/L. Careful attention to the monitoring guidelines can prevent toxicity. Deep tendon reflexes, respiratory rate, urine output and serum concentrations are the most commonly followed variables.

Toxicity is treated with calcium gluconate.

There is possible interaction with nifidipine, but it can be administered together with more intense monitoring.

48. T F T T F

Mefenamic acid inhibits the local prostaglandin synthesis. **Tranexamic acid** is an antifibrinolytic that competitively inhibits the activation of plasminogen to plasmin.

49**. F F T F F**

<u>Risk Factors for Ovarian Cancer</u>

Patient Characteristics

- Increasing age
- Personal history of breast cancer

Genetic factor

- Family history of ovarian cancer
- BRCA 1 / 2 mutations

- Hereditary nonpolyposis colorectal cancer

Reproductive factors
- Nulliparity
- Early menarche
- Late menopause
- Infertility
- Polycystic ovarian syndrome
- Endometriosis
- ovulation inducing drugs

Factors which reduces the risk of developing ovarian cancer
- Taking birth control pills for more than 5 years
- Breastfeeding
- Pregnancy
- A hysterectomy or a tubal ligation

Note – Tamoxifen increases the risk of endometrial carcinoma.
BRCA 1 & 2 is a gene found normally. Mutation of these only will predispose to carcinoma.

50. TTFTF
Fibroid is the most common benign tumor of the uterus. Sarcomatous change is very rare.
Treatment options include medical and surgical. Medical management is targeted to control excessive bleeding if it is associated with fibroids. OCP is useful to control the excessive bleeding but it does not reduce the size of the fibroids. GnRH analogues and ulipristal acetate reduces the size, but the effect is temporary. Hysteroscopic resection is feasible for submucosal fibroid with size less than 3 cm. Uterine artery embolization is a modern less invasive treatment option but it is not recommended for a woman with fertility wishes.

51. T F F T T

52. F T F T T

Causes of anovulation

1.Hypothalamic/ pituitary failure
Weight loss, excessive weight (obesity)
Systemic illness
Kallmann's syndrome
Hypogonadotrophic hypogonadism
Hyperprolactinaemia / breast feeding
Hypopituitarism

2. **Hypothalamic/ pituitary dysfun**ction

PCOS

3.Ovarian failure
Premature ovarian failure (POF)
Resistant ovary syndrome (ROS)

Levonorgestrel containing IUD (Mirena)
Low doses of levonorgestrel can be administered into the uterine cavity with the Mirena intrauterine delivery system. Initially, levonorgestrel is released at a rate of approximately 20 mg/day. This rate decreases progressively to half that value after 5 years. Mirena has mainly local progestogenic effects in the uterine cavity. Ovulation is inhibited in some women using Mirena. In a 1-year study approximately 45% of menstrual cycles were ovulatory and in another study after 4 years 75% of cycles
were ovulatory.
Endometriosis is a disease where endometrial tissue is found away from endometrial tissue.
Normal BMI range for Sri Lankan women is 19-24 kg/m^2

53. F T T T F

Chlamydia are obligate, aerobic, intracellular parasites of eukaryotic cells. They are small gram-negative coccoid or rod shaped, non-motile bacteria.

Chlamydia trachomatis is the commonest organism causes pelvic inflammatory disease.

It causes endometritis, salphigistis, oophoritis or pelvic peritonitis. Recurrent infections may lead to several complications such as ectopic pregnancy and chronic pelvic pain.

Cell culture: Isolation of the organism is the definitive method for the diagnosis of chlamydial infection. Chlamydia is an obligate intracellular pathogen and therefore, requires embryonated hen's egg or animal cell lines for culture. Such culture methods are technically difficult, labour intensive, cumbersome and expensive and have not been widely adopted as a routine test performed in general clinical laboratories.

ELISA (enzyme linked immunosorbant assay): ELISA is available for the detection of C. trachomatis antigen.

The development of tests based on nucleic acid amplification technology (NAAT) has been the most important advancement in the field of chlamydial diagnosis

NAAT is at least 20-30 per cent more sensitive (capable of detecting as little as a single gene copy) and 100 percent specific. It offers the opportunity to use non-invasive samples like urine to screen for infections in asymptomatic individuals who would not ordinarily seek clinical care.

Treatment includes doxycycline or azithromycin.

Metronidazole is routinely added in the treatment of PID to cover anaerobic organisms.

Cervical ectropian is a benign condition where columnar epithelium replaces stratified epithelium of the ectocervix. It is caused by the conditions with excessive estrogen such as pregnancy or OCP.

54. T F T F F

Changes in PCOD
Increased LH Normal or low FSH
Increased androgen, testosterone, DHEAS and androstenedione
Decreased sex hormone binding globulin
Increased estrodiol (estrogen)
Increased Insulin level
Increased insulin resistance
Incresed prolactin

55. T F T F T

Benefits of HRT
Reduce vasomotor symptoms (Hot flushes)
Improve urogenital function (vaginal dryness, soreness, dyspareunia, urinary frequency, nocturiaand urgency)
Osteoporosis
Reduces the risk of colorectal cancer
Reduce the risk of cardiac diseases if it is started at the time of the menopause. Starting HRT later, especially after 60 years will increase the risk.

Risk of HRT

Deep vein thrombosis
Stroke risk
Breast cancer

Estrogen only therapy increases the risk of uterine cancer, but combined therapy reduces the risk.
HRT does not increase the risk of ovarian or cervical cancer.

56. F T T F T
Urinary stress incontinence (SI) is involuntary leakage of the urine with increased intra abdominal pressure with the absent detrusor contractions. Common precipitating factor is pelvic floor damage

during child birth. Pelvic floor exercises will help to strengthen these muscles and improve the SI.

Urge incontinence occurs due to detrusor over-activity where patient is unable to control her urge to empty bladder.

Bladder retraining is useful to improve the urge incontinence. As the primary problem in urge incontinence is with detrusor muscle, its 1st line treatment includes anti-muscarinic drugs, such as oxybutynin or tolterodine. Other treatment options for urge incontinence are intra vesical botulinum toxin, scaral nerve stimulation.

As the main problem with SI is defect in the bladder neck support due to the damage of pelvic floor mucles, surgery plays an important role in the management. Less invasive midurethral tapes are the 1st line surgical options. (TOT, TVT)
Burch colposuspension is an abdominal surgery, which is also beneficial in selected cases of SI. Only drugs recommended for SI is duloxetine, but it is recommended only to the woman who strongly oppose the surgery.

57. F T F T F
Laparoscopy is used as a diagnostic test for various conditions such as ectopic pregnancy, endometriosis, abdominal pain and tubal patency. It is also used to treat most of these conditions. CO2 is the gas commonly used as a distension medium. It is commonly done under general anaesthesia.
Laprascopy offers a less invasive route for LRT. It is recommended for interval LRT than immediate postpartum LRT as, failure rate and complication rate is high with postpartum Laparascopic LRT.

58. T T T F F (see SBA question No.98)

59. F T T T F (see SBA question No.98)

60. T T T T F (see SBA question No.97)

61. T F T T T
Still-birth - 'A baby delivered with no signs of life, known to have died after 24 completed weeks of pregnancy'.
Intrauterine fetal death - Babies with no signs of life in utero.
Stillbirth is common. 1 in 200 babies are born dead.

Diagnosis is made by ultrasound scan.
No specific cause is found in almost half of stillbirths.

Risk of DIC- 10% within 4 weeks after the date of late IUFD, rising to 30% thereafter. This can be tested for by clotting studies, blood platelet counts and fibrinogen measurement.

Kleihauer test should be done urgently to detect large feto–maternal haemorrhages (FMH).
Anti-RhD gammaglobulin should be administered as soon as possible after presentation.

Investigations to identify the cause of IUFD
Commonly associated antepartum conditions,
- Congenital malformation
- Congenital fetal infection
- Antepartum haemorrhage
- Pre-eclampsia
- Maternal disease such as diabetes mellitus

Commonly associated intrapartum conditions
- Placental abruption
- Maternal and fetal infection
- Cord prolapse
- Idiopathic hypoxia–acidosis
- Uterine rupture
- Transplacental infections associated with IUFD

Tests recommended for women with a IUFD

- Standard haematology and biochemistry including CRP and bile acids
- Coagulation time and plasma fibrinogen
- Kleihaur
- Maternal bacteriology – Blood culture, Midstream urine culture, vaginal swabs, cervical swabs.
- Maternal serology – viral screen, syphilis, tropical infections
- Maternal random blood glucose
- HbA1c
- Thyroid function test
- Maternal thrombophilia screen
- Anti-red cell antibody serology
- Maternal anti Ro anti La antibodies
- Maternal alloimmune antiplatelet antibodies
- Parental blood for karyotype
- Maternal urine for cocaine and metabolites
- Fetal and placental microbiology – fetal blood, fetal swabs, placental swabs
- Fetal and placental tissue for karyotype
- Post-mortem examination

Postmortem examination provides more information than other tests.

Timing and mode of birth

Labor and birth should take into account the mother's preferences as well as her medical condition and previous intrapartum history.

Take immediate steps towards delivery if there is sepsis, preeclampsia, placental abruption or membrane rupture.

Well women with intact membranes and no laboratory evidence of DIC are unlikely to come to physical harm if they delay labour for a short period. Women who delay labour for periods longer than 48 hours should be advised to have testing for DIC twice weekly.

Vaginal birth is the recommended mode of delivery for most women, but caesarean birth will need to be considered with some.

More than **85%** of women with an IUFD labour spontaneously within **three weeks** of diagnosis.
There is a **10%** chance of maternal DIC within 4 weeks and an increasing chance thereafter.
Vaginal birth can be achieved within 24 hours of induction of labour for IUFD in about 90% of women.

62. T T T F F
Diagnosis of HG - protracted NVP with the triad of more than 5% pre-pregnancy weight loss, dehydration and electrolyte imbalance.
Ketone bodies usually becomes positive in hyperemesis but it is not included in the definition.
HG can occur without a live fetus, such as in molar pregnancy

63. T T T F F
Antenatal steroids are associated with a significant reduction in,

- Neonatal death
- RDS
- Intraventricular haemorrhage

Antenatal corticosteroids have **no known benefits** for the mother.
Antenatal corticosteroids are most effective in reducing respiratory distress syndrome(RDS) in pregnancies that deliver **24 hours after** and **up to 7 days** after administration of the second dose of antenatal corticosteroids.
Same dose as singleton pregnancy for multiple pregnancy.
Diabetes mellitus is not a contraindication for the antenatal steroids, but may need dose assessment of hypoglycaemics.

Recommended regimen of steroids,
Betamethasone **12 mg given intramuscularly in two doses or Dexamethasone 6 mg given intramuscularly in four doses** are the steroids of choice to enhance lung maturation.

64. T T T F T

Risk factors

Most cases of PPH have **no identifiable** risk factors.

- Previous PPH
- Pre-eclampsia
- Fetal macrosomia
- Failure to progress in second stage
- Prolonged third stage of labor
- Retained placenta
- Placenta accreta
- Episiotomy
- Perineal laceration
- General anaesthesia

65. T T T F F

Surcigal methods used to manage PPH

- Intauterine temponade

Condom catheter is used very commonly in Sri Lanka to combat PPH. It is a modification of Bakri catheter. The difference between Bakri and condom temponade is that bakri has an outflow path, which will reveal the bleeding

- B lynch suture applied over the uterus to compress the uterus.

- Pelvic devascularization
  uterine artery, ovarian artery ligation, internal iliac ligation

- Hysterectomy

- Interventional radiology – uterine artery embolization

Uterine artery is a branch of the internal iliac.
Burch colposuspension is a surgery done for stress incontinence.

66. T T F F F

67. T F F F T

68. T T F T T
Placenta previa should be suspected in all women with vaginal bleeding after 20 weeks of gestation.
Following features are **more suggestive** of a low-lying placenta irrespective of previous imaging results,

- A high presenting part,
- An abnormal lie
- Painless or provoked bleeding (by sexual intercourse).

The definitive diagnosis of most of the low-lying placentas is now achieved by ultrasound imaging. If the diagnosis is inconclusive by transabdominal scan, transvaginal scan should be done as it is more sensitive to diagnose placenta previa.

Routine ultrasound scanning at 20 weeks of gestation should include placental localisation.
In asymptomatic women with suspected minor praevia at 20 weeks' scan, imaging can be left until 36 weeks of gestation. In asymptomatic women with suspected major degree placenta previa or a question of placenta accrete, imaging should be repeated at around 32 weeks of gestation.

Both placenta previa and placental abruption increases the risk of PPH

	Placenta previa	**Placental abruption**
Pain	Painless bleeding	Painful bleeding
Tenderness	Abdomen non tender	Tender abdomen
Bleeding	Fresh bleeding from mother	Altered, fresh or no bleeding from both mother and fetus
Fetal head	Not engaged	Not affected
Fetal distress	Very late, only after maternal compromise	Early fetal compromise
Associated other diseases	Not typically associated with other diseases	May be associated with other placenta related disorder such asPIH, FGR
Risk of PPH	Increased	Increased
Provoking factors	Sexual intercourse, vaginal examination. May be spontaneous	Spontaneous.abdominal trauma
Diagnosis	Ultrasound	Clinicalonly 20 % of abruption can be seen by USS
Risk of DIC	Only after heavy bleeding	Early due to the release of thrombogenic substances into the circulation
Mode of delivery	If major degree, cesarean delivery i mandatory. Minor degree with placenta more than 2cm away from the cervical OS with thin leading edge - vaginal delivery can be considered	In the case of maternal and fetal compromise with unfavorable cervix, cesarean delivery is necessary. Instrumental or vaginal delivery possible.

69. T T T F F

The antiphospholipid syndrome is associated with recurrent pregnancy loss.

Although it is generally agreed that between 5% and 20% of patients with recurrent pregnancy loss will test positive for antiphospholipid antibodies (aPLs), the actual reported range varies between 8% and 42%.

APS is present if one of the following clinical criteria and one of the laboratory criteria are met.

Clinical criteria

1. Vascular thrombosis
2. Pregnancy morbidity

a. One or more unexplained deaths of morphologically normal fetuses after the 10th week of gestation by ultrasound or direct examination of the fetus.

b. One or more premature births of morphologically normal neonate before 34th week of gesttion because of eclampsia or severe pre-elampsia or recognized features of placental in sufficiency.

c. Three or more unexplained consecutive spontaneous abortions before 10th week of gestation with maternal anatomic or hormonal abnormalities and paternal and meternal chromosomal causes excluded.

Laboratory criteria

1. Lupus anticoagulant present in plasma on two or more occasions at least 12 weeks apart, or
2. Anticardiolipin antibody of 1gG or 1gM isotype in serum or plaslma present in medium or high titer (>40 GPL or MPL or >99th percentile), on two or more occasions at least 12 weeks apart, or
3. Anti-β_2 glycoprotein-1 antibody of 1gG and/or 1gM isotype in serum or plasma (in titer greater than the 99th percentile), Present on two or more occasions at least 12 weeks apart.

The most widely accepted tests are for lupus anticoagulant (LA), anticardiolipin antibody (aCL), and anti-B2 glycoprotein.

The standard treatment for documented antiphospholipid syndrome consists of low-dose aspirin and heparin.

70. T T T T F

All pregnant women should be screened for anaemia at booking visit and 28 weeks. An additional FBC at 22 weeks is recommended for multiple pregnancy,
PPH is the leading cause of maternal deaths in developing countries. Anaemia increases the risk of maternal death in PPH.
Thalassemia is not a contraindication for pregnancy. But end organ assessment should be done and Fe chelation should be optimised before pregnancy. All chelation agents are contraindicated during 1st trimester. But desferrioxamine can be given after 1st trimester

71. T T F T F

72. F T F F T

Physiological changes in pregnancy

Blood volume increases

Plasma volume increases

RBC volume increases

Packed cell volume decreases (Relative plasma volume increases)

WBC volume increases

Neutrophil count increases

T and B lymphocytes - Not changed, but function is suppressed

Platelet production increases, but mean platelet count is lower or normal

Blood viscosity decreases by 20%

Plasma osmolality decrease by 10 mOmol/kg
Cardiac output increases by 40% (maximum at 24 weeks)
Heart rate increases by 10 beats/minute
Stroke volume rises
Peripheral resistance fall
BP - slight fall, but fall is greater in diastolic pressure
Pulmonary artery pressure - not changed
Tidal volume increases by 40%
Minute ventilation increases
Respiratory rate not changed, breathing becomes more costal than abdominal
Functional residual capacity, expiratory reserve volume, and residual volume are decreased at term
Vital capacity is unchanged
Total lung capacity is only slightly reduced because chest circumference increases

Venous pH rises slightly (7.35 to 7.38)
Right shift in maternal oxyhemoglobin dissociation curve
Fall in arteriovenous oxygen difference
Levels of clotting factors I, VII, VIII, IX, X and XII and fibrinogen are elevated

ESR increases
Protein C - no change
Antithrombin - no change
Factor V and IX - no change
Protein S - decreases
Fibrinolytic activity - decreases

D dimer - increased
Anterior pituitary increases in size
Gut motility is reduced
Basal metabolic rate increased (30 %)
Glomerular filtration rate increases
Renal plasma flow increases
Decreases plasma blood urea nitrogen (BUN) and creatinine concentrations
Tubular reabsorption of sodium increases
Glycosuria and aminoaciduria may develop in normal gestation.
Renal pelvis and ureters are dilated

ECG changes

- Tachycardia
- Left axis deviation
- Minor ST changes in lead III and aVF, Q wave in lead III

73. T T T T F

Risk factors for pelvic organ prolapse

- **Age** - Old age is a risk factor for pelvic organ prolapse
- **Pregnancy** - Pregnancy and childbirth are significantly associated with prolapse with an incidence of 50% in parous compared to 2% in nulliparous women
- **Ethnic origin** -The highest incidence of symptomatic pelvic organ prolapse is amongst Hispanic women
- **Obesity -** Obesity is associated with an increased risk of pelvic organ prolapse

- **Occupation** - Jobs that involve heavy lifting, such as nursing, manual work and housework, have been shown to be significantly associated with vaginal prolapse. Housewives have been shown to have a higher risk of pelvic organ prolapse in comparison to managerial/professional women
- **Chronic constipation-** There is good evidence to suggest a strong association between chronic constipation and pelvic organ prolapse
- **Chronic Obstructive Pulmonary Disease (COPD)** - Chronic pulmonary disease is associated with increased risk of pelvic floor repair after hysterectomy
- **Estrogen deficiency and HRT** - There is evidence to suggest a link between menopause and development as well as the stage of pelvic organ prolapse
- **Family history and genetic risk** - There is good evidence to suggest an increased risk of prolapse surgery in women with a first degree relative who had pelvic organ prolapse
- **Connective tissue disease** - Patients with joint hypermobility syndrome as well as connective tissue disorders, such as Ehlers Danlos and Marfan syndromes, have a higher incidence of pelvic organ prolapse.
- **Smoking** - Although smoking is perceived to be a risk factor for pelvic organ prolapse, due to the chronic cough it can cause, there is no evidence to support this

74. T T T F T

Condition	Timing of delivery (POA)	Mode of delivery
Dichorioni Diamniotic Twin	37 - 38	Vaginal delivery if the presenting 1st twin is cephalic
Monochorionic Diamniotic Twin	36 - 37	Vaginal delivery if the presenting 1st twin is cephalic
Monochorinonic Monoamniotic Twin	32	Elective LSCS
Preterm prelabour rupture of membrane	After 34	Vaginal delivery
Term prelabour rupture of membrane	Immediate induction or expectant management	Vaginal delivery
Pregnancy induced hypertension	If it is controlled – after 37 weeks If there is worsening preeclampsia may need earlier delivery irrespective of the POA	Vaginal delivery
FGR with normal Doppler	37	Vaginal delivery
FGR with abnormal Doppler	Earlier than 37 depending on Doppler	Vaginal delivery is possible. But If umbili - cal artery Doppler has a reversed diastolic flow – need LSCS
Previous LSCS not suitable for VBAC	39 weeks	LSCS
Type I or 2 DM. Uncontrolled GDM	38 - 39	Vaginal delivery
GDM well controlled	Induction of labour may be considered at 38-39 weeks.Pregnancy with **good glycaemic control** may be continued until 40-41 weeks.	Vaginal delivery
Major degree placenta previa	After 38 weeks	Cesarean delivery
Placenta Accreta	36	Cesarean delivery

75. F T T T F

Definitions

Induction of labor is the initiation of contractions in a pregnant woman who is not in labor to help her achieve a vaginal birth within 24 to 48 hours.

Successful induction is defined as a vaginal delivery within 24 to 48 hours of induction of labor.

Cervical ripening is the use of pharmacological or other means to soften, efface or dilate the cervix to increase the likelihood of a vaginal delivery.

Tachysystole refers to > 5 contractions per 10-minute period averaged over 30 minutes.

Hyperstimulation refers to excessive uterine contractions (tachysystole or **h**ypertonia) with abnormal FHR changes.

Induction is indicated when the risk of continuing the pregnancy, for the mother or the fetus, exceeds the risk associated with the induction of labor.

The goal of induction is to achieve a successful vaginal delivery that is as natural as possible.

<u>Indications for induction of labor</u>

- Preeclampsia e” 37 weeks
- Significant maternal disease not responding to treatment
- Significant but stable antepartum hemorrhage
- Chorioamnionitis
- Suspected fetal compromise
- Term pre-labor rupture of membranes
- Postdates (> 41+0 weeks) or post-term (> 42+0 weeks) pregnancy
- Uncomplicated twin pregnancy e” 38 weeks
- Diabetes mellitus (glucose control may dictate urgency)
- Alloimmune disease at or near term
- Intrauterine growth restriction
- Oligohydramnios
- Gestational hypertension e” 38 weeks
- Intrauterine fetal death

- PROM at or near term
- Logistical problems (history of rapid labour, distance to hospital)

Contra Indications for induction of labour

- placenta or vasa previa or cord presentation
- abnormal fetal lie or presentation (e.g. transverse lie or footling breech)
- prior classical or inverted T uterine incision
- significant prior uterine surgery (e.g. full thickness myomectomy)
- active primary genital herpes
- pelvic structural deformities
- invasive cervical carcinoma
- previous uterine rupture

Risks of inductions of labour

- failure to achieve labor
- Caesarean section
- operative vaginal delivery
- tachysystole with or without FHR changes
- chorioamnionitis
- cord prolapse with ARM
- inadvertent delivery of preterm infant in the case of inadequate dating
- Uterine rupture in scarred and unscarred uteri

Methods of induction of labor

Mechanical - Balloon devices (Foley Catheter)

Pharmacological - Prostaglandin E & Misoprostol

Among drugs only prostaglandin E is used in Sri Lanka. Misoprostol is not registered for this purpose in Sri Lanka.

76. T T T T F (See the SBA question No.82)

77. T T T F F (See the SBA question No.82)

78. T T T T F

Complete moles are diploid and androgenic in origin, with no evidence of fetal tissue. Complete moles usually (75–80%) arise as a consequence of duplication of a single sperm following fertilisation of an 'empty' ovum. Some complete moles (20–25%) can arise after dispermic fertilisation of an 'empty' ovum.
Partial moles are usually (90%) triploid in origin, with two sets of paternal haploid genes and one set of maternal haploid genes. Partial moles occur, in almost all cases, following dispermic fertilisation of an ovum. There is usually evidence of a fetus or fetal red blood cells.

Symptoms and signs of molar pregnancy:
Classic features - Irregular vaginal bleeding, hyperemesis, excessive uterine enlargement and early failed pregnancy.
Rarer presentations - Hyperthyroidism, early onset pre-eclampsia or abdominal distension due to theca lutein cysts
Ultrasound examination is helpful but the definitive diagnosis is made by histological examination of the products of conception.

Management
Suction curettage is the method of choice.
It is recommended to avoid medical evacuation as uterine contraction may cause embolization of a molar pregnancy.
Anti-D prophylaxis is required following evacuation of a partial molar pregnancy. Risk of persistent trophoblastic disease is higher with complete mole than partial mole.
Need for chemotherapy,

- 15% after complete mole
- 0.5 % after a partial mole.
- 1/50 000 births normal pregnancy

79. T F F T F

There should be a minimum of 2 days of abstinence before sperm collection. The ideal time of abstinence is 3 – 5 days. If the result of the first semen analysis is abnormal a repeat confirmatory test should

be done ideally after 3 months. But it can be repeated as soon as possible if there is a gross spermatozoa deficiency (**azoospermia or severe oligozoospermia**).

World Health Organization reference values

Semen volume: 1.5 ml or more
pH: 7.2 or more
Sperm concentration: 15 million spermatozoa per ml or more
Total sperm number: 39 million spermatozoa per ejaculate or more
Total motility (percentage of progressive motility and non-progressive motility): 40% or more motile or 32% or more with progressive motility
Vitality: 58% or more live spermatozoa sperm
Morphology (percentage of normal forms): 4% or more.

80. T T T F T

Rotterdam consensus criteria to diagnose PCOD.
Two out of three of the following criteria are diagnostic for the condition:

28. Polycystic ovaries (either 12 or more follicles or increased ovarian volume [> 10 cm^3])
28. Oligo-ovulation or anovulation
28. Clinical and/or biochemical signs of hyperandrogenism

It typically causes obesity, acne, hirsutism and acanthaosis nigrans.
If a woman with PCOD has anovulation, which can be treated with clomiphene, gonadotropin injection or ovarian drilling.
Obesity worsen the anovulation. Weight reduction itself can be effective in restoring ovulation.
Anovulation with chronic exposure of the endometrium to estrogen predisposes to endometrial hyperplasia and endometrial carcinoma.
Insulin resistance is a consequence of PCOD, which predispose to type 2 and gestational diabetes mellitus.
It does not increase the risk of ovarian cancer

Single Best Answer Question

1. A 20-year-old primigravida at 38 weeks of gestation is admitted with increasing swelling of both her legs during past three days. Her antenatal period is uncomplicated. Her blood pressure is 150/ 100 mmHg and modified Bishop score is 5. Her cardiotocograph is normal. She is otherwise asymptomatic. What is the most important next step in her management?
   a. Advise her to bed rest and reassess in four hours
   b. Carry out investigations to detect preeclampsia
   c. Induce labor with prostaglandins
   d. Oral nifedipine to control blood pressure
   e. Perform emergency caesarean section

2. A 26-year-old primigravida is admitted with a history of intermittent abdominal pain at 39 weeks of period of gestation. Her antenatal period is uncomplicated and frequency of contraction is 1 in 10 minutes. Fetal heart rate is 142/min. Vaginal examination reveals 2 cm dilated cervix with intact membranes. What is the most appropriate management?
   a. Augment labor with oxytocin
   b. Encourage ambulation and review her in four hours
   c. Insert prostaglandin pessary and review in four hours
   d. Keep her fasting and review in four hours
   e. Send her to the labor room for observation

3. Which of the following sensitizing event does not causes a significant foeto-maternal hemorrhage?
   a. Amniocentesis
   b. Ectopic pregnancy
   c. ECV
   d. Spontaneous first trimester miscarriages
   e. Intrauterine death

4. A 25-year-old primigravida at 12 weeks of gestation is found to have hemoglobin of 7 g/dl. She is asymptomatic. What is the most important next step in her management?
   a. Advise her to protein rich diet and review in one month
   b. Arrange a blood transfusion
   c. Perform full blood count and blood picture
   d. Prescribe double dose of oral iron
   e. Prescribe mebendazole

5. A 32-year-old multigravida with a dichorionic diamniotic twin pregnancy is admitted at 37 weeks of gestation in labor. The blood pressure is 140/90 mmHg. She also requests sterilization. Which of the following is the most important factor in deciding the mode of delivery?
   a. Blood pressure of 140/90 mmHg
   b. Chorionicity of the pregnancy
   c. Gravidity of the woman
   d. Maternal request for sterilization
   e. The presentation of the leading twin

6. A woman in her second pregnancy has been in the second stage of labor for two hours. The fetus is in cephalic presentation and the head is not palpable abdominally. On vaginal examination, the head is felt 2 cm below two ischial spines in the right occipito-lateral position. The fetal heart rate is 90/minutes. The estimated fetal weight is 3 kg. What is the most appropriate management?
   a. Apply Neville Barnes forceps
   b. Apply Simpson's forceps
   c. Perform a caesarean section
   d. Perform manual rotation of the head
   e. Perform vacuum extraction

7. A 36-year-old primigravida in labor is found to have a fetal heart rate of 80/min lasting for 4 minutes. 2/5 of the fetal head is palpable abdominally. Vaginal examination reveals 7 cm dilated cervix and vertex is felt at the level of the ischial spines. There is no cord prolapse. What is the best management option for her?

a. Immediate delivery by caesarean section
b. Immediate delivery by forceps
c. Immediate delivery by vacuum extraction
d. Keep her in the left lateral position and monitor
e. Perform fetal scalp blood sampling

8. A 32-year-old woman in her second pregnancy at 37 weeks of gestation is in labor. She has had a previous vaginal delivery of a baby weighing 3kg. Antenatal period of the current pregnancy is uncomplicated. The fetal head is 3/5th palpable abdominally. The estimated fetal weight is 2900 g. vaginal examination reveals a fully dilated cervix and a brow presentation. Liquor is clear. What is the most appropriate management of this patient?
   a. Apply vacuum extractor
   b. Apply Wrigley's forceps
   c. Caesarean section
   d. Observe and repeat vaginal examination in one hour
   e. Start an oxytocin infusion and review in 30 minutes

9. A 34-year-old woman in her second pregnancy at 10 weeks of gestation is admitted with severe abdominal pain and continuous vaginal bleeding for six hours duration. Pulse rate is 80/ minute and the blood pressure is 120/70 mmHg. Speculum examination reveals products of conception at the cervical os. What is the next step in the management in this woman?
   a. Administer 0.5 mg of ergometrine.
   b. Immediate evacuation of retained products of conception under general anesthesia
   c. Perform a transvaginal scan
   d. Remove the products of conception using some sponge forceps
   e. Take blood for cross matching

10. A 23-year-old primigravida at 11 weeks of gestation presents with intractable vomiting. She also has reduced urine output and loss of weight. She is restricted from carrying out her day to day work. What is the most appropriate first line treatment for her?

a. Intravenous 0.9% NaCl solution
b. Intravenous 10% Dextrose solution
c. Intravenous vitamin B12 with thiamine
d. Oral Metoclopramide
e. Rectal Domperidone

11. A 27-year-old primigravida is referred at 34 weeks of gestation to a tertiary hospital as her symphysio fundal height is found to be 30cm. Her dates had been confirmed by 1st trimester dating scan. What is the next step in the management of this woman?
    a. Administer dexamethasone
    b. Perform an ultrasound scan for the fetal size
    c. Perform biophysical profile of the fetus
    d. Perform umbilical artery Doppler studies
    e. Remeasure the symphysio fundal height in two weeks

12. A 26-year-old woman delivered a baby weighing 2.3 kg at 40 weeks of gestation. The baby was normal at birth but later developed chorioretinitis, blindness and strabismus. What is the most likely maternal infection which caused this condition?
    a. Chickenpox
    b. Cytomegalovirus infection
    c. Listeriosis
    d. Rubella
    e. Toxoplasmos

13. A 36-year-old primigravida presents at 30 weeks of period of gestation with prelabor rupture of membranes which was confirmed by speculum examination. Her vital signs are normal. There are no uterine contractions. Her cardiotocograph is normal. What is the most important next step in the management of this woman?
    a. Administer co-amoxiclav
    b. Administer steroids
    c. Caesarean section
    d. Induction of labor
    e. Ultrasound scan to assess fetal growth

14. A previously healthy primigravida is admitted with a blood pressure of 220/120 mmHg at 31 weeks of gestation. Urine dipstick reveals 2+ proteinuria. What is the most important immediate management for this woman?
    a. Administer a bolus dose of 4 g of magnesium sulphate
    b. Administer intravenous hydralazine
    c. Administer oral labetalol
    d. Catheterize the woman
    e. Perform an emergency caesarean section

15. One maternal death occurred due to postpartum hemorrhage in a population with 10000 live births. What is the maternal mortality ratio in this population?
    a. 0.01%
    b. 0.1 per 1000 live birth
    c. 1 per 10000 live birth
    d. 10 per 100000 live births
    e. 100 per 1000000 live births

16. A 42-year-old woman presents to the gynecology clinic with a period of amenorrhea of six months. She is also complaining of galactorrhea, headache, aches and pains of the body. Her urine HCG is negative. Her serum prolactin level was 4584 mIU/l. What is the next most appropriate investigation you will carry out?
    a. MRI scan of brain
    b. Perimetry test
    c. Serum FSH and LH levels
    d. Transvaginal scan
    e. X-ray skull lateral view

17. A 45-year-old woman who complains of postcoital bleeding is found to have a cervical growth. What is the next most appropriate step in the management of this woman?
    a. Cervical biopsy
    b. Cervical smear
    c. Colposcopy

d. MRI scan
e. Radical hysterectomy and pelvic node dissection

18. A 55-year-old unmarried menopausal woman presents to gynecological outpatient department with an incidental finding of right ovarian cysts measuring 5×5 cm. What is the most appropriate next step in her management?
    a. CT scan
    b. MRI scan
    c. Repeat ultrasound scan in six months
    d. Serum CA 125 level
    e. Total abdominal hysterectomy and salpingo-oophorectomy.

19. A 46-year-old woman presents to gynecology clinic with severe dysmenorrhea and dyspareunia. Examination reveals bilateral tender adnexal masses. Her CA 125 is 65 U/ml and ultrasound scan reveals 5 cm sized bilateral cysts suggestive of endometrioma. Which of the following would you recommend as the most appropriate treatment option?
    a. Laparoscopic bilateral cystectomy
    b. Laparoscopic hysterectomy
    c. Total hysterectomy and bilateral salphingo-oophorectomy
    d. Treat with regular opioids
    e. Treat with GnRH analogues

20. A 35-year-old subfertile woman with anovulation is found to have a serum prolactin level of 1200 mIU/l (normal range 35-350 mIU/l). Thyroid stimulating hormone (TSH) level and renal functions are normal. She has bilateral patent tubes on a hysterosalpingogram and the seminal fluid analysis is normal. What is the next most appropriate step in the management?
    a. MRI skull for a pituitary tumor
    b. Ovulation induction with clomiphene citrate
    c. Ovulation induction with gonadotropin
    d. Treatment with cabergoline
    e. X-ray skull

21. A woman who had an intrauterine contraceptive device inserted one month ago at her local MOH clinic attends the gynecology clinic with lower abdominal pain and vaginal discharge. On examination, she is afebrile and there is a purulent discharge with a tender uterus. What is the most appropriate next step in her management?
    a. Perform full blood count and CRP
    b. Remove the intrauterine contraceptive device
    c. Take a swab from the discharge and start oral antibiotics
    d. Treat with analgesics
    e. Treat with broad spectrum intravenous antibiotics

22. A 34-year-old woman has undergone suction evacuation for complete hydatidiform mole one week ago. What is the best contraceptive option for her?
    a. Calendar method
    b. Combine oral contraceptive pill
    c. Depot medroxyprogesterone acetate injection
    d. Intrauterine contraceptive device
    e. Male condoms

23. A 34-year-old woman is admitted with fever, vaginal bleeding and vaginal discharge. She has taken misoprostol with the intention of termination of the pregnancy one week ago. She is hemodynamically stable and the ultrasound scan shows retained products. What is the most appropriate next step in the management of this woman?
    a. Administration misoprostol vaginally
    b. Blood transfusion
    c. Evacuation of retained products of conception
    d. Start intravenous antibiotics
    e. Take high vaginal and cervical swabs for culture and antibiotic sensitivity tests.

24. A 48-year-old woman presents with heavy regular vaginal bleeding of three months' duration. Transvaginal scan shows normal

uterus and ovaries What is the most appropriate management option?

a. Ask her to return if the symptoms persist for more than six months
b. Perform endometrial biopsy
c. Treat with mefenamic acid and tranexamic acid
d. Treat with norethisterone
e. Treat with oral iron.

25. A 20-year-old girl presents with primary amenorrhea. Her height is normal. Her breast development and public hair growth appear normal. She is developing abdominal cramps for a few days every month. What is the next most appropriate investigation?
    a. Full blood count
    b. Laparoscopy
    c. Serum FSH and LH levels
    d. Ultrasound scan of abdomen and pelvis
    e. X ray of left wrist

26. A 31-year-old nulliparous woman presents with the history of inability to conceive in spite of having regular unprotected sexual intercourse for three years. She also complains of dysmenorrhea. Clinical examination reveals a left adnexal mass and a fixed retroverted normal sized uterus. Ultrasound scan shows a left ovarian cyst of 6×6 cm size. What is the most appropriate management of this patient?
    a. Combined oral contraceptive pills
    b. Depot medroxy-progesterone acetate injections monthly
    c. Laparoscopic ovarian cystectomy
    d. Ovulation induction with clomiphene citrate
    e. Ultrasound guided aspiration of the cyst

27. A 56-year-old menopausal woman complains of vaginal bleeding of one-week duration. Speculum examination is normal. What is the next step in the management of this woman?
    a. Administer estrogen cream

b. Endometrial biopsy
c. Perform CA 125 levels
d. Prescribe norethisterone
e. Ultrasound measurement of endometrial thickness

28. A 53-year-old woman presents with a lump at vulva for 6 months duration. On examination, she is found to have a minimal cystocele. The lump appears only while engaging in heavy lifting or particularly strenuous activities. What is the most appropriate next management option for this woman?
    a. Burch colposuspension
    b. Local estrogen therapy
    c. Reassure and review in six months
    d. Ring pessary
    e. Vaginal hysterectomy

29. A 44-year-old woman who underwent a total abdominal hysterectomy and bilateral salpingo-oophorectomy for severe endometriosis 1 week ago presents with fever and watery vaginal discharge. What is the most appropriate next step you will carry out?
    a. CT scan of the abdomen
    b. Cystoscopy
    c. Intravenous urogram
    d. Speculum examination
    e. Ultra sound scan of the abdomen

30. A 28-year-old woman married for 4 years, presents with a history of inability to conceive in spite of having regular unprotected sexual intercourse. Her husband's seminal fluid analysis reveals azoospermia. What is the most appropriate next step in the management of this couple?
    a. Advice on adoption
    b. Advice on donor insemination
    c. Measure FSH and LH levels of the husband
    d. Perform testicular biopsy
    e. Treat husband with oral testosterone

31. Primi mother underwent vaginal delivery 12 hours ago is complaining of perineal pain. On examination she is pale. Hb level is 8g/dl. There was only 400ml of estimated blood loss. What is the most appropriate next plan of action?
    a. Arrange blood transfusion
    b. Arrange evacuation of retained products of conception
    c. Examination the perineum
    d. Offer Fe supplementation
    e. Arrange USS of abdomen

32. A 24-year-old woman, in her second pregnancy, was presented to the antenatal clinic at 32/52 of gestation. She was found to have increasing titres of anti D antibody. What is the best management option?
    a. Emergency LSCS
    b. Dexamethasone to mother
    c. Amniocentesis
    d. Inform paediatric team
    e. MCA Doppler

33. A 24-year-old mother was admitted with vaginal bleeding in postpartum day 3. She had uncomplicated vaginal delivery. Her antenatal period was also uncomplicated. She was pale and her pulse rate was 105/ min with blood pressure of 100/60mmHg. Possible cause for her bleeding,
    a. Bicornuate uterus
    b. Coagulation disorders
    c. Retained products
    d. Uterine atony
    e. 2nd degree perineal tear

34. 34-year-old mother with type 2 DM visited for booking visit at 4 weeks of gestation with a blood sugar series (BSS)report. She was already using gliclaside. Her BSS report is given below (values are given in mg/dl)

Fasting - 110
2hrs after breakfast- 130
Before lunch - 144
2hrs after lunch- 125
Before dinner- 135
2hrs after dinner- 111
The best management option for this women is

a. Initiate insulin treatment
b. Continue drugs
c. Review at clinic in two weeks with repeat BSS
d. Assess the dietary pattern
e. Refer to medical clinic

35. A patient had an uncomplicated delivery of 1st twin at 38/52 of gestation. The 2nd twin was in cephalic presentation. Vertex is felt 1 cm below ischial spines. Five minutes following the delivery of the 1st twin, second twin developed persistent bradycardia 90 (Heart rate of 90 minutes /minutes). The best management option

a. Administration O_2 via facemask
b. Forceps delivery
c. Immediate caesarean section
d. Put the patient on left lateral position
e. Rapid infusion of Hartmann solution

36. A 30-year-old primi is in active second stage of labor. Assisting midwife encounterd difficulty in delivering the anterior shoulder of the fetus with gentle downward traction of fetal head. What is the most appropriate next step of management?

a. Delivery posterior shoulder
b. Mc Roberts position
c. Perform symphysiotomy
d. Put in all 4 manoeuvres
e. Suprapubic pressure

37. A primi mother was admitted with severe headache at 38 weeks of gestation. She developed generalised tonic clonic seizure on admission. On examination her blood pressure was 140/110 mmHg
    Fetal hear rate was normal.
    Urine assessment revealed 2+ of urine albumin. She was put on left lateral position and oropharyngeal airway is inserted. What is the next management?
    a. Give $MgSO_4$
    b. Immediate delivery
    c. IV diazepam
    d. Reduce BP with appropriate IV antihypertensive drug
    e. Perform coagulation profile

38. A 28-year-old primi presented with abdominal pain & vaginal bleeding at the period of gestation of 30 weeks. Her PR – 85bpm, BP – 110/70 mmHg, FHS – 150bpm. The most appropriate initial step of management
    a. Dexamethasone injection
    b. Caesarean section
    c. Pethidine for pain
    d. USS for placental location
    e. Vaginal examination

39. 25-year-old primigravida is in 2nd stage of labour. The CTG is suspicious & forceps delivery is planned. What is the most appropriate pain management for this mother?
    a. B/L pudendal block
    b. Epidural anaesthesia
    c. Nitrous oxide with O2
    d. IM pethidine
    e. Transcutaneous electrical nerve stimulation

40. A 41-year-old multipara with a singleton pregnancy at 12 weeks of period of amenorrhea requests Down's syndrome screening. What is the most appropriate screening test for Down syndrome at this stage of gestation?
    a. Chorionic villous sampling
    b. Combined test
    c. Triple test
    d. Quadruple test
    e. USS for nuchal translucency

41. A 24-year-old lady was admitted with vaginal bleeding with mild lower abdominal pain at 6 weeks of gestation. Transvaginal ultrasound revealed empty uterus without free fluid. The patient is haemodynamically stable. The most important next step,
    a. Diagnostic laparoscopy
    b. Exploratory laparotomy
    c. Methotrexate
    d. S.beta hCG
    e. Repeat USS in 48 hours

42. A 25-year-old primi mother presented with fever associated with rash. She is at the 8 weeks of her gestation. She is found to have positive Rubella IgM. What is the most appropriate management?
    a. Administration of Ig
    b. Amniocentesis
    c. Anomaly scan at 18-20 weeks of POA
    d. Offer vaccination after delivery
    e. Reassure

43. A 32-year-old primi gravida came with preterm prelabour rupture of membranes (PPROM) at the 34 weeks of the POA. Her temperature is $39^{o}C$ on admission. Pulse rate is 100 bpm and blood pressure is 100/70mmHg. She has uterine tenderness. What is the most important immediate action for her?

a. Administration of dexamethasone
b. Commencement of antibiotics
c. Expedite delivery
d. Maintain a temperature chart
e. Put her on CTG

44. A 33-year-old woman with 2 children is hoping for another pregnancy. She is a known patient with hypothyroidism which was treated by thyroxin. She is concern about thyroxin during pregnancy. The appropriate advice should be
    a. Thyroxin dose does not need to adjust because foetus auto regulates of its own functions
    b. She will be able to stop thyroxin in pregnancy
    c. She will need to adjust dose of thyroxin during pregnancy
    d. She will need less thyroxin during pregnancy
    e. She will need to continue thyroxin only up to 20 weeks of POA.

45. A 28-year-old women presented with amenorrhea for 6 months. she has frequent headaches and watery discharge in the breast. She has no other medical co-morbidities. Urine hCG is negative. Most appropriate initial investigation is,
    a. Mammogram
    b. Serum prolactin
    c. Serum TSH
    d. MRI brain & pituitary
    e. Testing of visual fields

46. A 64-year-old female was diagnosed with cervical CA which was treated successfully. She wants to know whether her 16-year-old daughter will also have a cervical CA in future. Best method to minimize occurring cervical CA is,
    a. Barrier method during sexual activities
    b. Monogamy
    c. Regular monitoring with PAP smear screening
    d. Prevention of passive smoking
    e. Using HPV vaccine

47. A 24-year-old female with her 28-year-old male partner is investigated for subfertility for 2 years. Female has irregular cycles of 2-3 months. Her BMI is 27kg/m^2. She is diagnosed with PCOS. Seminal fluid analysis of her partner is normal. They don't have issues with their sexual relationship. Best treatment option for this couple is,
    a. Induction with clomiphene citrate
    b. IUI
    c. Laparoscopic ovarian drilling
    d. Metformin
    e. Weight reduction

48. A-35-year old women presented to gynaecologic clinic with a foul smelling vaginal discharge and vulval itching. On examination there is a frothy, greenish discharge with the inflammation of cervix and vagina. Most likely organism causing this clinical situation is,
    a. Gardnerella vaginalis
    b. Gonococcal infection
    c. Chlamydia trachomatis
    d. Candida albicans
    e. Trichomonas vaginalis

49. A 26-year-old women with 1 child presents with heavy, irregular menstrual bleeding for 3 months' duration. Clinical examination & pelvic examination is normal. She does not have any medical diseases. What is the most appropriate treatment option?
    a. Combined OCP
    b. DMPA
    c. Levenogestral releasing IUS
    d. Progesterone only pills
    e. Mefenamic acid

50. A 52-year-old female is complaining of urinary urgency and passage of urine with laughing and coughing for 12 months. The best investigation for diagnosis is,
    a. MRI of pelvis
    b. Pelvic ultrasound scan
    c. Electromyography of the pelvic muscles
    d. Urine full report and culture
    e. Urodynamic studies

51. A 23-year-old primi gravida presented with increased frequency and dysuria for 2 days of duration. She is at 30 weeks of POA. Her temperature is 39°C. She has evidence of mild dehydration. Fetal growth is normal & FHR is 150 bpm. UFR shows moderately field full pus cells & 1+ proteinuria. The most appropriate 1st step of management
    a. Hydration with IV fluids
    b. IV broad spectrum Ab
    c. Renal function tests
    d. USS to check foetal well being
    e. Urine culture + ABST

52. A 16-year-old girl present to gynaecology clinic with vaginal bleeding. Diagnosis of complete miscarriage was made. She admitted that she had a sexual relationship with her boyfriend. She asked not to inform her parents & request contraception. What action will you take?
    a. Inform parents
    b. Inform police to investigate for criminal abortion
    c. Provide contraception
    d. Refer to STI clinic
    e. Refer to psychiatric clinic

53. A 32-year-old primi mother underwent forceps delivery due to prolonged second stage. Birth weight of the baby was 4.2 kg. She developed bleeding following delivery of the placenta. Estimated blood loss was 500 ml with ongoing bleeding. Her pulse rate is 88bpm with blood pressure of 110/70 mmHg. Contracted uterus is palpable below the umbilicus. What is the most appropriate next management?
    a. Oxytocin infusion
    b. Examine for genital tract trauma
    c. Insert a condom catheter
    d. Examine the placenta
    e. Wait for 15 minutes

54. A 25-year-old woman presented with reduced fetal moments at 28 weeks of POA. This is her 3rd pregnancy and her previous two pregnancies were 1st trimester miscarriages. On admission she was found to have an intrauterine death. Her blood pressure was 160/100mmHg and she was normotensive prior to this admission. which of the following investigations will help to identify the cause?
    a. HBA_1C
    b. Lupus anticoagulant
    c. TORCH screening
    d. OGTT
    e. TSH

55. A 39-year-old primi mother was admitted with spontaneous labour. Her antenatal period was uneventful. Her 1st stage was uncomplicated and CTG became pathological with prolong bradycardia in the second stage. On examination 2/5 of the head is palpable abdominally. Vaginal examination revealed an occipito-posterior position with station 1+. Liquor was clear. What is the most appropriate action?

a. Kielland forceps delivery
b. LSCS
c. Hydrate well
d. Vacumm delivery
e. Give oxygen via mask and review after 1 hour

56. A 28-year-old woman developed rapidly enlarging vaginal hematoma following vacuum delivery. Her vital signs are in the normal range. What is the appropriate management?
a. Blood transfusion
b. Explore the hematoma
c. Monitor vital signs and expansion
d. Vaginal packing
e. Laparotomy

57. A 24-year-old woman is in second stage of labor. This is her second pregnancy and her 1st baby was delivered by a caesarean section due to breech presentation.
Suddenly the abdominal pain became more severe with trickling of vaginal bleeding. Fetal heart rate raised to 180 bpm. What is the most appropriate monument?
a. Adequate pain relief
b. Start normal saline and monitor
c. Adequate hydration
d. Place the mother in left lateral position and give oxygen
e. Emergency laparotomy

58. A 18-year-old primi is suspected to have a complete molar pregnancy during the dating scan. Which of the following investigation is the least important in the management of this patient?
a. Chest x ray
b. TSH
c. serum beta HCG

d. Histology
e. Ultrasound of the liver

59. A 31-year-old woman with epilepsy attended pre-natal counselling. She is a known patient with epilepsy which is well controlled with phenytoin. She has no history of fits within one year. What is the most suitable action or advise?
    a. Avoid pregnancy
    b. Delay pregnancy for one year with OCP
    c. Increase the phenytoin dose and advice to conceive
    d. She can conceive with folic acid supplementation
    e. Refer her to a neurologist for assessment

60. A 25-year-old woman in her second pregnancy presented for booking visit. This is her second pregnancy and she had a baby with anencephaly in her 1st pregnancy. What is the most suitable screening test for her to exclude anencephaly in this pregnancy?
    a. Ultrasound scan after 12 weeks
    b. Ultrasound scan at 20 weeks
    c. Amniotic fluid acetyl cholinesterase at 16 weeks
    d. Maternal serum alpha feto protein at 16 weeks
    e. Pregnancy associated plasma protein at 16 weeks

61. A 26-year-old woman is in her second pregnancy at 36 weeks of the POA. She delivered her 1st child vaginally at 40 weeks. Birth weight of her 1st pregnancy was 2.3 kg. Her SFH is 32 cm now. Among following features, which is the strongest indication for the delivery?
    a. Lack of fetal movements for 3 hours
    b. Amniotic fluid index 7
    c. Lack of variability in the CTG for 90 min
    d. Elevated uric acid level
    e. Lack of maternal weight gain in the last 4 week

62. A 62-year-old postmenopausal woman presented with persistent vaginal bleeding for last 3 weeks. Transvaginal scan revealed an endometrial thickness of 8mm. Which of the following is the most reliable investigation for her?
    a. Pippel's biopsy
    b. Hysteroscopy
    c. Examination under anaesthesia with D and C
    d. Endometrial cytology in the peritoneal washout
    e. PAP smear

63. A 58-year-old woman was diagnosed with moderately differentiated squamous cell carcinoma of the cervix. It was found to have extended up to right side lateral pelvic wall. Upper vagina is spared. Cystoscopy and proctoscopy have excluded the bladder and hind bowel involvement. What is the most acceptable management for this woman?
    a. Chemoradiation
    b. Radiotherapy
    c. Radical hysterectomy with pelvic node dissection
    d. Radical hysterectomy with pelvic node dissection and chemo -therapy
    e. Radical hysterectomy with pelvic node dissection and radio-therapy

64. A 34-year-old woman presented with abdominal pain, abdominal distension and nausea and shortness of breath for 3 days. She is a known patient with primary subfertility and underwent IVF with 2 embryo transfer 3 weeks back. What is the most like cause of her presentation?
    a. Appendicitis
    b. Ectopic pregnancy
    c. Ovarian hyper stimulation syndrome
    d. Rupture of corpus luteal cyst
    e. Pelvic inflammatory disease complicated with pelvic peritonitis

65. A 38-year-old woman underwent a complicated hysterectomy due to stage-4 endometriosis. She developed abdominal pain with fever on post-operative day 2. She was dehydrated. There was abdominal guarding, rigidity and tenderness.
    Chest x-ray revealed air under diaphragm. What is appropriate next step of her management?
    a. Blood transfusion
    b. Exploratory laparotomy
    c. NG feeding and intravenous fluid
    d. Iv antibiotics
    e. Conservative management

66. A 34-year-old woman with essential hypertension came for prenatal counselling. Which of the following drug she should be avoided during the pregnancy?
    a. Labetalol
    b. Methyldopa
    c. Nifidipine
    d. Hydralazine
    e. Enalapril

67. A woman with essential hypertension and epilepsy were treated with aspirin, carbamazepine and methyldopa during pregnancy. Later she developed GDM at 22 weeks of pregnancy which was treated with Insulin and metformin. Which of the drug should be avoided during postpartum period?
    a. Aspirin
    b. Carbamazepine
    c. Insulin
    d. Metformin
    e. Methyldopa

68. A 17-year-old woman presented with lower abdominal pain for 1 day. She is having primary amenorrhea. Examination revealed normal breasts, pelvic hair and axillary hair development. Her lower abdomen is tender with palpable pelvic mass. She has taken

treatment for similar abdominal pain several times in the past and all the episodes occurred approximately in one-month intervals. What would be the most appropriate possible diagnosis?

a. Endometrioma
b. Ectopic pregnancy
c. Pelvic inflammatory disease
d. Imperforate hymen
e. Cystitis

69. A 72-year-old woman presented with lump at vulva. Examination revealed a 2nd degree uterine prolapse without cystocele. She prefers the surgical treatment. Which of the following factor is least important in the planning of her surgery?

a. Sexual history
b. Postmenopausal status
c. Associated urinary symptoms
d. Comorbidities
e. Previous pelvic surgeries

70. A 25-year-old primi mother presented with rupture of membranes at 33 weeks of gestation. She was given intramuscular dexamethasone 2 weeks before due to suspected preterm labor which was managed with nifedipine. She has no pain thereafter. She has no fever. Her vital parameters and fetal wellbeing assessment were normal. Her FBC and CRP are also in the normal range. Which of the following treatment is indicated at this moment to this woman?

a. Repeat IM dexamethasone + erythromycin 250mg 6h
b. Erythromycin 250mg six hourly
c. IM dexamethasone + nifedipine 20 mg 12h + erythromycin 250mg 6h
d. Erythromycin 250mg 6h + nifedipine 20mg 12h
e. Augmentin 625 mg 8h + nifedipine 20mg 12h

71. A 35-year-old woman who has had type 2 diabetes attends your antenatal clinic for pre-pregnancy counselling. Her HbA_1c is 5.8% and blood pressure is 140/90 mmHg. She is taking metformin 1 g bd and Enalapril 5 mg od. What is the change should be made in her treatment?
    a. Change enalapril to methyldopa
    b. Stop metformin
    c. Stop enalapril
    d. Change metformin to insulin Mixtard
    e. Change enalapril to HCT

72. Mrs Vimala is currently 8 weeks pregnant in her 1st pregnancy. She was diagnosed with Graves' disease 6 years ago and treated with carbimazole. She was not compliant with the medication and had radioiodine therapy 8 months ago for uncontrolled hyperthyroidism. She has defaulted the follow-up and treatment thereafter. She is asymptomatic now apart from occasional palpitations. Examination reveals mild tachycardia and palpable goiter. Recent TFT results showed:

    TSH <0.1 mU/l (approximate normal reference range is 0.4–4.5 mU/l)

    Free T4 = 40 pmol/l (approximate normal reference range is 10–24 pmol/l)ÿþ

    Free T3 = 20 pmol/l (approximate normal reference range is 4.0–8.3 pmol/l)ÿþÿþ

    What is the appropriate management?
    a. Commence carbimazole and change to propylthiouracil in the second trimester
    b. Commence propylthiouracil and change to carbimazole in the second trimester
    c. Commence carbimazole or propylthiouracil along with levothyroxine

d. Check thyroid stimulating antibodies (TRAb) levels before commencing antithyroid medication
e. Offer termination of pregnancy as had radioiodine therapy only 8 months ago

73. A 57-year-old woman presented with vaginal bleeding following cessation of periods for 13 months. She had two episode of spotting. Clinical examination revealed normal vulva, vagina and cervix. She had her PAP (which was normal) last year. What is the most important investigation she should be offered now?
    a. Transvaginal scan
    b. Transabdominal scan
    c. Repeat PAP smear
    d. Pippel biopsy
    e. FBC

74. A 35-year-old multiparous woman presented with heavy menstrual bleeding for last 3 cycles. She had to double the number of pads during these cycles. She is on routine smear tests, which was normal last year.
    Her abdominal and pelvic examination was unremarkable. What is the most important investigation she should be offered next?
    a. Transvaginal scan
    b. coaugulation test
    c. Repeat PAP smear
    d. Pippel biopsy
    e. FBC

75. A 25-year-old nulliparous woman was presented with mild painless vaginal bleeding following 7 weeks of her last menstrual

period. She used to have regular 28-day cycles. Her urine hCG was positive. Transvaginal ultrasound scan revealed empty uterine cavity. There was no visible ectopic pregnancy or free fluid. What is the next best management option for this woman?

a. Serial serum beta hCG assessment
b. Repeat scan in one week as it is very early to see the intrauterine pregnancy
c. Immediate laparoscopy surgery
d. Immediate laparotomy surgery
e. Treat with methotrexate injection

76. A 23-year-old presented in her second pregnancy with abdominal pain. She is in 8 weeks of gestation. Ultrasound revealed an empty uterus with free fluid. She is having tender abdomen. Her pulse rate and blood pressures are normal. She had NVD 2 year back. It was decided to undertake surgical management as she is more likely to have a ruptured ectopic.
Which of the following surgery is appropriate for her?

a. She should be offered laparoscopic salpigectomy
b. She should be offered laparoscopic salpingostomy
c. She should be offered laparotomy and salpigectomy
d. She should be offered laparotomy and salpingostomy
e. She should be offered hysteroscopy and laparoscopy.

77. A 23-year-old primi mother presented with mild PV spotting at the POA of 9 weeks. She has no active bleeding on admission. Examination revealed normal genital tract. Ultrasound confirmed a fetus with a heart beat. According to the CRL fetus corresponded to 7 weeks of POA. What is the most likely diagnosis?

a. Threaten miscarriage

b. Missed miscarriage
c. Blighted ovum
d. Inevitable miscarriage
e. IUGR

78. A nulliparous woman presented with mild vaginal bleeding at 10 weeks of gestation. She was diagnosed to have missed miscarriage. She requests quick remedy as she is planning to travel abroad for her office duty in 10 days.
What is the appropriate treatment option?
a. Expectant management and repeat scan in one week
b. Treat with misoprostol
c. Surgical evacuation
d. Oxytocin induction
e. Surgical evacuation following cervical ripening by misoprostol

79. A 42-year-old multiparous woman presented with regular heavy menstrual bleeding for 3 months. She is also complaining of severe secondary dysmenorrhea. Clinical examination revealed a mobile uniformly enlarged uterus (12 weeks in size) with normal adnexa and cervix. Pipellel's biopsy revealed a secretory phase endometrium. What is the most likely diagnosis?
a. Adenomyosis
b. Fibroid uterus
c. Endometriosis
d. Endometrial hyperplasia
e. Inadequate clinical details to make a diagnosis

80. A 45-year-old woman presented with abdominal distention and heavy menstrual bleedings. She is also complaining of pressure

symptoms such as urgency. She has undergone laparoscopic LRT at the age of 39. Ultrasound scan revealed a large fibroid extending up to umbilicus. She wishes to have a complete remedy without any chance of recurrence of fibroid.
What is the most appropriate treatment option?

a. OCP
b. Tranexamic acid and mefenamic acid
c. Myomectomy
d. Hysterectomy
e. Hysterectomy and bilateral oophorectomy

81. Which of the following is not a component of the Bishop's score assessment?
    a. Dilatation
    b. Effacement
    c. Position
    d. Consistency
    e. Fetal heart rare

82. A Primi mother developed shoulder dystocia. Emergency alarm was activated and appropriate people were summoned. Assisting midwife tried gentle traction in McRoberts' position which failed to deliver the shoulder. What is the most appropriate next step?
    a. Wait till consultant comes
    b. Apply more vigorous traction in McRoberts' position
    c. Fundal pressure
    d. Suprapubic pressure
    e. Deliver posterior arm

83. A 24-year-old woman in her second pregnancy presented with spontaneous onset of labor at term. This is her second pregnancy and she delivered her 1st baby by emergency LSCS due to fetal distress. Her current pregnancy was otherwise uncomplicated. On admission she had good contractions (4 in 10 minutes) with cervical dilatation of 4 cm with 75% effacement. Admission CTG was normal. She suddenly developed fetal bradycardia with mild hematuria 2 hours after the admission. Uterine contraction was ceased. What is the most likely diagnosis?
    a. utérine rupture
    b. placental abruption
    c. cord prolapse
    d. secondary arrest with fetal distress
    e. amniotic fluid embolism

84. A mother presented with spontaneous onset of labor at term. This is her second pregnancy and she delivered her 1st baby by emergency LSCS due to fetal distress. Her current pregnancy was uncomplicated. On admission she had good contraction (4 in 10 minutes). Cervical dilatation was 4cm with 75 % effacement. Admission CTG was normal. How should be her fetal heart rate monitored during the labor?
    a. intermittent monitoring with hand held Doppler
    b. intermittent monitoring with Pinnard
    c. continuous FHS monitoring with CTG machine
    d. intermittent monitoring converted to continuous monitoring
    e. intermittent monitoring with hourly CTG

85. A primi mother was admitted to the labor room with spontaneous onset of labor. Her cervical dilatation was 8 cm with 90 % effacement on admission. When the house officer has completed the vaginal examination, he noticed a sudden gush of fluid that came out with a loop of cord. Cord was immediately replaced inside vagina with minimal handling. What is the most appropriate next step of management?
    a. Manually elevate the head with positioning mother in exaggerated Sims' position
    b. Fill the bladder
    c. Immediate LSCS
    d. Instrumental delivery
    e. IV syntocinon

86. Which of the following is correct regarding vaginal breech delivery?
    a. Gentle traction is recommended throughout the delivery
    b. Forceps should never be used
    c. Vacuum should never be used
    d. Fetus should be maintained in back posterior position during the delivery
    e. ECV should never be done if there are uterine contractions

87. Regarding blood pressure during pregnancy, which one is correct?
    a. Korotkoff's sound 4 is recommended
    b. Blood pressure measurement should be taken in the supine position
    c. Fall in systolic blood pressure greater than fall in diastolic blood pressure
    d. Blood pressure should be monitored throughout the pregnancy in all woman
    e. Enoxaparin is recommended to prevent PIH

88. A primi mother was diagnosed to have Hb 9 g/dl at 15 weeks. Blood picture revealed hypochromic microcytic anaemia. Serum ferritin was low. She was started on double dose iron therapy with nutritional advice. One month later her Hb dropped to 8.5 g/dl. What is the most appropriate next management step?
    a. start intravenous Fe
    b. check compliance
    c. blood transfusion
    d. refer to haematologist to exclude thalassemia
    e. increase the oral dose of iron (triple dose Iron)

89. A 25-year-old woman is in her second pregnancy at 36 weeks of gestation. She presented with sudden onset of abdominal pain associated with mild per vaginal bleeding. On examination she was mild pale, with pulse rate of 105 bpm and BP of 150/ 100 mmHg. SFH was 30cm. Head engaged and there was tenderness over the fundal area. CTG revealed late decelerations.
    What is the most possible diagnosis?
    a. placental aruption
    b. plaventa previa
    c. vasaprevia
    d. labour pain with show
    e. uterine rupture

90. A 25-year-old woman in her second pregnancy at 36 weeks of gestation. She presented with sudden onset of abdominal pain associated with mild per vaginal bleeding. On examination, she was mild pale with pulse rate of 105 beats per minute and BP of 150/ 100 mmHg. SFH was 30cm. Head was engaged and there was a tenderness over fundal area. CTG revealed late decelerations.
    What is the next management?
    a. oxygen via mask, IV cannula, take blood for investigations and start IV normal saline
    b. inform seniors and prepare the patient for ultrasound examination

c. inform seniors and prepare the patient for emergency surgical delivery
d. IV cannula, blood for investigation and start group specific uncross matched blood via a IV cannula, take blood for investigations and start group specific uncross matched blood
e. IV cannula, take blood for investigations and start group specific uncross matched blood

91. A grand multi para delivered her 5th baby vaginally. Although her labour was uncomplicated, she developed bleeding following the delivery of placenta. Total blood loss was 700 ml with ongoing blood loss. Her uterus was palpable above umbilicus and soft. Placenta was complete and there were no cervical or vaginal tears. She was already given oxytocin infusion and intravenous ergometrine. What is the drug that can be used to correct the cause of her bleeding?
    a. misoprostol
    b. IV tranexamic acid
    c. PGE2 tablet
    d. FFP and cryoprecipate
    e. acivated facto VII

92. Which of the following is the most common cause for PPH?
    a. uterine atony
    b. cervical tears
    c. vaginal and perineal tears
    d. coagulation disorders
    e. retained products

93. A primi para presented with severe nausea and vomiting at 10 weeks of gestation. She could not take any meals in the previous 24 hours. On admission she looks very tired and dehydrated. Her vital parameters are normal. Patient was IV cannulated and urgent investigations were sent. What is the immediate next management?
    a. IV normal saline
    b. IV 5% dextrose

c. IV 50% dextrose
d. IV ranitidine
e. IV Metoclopramide

94. A primi para presented with severe nausea and vomiting at 10 weeks of gestation. She could not take any meal in the previous 24 hours. On admission she looks very tired and dehydrated. Her vital parameters are normal. Patient was IV cannulated and saline drip was started. What is the 1st line antiemitics that should be given?
a. Promethazine
b. Domperidone
c. Metaclopramide
d. Ondansetron
e. Dexamethasone

95. A primi mother at 36 weeks presented with absence of fetal movements for 4 hours. On admission fetal heart sounds could not be identified by handheld Doppler. What is the next management?
a. Ultrasound scan
b. Ask her to rest and recheck with handheld Doppler
c. CTG
d. Fetal ECG
e. Biophysical profile

96. A primi mother at 14 weeks of gestation admitted with unilateral leg pain and swelling. She is otherwise normal. On examination,
Pulse rate -76 beats / minutes
BP - 110/70 mmHg
Left leg is swollen and tender. No evidence of local infection
Right leg is normal.
What is the most appropriate investigation will help in the diagnosis?
a. Compression duplex ultrasound.
b. Venogram of leg
c. D dimer

d. X ray
e. FBC and CRP

97. A primi mother at 14 weeks admitted with unilateral leg pain and swelling. She is otherwise normal. On examination,
Pulse rate -76 beats / minutes
BP - 110/70 mmHg
Left leg is swollen and tender. No evidence of local infection
Right leg is normal.
What is the most appropriate drug should be given to her on admission?
a. Subcutaneous enoxeparin
b. IV heparin
c. warfarin
d. dalteparin
e. IV enoxeparin

98. A primi mother delivered a 3.2 kg baby vaginally. Her 3rd stage was managed by a training midwife. Immediately after delivery of the placenta, midwife noticed a bulging structure at the introitus. Although the total blood loss is 300ml, she developed shock with severe hypotension. What is the most likely diagnosis?
a. Incomplete placental delivery
b. Uterine prolapse
c. Acute uterine inversion
d. Pedunculated fibroid
e. Vaginal hematoma

99. A woman presented for subfertility clinic. She is having regular cycles every 33 days. Assessing serum progesterone on which day will help to confirm ovulation?
a. Day 7
b. Day 10
c. Day 21
d. Day 26
e. Day 1

Answers

1. A

PIH is defined as BP elevated more than 140/90mmHg in 2 occasions at least 4 hours apart. A single reading of elevated BP should be confirmed after rest.

2. B

She is at the latent phase of 1st stage of the labor.
At this stage mobilization will favor the progression of labor and there is no need of close observation in the labor ward. Close observation is necessary when the woman enters the active phase. Cervical ripening and augmentation are not indicated at this stage.
Augmentation is only necessary when there is slow progress associated with ineffective uterine contractions.

4. D

See mcq question No 2

5. C

She has severe anemia, which needs further investigation by blood picture. If the picture is compatible with iron deficiency, trial of iron supplements with dietary advice should be offered. Blood transfusion is not necessary as patient is asymptomatic.

6. E

Blood pressure influences the timing of delivery but does not influence the mode of delivery unless it is very high, where assisted second stage may be needed to prevent intracranial hemorrhage in the mother.
Dichorionic diamniotic twins can be delivered vaginally and it does not affect the mode of delivery. Monochorionic diamniotic twins also can be delivered vaginally but monochorionic monoamniotic twins need Cesarean section.
Gravidity alone itself does not affect the mode of delivery.

Sterilization is a minor surgical procedure, LSCS should not be done just because a woman needs LRT, which can be done by mini-laparotomy or laparoscopically following vaginal delivery.

Presentation of the leading twin is an important factor deciding the mode of delivery. When it is cephalic, vaginal delivery is preferable.

6. E

By definition this woman has prolonged second stage with malposition.
She needs assistance for delivery.
Management of malposition includes

- Vacuum extraction
- Rotational forceps (Kielland's forceps)
- Manual rotation

This woman also has fetal distress which need urgent delivery, so vacuum extraction would be more preferable than manual rotation. All the forceps given are non-rotational forceps which cannot be used in this condition.

7. A

Fetal bradycardia lasting more than 3 min is called as prolonged bradycardia which needs imminent delivery. As this woman has no favorable conditions for instrumental delivery she should be delivered immediately with category 1 emergency LSCS.

Favorable features for instrumental delivery.

- Fully dilated cervix
- Head not palpable or only one fifth palpable
- Head is at or below the ischial spine
- Well recognized fetal position.

8. C

A brow presentation can be thought of as "midway" between a face presentation (maximal nuchal extension) and an occiput presentation (maximal nuchal flexion). The anterior fontanelle and frontal sutures

are prominent on vaginal examination. Management of a brow presentation at early stage of labors may be expectant. A brow presentation that converts to an occiput presentation (by nuchal flexion) is managed routinely. If the brow presentation converts to a face presentation (by nuchal extension), it is managed as a face presentation. But a persistent brow presentation usually requires a cesarean deliverly espically in the late stage of labours.

Face presentations are also managed expectantly. If the fetus is in a mento-anterior presentation, vaginal delivery is possible. Normal labor forces result in flexion of the fetal neck allowing expulsion of the fetus without increased morbidity.
If the fetus is in a mento-posterior presentation, vaginal delivery cannot be accomplished unless the fetal head rotates to a mento-anterior position. Rotation should be spontaneous; manual or forceps rotation is not recommended. If spontaneous rotation to a mento-anterior does occur, management continues to be expectant. If the presentation remains mento-posterior, a cesarean delivery is necessary.

Compound presentations occur when a fetal extremity presents in front of or next to the presenting part. Most compound presentations are either a hand or arm next to the fetal head. Management is expectant, because, in most cases, the extremity will retract as the head descends. If it does not retract, it can usually be swept out of the way with gentle manual pressure, with care taken to move the fetal part in a natural direction.

All three malpresentations are managed expectantly during labor and may result in a vaginal delivery. When a malpresentation is identified, the mother should be counseled of the necessity for cesarean delivery if the malpresentation persists.

9. D

She has an incomplete miscarriage. The main reason for the pain during miscarriage or delivery of a baby is due to the cervical dilatation. Products at the OS may be the reason for her severe pain due to the distension of the cervical canal. Removal of this would relieve her pain. After that she should be offered a TVS to see the completeness of the uterus. Cross match is not routinely necessary but if the bleeding is ongoing and heavy or if she has features of hypovolemia may need cross matching. Immediate evacuation is only necessary if she continues to bleed with remaining products in the uterus. Ergometrine is not effective at this POA to control the bleeding.

10. A

She has excessive vomiting which affects her day to day activity. In this condition, she definitely needs rectal or intravenous antiemetics but as she is dehydrated with features of hypovolemia, fluid resuscitation should be the most important first step. In hyperemesis gravidarum or excessive vomiting, normal saline or Hartman's solution is preferable to dextrose. Dextrose should only be given after replacing thiamine and sodium levels. Dextrose can precipitate Wernicke's encephalopathy in the presence of thiamine deficiency.

11. B

When the SFH is low even after confirming the dates, fetal growth restriction should be excluded by measuring fetal parameters such as abdominal circumference or estimated fetal weight. When fetal growth restriction is diagnosed, umbilical artery Doppler will help to time the delivery.

12. B

The classic triad of congenital rubella syndrome are sensory nerve deafness, eye defects (retinopathy, cataract and microphthalmia) and congenital heart disease (PDA and pulmonary stenosis).

Other clinical features of congenital rubella syndrome are IUGR, hepatoplenomegaly, microcephaly and thrombocytopenic purpura.

Clinical findings of congenital cytomegalovirus include IUGR, hydrops, generalized petechiae, purpura, thrombocytopenia, jaundice, hepatosplenomegaly, pneumonitis, microcephaly, periventricular calcifications, seizures, chorioretinitis, sensorineural hearing loss, bone abnormalities, abnormal dentition and hypocalcified enamel.
Ten to fifteen percent of congenitally infected infants will have symptoms at birth. Most of the congenitally infected infants (85-90%) have no signs or symptoms at birth, but 5-15% of them will develop sequelae such as sensory neural hearing loss, delay of psychomotor development, and visual impairments.

Clinical features of congenital toxoplasmosis are chorioretinitis, microphthalmia, hypotonia, intracranial calcifications, icterus, enchephalopathy and hydrocephalus.

Congenital varicella syndrome causes skin scarring, limb hypoplasia, microcephaly, cortical atrophy, seizure and mental disorder.

13. B
In PPROM, Steroids help in fetal lung maturation. Erythromycin should be given to prevent infection. Induction of labour is recommended at 34 weeks unless there is chorioamnionitis, when induction should be offered irrespective of the POA.
Ultrasound is necessary to assess the fetal growth and estimated fetal weight, but steroid injections should be the most important next step. Coamoxyclav is not recommended as it increases the risk of necrotizing enterocolitis of the baby.

14. B
She has severe hypertension with proteinuria. $MgSO_4$ is needed to prevent the fits but her blood pressure should be controlled by IV drugs as soon as possible to prevent the risk of intracranial hemorrhage which is the most common cause of maternal death in eclampsia and severe preeclampsia.

15. D
Maternal mortality ratio is the ratio of the number of meternal deaths during a given period per 100,000 live births.

16. A

Headache and body aches may occur due to menopause. FSH measurement will help to diagnose menopause. But galactorrhea and headache associated with a high prolactin level may be due to prolactinoma. A MRI brain is indicated to evaluate pituitary gland.

17.

When there is a cervical growth to hypotony with cervical biopsy with histology should be done.

18. D

In a postmenopausal woman with an ovarian cyst, RMI should be calculated. Further management will be depending on her RMI value. RMI includes the CA125 level, ultrasound features and menopausal state. If she has been found to have a high risk for ovarian malignancy, CT scanning may be necessary to assess the spread.

19. A

She has severe symptoms and bilateral endometriomas. Her CA125 is only slightly elevated, which may be due to endometriosis. In malignancy, elevation is usually in higher values than this (may go up to several hundreds or thousands).

Cystectomy is recommended for endometrioma especially if it is more than 3 cm. Histological assessment of cyst wall will confirm the diagnosis.

20. A

Once the diagnosis of hyperprolactinemia has been made investigations are required to identify the underlying cause and associated complication.

TSH and renal function should be assesed and pregnancy excluded in a women of child bearing age.

Unless another clear cause is identified MRI of the pituitary is indicated.

Patients with a pituitary mass more then 1cm in diameter should have investigations assesing other pituitary hormones and have visual field testing.
Followiong the completion of tlhe investigations, she may be treated with Carbogoline which restore ovulation and increases the chance of pregnancy.

21. C

She has features of pelvic inflammatory disease. In this case, she can be managed with oral antibiotics. IV antibiotics are only needed if she does not respond to oral or if she has following features,

- A surgical emergency that cannot be excluded
- Lack of response to oral therapy
- Clinically severe disease
- Presence of a tuboovarian abscess
- Intolerance to oral therapy
- Pregnancy

IUCD removal is not necessary at the beginning, but it should be removed if she does not respond to antibiotics.

22. E

Progesterone causes some irregular bleeding which may cause confusion with the persistent trophoblastic disease. OCP is not recommended until beta hCG becomes normal. Barrier method would be ideal at this stage untill altleast histolosical report is available.

23. E

She may be having infected retained products. She needs immediate intravenous antibiotics but before that swabs should be taken. Evacuation may be necessary only after controlling the infection. Repeating misoprostol would be preferable to surgical evacuation as in the presence of infection, risk of uterine perforation is high. As she is clinically stable, blood transfusion may not be necessary

24. B

Evaluation of HMB (NICE Guideline)

FBC should be done in all women
Testing for coagulation disorders (for example, von Willebrand's disease) if HMB since menarche and have personal or family history suggesting a coagulation disorder.
Thyroid testing should be carried out only when other signs and symptoms of thyroid disease are present.
Biopsy should be taken to exclude endometrial cancer or atypical hyperplasia. Indications for a biopsy include, for example, persistent intermenstrual bleeding, and in women aged 45 and over, treatment failure or ineffective treatment.
Ultrasound is the first-line diagnostic tool for identifying structural abnormalities
Hysteroscopy should be used as a diagnostic tool only when ultrasound results are inconclusive.
Dilatation and curettage alone should not be used as a diagnostic tool.

25. D

Normal secondary sexual characteristics implies that her ovarian function and pituitary function is normal. Abnormality must be in uterine or outflow tract obstruction. Cyclical abdominal pain favor the diagnosis of an outflow tract obstruction. An ultrasound scan will help to see the fluid collection in the uterus and vagina.

26. C

Dysmenorrhea and retroverted fixed uterus favors the diagnosis of endometriosis. The cyst may be an endometrioma. Fixed uterus indicates presence of adhesions. In this condition a laparoscopic cystectomy, tubal patency test and adhesiolysis may be preferable to improve fertility.

27. E

In postmenopausal bleeding, trans-vaginal scan should be done to measure the endometrial thickness. Endometrial biopsy should be done if the thickness is more than 4mm.

28. D

She is symptomatic. Pelvic floor exercises may improve her symptoms. A ring pessary or surgery may be considered next. As she is having a mild cystocele, a ring pessary may be the best option. Burch colposuspension is done for stress incontinence. Hysterectomy is not necessary as she has only a cystocele. Local estrogen is beneficial to improve her local symptoms such as a dry vagina and dyspareunia. It will not improve the cystocele. If she prefers surgery, she needs an anterior colporrhaphy.

29. D

Surgery for endometriosis is a risk factor for vesicovaginal and ureterovaginal fistula. CT urogram, cystoscopy may be necessary. But at the initial steps a speculum examination should be done to assess the nature of the fluid as an infection itself may be the cause for her discharge. Also her fever warrants a vaginal swap for culture.

30. C

Categories of azoospermia are,

1. Pre-testicular azoospermia (2% of men with azoospermia);
    a. Due to a hypothalamic or pituitary abnormality (diagnosed with hypo-gonadotropic-hypogonadism).
2. Testicular failure or non-obstructive azoospermia (49%–93% of men with azoospermia);
    a. While the term testicular failure would seem to indicate a complete absence of spermatogenesis, men with testicular failure actually have either reduced spermatogenesis, maturation arrest or a complete failure of spermatogenesis noted with Sertoli cell only syndrome.[15]
3. Post-testicular causes for azoospermia (7%–51% of men with azoospermia);
    a. Obstruction or ejaculatory dysfunction.

b. Normal spermatogenesis but obstructive azoospermia or ejaculatory dysfunction.

The category of azoospermia may often be determined by the luteinizing hormone (LH) and follicular stimulating hormone (FSH) levels without the need for a testicular biopsy.

The diagnosis of pre-testicular azoospermia is relatively uncomplicated. LH and FSH levels will be low and the testosterone levels will be either low or normal.

Men with elevated FSH, LH and small testis bilaterally have non-obstructive azoospermia.

However, men with normal levels of FSH and LH could have either non-obstructive azoospermia or obstructive azoospermia

31. C

As there is no obvious blood loss, concealed blood loss should be suspected. Intraperitoneal bleeding, broad ligament haematoma, vulvo-vaginal haematoma (perineal haematoma) are the possible causes for postpartum concealed bleeding. As this patient is complaining of perineal pain, it is prudent to examine the perineum to exclude a perineal hematoma. If the hematoma is confirmed or if there is ongoing bleeding, blood transfusion may be necessary.

32. E

Haemolytic disease of the fetus and newborn (HDFN) is a condition in which transplacental passage of maternal immunoglobulin G (IgG) antibodies results in immune haemolysis of fetal/ neonatal red cells. Some antibodies (including anti-D, anti-K and anti-c) confer significant fetal and neonatal risks, such as, anaemia requiring intrauterine or neonatal transfusion, jaundice or perinatal loss.

Anti-D is the most commonly encountered antibody during pregnancy. All women should have their blood group and antibody status determined at booking and at 28 weeks of gestation.

When antibodies are detected in antenatal period, titre level of the antibodies should be monitored. When the titre is above the cut off value, fetus should be monitored for complications. Middle cerebral artery Doppler has a high sensitivity to fetal anaemia.

Frequency of monitoring of antibody levels during pregnancy

Anti-D and anti-C

measured every 4 weeks up to 28 weeks of gestation and then every 2 weeks until delivery.

Anti-K

Titres do not correlate well with either the development or severity of fetal anaemia but still should be measured every 4 weeks up to 28 weeks of gestation and then every 2 weeks until delivery.

Cut off for fetal MCA monitoring

Anti D - > 4 iu/ml

Anti C - > 7.5iu/ml

Anti Kell - from the beginning itself irrespective of the titre.

33. C

She has a secondary PPH.

Bicornuate uterus is not a recognised cause for PPH.

All other factors (mentioned in the stems) are recognised causes for primary PPH.

Causes of secondary PPH

- Endometritis
- RPOC (Retained product of conception)
- Sub-involution of the placental implantation site

  Commonest cause for secondary PPH is endometritis due to RPOC.

34. D

Recommended blood sugar levels during pregnancy are,

1 hour after meal – 140mg/dl

2 hours after meal – 120mg/dl
This woman has an abnormal report.
Her dietary pattern should be evaluated and appropriate dietary advice should be given initially. Gliclazide is not commonly used during pregnancy. She may be substituted with metformin or insulin. She also needs a medical team's attention to assess the long term complications of DM and control of the blood sugar but dietary advice should be the initial step.

35. B
Persistent bradycardia indicates immediate delivery. As the conditions are favourable, forceps delivery would be more prudent.
If the second twin is in breech presentation, breech extraction can be attempted.

36. B (See SBA question No: 82)

37. A
She has eclampsia. Fits should be managed in accordance with A, B, C rule.
Her airway is protected.
She should be given $MgSO_4$ to control the fit.
Diazepam is not recommended for eclampsia.
Her blood pressure should be controlled but $MgSO_4$ should be the 1st option.
She definitely needs delivery, but her seizure and blood pressure should be controlled prior to delivery.
She also need liver biochemistry, full blood count, coagulation studies, and renal function assessment.

38. D
More serious placental pathology should be excluded in any woman with ante partum haemorrhage. As she is having painful bleeding,

placental abruption should be suspected. Vaginal examination should not be attempted until excluding placenta previa. Although only **20%** of placental abruptions are diagnosed by ultrasound, it will help to exclude a placenta previa in this patient. If bleeding persists or diagnosis of abruption or previa is confirmed, dexamethasone is necessary. It is advisable to avoid pethidine until assessment is over. Immediate Caesarean is not indicated when there is no maternal or fetal compromise.

39. A

Epidural would give more effective analgesia, but in the situation where fetal distress is suspected it is not suitable as it needs some time to establish an epidural block. Bilateral pudendal block is more suitable in this situation which is local infiltration of an anaesthetic agent to block the pudendal nerves using ischial spine as a landmark.

40 B

Recommendations for Down's screening

<u>The screenign options available</u>

First trimester - combined screening (9 – 13+6 days)

Blood test that measures two maternal serum markers (PAPP-A and ßhCG) combined with an ultrasound scan to determine NT and CRL measurements

<u>Second trimester maternal serum screening (14 – 20 weeks)</u>

Blood test that measures four maternal serum markers (ßhCG, AFP, Estriol and inhibin A).

41. D

She is having pregnancy of unknown location, which may be an ectopic pregnancy. As the patient is stable and there was no free fluid, urgent surgery is not justified. Methotrexate is medical management for ectopic pregnancy, which should never be given without confirming

an ectopic pregnancy. Serial serum beta hCG assessment is useful for the diagnosis and follow-up of ectopic pregnancy. Initial beta hCG level also determines the mode of management of an ectopic pregnancy.

42. C

Rubella IgM indicate an acute infection. Risk to the fetus is very high during the 1st trimester. Termination is legally not feasible for this indication in Sri Lanka. Amniocentesis is recommended to detect fetal infection, but it is not advisable at 8 weeks. Vaccination is not necessary after a confirmed infection. A more suitable answer among the options is an anomaly scan at 18 weeks to look for features of congenital rubella syndrome.

43. B

She has features of chorioamnionitis. All of the above should be offered to her. But starting antibiotic treatment is more important to prevent maternal and fetal morbidity and mortality.

44. C

Fetus is depending on maternal thyroxine supply during the 1st trimester. A woman on thyroxine should continue thyroxine throughout the pregnancy. Most of the time the thyroxine requirement increases during pregnancy. Some guidelines recommend routine increase of thyroxine dose during pregnancy.

45. B

Headache, breast discharge and amenorrhea may occur with elevated prolactin level due to prolactinoma. Her serum prolactin level should be checked initially. If the prolactin level is high, she needs visual field assessment and a MRI of the brain. Mammogram is not necessary, if breast pathology is suspected, breast ultrasound is recommended at this age.

46. E

All of these may reduce the risk of cervical cancer. At this age vaccine before she commences sexual activity would be more prudent and reliable at this age. Even if she is given vaccine, she should undergo PAP screening later.

47. E

Weight reduction should be attempted 1st and BMI should be maintained less than 25 kg/m^2. Weight reduction itself may restore her ovulation. If it fails, she may additionally be given ovulation induction with clomiphene. Metformin may be added with clomiphene. Laparoscopic drilling is a surgical method of ovulation induction which is considered usually if medical induction fails.

48. E

Feature	**Vulvovaginal candidiasis**	**Bacterial vagi-nosis**	**Trichomoniasis**
Symptoms	Thick white discharge	Thin discharge	Scanty to profuse or frothy yellow discharge
	Non-offensive odour	Offensive or fishy odour	Offensive odour
Signs	Vulval itch Superficial dyspareunia Dysuria	No discomfort or itch	Vulval itch or soreness Dysuria Low abdominal pain Dyspareunla
	Vulval erythema, oedema, fissuring, satellite lesions	Discharge coating vagina and vestibule No inflammation of vulva	Vulvitis and vaginitis 'Strawberry' cervix
pH of vaginal fluid	Vaginal pH < 4.5	Vaginal pH > 4.5	Vaginal pH > 4.5
Microscopy	Yeasts and Pseudo -hyphae	"Clue" cells	

49.

All of the above may be used to reduce the heavy bleeding but only OCP will regularise the irregular menstruation.

50. E

Her clinical diagnosis stress incontinence with urgency. She should be checked for urinary infection as it may be associated with it. But urodynamic studies are the only tests that will give an objective definitive diagnosis. Other investigations are not recommended for stress incontinence.

Note- urodynamic tests are not routinely recommended for stress incontinence. Empiric treatment may be attempted based on the clinical diagnosis.

51 E

Urinary tract infection, especially pyelonephritis, should be suspected. She should be started on antibiotics after taking a sample for urine culture. Her hydration may be corrected by oral fluid.

52. C

Her autonomy should be respected. Anyhow, assessment should take place to exclude the possibility of the abuse. She should be provided with contraceptives, failing to prescribe may harm her by another pregnancy. Although she needs to be assessed for the risk of sexually transmitted diseases, referring her to the STI clinic may break her autonomy at this moment.

There is no legal provision to inform police unless abuse is suspected.

53. B

Forceps delivery and large baby are the risk factors for genital tract trauma. Retained parts of the placenta usually causes a relaxed uterus. Oxytocin is a uterotonic which helps to contract the uterus. Condom catheter is a management option for intrauterine bleeding. Here,

uterus is already well contracted, so genital tract trauma should be excluded before further management.

54. B

She has recurrent pregnancy loss. Current pregnancy is complicated by early onset PIH.
All favour the possibility APLS or other vascular disorders such as SLE.

55. B

Delivery is indicated in this scenario. As 2/5 of the head palpable abdominally, instrumental delivery is not possible.

56. B

A rapidly enlarging hematoma should be explored immediately and bleeding vessels should be tied. Blood transfusion is not indicated at this moment as her vital signs are normal.

57. E

Sudden increase and continuous nature of pain is an unusual characteristic of labour pains. Bleeding and fetal distress favour the possibility of a uterine rupture. Emergency laparotomy is indicated.

58. B

Hyperthyroidsm is a very rare complication of molar pregnancy. Routine thyroid assessment is not recommended unless the patient is having features of thyroid dysfunction.
Beta hCG is helpful for follow up. Histology is the confirmatory test.
Chest X ray and liver ultrasound may be needed to exclude metastasis of persistent trophoblastic disease.

59. E

Epilepsy is not a contraindication for the pregnancy. But it should be well controlled prior to pregnancy. Although all the antiepileptics are

known to be teratogenic, it should be continued throughout pregnancy and labor. Sometimes, dose increment may be necessary.
To avoid teratogenic complications it is recommended to use monotherapy, with a least teratogenic drug at a least effective dose. It should be decided in conjunction with a neurologist.

60. A
Traditionally alpha-fetoprotein assessment was used to screen neural tube defects. In modern obstetrics it was replaced by ultrasound. Anencephaly can be detected prenatally using ultrasound, frequently as early as 11 to 14 weeks gestation. The diagnosis cannot usually be made before 11 weeks because skull ossification is not complete.

61. C
Considering the background history, this fetus may be complicated with FGR which can cause fetal compromise. Abnormal Doppler findings and abnormal CTGs are the indication for delivery of a FGR baby.
Delivery decision cannot be made based on AFI, fetal movements or maternal weight gain.

62. B
Postmenopausal bleeding with an ET above 4 mm is an indication for endometrial biopsy. It can be done by pippel or hysteroscopy. As the question is about the most reliable test, hysteroscopy is the correct answer where we can visualize the endometrium and take directed biopsy.

63. A
She has stage III cervical carcinoma where surgical treatment is not recommended.

Management of cervical cancer

Microinvasive cervical cancer (stage IA1) can be managed with conisation or simple trachelectomy to preserve fertility. Simple hysterectomy can be offered if the patient does not wish to preserve fertility.

In patients with stage IA2, IB and IIA, radical hysterectomy with bilateral lymph node dissection is standard treatment.

Chemo radiation is recommended for patients with stage IIB–IVA disease.

64. C

Ovarian hyper stimulation occurs following ovulation induction for ovum retrieval. Which is a multisystem disorder that presents with various symptoms and complications. According to the symptoms it can be classified as follows,

Classification of severity

Mild OHSS	Abdominal bloating Mild abdominal pain Ovarian size usually < 8 cm
Moderate OHSS	Moderate abdominal pain Nausea ± vomiting Ultrasound evidence of ascites Ovarian size usually 8–12 cm
Severe OHSS	Clinical ascites (± hydrothorax) Oliguria (< 300 ml/day or < 30 ml/hour) Haematocrit > 0.45 Hyponatraemia (sodium < 135 mmol/l) Hypo-osmolality (osmolality < 282 mOsm/kg) Hyperkalaemia (potassium > 5 mmol/l)

Hypoproteinaemia (serum albumin < 35 g/l)
Ovarian size usually > 12 cm

Critical OHSS Tense ascites/ large hydrothorax
Haematocrit > 0.55
White cell count > 25 000/ml
Oliguria/anuria
Thromboembolism
Acute respiratory distress syndrome

65. D

She is most likely to have bowel perforation complicated with peritonitis. She should be given broad spectrum antibiotics immediately after suspicion. Later she needs surgery.

66. E

Recommended antihypertensive drugs during pregnancy are labetalol, methlydopa, nifedipine and hydralazine.
Angiotensin converting enzyme inhibitors(ACE-I) and diuretics should be avoided.
ACE-Is are well known to cause fetal abnormalities, especially renal anomalies.

67. E

Although methyldopa is recommended during pregnancy, it should be avoided during postpartum as it may precipitate postpartum depression.

68. D

Primary amenorrhea occurs due to the problem in the hypothalamus, pituitary, ovary, uterus or outflow tract obstruction.
Imperforate hymen is a rare congenital malformation of the vagina which causes the outflow tract obstruction. It occurs when the sinovaginal bulb fails to canalize with the rest of the vagina. The occurrence is sporadic, and typically presents at puberty with delayed

menarche, cyclic lower abdominal pain and mass and bulging vaginal membrane at the vaginal introitus that are secondary to the accumulation of menstrual blood as hematocolpos and hematometra above the imperforate hymen. Other modes of presentations include pelvic infection with tubo-ovarian abscess, obstructive acute renal failure, non-urological urine retention, hematosalpinx, peritonitis, endometriosis, mucometrocolpos, constipation, and recurrent urinary tract infection.

The diagnosis of an imperforate hymen can be made by the absence of the track of mucus at the posterior commissure of the labia majora in newborns or by visualization of the bulging hymen after puberty. Transabdominal and transrectal ultrasounds can also assist in confirming the diagnosis of imperforate hymen. Antenatal ultrasound can also detect the bulging imperforate hymen due to the accumulation of hydrocolpos or mucocolpos in the female fetus that occurred in response to maternal estrogens. The differential diagnoses of imperforate hymen include vaginal septum, vaginal agenesis, vaginal cyst, ectopic ureter with ureterocele, hymenal cyst and periurethral cyst. The definite management of imperforate hymen is surgical excision of the hymen from the base (hymenecotomy) and evacuation of the accumulated menstrual blood from the vagina and the uterus

69. B

Adequate vaginal length should be preserved in a sexually active woman.

If the woman has a stress incontinence she may need additional surgeries such as mid urethral tape. If the woman has an urge incontinence she should be treated with medicine prior to surgery and should be advised that urge incontinence will not be cured or sometimes may be exacerbated following surgery.

Previous pelvic surgeries are very important as previous surgeries may make the surgery difficult with the risk of complications due to adhesions.

Comorbidities are important in all major surgeries where appropriate pre-op optimization should be done and it also influences the mode of the anesthesia. In a woman with severe morbidity without sexual activity, colpocleisis is an option which is closure of the vagina which can be done in short time.
Postmenopausal status may influence the surgery due to atrophic tissue, this effect is least among the factors given in the question and no additional surgical cautions are needed due to the postmenopausal status

70. B

She has preterm prelabor rupture of membranes.
It increases the risk of preterm labor. Also mother and fetus is at risk of chorioamnionitis due to ascending infection. Antibiotics should be given to prevent chorioamnionitis. Erythromycin is the 1st line drug in this context. Augmentin should be avoided as it increases the risk of necrotizing colitis in the fetus.
Tocolytics should be avoided in the case of ruptured membranes as it may prevent the delivery and keep the fetus in an unfavorable environment if chorioamnionitis occurs.
Corticosteroids are indicated in all anticipated preterm labor. But only one dose of steroids is recommended, as she was already given, it is not necessary to repeat it again.

71. A

There is no need to stop metformin in pregnancy, and insulin is not indicated at this moment as her HbA1c is normal.
Ramipril and other ACE inhibitors are not recommended in pregnancy.
Thiazide diuretics are not recommended in pregnancy (risk of neonatal thrombocytopenia and reduced intravascular volume in pre-eclampsia).

72. B

Treatment options include carbimazole (CBZ), methiamazole (MMI, the active part of CBZ) or propylthiouracil (PTU), which block thyroid hormone synthesis and reduce the titer of TSH receptor antibodies.

All of these cross the placenta, but PTU does less so than CBZ and MMI. There is a possible rare risk of fetal aplasia cutis or an embryopathy (choanal atresia, tracheo-esophageal fistula, facial dysmorphism and cognitive development delay) with CBZ or MMI.

PTU does not cause fetal anomalies but is a rare proven cause of maternal liver damage. There is a small chance of maternal agranulocytosis with both PTU and CBZ.

The current general consensus, however, is to use PTU in the first trimester and then change to CBZ or MMI for the second and third trimesters. Newly diagnosed thyrotoxicosis in pregnancy should be treated aggressively with high doses of PTU or CBZ for 4-6 weeks followed by gradual reduction to a maintenance dose.

There is no role for block-and-replace regimens in the management during pregnancy.

TRAb should be measured at 20–24 weeks of gestation in women with Graves' disease to identify the fetuses/babies at risk of fetal/neonatal thyrotoxicosis.

Pregnancy should be avoided for at least 4 months after radioiodine therapy as there is a small theoretical risk of chromosomal damage and genetic abnormalities.

73.

Absence of periods for one year is considered as menopause. By definition she has postmenopausal bleeding.

All women with post-menopausal bleeding, should be offered assessment of the endometrial thickness by a transvaginal scan. If the endometrial thickness is more than 4mm, patient should be offered endometrial biopsy by pippel or hysteroscopy directed biopsy. 10% of postmenopausal bleeding may be associated with endometrial malignancies.

Other causes of postmenopausal bleedings

- Endometrial or cervical polyps 2–12%
- Endometrial hyperplasia 5–10%
- Endometrial carcinoma 10%
- Exogenous estrogens 15–25%
- Vaginal atrophy 60–80%

Routine cervical cytology needs not to be repeated within 3 years. As she had only 2 episodes of spotting, FBC is not necessary unless for other indications.

74. E

Endometrial malignancies are rare at this age group. Endometrial assessment is not indicated as a first line investigation in a woman less than 45 years. Anyhow only if a woman has abnormal examination findings such as a palpable uterus or a pelvic mass, ultrasound is necessary in the initial investigation. She also should be assessed with a scan if she fails to respond to medical treatments.

All women with heavy menstrual bleeding should be checked for anemia. Coagulation disorders may cause HMB, but it rarely presents at this age and testing for this is necessary only if she has other bleeding manifestations. Coagulation disorders should be suspected in a girl if they present with HMB following menarche.

75. A

She has pregnancy of unknown location. As she has no pain and clinically stable, there is no need of any form of surgery at this moment. Serial beta hCG assessment will assist in the diagnosis.
Beta hCG should be measured in 48 hours intervals.
A rise of beta HCG more than 66% from baseline would be suggestive of intrauterine pregnancy. If the rise is less than 66%, ectopic pregnancy is likely.
If the Beta hCG is dropping, it may be a miscarriage of intrauterine pregnancy or failing ectopic.

Methotrexate is a management option for a woman with a confirmed ectopic pregnancy and who has no features of a ruptured of ectopic. Methotrexate should never be given without confirming the ectopic pregnancy.

76. A

Surgical options for ectopic pregnancy are salpingectomy or salpingostomy.
Salpingectomy - removal of the tube
Salpingostomy - making an opening in the tube (only ectopic sac is removed with the preservation of the tube)
Salpingectomy is recommended unless if the woman has risk factors for subfertility where salpingostomy should be offered.

Indications for salpingostomy

- previous pelvic inflammatory diseases
- previous pelvic surgery
- diseased or abnormal contralateral tube.

In modern gynecology, laparoscopy is the preferred mode of surgery for management of ectopic pregnancy. Laparotomy is only indicated when there is an extreme emergency with unstable condition.

77. A

She has a normal fetus with a 2-week discrepancy in the POA. This is due to wrong dates. Her dating should be corrected according to scan dates.
IUGR is diagnosed in late pregnancy.
Threaten miscarriage – vaginal bleeding in early pregnancy with a live fetus.
Missed miscarriage – intrauterine pregnancy with absent fetal heat beat in a fetus with CRL more than 7mm or gestational sac more than 20 mm.

New Term	Old Term	Ultrasound features	Cliinical features
Threatened miscarriage	Threatened abortion	Intrauterine gestation sac Fetal pole with cardiac activity seen.	Vaginal bleeding $\pm$ bdominal pain; closed cervix
Complete miscarriage	Complete abortion	No evidence of retained products of conception	Cessation of vaginal bleeding abdomianal pain; closed cervix
Incomplete miscarriage	Incomplete abortion	Heterogenous tissues $\pm$ sc distorting midline endome -trial echo	Passage of some pregnancy -related tissue $\pm$ bleeding and /or abdominal pain; open cervix
* Missed miscarriage * Delayed miscarriage * Silent miscarriage * Early total demise (These flect different stages in the same process)	* Missed abortion * Anembryonic pregnancy * Blighted ovum (These reflect different stages in the same process)	Any endometrial thickness Fetal pole > 6mm with no fetal heart activity. Gestation sac diameter > 20mm with no fetal pole or yolk sac	Minimal vaginal bleeding or pain; loss of pregnancy symptoms; closed cervix
Inevitable miscarriage	Inevitable abortion)		Bleeding without passage of tissue butwith an open cer vix
Miscarriage with infection (Sepsis)	Septic abortion		Vaginal discharge, bleeding, fever, abdominal pain

78. B

Management options for miscarriage are,

1. Conservative – no intervention is done and the scan is repeated in 2 weeks.
2. Medical induction – drugs are used to induce expulsion of products of conception.
   Commonly used recommended drug is misoprostol which is a prostaglandin analogue.
3. Surgical evacuation of retain products of conception

Conservative management is not suitable for this woman as she is travelling abroad in a short time.
Indication for the surgical managements are,

- failed medical management
- patients wish for surgical management
- bleeding with incomplete miscarriage

This woman may need surgical management if treatment with misoprostol fails.

79. A

Dysmenohea may occur with adenomyosis, endometriosis, pelvic inflammatory disease. Endometrial hyperplasia does not cause dysmenorrhea and it would be seen in a pipelle biopsy.

Although a submucosal fibroid can cause HMB and secondary dysmenorrhea, it should be regarded as a cause of dysmenorrhea only after adenomyosis and endometrisosis are ruled out.
Uniformly enlarged uterus makes the fibroid less likely.
Endometriosis commonly presents with a triad of symptoms - dysmenorrhea, dyspareunia or dyschezia.

Endometriosis does not cause enlarged uterus. It is common in sub fertile middle aged woman. On examination, uterus will be normal in size but may be retroverted and fixed due to adhesions. There can be palpable nodules in the POD or rectovaginal septum in a women with endometriosis.

Adenomyosis is common in multiparous woman. It commonly presents with secondary dysmenorrhea and heavy menstrual bleeding. Uterus will be uniformly enlarged.

80. D

Menstrual suppression can be given by OCP or other drugs if the patient is having a small fibroid with HMB.

OCP will not reduce the size of the fibroid.

Ulipristal acetate and GnRH analogues are the two drugs reducing the size of the fibroid but these are only temporary measures.

Other new treatment modalities are uterine artery embolization and ultrasound guided thermal ablation.

This woman has significantly a large fibroid with pressure symptoms, so she needs a surgical option. As she has completed her family, hysterectomy is the first choice. Myomectomy is indicated only in a woman who wishes to retain the uterus or who has fertility wishes. Fibroid can recur following myomectomy.

Oophorectomy is not indicated in case of fibroids, as she is just 45, preserving the ovaries is preferable to avoid early iatrogenic menopause.

81. E

Table 2. Modified Bishsop Scoring System

	Score		
Factor	**0**	**1**	**2**
Dilatation (cm)	**0**	**1-2**	**3-4**
Effacement (%)	**0-30**	**40-50**	**60-70**
Length (cm)	**> 3**	**1 - 3**	**< 1**
Consistency	**Firm**	**Medium**	**Soft**
Position	**Posterior**	**Mid**	**Anterior**
Station	**3 or above**	**2**	**1 or 0**

82. D

Shoulder dystocia is defined as failure of the fetal shoulder to spontaneously traverse the maternal pelvis after delivery of the fetal head and is recognized by either difficult delivery of face and chin, the head retracting into or tightly applying to the vulva, failure of the head restitution or failure of the shoulders to descend after standard axial traction has been applied. Shoulder dystocia occurs most commonly when the anterior fetal shoulder impacts on the maternal symphysis pubis, but can involve the posterior shoulder impacting upon the maternal sacral promontory.

Fetal brachial plexus injuries (Erb's palsy, Klumpke's paralysis) occurs in 4 -16% of deliveries complicated by shoulder dystocia with less than 10% resulting in permanent disability.

Both excess downward traction and maternal expulsive efforts contribute to causing these injuries.

Risk factors for Shoulder dystocia

Antenatal:

Previous shoulder dystocia (recurrence is 1 - 16%)
Suspected macrosomia (although 48% of shoulder dystocia occurs in babies less than 4000g. fetal weight estimation has about 10% error margin)
Diabetes
Maternal BMI >30kg/m^2
Induction of labor

Intrapartum:

Prolonged 1st stage
Secondary arrest and prolonged 2nd stage
Instrumental delivery
Oxytocin augmentation

Management of shoulder dystocia

1. Call for help
2. Assist the woman into Mc Robert's position
3. Suprapubic pressure
4. Consider episiotomy to aid access for internal maneuvers
5. Delivery of Posterior arm or other Internal manoeuvres
6. All fours position
   The individual circumstances should guide the healthcare professional as to whether to try the all fours position before or after attempting internal rotation and delivery of the posterior arm. The all fours position is a useful option in the community setting.
7. If the shoulder remains impacted after all of the above manoeuvres try cleidotomy, Zavanelli manoeuvre or symphysiotomy. These are more destructive procedures.

Complications of shoulder dystocia

- Postpartum hemorrhage
- Severe perineal tears
- The need for neonatal resuscitation

- Fetal injury (brachial plexus injury, fractures, pneumothorax and hypoxic brain damage)

83. A

Uterine rupture can result in serious complications for both mother and baby, such as haemorrhagic shock, the need for peripartum hysterectomy, hypoxic ischemic encephalopathy, permanent brain injury and even death. It mostly happens in a scarred uterus.
Complete uterine rupture is defined as separation of the entire thickness of the uterine wall with extrusion of fetal parts to the peritoneal cavity.
Uterine dehiscence is defined as a disruption of the uterine muscle with intact serosa. This is usually asymptomatic.
Uterine rupture occurs at a frequency of 0.2% in women with previous lower segment Caesarean sections. Risk is more with upper segment Caesarean sections or myomectomy.

Risk Factors for uterine rupture

- Previous uterine scar / uterine surgery (myomectomy)
- Obstructed labor
- Difficult forceps delivery (Keillands)
- Undiagnosed cephalopelvic disproportion (CPD) or malpresentation
- Grand multiparity
- Injudicious use of oxytocics in women with high parity and uterine scar
- External trauma e.g. RTAs
- Placenta percreta or increta

Signs of rupture

- Suspicious or abnormal CTG
- Vaginal bleeding
- Shock (rising pulse rate/ falling BP/ sweating/ poor peripheral perfusion)
- Sudden severe abdominal pain

- Decrease/ cessation uterine contractions
- Haematuria
- Peritoneal irritation (shoulder tip pain or chest pain)
- Abnormal fetal lie or sudden change in lie
- Retraction of previously engaged presenting part

Management

Call for help
Airway + oxygenation
IV access (use 2 size 14-16 G cannulas) and cross match 4 – 6 units of blood
Stop oxytocin infusion
Volume replacement with normal saline until blood is available
Immediate laparotomy and caesarean section with uterine repair or hysterectomy

84. C

Frequency of FHS monitoring during a low risk labour

- every 15 minutes during active phase of 1st stage
- every 10 minutes during passive phase of 2nd stage
- every 5 minutes during active phase of 2nd stage

Intermittent monitoring with handheld Doppler is recommended in uncomplicated pregnancy.
When there is a risk factor for fetal distress, continuous monitoring is recommended.

Indication for continuous fetal heart rate monitoring.

- Hypertension/ pre-eclampsia
- Diabetes
- Antepartum hemorrhage
- Previous cesarean section

- Meconium stained liquor
- Fetal Growth Restriction
- Prematurity (<37 weeks gestation)
- Postmaturity (>42 weeks gestation)
- Oligohydramnios
- Abnormal umbilical artery Doppler velocimetry
- Rhesus isoimmunisation
- Multiple pregnancy
- Breech presentation
- Epidural analgesia
- Previous caesarean section – once in established labor
- Oxytocin infusion
- Suspicious fetal heart rate on auscultation
- Maternal pyrexia (38.0°C once or 37.5°C twice 1 hour apart).
- Suspected chorioamnionitis or sepsis
- Fresh vaginal bleeding that develops in labor

85. A

Cord prolapse is defined as the descent of the umbilical cord through the cervix beyond the presenting part in the presence of ruptured membranes. Cord presentation is the presence of the umbilical cord between the fetal presenting part and the cervix without membrane rupture.

The principle causes of asphyxia in this context are:

- Cord compression (preventing venous return to the fetus)
- Umbilical vasospasm (preventing venous and arterial blood flow to and from the fetus) due to exposure to external environment

Risk factors for cord prolapse

- Unengaged head
- High parity
- Prematurity
- Multiple pregnancy
- Polyhydramnios
- Malpresentations
- Obstetric manipulation

Management

Call for help

Place the woman in either knee to chest position or an exaggerated Sims’ position (left lateral supported with 2 pillows)

If able, replace the cord back in the vagina (excessive handling should be avoided)

If the cord cannot be replaced in the vagina with minimal handling, apply warmed soaked normal saline gauze over it

Apply digital pressure to the presenting part to avoid cord compression by elevating it

If the cervix is fully dilated: Consider operative vaginal delivery

If delivery is not imminent prepare the woman for emergency caesarean section

Cease syntocinon infusion immediately

Consider administration of terbutaline 250 micrograms subcutaneously for women in established labor where delivery may be delayed

Consider catheterization of the bladder if delay to theatre is expected:

- Attach a standard infusion set to a 16 g indwelling catheter
- Instill a sodium chloride 0.9% infusion into the catheter until the distended bladder is visible above the symphysis pubis. Bladder should be emptied before cesarean section.

86. C

<u>Vaginal Breech Delivery</u>

First Stage

Offer ECV during early labor, if not offered before or for an antenatally undiagnosed breech.
Induction of labor is not usually recommended.
Augmentation of slow progress with oxytocin should only be considered if the contraction frequency is low in the presence of epidural analgesia.
An intravenous cannula should be sited and blood taken for group and save.
There is a higher risk of cord prolapse in breech presentation. Membranes should be left intact for as long as possible.
Continuous electronic fetal monitoring.
Fetal blood sampling from the buttocks during labor is not advised.
Caesarean section should be considered if there is a delay in the descent of the breech at any time in the second stage.

Second Stage

Delivery should be conducted by an experienced person.
The Neonatal Unit should be informed.
Either a lithotomy or an all-fours position may be adopted for delivery.
Episiotomy is justifiable.
“Hands Off” - the breech should then be allowed to descend as the mother pushes with her contractions. The buttocks will continue to deliver by gravity and with maternal effort.
The legs should deliver themselves unless an extended breech in which groin traction may be required. (In selective cases, clinician should place a finger in the popliteal fossa and gently flex the knee, thus bringing the legs down).
As the baby emerges, a warm towel should be wrapped around the body.

Unless the umbilical cord appears tight and stretched, there is no need to pull it down.
Keep fetal back to anterior.
Should the delivery of the shoulders get delayed as in extended arms or nuchal position of the fetal arms, will require extra assistance.
The extended or nuchal arms should be delivered by sweeping them across the baby's face and downwards or by the Lovset's maneuver.
After coming head - suprapubic pressure by an assistant should be used to assist flexion of the head.

Techniques to deliver after coming head.

1. The Mauriceau-Smellie-Veit manoeuvre
2. Burns-Marshall Method
3. Forceps (Piper forceps is specially designed for this purpose but any long shank forcep could be used)

87. D

Korotkoff 5 is recommended
BP should be monitored in the sitting or semi-recumbent position.
Aspirin is recommended to prevent PIH in high risk woman.

88. B

Definition of anaemia (BCSH guidance)

- 1st trimester - haemoglobin (Hb) less than 11.0 g/l
- 2nd/ 3rd trimester - Hb less than 10.5 g/l
- Postpartum - Hb less than 10.0 g/l

A trial of oral iron should be considered as the first step for normocytic or microcytic anaemia. Further tests should be undertaken if there is no demonstrable rise in Hb at 2 weeks and compliance has been checked.
Iron deficiency can be difficult to diagnose. The signs and symptoms are generally nonspecific. Serum ferritin is the most useful test for diagnosing iron deficiency but it is an acute phase reactant.

Anaemia not due to haematinic deficiency (example - hemoglobinopathies and bone marrow failure syndromes) should be managed by blood transfusions, where appropriate, in close conjunction with a haematologist.

Dietary advice - improvement of dietary iron intake and factors affecting absorption of dietary iron.
Rich sources of dietary iron are red meat, fish and poultry. Vitamin C enhances the absorption of non-haem iron whereas tea and coffee inhibit iron absorption.
Oral iron should be the preferred first-line treatment for iron deficiency. The oral dose of iron should be 100 - 200 mg of elemental iron daily. Oral iron can cause gastrointestinal upset and exacerbate symptoms of pregnancy such as constipation, heartburn, nausea and vomiting. Advice regarding these symptoms, including blackening of stools, should be given.

Indications for parenteral iron

- Oral iron is not tolerated or absorbed
- Patient compliance is in doubt
- Woman is approaching term and there is insufficient time for oral supplementation to be effective.

89. A

Painful bleeding, tender abdomen, engaged head, fetal distress points towards the placental abruption. Associated high blood pressure and reduced SFH (?FGR) favour the diagnosis.
Uterine rupture also can have abdominal pain and vaginal bleeding, but tenderness over fundal area and engaged head make it less likely. In uterine rupture, uterus become contracted and previously engaged head become unengaged. Also rupture is not typically associated with PIH or FGR.

90. A

In any case of obstetric haemorrhage (as in other obstetric emergencies), stabilising mother should be the priority

1. Call for help
2. Apply the rule of ABC
3. Oxygen via mask
4. IV cannula (Two 14G wide bore)

Start Normal saline or Hartmann's solution

Blood transfusion if bleeding is heavy, maternal compromise or heavy bleeding is anticipated.

It should be cross matched blood. But in case of an extreme emergency, O negative or group specific blood can be considered. In this case she is tachycardic but there are no other features of maternal compromise. There is no urgency to transfuse uncross matched blood. During IV cannulation blood should be sent for investigations – FBC, grouping and cross match, renal functions, liver functions and coagulation profile.

5. Further management will depend on maternal or fetal condition.

91. A

Grand multi, soft uterus palpable above umbilicus points toward an atonic uterus. Following oxytocin and ergometrine, misoprostol is the most common drug used to make the uterus to contract.

Tranexamic acid can be used in this condition but it's an antifibrinolytic that competitively inhibits the activation of plasminogen to plasmin which will not correct the atony.

PGE2 is used for the induction of labor.

FFP and cryoprecipitate may be necessary later to prevent a DIC. These may be used early if the bleeding is due to a coagulation problem.

Activated factor VII can be used in responding bleeding after correcting platelets and clotting factors at a later stage. It will also not correct the atony.

Other drug that can be used to correct the atony is PGEF2 alpha (carboprost)

92. A

93. A

She needs an intravenous antiemetic, but intravenous rehydration is most important.

Normal saline or Hartmann‘s solution is recommended.

Dextrose should be avoided until thiamine deficiency is corrected.

94. A

Pharmacological management of nausea and vomiting or HG in pregnancy

First line

Cyclizine 50 mg PO, IM or IV 8 hourly

Prochlorperazine 5–10 mg 6–8 hourly PO; 12.5 mg 8 hourly IM/IV; 25 mg PR daily

Promethazine 12.5–25 mg 4–8 hourly PO, IM, IV or PR

Chlorpromazine 10–25 mg 4–6 hourly PO, IV or IM; or 50–100 mg 6–8 hourly

Second line

Metoclopramide 5–10 mg 8 hourly PO, IV or IM (maximum 5 days duration)

Domperidone 10 mg 8 hourly PO; 30–60 mg 8 hourly PR

Ondansetron 4–8 mg 6–8 hourly PO; 8 mg over 15 minutes 12 hourly IV

Third line

Corticosteroids: hydrocortisone 100 mg twice daily IV and once clinical improvement occurs, convert to prednisolone 40–50 mg daily PO, with the dose gradually tapered until the lowest maintenance dose that controls the symptoms is reached.

95. A

In this condition, immediate ultrasound should be done to exclude or diagnose the inutero fetal death.

CTG is not possible as the land mark of the fetal heart is not identified

Fetal ECG is only possible after the rupture of membranes.

Biophysical profile may be needed later to assess the fetal wellbeing, but before that fetal viability should be confirmed.

96. A

97. A

She is most likely to have DVT

Pregnancy increases the risk of DVT significantly due to elevated estrogen levels. Estrogen is the reason for risk of DVT in OCP and HRT users.

A woman who developed DVT while using OCP is at a greater risk of developing DVT during pregnancy. DVT can be effectively prevented by low molecular weight heparin (enoxeparin) which is not teratogenic as it does not cross the placenta. DVT during pregnancy is not a contraindication for future pregnancy. All women admitted to hospital with hyperemesis gravidarum and ovarian hyper stimulation should be given enoxeparin prophylaxis.

Risk factors for venous thromboembolism in pregnancy and the puerperium

Pre-existing

- Previous VTE
- Thrombophilia
- Medical co-morbidities
  e.g. cancer, heart failure, active SLE, inflammatory polyarthropathy or IBD, nephrotic syndrome, type I diabetes mellitus with nephropathy, sickle cell disease, current intravenous drug user
- Age > 35 years

- Obesity (BMI e” 30 kg/m2) either pre-pregnancy or in early pregnancy
- Parity e” 3 (a woman becomes para 3 after her 3rd delivery)
- Smoking
- Gross varicose veins (symptomatic or above knee or with associated phlebitis, oedema/ skin changes)
- Paraplegia

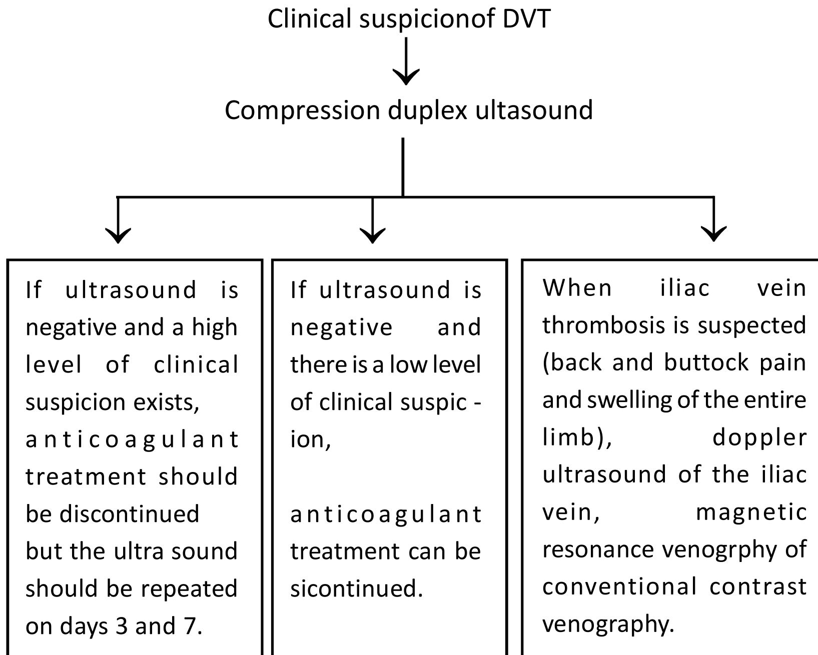
Obstetric risk factors

- Multiple pregnancy
- Current pre-eclampsia
- Caesarean section
- Prolonged labour (> 24 hours)
- Mid-cavity or rotational operative delivery
- Stillbirth
- Preterm birth
- Postpartum haemorrhage (> 1 litre/ requiring transfusion)

New onset/ transient

- Any surgical procedure in pregnancy or puerperium except immediate repair of the perineum; eg. appendicectomy, postpartum sterilisation, bone fracture
- Hyperemesis, dehydration
- Ovarian hyper stimulation syndrome (first trimester only) - assisted reproductive technology (ART), in vitro fertilisation (IVF)
- Admission or immobility (> 3 days bed rest) e.g. pelvic girdle pain restricting mobility
- Current systemic infection (requiring intravenous antibiotics or admission to hospital)
  e.g. pneumonia, pyelonephritis, postpartum wound infection, long-distance travel (> 4 hours)

In clinically suspected DVT or PE, treatment with low-molecular-weight heparin (LMWH) should be commenced immediately until the diagnosis is excluded by objective testing.
Treatment should be continued for 6 weeks post-partum.



98. C

Risk factors for uterine inversion

- Mismanagement of third stage – e.g. premature or excessive cord traction during active management (commonly occur with a less experienced person)
- abnormally adherent placenta
- short umbilical cord
- sudden emptying of a distended uterus
- nulliparity
- fundal placement of the placenta

<u>Signs of uterine inversion</u>

- severe abdominal pain
- Postpartum hemorrhage
- Shock – shock may occur without bleeding due to nerve stretch (neurogenic shock)

Management

Maternal resuscitation while attempting uterine replacement should be initiated simultaneously. Delay in management may cause manual replacement difficult.

If the placenta is still in situ, leave it in place until uterine replacement is completed.
Attempt manual replacement of the uterus by re-inverting it and keeping the hand in the uterus until firm contraction of the uterus is felt.

Withhold oxytocics until uterine replacement is complete.
Commence an oxytocic infusion if the uterus is successfully replaced

If manual replacement fails,
Hydrostatic reduction (O' Sullivan's Technique) - Infuse warmed fluid under gravity into the vagina. Several litres of fluid may be required. Silastic ventouse may be used to seal the vagina.

<u>Surgical management</u>

Laparotomy with open reduction of the uterine inversion may be rarely necessary if the previous methods are unsuccessful.

99. D

Women with regular monthly menstrual cycles are likely to be ovulating.
Blood tests to measure serum progesterone in the mid-luteal phase (day 21 of a 28-day cycle) should be done to confirm ovulation even if they have regular menstrual cycles in subfertile women. Depending upon the timing of menstrual periods, this test may need to be conducted later in the cycle (for example day 28 of a 35-day cycle).
The use of basal body temperature does not reliably predict ovulation.