

1. Which is not a test for ovulation?

a) Fern test

b) Basal body temperature

c) Hysteroscopy

d) LH surge

Correct Answer - C

Hysteroscopy REF: 12th edition of Novak's Gynecology p. 408

METHODS TO DOCUMENT OVULATION:

- Luteinizing Hormone Monitoring Documentation of the LH surge represents a remarkably reproducible method of predicting ovulation. Ovulation occurs 34 to 36 hours after the onset of the LH surge and about 10 to 12 hours after the LH peak
- Basal Body Temperature The least expensive method of confirming ovulation is for the patient to record her temperature each morning on a basal body temperature (BBT) chart.
- Midluteal Serum Progesterone
- Ultrasound Monitoring Ovulation can also be documented by monitoring the development of a dominant follicle by ultrasound until ovulation takes place
- A ferning pattern is seen when periovulatory cervical mucus is spread and dried on a microscope slide.

2. Minimum hCG level that a urine pregnancy test can detect is?

a) 5 m IU/ ml

b) 10-20 m IU/ ml

c) 20-30 m IU/ ml

d) 35 m IU/ ml

Correct Answer - A

5 m IU/ ml REF: Danforth's Obstetrics and Gynecology, 10th Edition page 4, Current OB/GYN > Chapter 9. Normal Pregnancy & Prenatal Care > Normal Pregnancy >

URINE PREGNANCY TEST:

Sensitive, early pregnancy test measure changes in levels of hCG. There is less cross-reaction with luteinizing hormone (LH), follicle stimulating hormone (FSH), and thyrotropin, which all share common a subunit with hCG, when the β subunit of hCG is measured. hCG is produced by the syncytiotrophoblast 8 days after fertilization and may be detected in the maternal serum after implantation occurs, 8-11 days after conception. hCG levels peak at approximately 10-12 weeks of gestation. Levels gradually decrease in the second and third trimesters and increase slightly after 34 weeks. The half-life of hCG is 1.5 days. After termination of pregnancy levels drop exponentially. Normally, serum and urine hCG levels return to nonpregnant values (< 5 m U/mL) 21-24 days after delivery.

- hCG is measured in milli-international units per milliliter (m IU/ml)
- The detection of greater than 35 m IU of human chorionic gonadotropin (hCG) in the first morning void has a very high specificity for pregnancy

/3 Hcg in m IU/ml	Result
Under 5 m IU/ml	Negative- Not pregnant
Between 5-25 m IU/ml:	"Equivocal"- Maybe pregnant may not be- Repeat test
Over 25 m IU/ml	Positive- Pregnant

3. The shortest diameter of fetal head is :

a) Biparietal diameter

b) Suboccipito frontal diameter

c) Occipito frontal diameter

d) Bitemoral diameter

Correct Answer - D

Ans. **is d i.e.** Bitemporal diameter

Remember friends : *Transverse diameters of the fetal skull are smaller than Antero posterior diameters* Amongst the given options : Biparietal and Bitemporal diameters are transverse diameters, whereas suboccipito frontal and occipito frontal are anteroposterior diameters.

Now, the choice is between bitemporal and biparietal diameters.

For memorizing this : learn a mnemonic '*Miss Tina so pretty*', where transverse diameter are arranged in ascending order of their size.

Miss	Bimastoid diameter	= 7.5 cms.
Tina	Bi temporal diameter	= 8 cms.
So	Super subparietal diameter	= 8.5 cms.
Pretty	Bi parietal diameter	= 9.5 cms.

So, our answer is bitemporal diameter (8 cms.)

Remember

Extra Edge :

Anteroposterior diameters of fetal skull

- *The longest diameter of fetal skull is mento vertical diameter (14 cms).*
- Longest diameter of pelvis — Transverse diameter of inlet and antero posterior diameter of

anatomic outlet.°

- Shortest diameter of pelvis diameter of outlet°
- Longest diameter of inlet
- Shortest diameter of inlet
- Longest AP diameter of inlet
- Shortest AP diameter of inlet
- Only AP diameter measured clinically

Diameters

Suboccipito-bregmatic - 9.5cm (3 3/4") extends from the nape of the neck to the centre of the bregma

Suboccipito-frontal - 10cm (4") extends from the nape of the neck to the anterior end of the anterior fontanelle or centre of the sinciput

Occipito-frontal - 11.5cm (4 1/2") extends from the occipital eminence to the root of the nose (Glabella).

Mento-vertical - 14cm (5 1/2") extends from the mid point of the chin to the highest point on the sagittal suture.

Submento-vertical - 11.5cm (4 1/2") extends from junction of floor of the mouth and neck to the highest point on the sagittal suture.

Submento-bregmatic - 9.5 cm (3 3/4") extends from junction of floor of the mouth and neck to the centre of the bregma.

- Posterior sagittal
- Transverse diameter°
- Sacrocoityloid°
- Diagonal conjugate°
- Obstetric conjugate°
- Diagonal conjugate°

Attitude of the head Presentation

Complete flexion
Vertex

Incomplete flexion

Vertex
Marked deflexion

Vertex
Partial extension
Brow

Incomplete extension

Face
Complete extension

Face

4. By which day after fertilization, is placental circulation established :

a) 11th day

b) 13th day

c) 15th day

d) 17th day

Correct Answer - D

17th day

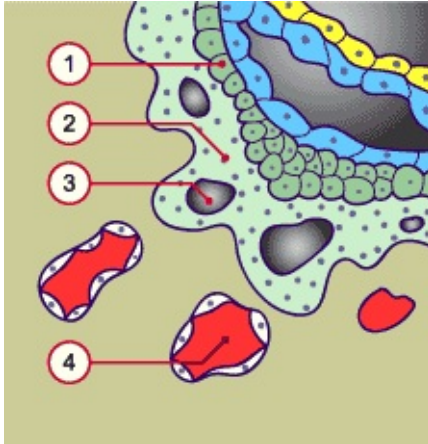
Development of the placental villi:

While the embryo is nourished in the first weeks through simple diffusion, later, due to its rapid growth, it needs a more powerful gas and nutrient exchange system.

This is made possible by the development of the utero-placental circulation system in which the circulation systems of the mother and of the embryo get closer together, thus allowing an exchange of gases and metabolites via diffusion.

Through the lytic activity of the syncytiotrophoblast the maternal capillaries are eroded and anastomose with the trophoblast lacunae, forming the sinusoids.

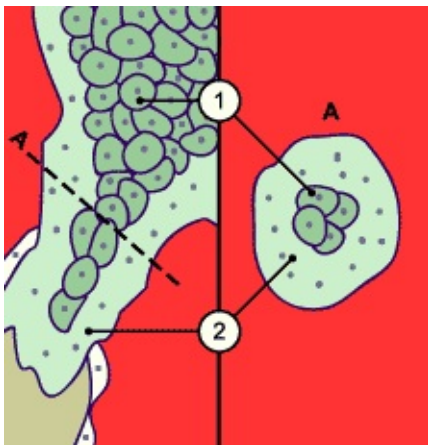
At the end of the pregnancy the lacunae communicate with each other and form a single, connected system that is delimited by the syncytiotrophoblast and is termed the **intervillous space**.



1. Cytotrophoblast
2. Syncytiotrophoblast
3. Spaces between syncytiotrophoblast (Lacunae)
4. Maternal vessel

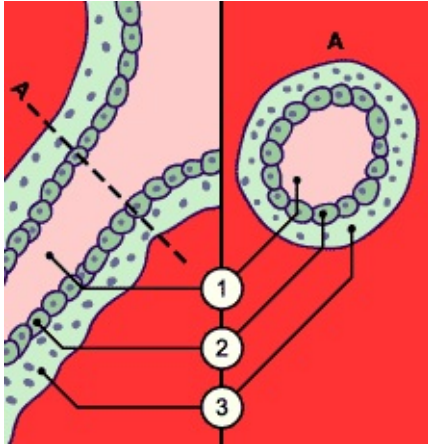
Maternal vessel, eroded by the ST, which form the maternal sinusoids through communication with the lacunae.

Between the 11th and 13th day cytotrophoblast cells penetrate into the cords of the syncytiotrophoblast creating the primary trophoblast villi



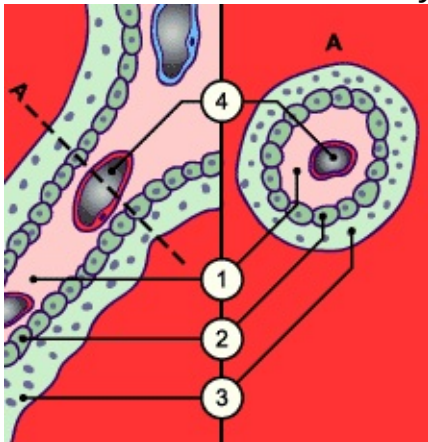
1. Cytotrophoblast
2. Syncytiotrophoblast

After the 16th day the extra-embryonic mesoblast also grows into this primary trophoblast villus, which is now called a secondary villus and expands into the lacunae that are filled with maternal blood. As was already mentioned, the ST forms the outermost layer of every villus.



1. Extra-embryonic mesoblast
- 2 Cytotrophoblast
- 3 Syncytiotrophoblast

At the end of the 3rd week the villus mesoblast differentiates into connective tissue and blood vessels. They connect up with the embryonic blood vessels. Villi that contain differentiated blood vessels are called tertiary villi



- 1 Extra-embryonic mesoblast
- 2 Cytotrophoblast
- 3 Syncytiotrophoblast
- 4 Fetal capillaries

5. The shortest diameter of fetal skull is :

a) Sub occipito frontal

b) Sub mentobregmatic

c) Mento vertical

d) Submentovertical

Correct Answer - B
Sub mentobregmatic

6. Hormone responsible for decidual reaction and Arias stella reaction in ectopic pregnancy is :

a) Oestrogen

b) Progesterone

c) HCG

d) HPL

Correct Answer - B

Ans. is b i.e. Progesterone

- A single progesterone measurement can be used to establish that there is a normally developing pregnancy with high reliability.
- *A value exceeding 25 ng/mL excludes ectopic pregnancy with 92.5% sensitivity.*

Arias stella reaction

- Arias stella reaction is characterized by adenomatous change of the endometrial glands.
 - Cells lose their polarity, have hyperchromatic **nucleus, vacuolated cytoplasm** and occasional mitosis.
 - The reaction is seen in ectopic pregnancy (in 10-15% cases) and indicates blighting of conceptus be it intrauterine or extrauterine. **(therefore it is not specific for ectopic pregnancy)**
 - It occurs under the influence of progesterone.°
- Decidual reaction
- Under the hormonal effect of ectopic pregnancy (i.e. oestrogen, progesterone and chorionic gonadotrophin) the endometrium hypertrophies and is converted to decidua similar to normal uterine pregnancy.

- **The decidua has all the characteristics of intrauterine pregnancy except it does not have chorionic villi.**°
- The decidual reaction occurs under the influence of estrogen, progesterone and HCG.°
So, hormone which is common to both Arias stella reaction and decidual reaction is progesterone which is our answer of choice.

7. During pregnancy the maternal blood volume increases by nearly :

a) 5 – 10%

b) 15 — 20%

c) 50%

d) 70%

Correct Answer - C

Ans. is c i.e. 50%

Friends, we have dealt with hemodynamic changes during pregnancy in detail earlier but here lets quickly revise a few changes asked quite often.

Most important physiological changes during pregnancy (for 11th hour revision)

- Net weight gain in pregnancy is 11 kg (24 lb).°
- Blood volume T's by 40-50%.°
- Blood volume reaches maximum at 30-32 weeks.°
- Plasma volume T's by 50%.°
- RBC volume T's by 20-30%.°
- TLC is increased, specifically Neutrophilic leucocytosis occurs.°
- Total plasma proteins increase.°
- Plasma protein concentration decreases.°
- Albumin level decreases, globulin levels (specially IgA) slightly increase.°
- Fibrinogen levels increase by 50%.°
- ESR is increased.°
- All clotting factors except XI and XIII increase.°
- Platelet count decreases (Gestational Thrombocytopenia).°
- Cardiac output (stroke volume) increases to 40-50% by 30-34

weeks.°

- Peripheral vascular resistance decrease.°
- Diastolic BP decreases.°
- Uterine blood flow increases near term.°
- Plasma insulin levels increase.°
- S. Prolactin levels increase.°
- Vital capacity and respiratory rate remain constant.°
- Renal plasma flow and GFR increase.°
- All LFT'S remain unchanged, with exception of alkaline phosphatase which increases (specially heat stable alkaline phosphatase produced by placenta).°

8. Minimum number of antenatal visits :

a) 3

b) 1

c) 5

d) 6

Correct Answer - A

3

9. Quickening can be felt at weeks :

a) 14 weeks

b) 15 weeks

c) 16 weeks

d) 19 weeks

Correct Answer - C
16 weeks

10. What is not included in active management of third stage of labour:

a) Early cord clamping

b) Uterine massage

c) Use of oxytocin

d) Controlled cord traction

Correct Answer - A

Ans: A. Early cord clamping

Stage	Starts/ Ends	Duration		Abnormalities
		Primi- parous	Multip- arous	
3rd	Delivery of infant to delivery of placenta.	0-0.5 hour	0-0.5 hour	Prolonged third stage: <ul style="list-style-type: none"> • Failure to deliver placenta within 30 minutes Cause: Consider placenta percreta/accreta/increta Management: <ul style="list-style-type: none"> • IV oxytocin • If oxytocin fails, attempt manual removal • Hysterectomy may be needed



11. Labour is termed as precipitate if it occurs under:

a) 1 hour

b) 2 hours

c) 1/2 hours

d) 4 hours

Correct Answer - B
2 hours

12. The most common site of puerperal infection is :

a) Episiotomy wound

b) Placental site

c) Vaginal laceration

d) Cervical laceration

Correct Answer - B
Placental site

13. Cervical incompetence is characterised by

:

a) Cerclage operation done

b) 2nd trimester abortion

c) Premature rupture of membrane

d) All

Correct Answer - D

Ans. is a, b and c i.e. 2nd trimester abortion; Premature rupture of membrane; and Cerclage operation done

Causes of cervical incompetence

Congenital: Uterine anomalies

Acquired: Following D and C operation; Induced abortion by D and E operation; Vaginal operative delivery through an undilated cervix; amputation of the cervix or cone biopsy.

Other: Multiple gestations or prior preterm birth.

14. In cervical incompetence, encirclement operations done are

a) Mc Donald operation

b) Shirodkar operation
Purandare's operation

c) Khanna's sling operation

d) a and b

Correct Answer - D

Ans. is a and b i.e. Mc Donald operation and Shirodkar operation

Friends, Cervical incompetence is an important topic. Many questions have been asked on it time and again. So I am giving all its details.

Cervical incompetence

Cervical incompetence is characterised by *intrauterine* (cervical dilatation in the second or early third trimester) with ballooning of the amniotic sac into the vagina, followed by rupture of membranes and expulsion of a usually live fetus. The usual timing is 16 to 24 weeks.

Aetiology :

- *Congenital ?*
 - Developmental weakness of cervix.
 - Associated with uterine anomalies like septate uterus.
 - Following in utero exposure to diethyl stilbestrol.
- *Acquired due to previous cervical trauma ?*

Forcible dilatation during MTP and D & C.

 - Conisation of cervix.
 - Cauterisation of cervix.

Amputation of cervix or Fothergill's operation.
- *Diagnosis :*
 - History: The typical history of painless rupture of membranes

followed by the quick delivery of a live fetus in midtrimester is very suggestive.°

- Non pregnant state: The internal os allows the passage of a No. 8 Hegar's cervical dilator or Foley's catheter filled with 1 ml water without resistance.°
- Premenstrual Hystercervicography will show the typical funneling of the internal os°.
- In Pregnancy:
 - Transvaginal ultrasound is the ideal method to follow up and detect early incompetence.
 - The normal cervical length at 14 weeks is 35 - 40 mm and the internal os diameter is less than 20 mm. A cervical length less than 30 mm and an internal os diameter more than 20 mm is suggestive of cervical incompetence.
 - Funneling of the os.°

Note: Funneling is the ultrasound finding of herniation of the fetal membranes into the upper part of the endocervical canal.

Management : *The treatment is surgical by a cervical cerclage.*

Time of operation : Cervical cerclage is usually delayed up to 12 - 14 weeks so that miscarriage due to other causes can be eliminated or it should be done atleast 2 weeks earlier than the lowest period of earlier wastage (but never earlier than 10 weeks).

Sonography should be done prior to cerclage to confirm a live fetus and to rule out anomalies.

Procedures

Mc Donald's operation Shirodkar's operation

- It has good success rate & less blood loss.
- The most commonly performed procedure now-a-days.
- The Shirodkar operation is technically more involved & takes longer to perform.

Abdominal cerclage : Indications of transabdominal cerclage:

Women with incompetent cervix due to severe trauma to cervix such as deep laceration. extensive conization or repeated LEP for treatment of Ca in situ.

- H/O repetitive 2nd trimester loss and failed vaginal cerclages.
It is also indicated in women with 2nd trimester losses and anatomic

It is also indicated in women with 2nd trimester losses and anatomic impossibility to place a vaginal cerclage.

Removal of Stitch : The Stitch should be removed at 37 — 38 week or earlier if labour pain starts or features of abortion appear.

Contraindications

- Intra uterine infection
- Ruptured membranes
- H/o vaginal bleeding
- Severe uterine irritability
- Cervical dilatation > 4 cms

Complications

- Chorloamnionitis Rupture of membranes
- Preterm labour
- Necrosis of cervix

Rupture uterus

15. Blighted ovum is :

a) Synaptic knobs

b) Avascular villi

c) Intervillous hemorrhage

d) None

Correct Answer - B

Ans. is b i.e. Avascular villi

According to the clinical and echographic findings, it is possible to separate early pregnancy losses into two groups :

blighted ova : Those early pregnancy losses in which foetal development is not observed with ultrasound (so **that** only a gestational sac is present with or without a yolk sac) and fetal tissue is absent on histologic examination of the products of conception.

- *Early Fetal demise* Those early pregnancy losses in which fetal development is clearly observed by ultrasound and fetal tissue is found on the histologic examination.

The difference between these two types of abortion is of fundamental importance. The lack of development of fetal structures defines a subset of abortions of genetic origin.

In contrast, the early interruption of fetal life is a complex phenomenon with multiple etiologies. Therefore, the patients with blighted ova do not require extensive work up, whereas patients who have aborted cytogenetically normal fetuses need an extensive search for non genetic factors responsible for the pregnancy loss.

16. The commonest chromosomal abnormality in early spontaneous abortions is :

a) Monosomy

b) Autosomal trisomy

c) Triploidy

d) Tetraploidy

Correct Answer - B
Autosomal trisomy

17. McDonald stitch is applied in the following conditions except :

a) Incompetent os

b) Septate uterus

c) Placenta previa

d) Bad obstetrical history

Correct Answer - C
Placenta previa

18. Suction evacuation can be done up to:

a) 6 weeks

b) 10 weeks

c) 16 weeks

d) 18 weeks

Correct Answer - B
Ans. is b i.e. 10 weeks

19. Following is used in 1st trimester MTP :

a) Mifepristone

b) Laminaria tent

c) Mifepristone & misoprostol

d) b and c

Correct Answer - D
b and c both

20. Recurrent abortion seen in all except:

a) Syphilis

b) TORCH

c) Rh incompatibility

d) Chromosomal abnormality

Correct Answer - B
TORCH

- Recurrent miscarriage, habitual abortion, or recurrent pregnancy loss (RPL) is three or more consecutive pregnancy losses at less than (or equal to) 20 weeks of gestation or with a fetal weight of <500 grams.
- It affects approximately 1% to 2% of women

21. What is the treatment of choice of unruptured tubal pregnancy with serum b-hCG titre 2000 IU/ml:

a) Single dose of methotrexate

b) Variable dose of methotrexate

c) Expectant management

d) Laparoscopic salpingostomy

Correct Answer - A

Ans. is a i.e Single dose of methotrexate

The lady in the question is presenting with unruptured ectopic pregnancy with BhCG levels - 2000 IU/L. So there is no doubt we can manage the patient medically (i.e. option d - ruled out)

Expectant management as explained earlier is not better than medical management as it carries the risk of rupture of ectopic pregnancy (i.e. option C ruled out) and also it is done when hCG levels are < 1000 IU/L

Now - The question arises whether we should give single dose MTx or multidose methotrexate treatment. In the trials which have been conducted - No difference was found in treatment duration, hCG levels and side effects in single dose vs multidose methotrexate therapy.

Single dose therapy is more commonly used because of simplicity. It is less expensive, requires less invasive post therapy monitoring and does not require leucovorin supplementation.

One trial has shown that multidose therapy has greater chance of success than single dose but this is not supported by any other trial so, single dose methotrexate is being used commonly. (So, it is our option of choice)

option of surgery

Also know :

Single dose Medical treatment protocol for ectopic pregnancy.

Day 0 / Day 1 = Measure serum r3hCG, TLC, DLC, Liver Function Test and Renal Function Test

Day 2 = Single dose Methotrexate 50 mg/m² IM given

Day 4 = S. VillCG and counts repeated

Day 7 = S. 13hCG and counts repeated

Now if the decline in serum jhCG on Day 7 from day 4 is?15%/Fetal cardiac activity present

Repeat methotrexate dose and begin new Day 1

Surgical treatment is indicated if rihCG levels not decreasing or fetal cardiac activity persists

after three doses of methotrexate

22. True about complete hydatidiform mole is

:

a) Chromosome pattern is XX

b) Associated with preeclampsia

c) Enlarged ovarian cyst occurs

d) All

Correct Answer - D

Ans. is a, b and c i.e. Chromosome pattern is XX; Enlarged ovarian cyst occurs; and Associated with preeclampsia

- The incidence of H. mole is maximum in oriental and south east countries (maximum incidence is in Philippines: 1 in 80 pregnancies) Le., it is more common in developing countries *option 'a' ruled out*.
- **H, mole can be categorized as either complete or partial mole on the basis of Gross morphology, histopathology and karyotype.**
- Complete H. mole - *shows no evidence (If fetal tissue at all,*
- Complete hydatiform moles exhibit characteristic swelling and trophoblastic hyperplasia. *Most common karyotype is 46XX (10% may have a 46XY karyotype).*
- The molar chromosomes are *entirely of paternal origin*, although mitochondrial DNA is of maternal origin.
- The complete moles arises from an ovum that has been fertilized by a haploid sperm, which then duplicates its own chromosomes called as *Androgenesis*. The ovum nucleus may be either absent or inactivated.

Clinical features;

Symptoms:

- *Amenorrhea* of varying duration followed by continuous or intermittent brown or bloody discharge (usually not profuse) evident by - 12 weeks.
 - *Passage of vesicles per vaginum*
 - *Hyperemesis* (due to the high levels of circulating HCG).
Signs:
 - *Uterus:*
 - The fundal height of uterus is more than the period of amenorrhea in 50% cases. In 35% it corresponds to the gestational period and in the rest it may be smaller.
 - Uterus is doughy in consistency (due to absence of amniotic fluid).
 - Fetal parts will not be felt.
 - Fetal heart sounds will not be heard (even on doppler).
 - External and internal ballottement can not be elicited.
 - *Theca lutein cysts :*
 - May be felt in the ovaries in about 25 to 60%.
 - *Due to overstimulation of the luteal elements by the large amounts of circulating HCG°*
 - Persistent trophoblastic disease is more likely in women with theca lutein cysts.
 - *Early onset preeclampsia*
 - When hypertension appears before 24 weeks, it is important to rule out hydatidiform mole.
 - Thyrotoxicosis seen due to the thyrotrophin-like effect of HOG.°
 - *Spontaneous expulsion occurs at around 18 weeks° and rarely delayed beyond 28 weeks.°*
- Characteristics of partial H. mole
- Some embryonic or fetal tissue identifiable.
 - *Partial moles generally have a triploid karyotype (69 chromosomes); the extra haploid set of chromosomes usually is derived from the father*
 - Chorionic villi of varying size with focal hydatidiform swelling, cavitation, and trophoblastic hyperplasia whereas complete mole shows diffuse hydatidiform swelling and trophoblastic hyperplasia.
 - Marked villous scalloping.
 - Prominent stromal trophoblastic inclusions.

- When a fetus is present in conjunction with a partial mole, it generally exhibits the stigmata of triploidy, including growth retardation and multiple congenital malformations such as syndactyly and hydrocephaly.

23. Prognosis of Gestational Trophoblastic Disease depends on all, except :

a) Number of living children

b) Blood group

c) Parity

d) Previous HCG titre

Correct Answer - A

Ans. is a i.e. Number of living children

Gestational Trophoblastic Disease :

i) Low Risk (Good Prognosis) :

- Disease is present < 4 months duration
- Initial serum hCG level < 40,000 mIU/ml
- Metastasis limited to lung and vagina
- No prior chemotherapy
- No preceding term delivery

ii) High Risk (Poor Prognosis) :

- Long duration of disease (> 4 months)
- Initial serum hCG level > 40,000 mIU/ml
- Brain or liver metastasis
- Failure of prior chemotherapy
- Following term pregnancy
- WHO score > 8

24. Most reliable diagnosis of hydatidiform mole is by:

a) HCG estimation

b) Amniography

c) Ultrasound

d) Absence of FHS

Correct Answer - C
Ultrasound

25. Which among the following is the smallest diameter of true pelvis?

a) Interspinous diameter

b) Diagonal conjugate

c) True conjugate

d) Intertuberous diameter

Correct Answer - A

Interspinous or bispinous diameter is the distance between the tip of the two ischial spines. It measures 10.5 cm.

Diagonal conjugate is the distance between the lower border of symphysis pubis to the midpoint on the sacral promontory. It measures 12 cm.

True conjugate or **anatomical conjugate** or **conjugate vera** is the distance between the midpoint of the sacral promontory to the inner margin of the upper border of symphysis pubis. It measures 11 cm.

Intertuberous diameter is the distance between the inner borders of ischial tuberosities. It measures 11 cm.

Ref: Textbook of Obstetrics by D C Dutta, 6th edition, Page 91.

26. What is the total iron requirement during pregnancy ?

a) 500 mg

b) 750 mg

c) 1000 mg

d) 1500 mg

Correct Answer - C

Total iron requirement during pregnancy is 1000 mg, this requirement is mostly limited to last 12 weeks.

Physiological changes in iron metabolism during pregnancy

In the second half of pregnancy the daily iron requirement is 6 - 7 gm.

Serum iron concentration decreases

Serum ferritin decreases

Serum total iron binding capacity increases

Percentage saturation (serum ferritin/ serum TIBC) decreases

Serum transferrin increases

27. Which of the following is NOT true about amniotic fluid index (AFI)?

a) It is calculated by adding the vertical depths of the largest pocket in each of four equal uterine quadrants

b) Fluid restriction may lower the AFI

c) Significant hydramnios is defined by an index greater than 24 cm

d) There is steady increase in AFI after 36 weeks

Correct Answer - D

Amniotic fluid index (AFI) is calculated by adding the vertical depths of the largest pocket in each of four equal uterine quadrants.

Significant hydramnios is defined by an index greater than 24 cm. Fluid restriction or dehydration may lower the AFI.

Peak AFI is seen at approximately 32 weeks followed by a steady decline until 42 weeks.

Ref: Cunningham F.G., Leveno K.J., Bloom S.L., Hauth J.C., Rouse D.J., Spong C.Y. (2010). Chapter 21. Disorders of Amnionic Fluid Volume. In F.G. Cunningham, K.J. Leveno, S.L. Bloom, J.C. Hauth, D.J. Rouse, C.Y. Spong (Eds), *Williams Obstetrics*, 23e.

28. Misoprostol has been found to be effective in all of the following except:

a) Missed abortion

b) Induction of labour

c) Menorrhagia

d) Prevention of post-partum hemorrhage (PPH)

Correct Answer - C

Treatment of Menorrhagia involves administration of prostaglandin inhibitors. Misoprostol (PGE1) is a prostaglandin and is therefore certainly not indicated for treatment of metrorrhagia.

Ref: Textbook of Gynecology By D C Dutta, 6th Edition, Page 505

29. The following drugs/methods are used for cervical ripening, except?

a) Oxytocin

b) PGE

c) Stripping of membrane

d) Ergometrine

Correct Answer - D

Prostaglandins, oxytocin, and stripping of membranes are usually done for cervical ripening. Other methods are Foley bulb catheter, early amniotomy, and late amniotomy. Ergometrine is used in promoting of contraction and involution of uterus after delivery.

30. A hypertensive primigravida developed Sheehan's syndrome after the delivery. All of the following are seen with Sheehan's syndrome, EXCEPT:

a) Obesity

b) Amenorrhoea

c) Failure to lactate

d) Absence of secondary sexual characteristics

Correct Answer - A

Severe intrapartum or early postpartum hemorrhage and associated hypotension is followed by **pituitary failure** or **Sheehan syndrome**.

It refers to panhypopituitarism.

Abrupt, severe hypotension leads to pituitary ischemia and necrosis.

It is characterized by failure of lactation, amenorrhea, breast atrophy, loss of pubic and axillary hair, hypothyroidism, and adrenal cortical insufficiency.

Also know:

The pituitary cell types are differentially sensitive to damage. For this reason, prolactin secretion deficiency is the most common, followed by loss of gonadotropin and growth hormone release, loss of ACTH production, and least commonly, by decreases in thyroid-stimulating hormone (TSH) secretion.

Ref: Leveno K.J., Hauth J.C., Rouse D.J., Spong C.Y. (2010). Chapter 35. Obstetrical Hemorrhage. In K.J. Leveno, J.C. Hauth, D.J. Rouse, C.Y. Spong (Eds), *Williams Obstetrics*, 23e.

31. Undiagnosed or undetected ectopic pregnancy is a common cause of maternal death during the first trimester. Most valuable diagnostic test in a case of suspected ectopic pregnancy is:

a) Serial (3-hCG levels)

b) Transvaginal USG

c) Progesterone measurement

d) Culdocentesis

Correct Answer - B

Transvaginal ultrasonography (TVUS) has the advantage of earlier and better localization of the pregnancy, with less pelvic discomfort because the bladder is not painfully distended.

The double-ring sign and the yolk sac must be identified to ensure that the pregnancy is intrauterine.

When an intrauterine pregnancy is not visualized on TVUS and the hCG level exceeds 1000–2000 mIU/mL, suspicion for an ectopic pregnancy should be high.

Ref: Hill M.J., DeCherney A.H. (2013). Chapter 36. Imaging in Gynecology. In A.H. DeCherney, L. Nathan, N. Laufer, A.S. Roman (Eds), CURRENT Diagnosis & Treatment: Obstetrics & Gynecology, 11e.

32.

In which part of fallopian tube ectopic pregnancy will have longest survival?

a) Isthmus

b) Ampulla

c) Cornua

d) Interstitium

Correct Answer - D

If the implantation occurs in the antimesenteric border in the ampulla, the pregnancy may continue a little longer time.

Earliest interruption occurs in the isthmal implantation and pregnancy may continue upto 3-4 months in interstitial implantation.

Also know:

- Isthmic rupture usually occurs at 6-8 weeks, the ampullary one at 8-12 weeks and the interstitial one at about 4 months.

Ref: Textbook of Obstetrics by DC Dutta, 6th edition, Page 181.

33. Which of the following statements about partial mole is false?

a) Usually associated with Triploidy

b) Rarely causes Persistent Gestational Trophoblastic Neoplasia

c) Usually present as Missed Abortions

d) Can be reliably diagnosed by USG in early gestation

Correct Answer - D

Partial mole cannot be diagnosed by ultrasonography at a very early gestational ages, before the chorionic villi have attained vesicular pattern.

Ref: Williams Gynaecology, 1st Edition, Page 758; Novak's Textbook of Gynecology, 14th Edition, Pages 1588, 1582; Obstetrics and Gynecology By Beckmann, 6th Edition, Page 360; Textbook of Obstetrics By DC Dutta, 6th Edition, Page 201.

34. Which of the following is the most sensitive or gold standard test for assessing HCG in maternal serum?

a) Radioimmune assay

b) ELISA

c) Latex test

d) Bioassay

Correct Answer - A

The radio-immune assay stands out to be the most sensitive test to measure the beta sub-unit of human chorionic gonadotropin in which a quantitative assessment of levels more than 5mIU/ml is read as positive.

Thus even very minute quantities of the hormone can be detected as following the implantation of the blastocyst.

The antibodies used in this assay is highly specific for the beta subunit of the hCG.

Other than pregnancy, radioimmuno assay is also used for follow-up of cases like hydatiform mole and choriocarcinoma.

Ref: Human Chorionic Gonadotropin (hCG) By Larry Cole, Laurence A. Cole, Stephen Butle, Page 13-15; Textbook of Obstetrics, D C Dutta 6th edition, Page 61; Mudaliar and Menon's Clinical Obstetrics 9th edition, Page 53-55

35. What is the treatment of choice in pregnant women with polyhydramnios and marked respiratory distress at 35 weeks of gestation?

a) Intravenous frusemide

b) Induction of labour

c) Amniocentesis

d) Artificial rupture of membranes

Correct Answer - C

In this clinical scenario amniocentesis is done to relieve the distress and to continue the pregnancy upto term.

Slow decompression is done at a rate of about 500ml per hour.

Normally 1-1.5litres of amniotic fluid is removed.

Because of slow decompression there is less chance of accidental hemorrhage, but fluid can reaccumulate soon.

So amniocentesis has to be repeated.

Ref: Textbook of Obstetrics By D.C.Dutta, 6th Edition, Pages 215-7

36. During an antenatal check up, USG of a 37 weeks pregnant grand primigravida shows amniotic fluid index of 4 cm.

Assertion: Sonographically, this is a case of oligohydramnios.

Reason: If it is a male fetus, posterior urethral valve could be present.

a) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion

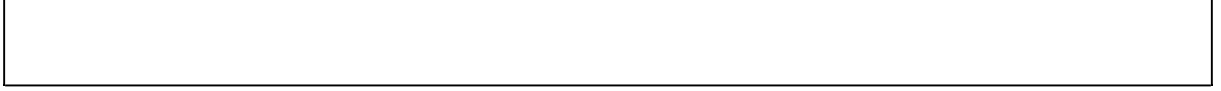
b) Both Assertion and Reason are true, and Reason is not the correct explanation for Assertion

c) Assertion is true, but Reason is false

d) Assertion is false, but Reason is true

Correct Answer - A

-
- Oligohydramnios is the condition where the liquor amnii is deficient in amount to the extent of less than 200 ml at term.
- Sonographically, oligohydramnios is defined when the maximum vertical pool of liquor is less than 2 cm or when amniotic fluid index (AFI) is less than 5 cm .
- LUTO(Lower urinary tract obstruction)on ultrasonography, in a male fetus is almost always due to posterior urethral valves.
- The classical evidence on ultrasonography of LUTO is the presence of severe oligohydramnios, a grossly distended urinary bladder with increase in bladder wall thickness. The so called “keyhole” sign can be demonstrated if the proximal urethra too is distended.
- MANAGEMENT:At 37 weeks, fetal lung usually attain maturity. As there is severe oligohydramnios, delivery of the baby is appropriate in the given situation.



37. Which of the following laboratory findings is known as 'biochemical marker of pre-eclampsia'?

a) Low platelets

b) Raised serum Na

c) Elevated liver enzymes

d) Serum uric acid

Correct Answer - D

*A serum uric acid level (**biochemical marker of pre-eclampsia**) of more than 4.5 mg/dl indicates the presence of pre-eclampsia.*

Blood urea level remains normal or slightly raised.

Serum creatinine level may be more than 1 mg/dl.

There may be thrombocytopenia and abnormal coagulation profile of varying degrees.

Hepatic enzyme levels will be increased.

Ref: Textbook of Obstetrics D C Dutta, 6th edition, Page 227.

- 38.** 28 year old Nebisa has attended the obstetrician for a routine anti-natal check up. It is confirmed that she has twins. She is now referred for an USG.

Assertion: Twin peak sign is an ultrasound feature of dichorionic diamniotic twin gestation

Reason: Space in the intertwin membrane filled by proliferating placental villi give rise to twin peak sign.

- a) Both Assertion and Reason are true, and Reason is the correct explanation for Assertion
- b) Both Assertion and Reason are true, and Reason is not the correct explanation for Assertion
- c) Assertion is true, but Reason is false
- d) Assertion is false, but Reason is true

Correct Answer - A

In dichorionic diamniotic twin gestation, the chorion and amnion of each twin reflect away from the fused placenta to form the intertwin membrane.

Number of intertwin membrane here are 4.

This space in the intertwin membrane is filled by proliferating placental villi give rise to **twin peak sign**.

Reference:

Textbook of Obstetrics By DC Dutta, 6th Edition, Page 206

39. Non Immune Hydrops Fetalis is caused by:

a) CMV

b) Parvovirus

c) HSV

d) HIV

Correct Answer - B

Non immune hydrops can be caused by a variety of causes. Among the infectious cause, parvovirus can lead to non immune hydrops.

Hydrops fetalis refers to excessive accumulation of fluid in at least two fetal body cavities. It can be of two types, immune and non immune.

Immune type result from hemolysis of fetal RBC by maternal IgG antibodies to fetal antigen. Non immune type, is the result of any non antibody mediated process that lead to hydrops.

Ref: Fetal Medicine : Basic Science and Clinical Practice, 2nd Edition, Page 522; Ian Donald's Practical Obstetric Problems, 6th Edition, Page 218; William's Obstetrics, 23rd Edition, Page 627; Moffet's Pediatric Infectious Diseases : A Problem Oriented Approach, 4th Edition, Pages 377, 643.

40. A pregnant woman presents with red degeneration of fibroid, Management is:

a) Myomectomy

b) Conservative Rx

c) Hysterectomy

d) Termination of pregnancy

Correct Answer - B

In a pregnant female with red degeneration of fibroid, management is essentially conservative treatment with analgesia and rest.

Ref: Textbook of Obstetrics By D.C.Dutta, 5th Edition, Page 1327 ;
Essentials of Obstetrics By Arulkumaran, 2004, Page 200

41. Treatment of choice for Intrahepatic Cholestasis in Pregnancy is:

a) Cholestyramine

b) Ursodiol (Ursodeoxycholic acid)

c) Corticosteroids (Dexamethasone)

d) Antihistaminics

Correct Answer - B

Ursodeoxycholic acid (10-15 mg/kg/day) is the drug of choice in the treatment of intrahepatic cholestasis in pregnancy.

It relieves pruritus, reduces bile salt levels in maternal serum and may reduce the frequency of fetal complications.

It improves serum liver test and liver histology in cholestatic disease.

Ref: Oxford Textbook of Medicine, 4th Edition, Pages 422 ; Textbook of Obstetrics By DC Dutta, 6th Edition, Page 291 ; Bile Acids and Pregnancy By U. Leuschner, P. A. Berg, J. Holtmeier, 2002, Page 36.

42. Which of the following is the best marker for intrahepatic cholestasis of pregnancy?

a) AST & ALT (Transaminases)

b) Bile Acids

c) Bilirubin

d) Alkaline Phosphatase

Correct Answer - B

The **rise in serum bile acids** in the third trimester is sufficient to confirm the clinical diagnosis of idiopathic intrahepatic cholestasis of pregnancy which is also accompanied by severe, intractable, generalized itching and sometimes clinical jaundice.

Ref: Schiff's Diseases of the Liver By Eugene R. Schiff, Willis C Maddrey, MD, Macp, Willis C. Maddrey, Michael F. Sorrell, Pages 274-276; Medical Disorders in Obstetric Practice By Michael De Swiet, 284 - 286.

43. Which of the following is the investigation of choice in cholestasis of pregnancy?

a) Serum bilirubin levels

b) Serum bile acids levels

c) Serum alkaline phosphatase levels

d) Serum glutathiones transferase levels

Correct Answer - B

In patients with cholestasis of pregnancy the levels of serum bile acids are elevated 30-100 times the upper limit of normal. Levels of AST, ALT and alkaline phosphatase are only mildly elevated.

Intrahepatic cholestasis of pregnancy:

The major risk factors for IHCP include multiparity, advanced maternal age, family history of IHCP, and pruritus while on oral contraceptive medicines.

Patients often presents in the third trimester of pregnancy with pruritus beginning centrally and spreading peripherally.

20% develop pruritus and jaundice. Ursodiol and cholestyramine are the first agents of choice in the treatment of pruritus.

Ref: Ukomadu C. (2012). Chapter 8. Hepatic Complications of Pregnancy. In N.J. Greenberger, R.S. Blumberg, R. Burakoff (Eds), *CURRENT Diagnosis & Treatment: Gastroenterology, Hepatology, & Endoscopy, 2e*

44. A 23 year old female with type I diabetes presented with 6 weeks of amenorrhea. Her urine pregnancy test turned to be positive. Her sugar levels are not in control. The child may have all of the following abnormalities, EXCEPT:

a) Chromosomal abnormalities

b) Caudal regression

c) Renal agenesis

d) Duplex ureter

Correct Answer - A

Diabetes is not associated with increased risk for fetal chromosomal abnormalities.

Congenital malformations in infants of women with overt diabetes:

- Caudal regression
- Situs inversus
- Spina bifida, hydrocephaly, or other central nervous system defects
- Anencephaly
- Cardiac anomalies
- Anal/rectal atresia
- Renal anomalies
- .. Agenesis
- ?. Cystic kidney
- }. Duplex ureter

Ref: Cunningham F.G., Leveno K.J., Bloom S.L., Hauth J.C., Rouse D.J., Spong C.Y. (2010). Chapter 52. Diabetes. In F.G. Cunningham, K.J. Leveno, S.L. Bloom, J.C. Hauth, D.J. Rouse, C.Y. Spong (Eds), *Williams Obstetrics*, 23e.

45. Which of the following statements regarding fetal circulation is correct?

- a) The liver and heart of the fetus receive blood with very high oxygen saturation
- b) PO₂ of fetal blood leaving the placenta is slightly greater than maternal mixed venous PO₂
- c) The presence of fetal hemoglobin shifts the oxyhemoglobin dissociation to the right
- d) The foramen ovale closes during the third trimester unless the fetus has an atrial septal defect

Correct Answer - A

Since the liver is supplied by umbilical venous blood from the placenta, and the heart and head receive blood before it has mixed with significant amounts of desaturated blood, these important organs receive blood that is relatively high in saturated oxyhemoglobin.

The high rate of blood flow at the placenta and the significant resistance of the placenta to diffusion of oxygen result in blood in the umbilical vein that has a lower PO₂ (30 mm Hg) than the maternal mixed venous blood.

However, the left shift in fetal oxyhemoglobin concentration and the Bohr effect both act to increase the transport of oxygen to fetal tissues.

A number of significant differences in circulating patterns are present in the fetus.

The foramen ovale remains open until after birth and a significant portion of inferior vena cava flow is shunted through it to the left.

1/3 of blood enters directly from right atrium to left atrium (bypassing right ventricle) through foramen oval

The major portion of right ventricular output is shunted through the ductus arteriosus to the aorta, not the lungs.

The net effect of these shunts in the presence of high fetal pulmonary vascular resistance is very low fetal pulmonary blood flow.

At birth, these patterns normally are quickly changed to ex-utero patterns with high pulmonary perfusion.

Ref: Barrett K.E., Barman S.M., Boitano S., Brooks H.L. (2012). Chapter 33. Circulation through Special Regions. In K.E. Barrett, S.M. Barman, S. Boitano, H.L. Brooks (Eds), *Ganong's Review of Medical Physiology*, 24e.

46. Which of the following Doppler findings in IUGR is associated with worst prognosis?

a) Dicrotic notch

b) Reversal of diastolic flow

c) Absence of diastolic flow

d) Absence of systolic flow

Correct Answer - B

Doppler screening is done in anatomically normal baby's in which a growth retardation is detected.

Normally the diastolic flow increases as pregnancy progresses.

Reduced or absent or reversed diastolic flow in the umbilical artery indicates fetal jeopardy and poor perinatal outcome.

Doppler velocimetry findings in IUGR are elevated uterine artery systolic/diastolic ratio > 2.6 and or presence of diastolic notch.

Ref: Textbook of Obstetrics By D. C Dutta, 6th Edition, Page 463.

47. Misoprostol used in the induction of labour is an analogue of which of the following type of prostaglandin?

a) PG E1

b) PG E2

c) PG I2

d) PG F2alpha

Correct Answer - A

Misoprostol is a methyl ester of PGE1.

Indications of Misoprostol:

- It is used for cervical ripening.
- Transvaginally it is used for induction of labour.

Uses of Prostaglandins in Obstetrics:

- Induction of abortion
- Termination of molar pregnancy
- Induction of labour
- Cervical ripening prior to induction of labour
- Acceleration of labour
- Management of atonic postpartum hemorrhage
- Medical management of tubal ectopic pregnancy

Ref: Textbook of Obstetrics By DC Dutta 6th edn page 504.

48. During the delivery, it is necessary to cut an episiotomy. The tear extends through the sphincter of the rectum, but the rectal mucosa is intact. How would you classify this type of episiotomy?

a) First degree

b) Second degree

c) Third degree

d) Fourth degree

Correct Answer - C

A **first-degree tear** involves the vaginal mucosa or perineal skin, but not the underlying tissue.

In a **second-degree episiotomy**, the underlying subcutaneous tissue is also involved, but not the rectal sphincter or rectal mucosa.

In a **third-degree tear**, the rectal sphincter is affected.

A **fourth-degree episiotomy** involves a tear that extends into the rectal mucosa.

Ref:Cunningham F.G., Leveno K.J., Bloom S.L., Hauth J.C., Rouse D.J., Spong C.Y. (2010). Chapter 23. Forceps Delivery and Vacuum Extraction. In F.G. Cunningham, K.J. Leveno, S.L. Bloom, J.C. Hauth, D.J. Rouse, C.Y. Spong (Eds), Williams Obstetrics, 23e.

49. Which of the following is the chromosomal composition of the complete mole?

a) 46 XX

b) 45X0

c) 69 XXY

d) 69 XXX

Correct Answer - A

- The chromosomal composition of **complete moles** is usually diploid and of paternal origin.
- About 85 percent are **46,XX** with both sets of chromosomes paternal in origin.
- Termed androgenesis, the ovum is fertilized by a haploid sperm, which duplicates its own chromosomes after meiosis.
- The chromosomes of the ovum are either absent or inactivated.
- In other complete moles, the chromosomal pattern may be 46,XY due to dispermic fertilization.

Ref: Cunningham F.G., Leveno K.J., Bloom S.L., Hauth J.C., Rouse D.J., Spong C.Y. (2010). Chapter.11. Gestational Trophoblastic Disease. In F.G. Cunningham, K.J. Leveno, S.L. Bloom, J.C. Hauth, D.J. Rouse, C.Y. Spong (Eds), Williams Obstetrics, 23e.

50. In Down's syndrome, the 2nd trimester quadruple test done at 14-20 weeks measure levels of all of the following, EXCEPT:

a) Alpha fetoprotein

b) HCG

c) Inhibin A

d) Progesterone

Correct Answer - D

The triple test (14 -20 weeks) measures the following three levels in the maternal serum:

- Alpha-fetoprotein (AFP)
- Human chorionic gonadotropin (hCG)
- Unconjugated estriol (UE3)

Quadruple test done (14-20 weeks) measures levels of:

- Alpha-fetoprotein (AFP)
- Human chorionic gonadotropin (hCG)
- Unconjugated estriol (UE3)
- Inhibin A

51. A female with a family history of a genetic disorder became pregnant. Transabdominal chorionic villus sampling (CVS) can be done in:

a) 7-9 weeks

b) 10 weeks to term

c) 9-11 weeks

d) 13-15 weeks

Correct Answer - B

Chorionic villus sampling (CVS) is the second most common procedure for genetic prenatal diagnosis. This procedure is routinely performed transcervically at about **10–12 weeks of gestation and transabdominally from 10 weeks to term**. Limb reduction defects are high when CVS was performed at less than 10 weeks of gestation.

Ref: Textbook of Obstetrics by DC Dutta, 6th edition, Page 108.

**52. Abruptio of placenta occurs in all
EXCEPT**

a) Smokers

b) Folic acid deficiency

c) Alcoholics

d) PIH

Correct Answer - C
Alcoholics

53. Placenta previa mouth is associated with all of the following except :

a) Large placenta

b) Previous C. S. scar

c) Primigravida

d) Previous placenta previa

Correct Answer - C

Ans. is c i.e Primigravida

Placenta previa is implantation of the placenta partially or completely over the lower uterine segment. Damage to the endometrium or myometrium due to previous surgery or infection can predispose to low implantation and placenta previa.

Risk factors for placenta previa :

- Prior surgery° (**cesarean section** / Myomectomy Hysterotomy)
- Previous uterine curettage°
- Endometritis°
- Increasing maternal age (>35 years)°
- Increasing parity°
- *Placental sire* –**increased** (as in multiple pregnancy)
- Placental abnormality –Succenturiate lobe
- Smoking (due to defective decidual vascularisation)

Note :

- The probability of placenta accreta and need for cesarean hysterectomy is increased in patients with prior cesarean section and placenta previa.
- Smoking increases the risk of placenta previa by two fold times.
- Previous cesarean section increases the risk of placenta previa by 4 fold time.

- According to the latest edition of Williams—Women with otherwise unexplained elevated screening level of maternal serum alpha feto protein are at a greater risk of placenta previa.

54. True regarding PPH

a) Type B lynch suture used

b) With new advances both atonic and traumatic PPH can be reduced

c) More common in multipara and Associated with polyhydramnios both

d) All or the above

Correct Answer - D

Ans. is a, b and c i.e. Type B lynch suture used; With new advances both atonic and traumatic PPH can be reduced; More common in multipara; and Associated with polyhydramnios

- PPH is more common in multipara due to lax abdomen and associated factors like adherent placenta and anemia .
- Overdistension of uterus as in multiple pregnancy, hydramnios and large baby also lead to PPH .
- Incidence of atonic and traumatic PPH can be reduced with new advances or rather by intelligent anticipation, skilled supervision, prompt detection and effective institution of therapy.
- B lynch suture are used for management of PPH .
- Mifepristone is not used in the management of PPH .

55. Most common cause of secondary PPH is

:

a) Uterine inertia

b) Retained placenta

c) Episiotomy

d) Cervical tear

Correct Answer - B
Retained placenta

56. Common cause of death in inversion of uterus :

a) Neurogenic shock

b) Hemorrhage

c) Pulmonary embolism

d) Infection

Correct Answer - B
Hemorrhage

57. Correct statement about establishing the chorionicity in twin pregnancy is:

- a) Same sex rule **out** dichorionicity
- b) Twin peak in dichorionicity
- c) Thick membrane is present in monochorionic
- d) Best detected after 16 weeks

Correct Answer - B

Ans. is b i.e. Twin peak in dichorionicity

Chorionicity is the most important factor that affects the outcome in Twin gestation.

Diagnosed by ultrasound at 6 to 9 weeks of gestation. In dichorionic twins there is a thick septum between the chorionic sacs. It is best identified at the base of the membrane, where a triangular projection is seen. This is known as lambda or twin peak sign.

Presence of lambda or twin peak sign indicates dichorionic placenta"

So it is clear that lambda / Twin peak sign clearly indicates dichorionic placenta & is hence the correct option 'b'.

As far as other options are concerned.

Option a - Same sex rules out dichorionicity, this is incorrect because

Twins of opposite sex are almost always dizygotic dichorionic but same sex does not rule out dichorionicity. Option c - Thick membrane is present in monochorionic twins

This is also incorrect because monochorionic means there is a single chorion whereas dichorionic means there are 2 chorions so obviously dichorionic membrane will be thick.

"Monochorionic pregnancies have a dividing membrane that is so thin, it may not be seen until the second trimester. The

membrane is generally less than 2mm thick & magnification reveals only 2 layers (of amnion)"

Option d – Chorionicity is best detected after 16 weeks –
Again this statement is incorrect because the best time to detect chorionicity by USG is between 6 to 9 weeks.

58. At 28 weeks gestation, amniocentesis reveals a DOD 450 of 0.20 which is at the top of third zone of the liley curve. The most appropriate management of such a case is :

a) Immediate delivery

b) Intrauterine transfusion

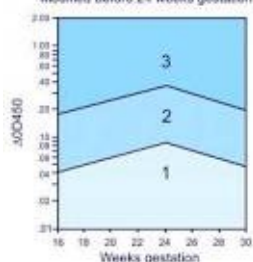
c) Repeat Amniocentesis after 1 week

d) Plasmapheresis

Correct Answer - B

Ans. is b i.e. Intrauterine transfusion

Liley amniotic zone boundaries
Modified before 24 weeks gestation



Liley chart

- A chart that uses the spectrographic measurement of amniotic fluid bilirubin levels plotted against gestational age to estimate the severity of fetal hemolysis resulting from Rh isoimmunization.
- The chart is divided into three zones; a measurement falling in zone 1 indicates no disease or mild disease, while one falling in zone 3 indicates severe disease with impending fetal death.
- Lileys Zone I (low zone):
 - The fetus is unlikely to be affected

- The pregnancy can be continued till term.
- Lileys Zone II (mid zone):
 - Repeat amniocentesis by 2 weeks
 - Value upward -+ cordocentesis → hematocrit <30% → intrauterine transfusion to increase hematocrit to 40-45%.
 - Preterm delivery after 34 weeks
- Lileys Zone III (high zone):
 - The fetus is severely affected and death is imminent.
 - Pregnancy > 34 weeks → delivery.
 - Pregnancy < 34 weeks → cordocentesis → hematocrit < 30% → intrauterine infusion to raise hematocrit to 40 - 45%.
 - Preterm delivery may be needed after 34 weeks.

59. The dose of anti D gamma globulin given after term delivery for a Rh negative mother and Rh positive baby is :

a) 50 micro gram

b) 200 micro gram

c) 300 micro gram

d) 100 micro gram

Correct Answer - C
300 micro gram

60. All of the following drugs are effective for cervical ripening during pregnancy except :

a) Prostaglandin E2

b) Oxytocin

c) Progesterone

d) Misoprostol

Correct Answer - C
Ans. is c i.e. Progesterone

61. Indication for induction of labour is :

a) Placenta previa

b) PIH at term

c) Heart disease at term

d) Breech

Correct Answer - B
PIH at term

62. All of the following are methods of Induction of labour except :

a) Estrogen

b) Oxytocin

c) Stripping of membrane

d) PGE7

Correct Answer - A
Estrogen

63. Prostaglandin used for cervical ripening?

a) PG E1

b) PG E2

c) PGF₂ - α

d) Oral Oxytocin

Correct Answer - B
PG E2

64. All are done in management of shoulder dystocia except :

a) Fundal pressure

b) Mc Roberts manoeuvre

c) Suprapubic pressure

d) Woods manoeuvre

Correct Answer - A

Ans. is a i.e. Fundal pressure

The term shoulder dystocia is used to define a wide range of difficulties encountered in the delivery of the shoulders.

Risk factors : *Shoulder dystocia can occur in all those conditions where fetus is too big or in case of mismanaged labour.*

- Fetal macrosomia°
- Maternal diabetes°
- Maternal obesity°
- Post term pregnancy°
- Anencephaly°

Fetal ascites°

H/o previous macrosomia°

- Midpelvic instrument delivery°

Management of shoulder dystocia

Shoulder dystocia should be managed as quickly **as** possible as interval of time from delivery of head to delivery of body is of great importance as far as survival **of** baby is concerned.

- Immediately after recognition of shoulder dystocia extra help should be called, in the form of midwifery assistance, an obstetrician, a paediatric resuscitation team and an anaesthetist.

- Maternal pushing should be discouraged, as this may lead to further impaction of the shoulder, thereby exacerbating the situation.
- Liberal episiotomy should be given to provide more space posteriorly.
- *Fundal pressure should not be employed.* As it is associated with an unacceptably high neonatal complication rate and may result in uterine rupture.
- *Moderate suprapubic pressure can be applied* by the assistant. Suprapubic pressure can be employed together with McRoberts' manoeuvre to improve success rates, because suprapubic pressure reduces the bisacromial diameter and rotates the anterior shoulder into the oblique pelvic diameter. The shoulder is then free to slip underneath the symphysis pubic with the aid of routine traction.
- *McRoberts' manoeuvre* is the single most effective intervention and should be the first manoeuvre to be performed. The McRobert's manoeuvre is flexion and abduction of the maternal hips, positioning the maternal thighs on her abdomen. It straightens the lumbo-sacral angle, rotates the maternal pelvis cephalad and is associated with an increase in uterine pressure and amplitude of contractions.
- *Advanced manoeuvres like Woods' Mallogui, r,* should be used if the McRobert's manoeuvre and suprapubic pressure fail. Woods' corkscrew manoeuvre is progressively rotating the posterior shoulder by 180°. So that the impacted anterior shoulder is released.
- Several third line methods have been described for those cases resistant to all simple measures. These include cleidotomy (bending the clavicle with a finger or surgical division), symphysiotomy (dividing the symphyseal ligament) and the Zavanelli manoeuvre. Zavanelli manoeuvre targets at replacing the head into the pelvis followed by cesarean section.
This manoeuvre should be the last resort as it is associated with high degree of neonatal deaths still births and neonatal brain damage.

Extra Edge :

Shoulder dystocia drill - *Sequence to be followed in case of shoulder dystocia.*

Note: In AI-10 the same question was repeated with option a i.e.

Fundal pressure being replaced by Mauriceau smellie viet manoeuvre. Rest of the options were same.

There in that question the answer would be Mauriceau Smellie viet manoeuvre **as it** is not used for shoulder dystocia but for delivering the after coming head of breech.

First line measures	Second line measures	Third line
<ul style="list-style-type: none">· Call for help· Liberal episiotomy	<ul style="list-style-type: none">· Delivery of posterior arm· Wood's cork screw method	<ul style="list-style-type: none">· Cleidotomy· Symphiotomy· Zavanelli manoeuvre
<ul style="list-style-type: none">· Avoid fundal pressure· Suprapubic pressure given· McRobert's manoeuvre		

Note: In AI-10 the same question was repeated with option a i.e. Fundal pressure being replaced by Mauriceau smellie viet manoeuvre. Rest of the options were same.

There in that question the answer would be Mauriceau Smellie viet manoeuvre **as it** is not used for shoulder dystocia but for delivering the after coming head of breech.

65. The danger of internal podalic version in obstructed labour is :

a) Perineal tear

b) Cervical tear

c) Rupture of lower uterine segment

d) Rupture of upper uterine segment

Correct Answer - C

Rupture of lower uterine segment

Features	Upper uterine segment	Lower uterine segment
Anatomical position	Upper uterine part	It is formed from the uterine Dart between anatomical internal os and histological internal os during labour
During labour	:Active segment; contracts, retracts, and expels the fetus.	Relatively passive segment dilate and form greatly expanded , thinned out tube through which the foetus can pass
Thickness during contraction	Becomes progressively thickened	Becomes progressively thinned
Consistency during contraction	Firm	Soft
Peritoneal attachment	Firm	Loose
Retractile property	Good	Poor
Placental	Left lateral wall or	Placenta previa

Placental attachment Left Lateral wall of Placenta previa upper segment

66. The characteristics of caput succedaneum include all of the following except :

a) Crosses midline

b) Crosses the suture line

c) It does not disappear within 2-3 days

d) It is a diffuse edematous swelling of the soft tissues of the scalp

Correct Answer - C
It does not disappear within 2-3 days

67. The umbilical cord stump of a newborn most frequently sloughs off about the :

a) Second day after delivery

b) Fifth day after delivery

c) 10th day after delivery

d) 15th day after delivery

Correct Answer - C

10th day after delivery

- The cord becomes brownish black within 2 or 3 days after birth.
- It falls off in about 10-14 days.

68. The effective pressure to be achieved in vacuum extraction is :

a) 0.1 kg/cm^2

b) 0.1 kg/cm^2

c) 0.6 kg/cm^2

d) 1.2 kg/cm^2

Correct Answer - C
 0.6 kg/cm^2

69. Prophylactic forceps in a cardiac diseased patient is used, when head is at station :

a) 0

b) +1

c) +2

d) -1

Correct Answer - C
+2

70. Incorrect about external cephalic version is :

a) Done at 34 week

b) Abruptio of placenta is a complication

c) Done under general anesthesia

d) All

Correct Answer - D
All

71. Vaginal delivery is contraindicated in :

a) Central placenta praevia

b) Previous LSCS

c) Eclampsia

d) Antepartum hemorrhage

Correct Answer - A
Central placenta praevia

72. Nuchal translucency at 14 wks is suggestive of :

a) Down's syndrome

b) Oesophageal atresia

c) Trisomy 18

d) Foregut duplication cyst

Correct Answer - A

Ans. is a i.e. Down syndrome

Friends, before I go into the details of nuchal translucency I want to first explain why I have opted for Down syndrome as the answer and not Turner syndrome, though increased nuchal translucency is seen in both the conditions.

My answer is based on the following lines from *USG in Obs. & Gynae. by Callen*

"Johnson et al showed that simple nuchal translucency between 10 and 14 weeks were associated with a 60% incidence of abnormal karyotypes—mostly trisomy 21. Unlike the second trimester experience, in which large cystic hygromas were most often associated with turner syndrome, the 45X karyotype represented a minority of the karyotypic abnormalities in the group of fetuses with first trimester nuchal translucency thickening."

Nuchal translucency and its Significance :

- Nuchal translucency is a thickening of the nuchal soft tissues.
- Embryos with aneuploidy have an increased amount of fluid in the neck region resulting in increased NT measurement.
- The maximum thickness of the subcutaneous translucent area between the skin and soft tissue that overlies the fetus spine in the

sagittal plane is measured.

- A cut off of 3mm is used as threshold for an abnormal nuchal translucency in first trimester and 6mm for second trimester (16 - 20 weeks).
- Best time to assess nuchal translucency in first trimester 10 - 13 weeks.
- Best approach – Transvaginal (but trans abdominal is also reasonably good).
- It is best seen in the mid sagittal plane as a sonolucency at the back of fetal neck.

Note: Increased nuchal translucency itself is not a fetal abnormality, but rather a marker or soft sign that confers increased risk of fetal abnormality.

Causes of Increased nuchal translucency :

Down syndrome (Trisomy 21)

Trisomy 18 Trisomy 13

Turner syndrome

Klinefelter syndrome Triploidy.

- Nuchal translucency with large cystic hygroma is seen in Turners syndrome.
- Nuchal translucency with septations carries bad prognosis.
- Chromosomally normal fetus with increased nuchal translucency is associated with increased risk of :
 - Cardiac abnormalities°
 - Diaphragmatic hernia°
 - Anterior abdominal wall defect°
 - Fetal akinesia/dyskinesia syndrome°
- Therefore, ACOG recommends that when nuchal translucency measurement is 3.5 mm or more with a normal karyotype, then targeted sonographic examination or fetal echocardiography or both should be done.
- Nuchal translucency of > 3mm in 1st trimester identifies 67% of fetus with trisomy 21.
- Increased nuchal fold thickness (> 6mm) is the most sensitive and specific single ultrasound marker for the mid trimester detection of down syndrome.

Extra Edge :

- Nuchal translucency is the most important sonographic marker of aneuploidy in the first trimester whereas, Nuchal fold thickness (NFT) is the most important sonographic marker of aneuploidy in second trimester.
- NT is measured from external surface of the skull to the internal surface of the skin.
- NFT is measured from the external surface of occipital bone to the external surface of skin.
- NFT is useful for screening between 14-23 weeks.
- Cut off value for NFT is 5mm (above which it is considered abnormal).

Note: In the first trimester 2 most reliable ultrasonographic markers for detecting Down syndrome?

- .. Increased muscal translucency
- ?. Absent nasal bone.

73. At what level of b-HCG is it that normal pregnancy can be earliest detected by TVS:

a) 500 IU/m1

b) 1000 IU/m1

c) 1500 IU/m1

d) 2000 IU/m1

Correct Answer - B

Ans. is b i.e. 1000 IU/m1

PhCG level (MiU/mi)	Structure visible	TVS/TAS
• 1000 - 1200	Gestational sac	TVS
• 6000	Gestational Sac	TAS
• 7000	Yolk sac	TAS
• 11000	Embryo	TAS

74. What are the findings in U/S, which suggests incompetent os :

a) Cervical length

b) Funneling of amniotic sac

c) Internal os

d) All

Correct Answer - D

Ans. is a, b and c i.e. Cervical length; Internal os; and Funneling of amniotic sac

- Closed cervix (competent os) on USG appears like the letter T.
- Cervical incompetence :
Cervical incompetence is characterised by painless° cervical *dilatation in the second° or early third trimester°* with ballooning of the amniotic sac into the vagina°, followed by rupture of membranes and expulsion of a usually live fetus. It usually occurs in 16 - 24 weeks.
- Diagnosis :
 - History : The typical history of painless rupture of membranes° followed by the quick delivery of a live fetus in midtrimester is very suggestive.°
 - Non pregnant state : Internal os allows the passage of a No. 8 Hegar's cervical dilator or Foley's catheter filled with 1 ml water without resistance.°
 - Premenstrual Hystercervicography will show the typical funneling of the internal os°.
- **In Pregnancy :**
 - Transvaginal ultrasound is the ideal method to detect early incompetence.

- Incompetent os on USG shows the following features: Before opening, the cervix shortens and then funneling can take place, which on USG looks like the letter Y (indicating incompetent os) that can progress to look like the letter V (cervix is just about to open).
- The normal cervical length at 14 weeks is 35 - 40 mm and the internal os diameter is less than 20 mm. A cervical length less than 30 mm and an internal os diameter more than 20 mm is suggestive of cervical incompetence.
- Other findings on ultrasound are funneling of the os.° Serial scans may be necessary.

75. Risk of amniotic fluid embolism is greatest in :

a) First trimester of pregnancy

b) Second trimester of pregnancy

c) During labour

d) In puerperal period

Correct Answer - C
During labour

76. High risk pregnancy are all except:

a) A130 incompatibility

b) Rh isoimmunisation

c) Twin pregnancy

d) Third pregnancy

Correct Answer - D
Third pregnancy

77. Use of Valproate during pregnancy may cause :

a) Neural tube defect

b) Hydantoin syndrome

c) Respiratory depression

d) Mental retardation

Correct Answer - A
Neural tube defect

78. Best method to deliver arms in breech :

a) Lovset's method

b) Smellie veit

c) Pinard's

d) Any of the above

Correct Answer - A

Ans. is a i.e. Lovset's method

Friends amongst maipresentations - Breech is the most frequently asked - ***'Many question are asked on Breech. So, I am summarising all the important points you need to know about breech.'***

Breech

- Most common cause prematurity.
- *Most common type of Breech* : Frank Breech / Extended breech.
- *Incidence* : – 20% at 28 weeks
 - 5% at 34 weeks
 - 3% at term
- Commonest position – Leftsacroanterior (LSA).
- Engaging diameter of breech – Bitrochanteric (10 cm).
- Engaging diameter of shoulder – Bisacromial (12 cm).
- Engaging diameter of head – suboccipitofrontal (10 cm).
- Head is born by flexion.°

- **Diagnosis by Vaginal examination :**

Flexed Breech (MC in multipara)

Ischia' tuberosities, anus, sacrum, buttocks

Extended Breech Footling presentation (MC in primigravida)

Buttocks with genitalia are the presenting part, feet are the presenting part, feet

and feet are palpated not felt • Maximum chances of cord prolapse

Algorithm for Management of Breech

Assess maternal and fetal well being

External cephalic version

Elective cesarean section (> 38 weeks)

Done after 35 completed weeks

Indications

Ideal time 36th week

• Contraindications to ECV :

- APH
- Pre eclampsia, hypertension
- Multiple pregnancy
- Obesity
- Bad obstetric history
- Elderly primigravida
- Ruptured membranes
- Oligohydramnios
- Contracted pelvis
- Congenital abnormalities of uterus
- Significant fetal anomalies/dead fetus

- IUGR

- • Fetal weight < 1500 or > 3500 gm
- • All complicated pregnancies eg.
 - Associated with
 - APH
 - preeclampsia
 - oligohydramnios
 - Abnormal clinical pelvimetry/contracted or borderline pelvis
 - Fetal distress
- • If breech has :
 - Hyperextended head
 - Footling / Knee presentation
 - Is complete breech

Previous LSCS

79. Diameter of engagement in face presentation is :

a) 9.5 cm

b) 10 cm

c) 11.5 cm

d) 14 cm

Correct Answer - A

9.5 cm

Submento-bregmatic diameter :

- The diameter extending from just behind chin to the centre of bregma
- Measures 9.5cm
- Head is fully extended
- Associated with face presentation
- Face presentation :
- Incidence : 1:600- 1:1500
- Due to hyper-extension of fetal head
- Presenting diameter 9.5 cm (submento-bregmatic diameter)
- Engagement of fetal head late
- Progression of labour slow
- Probably due to lack of molding of facial bone

80. Face-to-pubis delivery often occurs in :

a) Android pelvis

b) Platypelloid pelvis

c) Anthropoid pelvis

d) Gynaecoid pelvis

Correct Answer - C
Anthropoid pelvis

81. The amniotic fluid is in balance by :

a) Excretion by fetal kidneys

b) Maternal hemostasis

c) Fetal intestinal absorption

d) All

Correct Answer - D

Ans. is a, b, c

Amniotic fluid originates from

- In early pregnancy - As an ultrafiltrate of maternal plasma (i.e., *option "b" correct*).
- By beginning of the second trimester - It consists of extracellular **fluid which** diffuses through the fetal skin (i.e., *option "e"*).
- After 20 weeks - Cornification of skin prevents this diffusion and amniotic fluid is composed of fetal urine (*option "a" correct*).
Also know : *The water in the amniotic fluid is completely changed and replaced in every 3 hours.*

Other minor contributors : • Pulmonary fluid

- Fluid filtering through the **placenta**

The fetus swallows 200 - 500 ml liquor every day at term.

(Option "c" correct) i.e. Excretion by fetal kidneys; Maternal hemostasis; Fetal intestinal absorption

82. Polyhydramnios is associated with all except :

a) Diabetes

b) Open spina bifida

c) Multiple pregnancy

d) Renal agenesis

Correct Answer - D
Renal agenesis

83. Maximum strain of parturient heart occurs during:

a) At term Immediate postpartum

b) Immediate postpartum

c) 1st trimester

d) 2nd trimester

Correct Answer - B

Ans. is b i.e. Immediate postpartum

"Significant hemodynamic alterations are apparent early in pregnancy, women with severe cardiac dysfunction may experience worsening of heart failure before mid pregnancy. In others, heart failure develops after 28 weeks, when pregnancy induced hypervolemia is maximal (32 weeks). In the majority, however heart failure develops peripartum when the physiological capability for rapid changes in cardiac output may be overwhelmed in presence of structural cardiac disease"

Reading the above text, from *Williams Obs.* it is clear that maximum chances of heart failure are in the peripartum period. But it is not clear whether maximum chances are during labour or immediate postpartum.

Dutta Obs. 6/e, p 53 provides answer to this ?

"The cardiac output starts to increase from 5th week of pregnancy, reaches its peak 40-50% at about 30 - 34 weeks. Thereafter the cardiac output remains static till term".

"Cardiac output increases further during labour (+50%) and immediately following delivery (+70%) over the pre labour values."

So, maximum chances of heart failure are in immediate post partum period when cardiac output is maximum.

Remember : Periods of maximum risk of cardiac failure :

1. Immediate postpartum
2. During delivery
3. Between 28-32 weeks (when hemodynamic changes are maximum)
4. Between 12-16 weeks of gestation (when hemodynamic changes just begin)
5. Finally 4-5 days after delivery when charges start reverting back.

84. In a patient with heart disease, which of the following should not be used to control PPH :

a) Methyergometrine

b) Oxytocin

c) Misoprostol

d) Hysterectomy

Correct Answer - A

Ans. is a i.e. Methyergometrine

Antepartum Management

NYHA Class I and II :

- Pregnancy and delivery are usually uneventful.
- Patient can be managed on ambulatory treatment and need not be hospitalized early.
- Time of hospitalisation in Class I patients is 36 weeks^o and Class II patients is 28 weeks^o.
- Physical activity is limited to well within the patient's cardiac reserve.
- Adequate rest is prescribed.
- If any surgical procedure like tooth extraction is required, bacterial endocarditis prophylaxis is indicated. **NYHA Class III and IV :**
- They are at very high risk and ideally should become pregnant only after surgical correction.
- If seen in the first trimester, such patients are candidates for MTP.
- If pregnancy is continued, then the women are hospitalized for the remainder of the pregnancy.

Intrapartum Management :

- This is the period of maximum risk as the cardiac output increases. Patients should be allowed to go into spontaneous labour, if required

Patients should be allowed to go into spontaneous labour, if required induction with vaginal PGE₂ may be done (Induction is safe in case of heart disease)

- *There is no place for trial of labour^o in a patient with heart disease and in such cases, elective cesarean section should be done.*
- Vaginal delivery is preferred unless there are obstetric indications for cesarean section.
- *Only heart disease where vaginal delivery is contraindicated :
Coarctation of aorta.*
- Patient is laid in semi recumbent position/propped up position and if required oxygen inhalation is given to the patient.
- Pain should be adequately relieved (best done by epidural anaesthesia)
- Meticulous fluid balance (not more than 75ml/hour).
- Cut short the second stage with outlet forceps.
- 40 mg of intravenous furosemide can be given immediately after the baby is born^o. This will divert some of the excess blood volume that is added to the circulation by the contraction of uterus.

Management of Third stage :

- Ergometrine and methergin are contraindicated.^o
- Oxytocin should be used in the third stage by IV infusion to reduce the amount of bleeding. If PPH occurs in a cardiac patient—
Oxytocin, and prostaglandins can be used.
- As per WHO & AGOG guidelines OXYTOCIN is the first line DOC for atonic PPH
- Rapid, continuous infusion of dilute IV oxytocin (40-80 U) in 1L NS to be started.
- Antibiotics are given as a prophylactic measure against infective endocarditis.

Management of Puerperium

- **Early ambulation (to prevent thrombosis)** and lactation are encouraged.

85. Surgery for mitral stenosis during pregnancy is ideally done at :

a) 14 weeks

b) 20 weeks

c) 28 weeks

d) 32 weeks

Correct Answer - A
14 weeks

86. Which of the following is not done for antenatal diagnosis of Down's syndrome -

a) Amniotic fluid volume estimation

b) Alpha-fetoprotein estimation

c) Cordocentesis

d) Chorionic villous biopsy

Correct Answer - A

Ans is a i.e. Amniotic Fluid Volume Estimation

As discussed earlier.

**In patients with previous history of Down syndrome —
"The risk of recurrence is greaser than the risk of genetic diagnosis and these patients should be advised to seek genetic counseling and to have a genetic diagnosis."**

Since amniocentesis is not given in options therefore, chorionic villous biopsy is the answer of choice.

Antenatal screening for Downs syndrome

- Following methods are used :?

1) *Triple test* : It includes (i) *Unconjugated estrogen (estriol)* : decreased; (ii) *Maternal serum alpha-feto protein (MSAFP)*: decreased; and (iii) *hCG* : *increased* (Note : *All these three markers are decreased in Edward syndrome*)

2) *New markers* : These are (i) *Increased inhibin A* in maternal blood; and (ii) *Decreased PAPA (pregnancy associated plasma protein)*.

3) *USG* : It shows : (i) *Increased nuchal translucency (increased nuchal fold thickness) in first trimester*; (ii) *Ductus venous flow reversed*; and (iii) *Nasal bone hypoplasia*.

Karyotyping : *It can be done by chorionic villus sampling at 10-12*

weeks or aminocentesis

87. Best parameter for ultrasound evaluation of IUGR is

a) Placental membrane

b) Length of femur

c) Abdominal circumference

d) BPD

Correct Answer - C

Ans. is c i.e. Abdominal circumference

"Abdominal circumference (AC) is the single most sensitive parameter to detect IUGR. Serial measurements of AC and estimations of fetal weight are more diagnostic to fetal growth restriction."

88. All of the following indicate Fetal distress except:

a) Thick (pea-soup) meconium

b) Fetal heart rate 100/minute

c) Loss of beat-to-beat variation

d) Fetal skull blood pH>7.32

Correct Answer - D
Fetal skull blood pH>7.32

89. MC cause of secondary amenorrhoea is:
March 2004

a) Pregnancy

b) TB

c) Thyrotoxicosis

d) None of the above

Correct Answer - A
Ans. A i.e. Pregnancy

90. Triple test for Down syndrome is by using all EXCEPT:

September 2012

a) Maternal HCG

b) Maternal Estriol

c) Maternal Alphafetoprotein

d) Maternal Inhibin A

Correct Answer - D

Ans. D i.e. Maternal Inhibin A

Inhibin A is counted in Quadruple test for Down syndrome.

91. Weight of placenta at term:
March 2013

a) 300 grams

b) 400 grams

c) 500 grams

d) 600 grams

Correct Answer - C

Ans. C i.e. 500 grams

- Placenta is a circular disc with diameter of 15 - 20 cm.
- Feels spongy and weighs 500 gm.
- At term, the weight of placenta to fetus is about 1 : 6
- At term, 4/5th of the placenta is of the fetal origin, i.e., majority of placenta is of fetal and not maternal origin.
- Maternal portion amounts to less than 1/5th of the placenta.
- Placenta is nothing but a specialized part of the chorion.

92. Weight gain during pregnancy:
March 2013

a) 4-6 Kg

b) 7-9 Kg

c) 10-12 Kg

d) 13-15 Kg

Correct Answer - C
Ans. C i.e. 10-12 Kg

**93. Which of the following is correct for urinary system changes in pregnancy:
*March 2013***

a) Renal blood flow decreased

b) Decreased creatinine clearance

c) GFR is increased

d) Kidneys shrink by 1 cm

Correct Answer - C
Ans. C i.e. GFR is increased

**94. Most common type of vertex presentation:
*March 2005***

a) Right Occipito Posterior

b) Left Occipito posterior

c) Right Occipito Anterior

d) Left occipito anterior

Correct Answer - D

Ans. D: Left Occipito Anterior

Fetal presentation:

Cephalic (head-first) presentation:

Cephalic presentation is considered normal and occurs in about 96.5% of deliveries. There are different types of cephalic presentation, which depend on the fetal attitude.

Vertex occupying the left anterior quadrant of the pelvis is the commonest position (13%) and is known as L.O.A. (left occipito anterior) though L.O.T. (left occipito transverse) is commonest accounting for 40% of vertex presentations.

95. Polyhydroaminosis is volume of amniotic fluid more than:
September 2005

a) 1000 ml

b) 2000 ml

c) 3000 ml

d) 4000 ml

Correct Answer - B

Ans. B: 2000 ml

Because the normal values for amniotic fluid volume increase during pregnancy, the actual volume that constitutes polyhydramnios is dependent on the gestational age of the fetus.

Polyhydramnios usually refers to amniotic fluid volumes greater than 2000 ml.

The range of fluid values diagnostic of oligohydramnios is not as wide as that for polyhydramnios. Less than 200 ml, or when amniotic fluid index is less than 5 cm, is usually considered to be indicative of oligohydramnios.

96. Maximal level of cardiac output is seen at:
September 2009

a) 22-26 weeks of pregnancy

b) 26-30 weeks of pregnancy

c) 30-34 weeks of pregnancy

d) 34-38 weeks of pregnancy

Correct Answer - C

Ans. C: 30-34 Weeks of Pregnancy

The cardiac output starts to increase from 5th week of pregnancy and reaches its peak 40-50% at about 30-34 weeks. Cardiac output increase further during labour (+50%) and immediately following delivery (+70%) It returns to pre-pregnancy level by 4 weeks time after labour.

97. pH of vagina in pregnancy is:
September 2009

a) 2-4

b) 4- 6

c) 6-8

d) 8-10

Correct Answer - B

Ans. B: 4- 6

Vaginal walls becomes hypertrophied and more vascular. Increased blood supply of the venous plexus surrounding the walls gives the bluish colouration of the mucosa (Jacquemier's sign)

Vaginal secretion becomes copious, thin and curdy white, due to marked exfoliated cells and bacteria. The pH becomes acidic (3.5-6) due to more conversion of glycogen into lactic acid by the lactobacillus.

98. Best time for diagnosing fetal abnormalities by USG:
September 2009

a) 6-12 weeks of pregnancy

b) 13-19 weeks of pregnancy

c) 20-26 weeks of pregnancy

d) 27-32 weeks of pregnancy

Correct Answer - B
Ans. B: 13-19 weeks of pregnancy

99. Increase in cardiac output seen in pregnancy is:
March 2010

a) 10%

b) 20%

c) 30%

d) 40%

Correct Answer - D

Ans. D: 40%

The cardiac output starts to increase from 5th week of pregnancy and reaches its peak 40-50% at about 30-34 weeks. Cardiac output increase further during labour (+50%) and immediately following delivery (+70%)

**100. During application of the cup in
Ventouse, 'knob' of the cup points
towards:
March 2013**

a) Brow

b) Chin

c) Neck

d) Occiput

Correct Answer - D

Ans. D i.e. Occiput

Ventouse Delivery:

The suction cup should be placed symmetrically astride the saggital suture at the median flexion point (pivot point) which is 2 cm anterior to the posterior fontanelle or 6 cm posterior to anterior fontanelle

Indications

- As an alternative to forceps operation.
- Deep transverse arrest with adequate pelvis
- Delay in descent of head of the second baby of twins
- Delay in first stage due to uterine inertia or primary cervical dystocia

Contraindications

- Prematurity
- Head not engaged
- Fetal distress
- Pelvic contraction
- Transverse lie
- After coming head of breech
- Partially dilated cervix

- Congenital anomalies

- Dead fetus.

Complications

- Cephalhematoma
- Subaponeurotic or subgaleal haemorrhage
- Chignon
- Retinal hemorrhage

101. Partogram is used for:
March 2011

a) Determining pattern of fetal heart rate

b) Determining position of cervix

c) Assessing integrity of utero-placental unit

d) Recording progress of labour

Correct Answer - D

Ans. D: Recording progress of labour

Partograph is a composite graphical record of key data (maternal and fetal) during labour, entered against time on a single sheet of paper

Remember:

- Assessment of labour is best done by partogram
- Graph showing relationship between cervical dilatation and labour is cervicograph

Bishop's score includes:

- Position of cervix
- Consistence of cervix
- Dilatation of cervix
- Effacement of cervix
- Station of head

**102. Inversion of the uterus, a complication is noticed in:
*September 2011***

a) 1st stage of labour

b) 2nd stage of labour

c) 3rd stage of labor

d) Post partum period

Correct Answer - C

Ans. C: 3rd stage of labour

Inversion of the uterus is a rare but a life threatening complication in 3rd stage in which uterus is turned inside out partially or completely

Uterine inversion:

- Inside out turning of uterus
- Results from mismanaged 3rd stage of labour
- MC complication associated with inversion: Haemorrhage

103. Anti-D Rh is given for:
September 2005

a) Rh positive father,Rh positive mother

b) Rh negative father,Rh positive mother

c) Rh negative father,Rh negative mother

d) Rh positive father,Rh negative mother

Correct Answer - D

Ans. D: Rh positive father,Rh negative mother

Rho(D) Immune Globulin is given by intramuscular injection that is used to prevent the immunological condition known as Rhesus disease (or hemolytic disease of newborn) particularly when father is Rh positive and mother is Rh negative.

It is a solution of IgG anti-D (anti-RhD) antibodies that bind to, and lead to the destruction of, fetal Rh D positive red blood cells that have passed from the fetal circulation to the maternal circulation.

Therefore, in a Rhesus negative mother it can prevent sensitization of the maternal immune system to Rh D antigens, which can cause rhesus disease in the current or in subsequent pregnancies

104. True about HCG: *September 2012*

a) Produced by cytotrophoblast

b) Prevent involution of corpus luteum

c) Value reaches maximum level at 20 week of pregnancy

d) Its secretion starts after 2 day of ovulation

Correct Answer - B

Ans. B i.e. Prevent involution of corpus luteum

Beta-HCG

- Human Chorionic Gonadotropin
- It is produced by the syncytiotrophoblast of the placenta and secreted into blood of both mother and fetus.
- It can be detected in maternal serum or urine as early as 1- 9 days of fertilisation
- The blood and the urine values reach maximum levels ranging between 100 IU - 200 IU /ml between 60 - 70 days of pregnancy.
- The concentration falls slowly to 10 - 20 IU/ml by 100 - 130 days of pregnancy.
- It is chemically and functionally similar to pituitary leutenising hormone
- It acts as a stimulus for the secretion of progesterone by the corpus luteum of pregnancy.
- The rescue and maintenance of corpus luteum till 6 weeks of pregnancy is the major biological function of hCG.
- It stimulates the leydig cells of the male fetus to produce testosterone. t It has immunosuppressive activity.
- It stimulates adrenal and placental steroidogenesis and has thyrotropic activity.

- It promotes secretion of relaxin from corpus luteum.
- High levels of hCG are detected in multiple pregnancy, hydatidiform mole, choriocarcinoma and down's syndrome.
- Low levels of hCG are found in ectopic pregnancy and spontaneous abortion.

**105. Most common site of ectopic pregnancy
in fallopian tube:**

March 2005

a) Infundibulum

b) Ampulla

c) Isthmus

d) Interstitium

Correct Answer - B

Ans. B: Ampulla

The vast majority of ectopic pregnancies implant in the Fallopian tube.

Pregnancies can grow in the infundibulum (18% of all ectopics), the ampullary section (55%), the isthmus (25%), and the interstitial part of the tube (20%).

Ampullary pregnancy ruptures generally at 8 weeks

Mortality of a tubal pregnancy at the isthmus or within the uterus (interstitial pregnancy) is higher as there is increased vascularity that may result more likely in sudden major internal hemorrhage.

106. A 20-year old average weight female complains of oligomenorrhea along with facial hair. Preliminary investigations reveal raised free testosterone levels. USG Pelvis: ovary shows normal morphology. Which of the following could be likely etiology

a) Idiopathic hirsutism

b) PCOD

c) Adrenal hyperplasia

d) Testosterone secreting tumor

Correct Answer - B

Ans. b. PCOD (Ref Jeffcott 6/e p205; Shaw's 14/331-332, 13/e p353-354; Novak's 14/1077, 1082)

107. A girl with normal stature and minimal or absent pubertal development is seen in

a) Kallman syndrome

b) Turner syndrome

c) Testicular feminization syndrome

d) Pure gonadal dysgenesis

Correct Answer - A

Ans. a. Kallman syndrome

'Kallmann syndrome is a genetic condition where the primary symptom is a failure to start puberty or a failure to fully complete it. It occurs in both males and females and has the additional symptoms of hypogonadism and almost invariably infertility. Kallmann syndrome also features the additional symptom of an altered sense of smell; either totally absent (anosmia) or highly reduced (hyposmia)- Nelson

108. A child with nephrotic syndrome following an episode of diarrhea presented with acute kidney injury with a creatinine of 4.5. All of the following are possible reasons except?

a) Excess furosemide

b) Diarrhea water depletion

c) Renal vein thrombosis

d) Steroid induced diabetes

Correct Answer - D

Ans. d. Steroid induced diabetes

Massive proteinuria, with the daily loss of 3.5 gm or more of protein

Hypoalbuminemia, with plasma albumin levels < 3 gm/dl

Generalized edema

Hyperlipidemia and lipiduria

Steroid induced diabetes is not the cause of acute kidney injury in patients of nephrotic syndrome who present with episode of diarrhea and raised creatinine.

109. Which of the following displacement is not seen in Colle's fracture?

a) Radial tilt

b) Volar tilt

c) Dorsal displacement

d) Supination

Correct Answer - B

Ans. b. Volar tilt

Displacements of Colle's Fracture:

It results in dinner fork / silver fork / spoon shaped deformity

110. In threatened abortion, the size of uterus:

a) Smaller than expected

b) Larger than expected

c) Corresponds to duration of amenorrhea

d) None of the above

Correct Answer - C

Ans. C.;Corresponds to duration of amenorrhea

SYMPTOMS:

- Bleeding may be only slight spotting, or it can be heavy.
- Pain and cramping are in the lower abdomen. They may be on one side, both sides, or in the middle. The pain can go into the lower back, buttocks, and genitals.

111.

Which of the following is not a part of HELLP syndrome?

a) Hemolysis

b) Elevated liver enzymes

c) Thrombocytopenia

d) Retroplacental hemorrhage

Correct Answer - D

Ans. d. Retroplacental hemorrhage

Retroplacental hemorrhage is not a part of HELLP syndrome.

HELLP syndrome is an acronym for Hemolysis (H), Elevated liver enzymes (EL) and Low Platelet count (LP) of $< 1,00,000/\text{mm}^3$

Clinical Features:

- . Manifested by nausea, vomiting, epigastric or right upper quadrant pain, along with biochemical and haematological changes.
- . Parenchymal necrosis of liver causes elevation in hepatic enzymes (AST and ALT > 70 IU/L and LDH > 600 IU/L).
- . There may be subcapsular hematoma formation (which may need CT scanning) and abnormal peripheral smear.
- . Eventually liver may rupture to cause sudden hypotension, due to hemoperitoneum

112. Which of the following is responsible for pubertal growth in females?

a) Decreased level of adrenal androgens at puberty

b) High level of estrogen at puberty

c) Pulsatile release of GnRH during sleep

d) Increased sensitivity of HPO axis to estrogen

Correct Answer - C

Ans. c. Pulsatile release of GnRH during sleep

After a decade of quiescence, pulsatile secretion of GnRH increases and the hypothalamic-pituitary gonadal axis is reactivated (gonadarche), probably in response to metabolic signals from the periphery. FSH and LH levels rise moderately before age 10, followed by a gradual increase in estradiol concentrations, which stimulate breast development (thelarche). The increase in pulsatile gonadotrophin secretion occurs first at night, during sleep, but gradually extends throughout the day

113. Which of these is diagnostic of menopause?

a) Serum FSH > 40

b) Serum LH > 20

c) Serum FSH < 40

d) Serum estradiol < 30

Correct Answer - A

Ans: A. Serum FSH > 40

(Ref. Shaw's. 16/e p66. 15/e p62).

- Serum FSH > 40 IU/L is diagnostic of menopause.

Criteria for Menopause

- **Estrogen (E2): 10-20 pg/ml° E2/E1 < 1°**
- **Estrone (E1): 30-70 pg/ml°** • Urine FSH > 40 IU/L°

Laboratory diagnosis:

- **FSH & estrogen level** - Assess ovarian failure.
- Especially in premature ovarian failure case or women seeking treatment for infertility.

FSH levels:

- Greater FSH level (>40 m IU/ml).
- Documents ovarian failure associated with menopause.

Estrogen level:

- Normal/elevated - Depending on stage of menopausal transition.
- After menopause extremely low estrogen level.
- Evaluated to assess women's response to hormone replacement therapy.

114. A 30 years old G3P2 with 10 weeks of amenorrhea comes with an intrauterine pregnancy with intra uterine contraceptive device in situ. On pelvic examination, the string of the IUCD was visible at the cervical os. Patient wishes to continue pregnancy. What will you do?

a) Leave IUCD and continue pregnancy

b) Terminate pregnancy because of high risk of infections

c) Continue pregnancy with use of antibiotics throughout pregnancy

d) Remove intrauterine contraceptive device

Correct Answer - D

Ans: D. Remove intrauterine contraceptive device

(Ref: Dutta 8le p618-619, 6le p540)

- Women who become pregnant with an IUCD in situ should be informed of the increased risks of second-trimester miscarriage, preterm delivery and infection if the intrauterine method is left in situ.
- Removal would reduce adverse outcomes but is associated with a small risk of miscarriage.

115. Which is the most common congenital abnormality in a baby of a diabetic woman?

a) Ventricular septal defect

b) Anencephaly

c) Meningomyelocele

d) Sacral agenesis

Correct Answer - A

Ans: A Ventricular septal defect

Explanation:

(Ref. Nelson 20/e p898)

- Most common congenital abnormality in a baby of diabetic women is ventricular septal defect.
- Congenital anomalies are increased threefold in infants of diabetic mothers.
- **Most common anomalies:**
 - Cardiac malformations (ventricular or atrial septal defect, transposition of the great vessels, truncus arteriosus, double-outlet right ventricle, tricuspid atresia, coarctation of the aorta).
 - Lumbosacral agenesis.
- **Additional anomalies:**
 - Neural tube defects, hydronephrosis, renal agenesis and dysplasia, duodenal or anorectal atresia, situs in versus, double ureter, and holoprosencephaly.
 - These infants may also demonstrate abdominal distention caused by a transient delay in development of the left side of the colon, the small left colon syndrome.

116. According to WHO guidelines, which of the following is true about management of second stage of labor?

a) Manual support of perineum to maintain continuous deflexion of head

b) Episiotomy should be performed as a routine

c) A warm cloth should be applied to the perineum to prevent trauma

d) Delivery should be ideally performed in a lithotomy position

Correct Answer - A

Answer- A. Manual support of perineum to maintain continuous deflexion of head

- Do not perform perineal massage in 2nd stage of labor.
- Either the 'hands on' (guarding the perineum & deflexing the baby's head) or the 'hands poised' (with hands off the perineum and baby's head but in readiness) technique can be used to facilitate spontaneous birth.
- Do not offer lidocaine spray to reduce pain in 2nd stage of labor.
- Do not carry out a routine episiotomy during spontaneous vaginal birth.
- Do not offer episiotomy routinely at vaginal birth after previous third- or fourth-degree trauma

117. A lady presented with 7 weeks amenorrhea presented with slight vaginal spotting. CRL was 5mm with well-formed gestational sac with calculated GA of 5.6 weeks on TVS. Next line of management?

a) Wait for another 1 week and repeat TVS

b) Surgical or medical evacuation

c) Wait for another 4 weeks

d) Serum hCG levels

Correct Answer - A

Ans: A. Wait for another 1 week and repeat TVS

Ref: *Williams obstetrics, 24th ed.*

- An intrauterine gestational sac is reliably visualized with transvaginal sonography by 5 weeks, and an embryo with cardiac activity by 6 weeks.
- The embryo should be visible transvaginally once the mean sac diameter has reached 20 mm, otherwise the gestation is anembryonic.
- Cardiac motion is usually visible with transvaginal imaging when the embryo length has reached 5 mm. If an embryo less than 7 mm is not identified to have cardiac activity, a subsequent examination is recommended in 1 week.

118. During progression of normal pregnancy, S/D ratio in umbilical artery ?

a) Decreases

b) Increases

c) Plateau

d) Not significant

Correct Answer - A

Ans. is 'a' i.e., Decreases

The commonly used parameters in the umbilical artery doppler are:

- SD ratio: systolic velocity/diastolic velocity
- Pulsatility index (PI) (Gosling index): $(PSV - EDV) / TAV$
- Resistive index (RI) (Pourcelot index): $(PSV - EDV) / PSV$
- Normally the parameters mentioned above should decrease progressively as the pregnancy advances, as there is increase in the end diastolic velocity due to growth and dilatation of umbilical circulation.
- Any deviation in the parameters is suggestive of either IUGR [weak fetal heart pump thus progressive decrease flow in the diastolic phase] or pre - eclampsia [high pressures in the downstream vessels progressively decrease the velocity of flow in the umbilical artery during fetal diastole].

Thus, during progressive monitoring of the umbilical artery Doppler, as the severity of the disease increases, we observe first:

- The decreased velocity in the end diastolic phase
- Then absent flow in the end diastolic phase followed by
- Reversal of flow in the end diastolic phase.



119. A pregnant lady has delivered a baby 35 minutes back. However, placenta has not been delivered. What should be the next line of management.

a) Controlled cord traction

b) Manual removal of placenta

c) Hysterotomy & removal of placenta

d) Administration of tocolytic drug

Correct Answer - B

Ans. is 'b' i.e., Manual removal of placenta

Manual Extraction:

- If the placenta has not delivered after 30 minutes, or if separation has occurred, without delivery of the placenta, manual removal may be performed to reduce excessive blood loss. Injection of oxytocin into the umbilical vein is a safe procedure and may prevent the need for manual removal of the placenta in some women. Intrauterine bacterial contamination is a theoretical risk of manual extraction, but is not a common complication.

120.

Elective caesarion section in HIV infected pregnant woman is done in ?

a) All cases

b) All primipara

c) If viral load > 1000 /ml

d) Only in premature rupture of membrane

Correct Answer - C

Ans. is 'c' i.e., If viral load > 1000 /ml

A scheduled cesarean delivery (sometimes called a C-section) can reduce the risk of mother-to-child transmission of HIV in women who have a **high viral load (more than 1,000 copies/mL) or an unknown viral load near the time of delivery**. A cesarean delivery to reduce the risk of mother-to-child transmission of HIV is scheduled for the 38th week of pregnancy, 2 weeks before a woman's expected due date.

121. A 38 weeks pregnant lady delivered baby without upper limb. What can be the cause ?

a) Amniotic band

b) True knot of umbilical cord

c) Genetic abnormality

d) None

Correct Answer - A

Ans. is 'a' i.e., Amniotic band

- It is a case of limb reduction defect or congenital amputation in which there is defect in formation of a part of limb or the entire limb.
- The exact cause of congenital amputation is unknown and can result from a number of causes. However, most cases show that the first three months in a pregnancy are when most birth defects occur because that is when the organs of the fetus are beginning to form.
- One common cause is amniotic band syndrome, which occurs when the inner fetal membrane (amnion) ruptures without injury to the outer membrane (chorion).
- Fibrous bands from the ruptured amnion float in the amniotic fluid and can get entangled with the fetus, thus reducing blood supply to the developing limbs to such an extent that the limbs can become strangulated, the tissues die and are absorbed into the amniotic fluid.

122. Viability of fetus is beyond ?

a) 25 weeks

b) 28 weeks

c) 30 weeks

d) 32 weeks

Correct Answer - B

Ans. is 'b' i.e.,28 weeks

Viability means the physical ability of a fetus to lead a separate existence after birth apart from its mother, by virtue of a certain degree of development. A child is viable after 210 days (7 months) of intrauterine life, and in some cases after 180 days (6 months) but in most of these cases fetus is immature.

123. A 32-year-old primigravida at 39 weeks of gestational age has a blood pressure reading of 150/100 mm Hg obtained during a routine visit. Her baseline blood pressure during the pregnancy was 120/70 mmHg. The patient denies any headache, visual changes, nausea, vomiting, or abdominal pain. Her repeat BP is 160/90 mmHg, and urinalysis is negative for protein. Which of the following is the most likely diagnosis?

a) Preeclampsia

b) Chronic hypertension with superimposed preeclampsia

c) Eclampsia

d) Gestational hypertension

Correct Answer - D

Ans. is 'd' i.e., Gestational hypertension

- Hypertension in pregnancy is defined as blood pressure of 140/90 mmHg or greater on at least two separate occasions that are 6 h or more apart.
- The presence of edema is no longer used as a diagnostic criterion because it is so prevalent in normal pregnant women.
- A rise in systolic blood pressure of 30 mmHg and a rise in diastolic blood pressure of 15 mmHg are also no longer used.

- In gestational hypertension, maternal blood pressure reaches 140/90 or greater for the first time during pregnancy, and proteinuria is not present.
- In preeclampsia, blood pressure increases to 140/90 after 20 weeks of gestation and proteinuria is present (300 mg in 24 h or 1+ protein or greater on dipstick). Eclampsia is present when women with preeclampsia develop seizures.

124. End point of D/C is ?

a) After 2 strokes

b) Presence of fresh bleeding

c) Uterine cry

d) All of the above

Correct Answer - C

Ans. is 'c' i.e., Uterine cry

- The curette should be inserted gently to the uterine fundus and withdrawn slightly. To decrease the risk of perforation, do not force the curette.
- The end point of this scrubbing should be the detection of a scratching/grating sensation or sound (the "uterine cry"), which represents a sharp curette running over myometrium. Too vigorous a pursuit of this end point may lead to formation of synechiae (Asherman's syndrome).

125. The fetus (which is partly foreign to the mother) is not rejected by mother due to

:

a) Immunosuppressive effect of placental hormones

b) Absence of HLA molecules in villous trophoblast

c) Production of blocking Antibody

d) All of the above

Correct Answer - D

Ans. is 'd' i.e., All of the above

The fetus and the placenta contain paternally determined antigens which can lead to immunological rejection. The placenta has some role in preventing such a rejection:

- Placental hormones (EPF, PAPP-A, STERIODS & HCG) have got some immunosuppressive effect.
- There is production of blocking antibodies by mother in response to TLX (trophoblast lymphocyte cross reactive antigen) which protect the fetus from rejection.
- Absence of HLA molecules in villous trophoblast.

126. The production rate of the following hormone near term, is the greatest of any known hormone in humans (approximately 1gm/day)-

a) Relaxin

b) Progesterone

c) hCG

d) hPL

Correct Answer - D

Ans. is 'd' i.e., hPL

- Human placenta lactogen (hPL) was named so , because of its potent lactogenic & growth hormone like bioactivity, as well as immunochemical resemblance to human growth hormone.
- It is detected as early as 2nd or 3rd week after fertilization.
- Maternal plasma concentrations are linked to placental mass & they rise steadily till 34-36 weeks of gestation.
- The hPL production rate near term is by far the greatest of any known hormone in humans- approximately 1gm/day.

127. Incidence of infertility is in reproductive age couples ?

a) 0-5 %

b) 5-10%

c) 10-20 %

d) 25-30%

Correct Answer - C

Ans: C. 10-20 %

Infertility is defined as the failure to conceive after one year of regular unprotected intercourse.

Incidence

- 10-20% of reproductive ages couples.

128. The most important risk factor for development of post partum uterine infection/sepsis is:

a) Anemia

b) Route of delivery

c) Diabetes

d) Obesity

Correct Answer - B

Ans. is 'b' i.e., Route of delivery

- The route of delivery is the single most significant risk factor for the development of uterine infection.
- Compared with cesarean delivery, metritis following vaginal delivery is relatively uncommon.
- Most female pelvic infections are caused by bacteria indigenous to the female genital tract.

129. Maturation index in mid-secretory phase of menstrual cycle is ?

a) 0/95/5

b) 80/20/0

c) 0/70/30

d) 0/95/5

Correct Answer - C

Ans. is 'c' i.e., 0/70/30

- Maturation index (MI) is the relative percentage of parabasal, intermediate and superficial cells per 100 cells counted.
- MI is expressed in 3 numbers—the left one parabasal percentage, intermediate in the center and on the right, the percentage of superficial cells.

At birth 0/95/5

Childhood 80/20/0

Preovulatory 0/40/60

Mid-secretory 0/70/30

Pregnancy 0/95/5

Postpartum 100/0/0

Postmenopause 0/100/0 or 100/0/0

130. MC cause of anovulation is?

a) PCOS

b) Hyperprolactinemia

c) Premature ovarian failure

d) Low ovarian reserves

Correct Answer - A

Ans. is 'a' i.e., PCOS

Anovulation and ovulatory dysfunction can be caused by a number of factors.

The most common cause of ovulatory dysfunction is polycystic ovarian syndrome, or PCOS.

Other potential causes of irregular or absent ovulation:

- Obesity
- Underweight
- Extreme exercise
- Hyperprolactinemia
- Premature ovarian failure
- Perimenopause, or low ovarian reserves
- Thyroid dysfunction
- Extremely high levels of stress

131. Contraindications for medical method (mifepristone misoprostol) of first trimester MTP?

a) Patient with hemoglobin of 7 gm%

b) Suspected ectopic pregnancy

c) Glaucoma

d) All of the above

Correct Answer - D

Ans. is 'd' i.e., All of the above

Contraindications (due to medical reasons) for medical method of abortion:

- Smoking > 35 years
- Hemoglobin < 8 g%
- Ectopic pregnancy/ adnexal mass
- Coagulopathy
- Chronic adrenal failure
- Uncontrolled hypertension (BP>160/100mmHg)
- CVD
- Severe renal, hepatic or respiratory diseases
- Glaucoma
- Uncontrolled seizure
- Allergy or intolerance to mifepristone /misoprostol or other prostaglandins
- Lack of access to 24 hours emergency services

132. Cervical stroma consists of?

a) Racemose glands

b) Tubular glands

c) Alveolar glands

d) Coiled tubular glands

Correct Answer - A

Ans. is 'a' i.e., Racemose glands

The glands which dip into the stroma are of complex racemose type and are lined by secretory columnar epithelium.

- There is no stroma in the cervix unlike the corpus and the lining epithelium rests on a thin basement membrane.
- The change in the epithelium and the glands during menstrual cycle and pregnancy are not so much as those in the endometrium.

133. Human placenta is ?

a) Discoid

b) Hemochorial

c) Deciduate

d) All the above

Correct Answer - D

Ans. is 'd' i.e., All the above

The human placenta is :

- Discoid, because of its shape.
- Hemochorial, because of direct contact of the chorion with the maternal blood and Deciduate, because some maternal tissue is shed at parturition.

134. In which type of abortion the gestational age corresponds to the uterine size?

a) Threatened

b) Inevitable

c) Complete

d) Mixed

Correct Answer - A

Ans. A.Threatened

In Threatened abortion the gestational age corresponds to the uterine size.

135. Congestive dysmenorrhea is seen in patients with?

a) Fibroid

b) IUD wearers

c) PID

d) All the above

Correct Answer - D

Ans. is 'd' i.e., All the above

Dysmenorrhoea is described under three clinical varieties

- Spasmodic dysmenorrhoea is the most prevalent and manifests as cramping pains, generally most pronounced on the first and second day of menstruation.
- Congestive dysmenorrhoea manifests as increasing pelvic discomfort and pelvic pain a few days before menses begin. Thereafter, the patient rapidly experiences relief in the symptoms. This variety is commonly seen in PID, IUCD wearers, pelvic endometriosis and fibroids. It is also experienced by women having varicosity of pelvic veins.
- Membranous dysmenorrhoea is a special group in which the endometrium is shed as a cast at the time of menstruation. The passage of the cast is accompanied by painful uterine cramps. This is a rare variety.

136. Intracytoplasmic injection of sperm is done when the infertile male has sperm count less than?

a) 3 million/ml

b) 4 million/ml

c) 5 million/ml

d) 6 million/ml

Correct Answer - C

Ans. is 'c' i.e., 5 million/ml

Indications of ICSI in male infertility comprise:

- Sperm count less than 5 million/mL.
- Decreased or absent motility of sperms.
- Many abnormal sperms.
- Previous failed IVF.
- Unexplained infertility.

137. Pregnancy as a result of contraceptive failure can be terminated as per which indication of the MTP act ?

a) To save life of mother

b) Social indication

c) Eugenic indication

d) None of the above

Correct Answer - B

Ans. is 'b' i.e., Social indication

Social indications

1. This is almost the sole indication and is covered under the provision "to prevent grave injury to the physical and mental health of the pregnant woman".
2. In about 80%, it is limited to parous women having unplanned pregnancy with low socioeconomic status.
3. Pregnancy caused by *rape* or unwanted pregnancy caused due to failure of any contraceptive device also falls in this category (20%).

138. Androgenic activity of the 19 nortestosterone nucleus is decreased by ?

a) Adding alkyl group at C 17

b) Removal of methyl group at C 19

c) Adding methyl group at C 18

d) Substituting chlorine atom at C21

Correct Answer - B

Ans. is 'b' i.e., Removal of methyl group at C 19

- Substitution of a 7α -methyl group in 17β -hydroxyestr-4-en-3-one (19-nortestosterone) or its 17α -methyl derivative enhanced the androgenic activities of the parent compounds as well as their ability to bind to β protein and to prostate cell nuclei. Thus, 7α , 17α -dimethyl-19-nortestosterone had an apparent affinity for β protein several times higher than that of 5α -dihydrotestosterone.

139. Hypogonadotropic primary amenorrhoea is treated by?

a) Gonadotropin therapy

b) Estrogens and progesterone

c) Assisted reproductive techniques

d) None of the above

Correct Answer - A

Ans. is 'a' i.e., Gonadotropin therapy

Treatment of Hypogonadotropic Primary Amenorrhoea:

- These women have FSH level less than 40 mIU/mL.
- Hypogonadotropinaemia leading to hypogonadism is usually the result of hypothalamic dysfunction, pituitary failure or systemic illnesses.
- Administration of GnRH helps to differentiate hypothalamic dysfunction from pituitary failure. In patients with pituitary failure systemic LH level will not rise after giving GnRH.
- Empty sella turcica, cause of pituitary failure, is characterized by herniation of subarachnoid membrane into the pituitary sella turcica.
- Absence of pituitary gland causes absence or low level of FSH and LH.
- In such patients gonadotropin hormone therapy is required for management of primary amenorrhoea.

140. Nugent's score for bacterial vaginosis includes all except?

a) Lactobacillus

b) Gardnerella vaginalis

c) Mobiluncus

d) Gonococcus

Correct Answer - D

Ans. is 'd' i.e., Gonococcus

Nugent's score for diagnosis of bacterial vaginosis (BV)

- The Nugent Score is a system employed for diagnosing BV using microscopic examination of a Gram-stained smear of vaginal discharge.
 - It is used primarily in research studies rather than clinical practice.
 - Scores are calculated by assessing predominance of three types of bacteria morphology and staining:
 1. Large gram-positive rods (Lactobacillus spp.) decrease in lactobacillus scored as 0 - 4,
 2. Small gram-variable rods (G vaginalis or Bacteroides spp.) scored as 0 - 4, and
 3. Curved gram-variable rods (Mobiluncus spp.) scored as 0 - 2.
 - A score of 7 to 10 is consistent with bacterial vaginosis.
- A score of 0-10 is generated from combining three other scores. The scores are as follows:**
- 0–3 is considered negative for BV
 - 4–6 is considered intermediate
 - 7+ is considered indicative of BV.

Curved
Gram

Lactobacillus morphotypes —

average per high powered (1000× oil immersion) field. View multiple fields.

Gardnerella / Bacteroides morphotypes — average per high powered (1000× oil immersion) field. View multiple fields.

variable rods — average per high powered (1000× oil immersion) field. View multiple fields (note that this factor is less important — scores of only 0–2 are possible)

- Score 0 for >30
- Score 1 for 15–30
- Score 2 for >= 14
- Score 3 for < 1 (this is an average, so results can be >0, yet <1)
- Score 4 for 0

- Score 0 for 0
- Score 1 for < 5
- Score 2 for >= 5

141. 30 years old female presents with chronic cyclical abdominal pain. Pain is increased during the 5 days of menstrual cycle. Patient is married for 2 years and has not conceived till now. What is the most appropriate next step in management?

a) Ultrasonography

b) Test for male infertility

c) CT Scan of abdomen with contrast

d) Test for urine infection

Correct Answer - A

Ans. is 'a' i.e., Ultrasonography

- According the clinical scenario of chronic cyclical abdominal pain with infertility the most probable clinical diagnosis is endometriosis and the most logical next step in management of this patient is to investigate the patient with ultrasonography for definitive diagnosis of endometriosis.

142. Which of the following is the most suitable management for a patient who is known case of Glucose 6 phosphate Dehydrogenase deficiency and presents with 6 months of amenorrhea and Hb of 6gm%?

a) Immediate blood transfusion

b) Iron and folic acid supplementation

c) Investigate and treat

d) Both b and c

Correct Answer - D

Ans. is d i.e., Both b and c

- The patient in question has severe anemia (

143. Which of the following is true regarding breast feeding in HIV positive mother?

a) Breast feeding has no effect on mother to child transmission of infection

b) Breast feeding doubles the risk of mother to child transmission of infection

c) Breast feeding triples the risk of mother to child transmission of infection

d) Breast feeding quadruples the risk of mother to child transmission of infection

Correct Answer - B

Ans. is 'b' i.e., Breast feeding doubles the risk of mother to child transmission of infection

- Breastfeeding doubles the risk of maternal to child transmission (14% to 28%) of infection.

144. Following are the risk factors for pelvic organ prolapse except ?

a) Vaginal child birth

b) Hypoestrogenism

c) Constipation

d) Crohns disease

Correct Answer - D

Ans. is 'd' i.e., Crohns disease

Risk factors associated with pelvic organ prolapse are :

1. Pregnancy and vaginal delivery
2. Menopause (Aging, hypoestrogenism)
3. Increased intra-abdominal pressure (COPD, constipation, obesity)
4. Pelvic floor trauma
5. Genetic factors (Race, connective tissue disorders)
6. Spina bifida

145. Which enzyme deficiency is most commonly responsible for presence of long clitoris and fused vagina?

a) 21 hydroxylase

b) 11 hydroxylase

c) 3 beta hydroxy steroid dehydrogenase

d) None of the above

Correct Answer - A

Ans. is 'a' i.e., 21 hydroxylase

- Features of long clitoris and fused vagina are suggestive of adrenogenital syndrome/ congenital adrenal hyperplasia (CAH). 21 hydroxylase deficiency is responsible for 95% cases of CAH.

146. Which of the following is false about elongation of cervix ?

- a) The supravaginal portion is stretched and elongated
- b) Usually associated with second and third degree prolapse of uterus
- c) It is uncommon for the gland to elongate beyond 5cms
- d) It is invariably associated with retroverted uterus

Correct Answer - C

Ans. is 'c' i.e., It is uncommon for the gland to elongate beyond 5cms

Elongation of the Cervix

- In this condition the supravaginal portion of the cervix is well supported by Mackenrodt ligaments but the vaginal portion of the cervix prolapses with the vagina so the supravaginal portion gets stretched and elongated.
- This usually happens with second degree and third degree prolapse of the uterus.
- With procidentia, the entire uterus slides with the vagina and hence the cervix retains its normal length.
- It is not uncommon for the cervix to elongate to as much as 10 cm in length.
- The cervix may show hypertrophy and congestion.
- The uterus is invariably retroverted.

147. Teratogens produce all or none effect till which day of gestation?

a) 21

b) 31

c) 41

d) 51

Correct Answer - B

Ans. is 'b' i.e., 31

- Timing of Teratogen exposure and The hazards
- Before D 31: Teratogen produces an all or none effect. The conceptus either does not survive or survives without anomalies. In early conception only few cells are there. So any damage at that phase is irreparable and is lethal.
- D 31-D 71 is the critical period for organ formation. Effects of teratogen depend on the following factors: (i) Amount of the drug reaching the fetus, (ii) Gestational age at the time of exposure, (iii) Duration of exposure.
- After D 71 development of other organs continues. Diethylstilbestrol (DES) related uterine anomalies occur with exposure around 20 weeks.
- Brain continues to develop throughout pregnancy and neonatal period. Fetal alcohol syndrome occurs in late pregnancy.

148. Staging laprotomy is usually done for ?

a) Carcinoma ovary

b) Carcinoma cervix

c) Carcinoma endometrium

d) Carcinoma fallopian tube

Correct Answer - C

Ans. is 'c' i.e., Carcinoma endometrium

Staging of Carcinoma endometrium:

- Though surgical staging is recommended, clinical staging is applicable in operable cases.
- A staging laparotomy is recommended through a midline lower abdominal incision and the peritoneal ascetic fluid on washings is collected for cytology.
- Complete abdominal exploration followed by total abdominal hysterectomy (TAH) along with bilateralsalpingo-oophorectomy (BSO) omentectomy and pelvic and para-aortic lymph node sampling remains the cornerstone in the management of early endometrial cancer

149. T 1/2 of oxytocin is -

a) 1 - 2 minutes

b) 3 - 4 minutes

c) 15 - 20 minutes

d) 25 - 30 minutes

Correct Answer - B

Ans. is 'b' i.e., 3 - 4 minutes

- Oxytocin has a half life of 3-4 minutes and duration of action of approximately 20 minutes.

150. If patient has acute salpingitis and peritonitis, then what is the stage of PID?

a) Stage 1

b) Stage 2

c) Stage 3

d) Stage 4

Correct Answer - B

Ans. is 'b' i.e., Stage 2

Pelvic inflammatory disease (PID) implies inflammation of upper genital tract involving the fallopian tubes as well as the ovaries.

The spectrum ranges from mild to moderate and severe PID.

Depending upon the severity of tubal damage, Gainesville has described five stages of PID :

- Stage I - Acute salpingitis without peritonitis
- Stage II - Acute salpingitis with peritonitis
- Stage III - Acute salpingitis with superimposed tubal occlusion or tubo - ovarian complex
- Stage IV - Ruptured tubo - ovarian abscess
- Stage V - Tubercular salpingitis.

151. Hyperemesis gravidarum is maximum at what gestational age?

a) 6 weeks

b) 9 weeks

c) 28 weeks

d) 36 weeks

Correct Answer - B

Ans. is 'b' i.e., 9 weeks

- Maximum levels of beta HCG occur on 66th day of pregnancy, i.e. 9 weeks 3 days, and thus hyperemesis is maximum at 9 weeks of gestation.

152. Frequency of Braxton Hicks contraction is -

a) One every 2 minutes

b) One every 5 minutes

c) One every 15 minutes

d) None of the above

Correct Answer - C

Ans. is 'c' i.e., One every 15 minutes

Braxton - Hicks contractions

- Uterine contractions in pregnancy has been named after Braxton - Hicks who first described this entity.
- These contractions are irregular, infrequent, spasmodic and painless without any effect on dilatation of cervix.
- Patient is not conscious about the contractions.
- The intensity varies between 5 and 25 mmHg.
- The number increases during the last week or two, when the uterus may contract as often as every 10 to 20 minutes.

153. Correct order in labour -

i) Flexion

ii) Crowning

iii) External rotation

iv) Restitution

a) i - - - iv

b) i-ii-iv-iii

c) ii - iii - iv - i

d) ii-iv-i-iii

Correct Answer - B

Ans. is 'b' i.e., i - ii - iv - iii

Descent of head in normal labour follows these steps in the following order :

- Engagement
- Increasing flexion
- Internal rotation of occiput anteriorly to 2/8th of circle.
- Simultaneous rotation of the shoulders to 1/8th of circle.
- Crowning
- Delivery of the head by extension
- Restitution
- External rotation
- Delivery of the shoulders and trunk by lateral flexion.

154. Chance of subsequent baby having NTD when first baby was born with NTD -

a) 2%

b) 4%

c) 10%

d) 20%

Correct Answer - B

Ans. is 'b' i.e., 4%

- The recurrence risk of neural tube defect is :
- 3 - 5 % if a couple has previously had a child with either anencephaly or spina bifida.
- 5% if either parent was born with a NTD.
- 10% if a couple has two affected children

155. Treatment of choice for sarcoma botryoides is

a) Surgical excision

b) Radio therapy

c) Chemotherapy

d) Palliative therapy

Correct Answer - C

Ans is 'c' i.e., Chemotherapy

Sarcoma Botryoides

- Sarcoma botryoides is a rare tumour seen in children.
- This tumour arises in the mesenchymal tissues of the vagina and in rare cases, in the cervix before the age of 2 years.
- It presents as a haemorrhagic grape-like polyp or as a fleshy mass and consists of rhabdomyoblasts with vacuolated cytoplasm, myxoedema and stroma with fusiform cells.
- The tumour spreads by local infiltration, lymphatics and blood stream.
- Examination is done under anaesthesia; biopsy confirms the diagnosis. CT and MRI indicate its spread.
- Treatment. Chemotherapy with VAC (vincristine, adriamycin and cyclophosphamides) is the gold standard in treating this tumour.
- Other drugs used are cisplatin, actinomycin, cyclophosphamide and ifosfamide.
- Surgery is limited to the local residual tumour. Interstitial radiation is used in advanced stage.

156. Which of the following is true about wandering fibroid?

a) Attached to uterus

b) Attached to uterus and surrounding viscera

c) Attached to surrounding viscera

d) Neither attached to uterus nor to surrounding viscera

Correct Answer - C

Ans. is 'c' i.e., Attached to surrounding viscera

- A subserous pedunculated myoma may complicate by undergoing rotation at the site of its attachment to the uterus.
- As a result, its veins are occluded and the tumour becomes engorged with blood.
- Patient presents with very severe abdominal pain.
- In very rare cases, these rotated tumors may adhere to an adjacent viscera and obtain a fresh blood supply from these adhesions and finally be detached completely from the uterus and are attached only to adjacent viscera.
- Such fibroids are called wandering or parasitic fibroids.

157. Nitabuch'slayer is absent is

a) Placenta accrete

b) Placenta previa

c) Placenta membranacia

d) Circumvallate placenta

Correct Answer - A

Ans is 'a' i.e., Placenta accrete

Nitabuchs layer

- During formation of placenta, there is an area of fibrinoid degeneration where trophoblast cells (covered with syncytium) meet the decidua.
- This zone is known as Nitabuch's layer. This layer limits further invasion of the decidua by the trophoblast. Note: This membrane is absent in placenta accreta.

158. Cervical pregnancy is confirmed by the presence of

- a) Gestational sac below internal os
- b) Intractable bleeding following evacuation or expulsion of products
- c) Bleeding is painless
- d) Histology showing presence of villi inside the cervical stroma

Correct Answer - D

Ans is 'd' i.e., Histology showing presence of villi inside the cervical stroma

Cervical Pregnancy

- In cervical pregnancy, the bleeding is painless and the uterine body lies above the distended cervix. Intractable bleeding following evacuation or expulsion of the products brings about suspicion.
- The morbidity and mortality is high because of profuse hemorrhage.
- Clinical diagnostic criteria (Rubin-1983) for cervical pregnancy are?
 - Soft, enlarged cervix equal to or larger than the fundus.
 - Uterine bleeding following amenorrhea, without cramping pain.
 - Products of conception entirely confined within and firmly attached to endocervix.
 - A closed internal cervical os and a partially opened external os.
- Sonography reveals the pregnancy in the cervical canal and an empty uterine cavity.
- Confirmation is done by histological evidence of the presence of villi inside the cervical stroma.

159. Which of the following is included in the III step of management of atonic uterus?

a) IV Calcium Gluconate

b) Uterine Massage and bimanual compression

c) Balloon tamponade

d) Per rectal PGE

Correct Answer - B

Ans is 'b' i.e., Uterine Massage and bimanual compression

STEPS :

- I Massage uterus, injection oxytocin, foleys catheter insertion to keep bladder empty, examine expelled placenta and membranes
- II Exploring uterus under GA, IM inj 15 methyl PGE2 alpha, per rectal PGE1, IV calcium gluconate if atony secondary to tocolytic agent)
- III Uterine Massage and bimanual compression
- IV Uterine tamponade - tight uterine packing, balloon tamponade.

160. Air embolism occurs in which method of abortion?

a) Spontaneous abortion

b) Medical Termination of pregnancy

c) Criminal abortion

d) Antiphospholipid antibody syndrome

Correct Answer - C

Ans is 'c' i.e., Criminal abortion

- In criminal abortion death may occur from shock, hemorrhage, air or fat embolism and sepsis. When poisonous substances have been administered death may supervene from their effects.
- DIC and cerebral damage may follow when abortion is induced by intrachorionic injection of hypertonic saline and glucose after 12th week.

161. In Procidentia which of the following is true?

a) Uterus and cervix in vagina

b) Uterus in vagina cervix outside the introitus

c) Both uterus and vagina outside the introitus

d) None of the above

Correct Answer - C

Ans is 'c' i.e., Both uterus and vagina outside the introitus

Uterine descent

- Descent of the cervix into the vagina.
- Descent of the cervix up to the introitus.
- Descent of the cervix outside the introitus.
- Procidentia - All of the uterus outside the introitus

Procidentia:

- Procidentia refers to the complete prolapse beyond the level of the hymen distally so the uterus (or vaginal vault if uterus is absent) is permanently protruding out of the vagina.
- Women with procidentia have poor coordination of pelvic muscle relaxation and contraction, associated bowel dysfunction, and underlying urinary incontinence.

INVESTIGATIONS:

- The investigations required with procidentia are few, but renal ultrasonography and mid-stream urinalysis may be important, owing to potential for kinking of the ureters leading with consequent hydronephrosis and urine stasis due to incomplete emptying.
- In addition, some authors have suggested urodynamic investigations prior to surgery to help identify occult stress urinary incontinence and to attempt to predict those women with underlying voiding

dysfunction.

MANAGEMENT:

- Surgical options for procidentia include: vaginal hysterectomy with anterior and posterior traditional colporrhaphy; or vaginal hysteropexy utilising uterosacral and cardinal ligament complex; sacrospinous fixation; or abdominal or laparoscopic hysteropexy, with or without mesh.

162. All the following represent risk factors associated with pelvic inflammatory disease except

a) Recent new sexual partner

b) Douching

c) Low socioeconomic status

d) Age 30 - 39 years

Correct Answer - D

Ans is 'd' i.e., Age 30 - 39 year

Risk factors associated with pelvic inflammatory disease are :

- Douching
- Single status
- Substance abuse
- Multiple sexual partners
- Lower socio - economic status
- Recent new sexual partner
- Young age 10 - 19 years
- Other sexually transmitted infections
- Sexual partner with urethritis or gonorrhoea
- Previous diagnosis of pelvic inflammatory disease
- Not using mechanical or chemical contraceptive barriers
- Endocervical testing positive for N. gonorrhoea or C. trachomatis

163. Nodular tags of hymen in the post pregnancy period are called

a) Carunculaemyrtiformes

b) Vestibulaemyrtiformes

c) Orficiaemyrtiformes

d) Carunculaeorificies

Correct Answer - A

Ans is 'a' i.e., Carunculaemyrtiformes

- The hymen can stretch or tear as a result of various behaviours, by tampon or menstrual cup use, pelvic examinations with a [speculum](#), regular physical activity, sexual intercourse, insertion of multiple fingers or items into the vagina, and activities such as gymnastics (doing 'the splits'), or horseback riding. Remnants of the hymen are called [carunculaemyrtiformes](#).

164. Volume of ovary after menopause is -

a) 7.8 cm³

b) 6.5 cm³

c) 5.4 cm³

d) 3.0 cm³

Correct Answer - D

Ans. is 'd' i.e., 3.0 cm³

- Volume of ovary can be calculated based on a simple formula:
- Volume = $\frac{1}{2} \times \text{Length} \times \text{height} \times \text{width}$

Ovarian Volume in women

Age	Mean ovarian vol.
0	0.2
2	0.7
4	0.9
6	1.2
8	1.7
10	2.5
12	3.7
14	5.0
16	6.4
18	7.3
20	7.7
22	7.6
24	7.2
26	6.7
28	6.3

30	6.0
32	5.9
34	5.9
36	5.8
38	5.7
40	5.4
42	4.9
44	4.4
46	3.8
48	3.3
50	2.8

165. Average reproductive life span of ovum is?

a) 6-12 hrs

b) 12-24 hrs

c) 24-36 hrs

d) 3 days

Correct Answer - B

Ans. is 'b' i.e.,12-24 hrs

- Reproductive life of ovum → 24 hours (12 - 24 hours)
- Reproductive life of sperm → 24 - 72 hours

166. Arterial embolization done in all except ?

a) Uterine AV malformation

b) PPH

c) Bleeding fibroid

d) Prevent bleeding in endometriosis

Correct Answer - D

Ans. is 'd' i.e., Prevent bleeding in endometriosis

Indications for embolization in Obstetrics and Gynecology are the following:

- Postpartum hemorrhage: Uterine atony / tears, Abnormal placentation
- Post abortion/ ectopic
- Post hysterectomy
- Uterine AV malformation/ Gestational trophoblastic tumors
- Gynecological malignancies
- Fibroids (acute bleeding)

167. Small size placenta is seen in ?

a) Peripheral vascular disease in mother

b) Pre eclampsia

c) Maternal weight < 50 Kg

d) Multiple pregnancy

Correct Answer - B

Ans. is 'B' i.e., Pre eclampsia[Ref Internet]

- Small placenta on antenatal ultrasound USG may be due to :-
- Variation in placental morphology :Only post of placenta is seen.
- Bibbed placenta :Only one lobe is seen.
- Succenturiate lobe.
- Hypertensive states (pre-eclampsia, eclampsia)
- Chromosomal disorders :Trisomy 18, Dysgenic triploidy, IUGR or intrauterine infection

168. Following features are suggestive of severe eclampsia except?

a) Blood pressure > 150/100 mmhg

b) Proteinuria of > 5gms in 24hrs

c) Oliguria of < 500 ml in 24 hrs

d) Thrombocytopenia

Correct Answer - A

Ans. is 'a' i.e., Blood pressure > 150/100

Preeclampsia is considered severe if one or more of the following criteria is present:

- Blood pressure of 160 mm Hg systolic or higher or 110 mm Hg diastolic or higher on two occasions at least 6 hours apart while the patient is on bed rest.
- Proteinuria of 5 g or higher in a 24-hour urine specimen or 3+ or greater on two random urine samples collected at least 4 hours apart.
- Oliguria of less than 500 ml in 24 hours
- Cerebral or visual disturbances
- Pulmonary edema or cyanosis
- Epigastric or right upper-quadrant pain
- Impaired liver function
- Thrombocytopenia
- Fetal growth restriction

169. Vulvar carcinoma accounts for what percentage of genital tract malignancies?

a) 0.5 - 1%

b) 3 - 5%

c) 7 - 11%

d) 13 - 15%

Correct Answer - B

Ans. is 'b' i.e., 3 - 5%

Vulval Carcinoma

- It occurs in 17/100,000 females.
- It accounts for 3 - 5% of the genital tract malignancies
- It usually occurs in post menopausal females with median age of 60 years.
- It has increased association with obesity, hypertension, diabetes and multiparity.

170. Most common histopathological variety of carcinoma vulva ?

a) Squamous cell carcinoma

b) Basal cell carcinoma

c) Adenocarcinoma

d) Lymphoma

Correct Answer - A

Ans. is 'a' i.e., Squamous cell carcinoma

- Squamous cell carcinomas are the most common histological type accounting for 85% of all vulval cancers.

171. Maximum teratogenic effect on heart of fetus is between?

a) 2 - 4 weeks

b) 4 - 6 weeks

c) 6 - 8 weeks

d) 8 - 10 weeks

Correct Answer - C

Ans. is 'c' i.e., 6 - 8 weeks

- Period of organogenesis (Embryonic - 2 - 8 weeks of conception) is the time of maximum vulnerability, and each embryonic system has a period of maximum susceptibility.
- Heart is typically affected if the teratogen acts between 6 - 8 weeks of gestation.
- CNS maximum susceptibility between 17 - 30th post fertilization days.

172. Pregnant women with obesity are at higher risk of following except?

a) Fetal macrosomia

b) Fetal distress

c) Gestational hypertension

d) Infections

Correct Answer - D

Ans. is 'd' i.e., Infections

In a prospective multicenter study, pregnant females with obesity (BMI of 30-39.9) was associated with an increased risk of the following compared to non obese females:

- Gestational diabetes mellitus
- Preeclampsia
- Gestational hypertension
- Fetal macrosomia

173. Which method of contraception is not used in patient with active syphilis?

a) IUCD

b) Oral contraceptive pills

c) Barrier devices

d) Calendar method

Correct Answer - A

Ans. is 'a' i.e., IUCD

- Syphilis is a sexually transmitted disease.
- Use of IUCD is strictly contraindicated in patient with active genital tract infection thus use of IUCD is contraindicated in patient with active syphilis

174. Gardasil protects against following HPV strains except ?

a) 6

b) 16

c) 18

d) 33

Correct Answer - D

Ans. is 'd' i.e.,33

HPV Vaccines

- Cervarix - Protects against HPV-16, 18.
- Gardasil 4 Protects against HPV - 6, 11, 16, 18.
- Gardasil -9 - Protects against HPV - 6, 11, 16, 18, 31, 33, 45, 52, 58.

175.

Common indications for caesarian section in primigravidae are all except ?

a) Failed induction

b) Cephalopelvic disproportion

c) Dystocia

d) Malpresentation

Correct Answer - D

Ans. is 'd' i.e., Malpresentation

Primigravidae

- Failed induction
- Fetal distress (non-reassuring FHR)
- Cephalo-pelvic disproportion
- Dystocia
- Malpresentation, malposition

Multigravidae

- Previous caesarean delivery
- APH
- Malpresentation

176. Fibroid with maximum symptoms is ?

a) Submucous

b) Subserous

c) Intramural

d) Cervical

Correct Answer - A

Ans. is 'a' i.e., Submucous

177. Twin pregnancy of the same age and sex rules out ?

a) Superfetation

b) Maternal twins

c) Superfecundation

d) None of the above

Correct Answer - A

Ans. is 'a' i.e., Superfetation

Superfetation

- It is the simultaneous occurrence of more than one stage of developing offspring in the same animal.
- In mammals, it manifests as the formation of an embryo from a different estrous cycle while another embryo or fetus is already present in the uterus.

178. At what level of testosterone ovarian pathology should be searched ?

a) > 4 nmol/L

b) > 6 nmol/L

c) > 8 nmol/L

d) >10 nmol/L

Correct Answer - D

Ans. is 'd' i.e., > 10 nmol/L

Testosterone in females

- It is secreted by the ovary (60%) and also derived from the peripheral conversion of androstenidione (40%), which is secreted in equal amounts by the ovary and adrenals.

179. Increased blood pressure for > 3 months after delivery ?

a) Pregnancy induced hypertension

b) Essential hypertension

c) Pre eclampsia

d) Gestational hypertension

Correct Answer - B

Ans. is 'b' i.e., Essential hypertension

Diagnostic criteria for essential hypertension in pregnancy

- Rise in BP >140/ 90 mm Hg prior to 20th week of pregnancy.
- Cardiac enlargement on chest radiograph and ECG.
- Presence of medical disorders.
- Prospective follow up shows rise in BP ever after 42 days following delivery.

180. Which of the following is false about gestational hypertension?

- a) There is a sustained rise of BP > 140/90 mmHg
- b) Blood pressure returns to normal within 6 weeks of delivery
- c) It is associated with lower incidence of essential hypertension in the later life as compared to pre eclampsia
- d) Perinatal mortality remains unaffected

Correct Answer - C

Ans. is 'C i.e., It is associated with lower incidence of essential hypertension in the later life as compared to pre eclampsia
Gestational hypertension

- A sustained rise of blood pressure to 140/90 mm Hg or more on atleast 2 occasions 4 or more hours apart beyond the 20th weeks of pregnancy or during the first 24 hours after delivery in a previously normotensive woman is called gestational hypertension.
- It is associated much higher incidence of essential hypertension in later life than pre eclampsia.
- The hypertensive effect is actually a stress response.
- Perinatal mortality remains unaffected in a case of gestational hypertension.
- The patients with gestational hypertension are more likely to develop hypertension with the use of oral contraceptives or in subsequent pregnancies.
- B.P. returns to normal within 6 weeks of delivery

181. Surgery in genital TB Is not indicated in -

a) Pyometra

b) Plastic bowel adhesions

c) Pyosalpinx

d) Persistence of symptoms despite medical management

Correct Answer - B

Ans. is'b'i.e., Plastic bowel adhesions

Indications for surgery in case of genital tuberculosis:

- Progression of disease
- Persistent active lesion despite chemotherapy
- Persistence of large inflammatory masses i. e. pyosalpinx, Pyometra despite chemotherapy
- Persistence of symptoms i. e. pain, menorrhagia despite chemotherapy
- Persistence of fistula despite chemotherapy

Contraindications for surgery in case of genital tuberculosis:

- Active lesions elsewhere in body
- Plastic adhesions of bowel

182. 29 years female, G2 P1 A1 with 16 weeks amenorrhoea, lower abdominal pain and vaginal bleeding, ultrasonography shows snow storm appearance. What is the most feasible method of treatment

a) Misoprostol administration

b) Hysterectomy

c) Mifepristone

d) Suction evacuation

Correct Answer - D

Ans. D. Suction evacuation

- 29 yrs female with amenorrhea of 16 week with lower abdominal pain and vaginal bleeding and snow storm appearance on USG gives us a diagnosis of hydatidiform mole.
- The most preferred definitive treatment in case of hydatidiform mole in almost all cases is suction evacuation.
- It can be easily done upto 28 week of gestation.
- In favourable cervix suction evacuation is done with a negative pressure of 200 - 250 mm Hg.
- The cervix is closed prior dilatation is followed by suction and evacuation.

183. Zygote is dependent on which of the following for its nutrition -

a) Deutoplasm

b) Secretions from wall of fallopian tube and uterus

c) Sperm carbohydrate stores

d) All the above

Correct Answer - D

Ans. is 'd' i.e., All the above

- While zygote is passing down the fallopian tube and after a brief period as it enters the uterus, it depends for its nutrition on the yolk sac granules (deutoplasm) embedded in its cytoplasm and on the fluid medium surrounding it which is secreted by the walls of the uterine tube and uterus.
- It also derives its energy from the stored carbohydrate in sperm, which fertilized the ovum,

184. For salpingitis true is

a) Always bilateral

b) Associated with overt injury

c) Not associated with future infertility

d) Bacterial vaginosis is not a risk factor for pelvic inflammatory disease development

Correct Answer - D

Ans. is 'd' i.e., Bacterial vaginosis is not a risk factor for pelvic inflammatory disease development

Pelvic inflammatory disease (PID)

- It is the infection of upper female reproductive tract organs.
- As fallopian tube are involved most commonly, it is also called as acute salpingitis.
- It is associated most commonly with N gonorrhoea and chlamydial infection.
- Bacterial vaginosis is not a risk factor for PID.
- PID / acute salpingitis may be unilateral or bilateral.

Sequelae of PID are:-

1. Tubal factor infertility
2. Ectopic pregnancy
3. Chronic Pelvic Pain

185. Fibromyoma is seen in age group

a) Reproductive

b) Early adolescence

c) Latepostmenopausal

d) Prepubertal

Correct Answer - A

Ans. is'a'i.e., Reproductive

- Fibroids are the most common benign solid tumours in females.
- It is the most common Pelvic tumour
- Most commonly affects the reproductive age group.
- Most commonly seen in nulliparous common

186. Most common infection associated with IUCD use is

a) Chlamydia

b) Staphylococcus epidermidis

c) Staphylococcus aureus

d) Group D Streptococcus

Correct Answer - A

Ans. a.Chlamydia

- Infections with chlamydia and actinomyces are most common with use of IUCD

187. Condition not responsive to medical therapy

a) Invasive mole

b) Choriocarcinoma

c) Hydatidiform mole

d) Persistent gestational trophoblastic disease

Correct Answer - C

Ans. is 'c' i.e., Hydatidiform mole

- It is an abnormal condition of the placenta where there are partly degenerative and partly proliferative changes in the young chorionic villi.
- It is best regarded benign neoplasia of the chorion with malignant potential.
- Management: Suction evacuation

188. Mucosal lining of fallopian tube secretion for ovum nutrition controlled by -

a) LH

b) FSH

c) Estrogen

d) Progesterone

Correct Answer - D

Ans. D. Progesterone

- The secretions of the fallopian tube are a mode of nutrition to the developing zygote till, it reaches uterus and placenta forms.
- Progesterone increases the secretion of the fallopian tube mucous membrane and also causes hyperplasia of the muscular lining of the fallopian tube and makes its peristaltic movements stronger

189. Fourchette is formed by?

a) Joining of labia majora

b) Joining of labia minora

c) Joining of labia majora with minora

d) Junction of cervix and vagina

Correct Answer - B

Ans. is'b'i.e., Joining of labia minora

Fourchette :

- The fourchette is a thin fold of skin, identified when the labia are separated, and it is often torn during parturition.
- The fossa navicularis is the small hollow between the hymen and the fourchette.
- The labia minora lie between the labia majora, with which they merge posteriorly, and are separated into two folds as they approach the clitoris anteriorly.
- The anterior folds unite to form the prepuce or hood of the clitoris.
- The posterior folds form the frenulum of the clitoris.
- Inferiorly, the labia minora extend to approach the midline as low ridges of tissue that fuse to form the fourchette

190. Malaria in pregnancy doesn't cause?

a) HELLP

b) IUGR

c) IUD

d) Preterm

Correct Answer - A

Ans. is'a'i.e., HELLP

Effect of malaria on pregnancy:

- IUGR
- Abortion
- IUD
- Preterm
- Low birthweight

191. Gland homologous to prostate in females is?

a) Gartner's gland

b) Skene's gland

c) Bartholin's gland

d) Cowper's gland

Correct Answer - B

Ans. B. Skene's gland

- In female human anatomy, Skene's glands or the Skene glands known as the lesser vestibular glands, paraurethral glands, or homologous female **prostate** are glands located on the anterior wall of the **vagina**, around the lower end of the **urethra**.

192. Incomplete uterine rupture is defined as?

a) Disruption of part of scar

b) Disruption of entire length of scar

c) Disruption of scar including peritoneum

d) Disruption of scar with peritoneum intact

Correct Answer - D

Ans. is'd' i.e., Disruption of scar with peritoneum intact

Incomplete rupture :

- In an Incomplete uterine rupture, the mother's peritoneum remains intact.
- The peritoneum is the membrane that lines the abdominal cavity to support abdominal organs.
- It also acts as a channel for blood vessels and nerves.
- An incomplete uterine rupture is significantly less dangerous with fewer complications to the delivery process.

Complete rupture:

- During a Complete uterine rupture, the peritoneum tears and the contents of the mother's uterus can spill into her peritoneal cavity.
- The peritoneal cavity is the fluid-filled gap that separates the abdomen walls and its organs.
- It is suggested that delivery via cesarean section (C- section) should occur within approximately 10 to 35 minutes after a complete uterine rupture occurs.
- The fetal morbidity rate increases dramatically after this period.

193. Cells seen at the junction between two layers of placenta are?

a) Hofbauer cell

b) Hofmann cells

c) Amniogenic cells

d) Uterine natural killer cells (UNK)

Correct Answer - A

Ans. is'a'i.e., Hofbauer cell

- Hofbauer cells (HBCs) are placental macrophages that are present in the core of villus.
- Major cell type in placenta include syncytiotrophoblasts which line intervillous space and are in direct contact of maternal blood.
- Underlying stromal cells adjacent to fetal capillaries largely consisting of trophoblasts and Hofbauer cells (fetal tissue macrophages)

194. Which of the following is not a pre-requisites for transvaginal sonography (TVS)?

a) Consent

b) Fullbladder

c) Empty bladder

d) Lithotomyposition

Correct Answer - B

Ans. B. Full bladder

- Transvaginalsonographyisbest performedwith an emptybladder, which enables the pelvic organs to reach acloser proximity to the tip of the high-frequency transvaginal probe.
- On the other hand trans abdominal sonography is done with full bladder to get an overview of anatomy.

195. Which of the following is not true of placenta?

a) Number of cotyledons increases with gestational age

b) Weight of fetus and placenta equal at 4 months

c) After delivery weight of placenta is 500 gm

d) At term about four fifths of placenta of maternal origin

Correct Answer - D

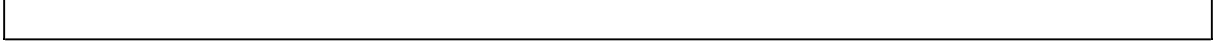
Ans. is'd'i.e., At term about four fifths of placenta of maternal origin

Placenta

- Human placenta is discoid in shape.
- It has two surfaces, fetal and maternal.
- In the beginning the placenta growth is more rapid than that of the fetus, by 17th week they have equal weight.
- By term placental weight is one sixth of fetal weight.
- Maternal surface constitute 15-20 somewhat polygonal placental lobule, or cotyledon.
- Each lobule is supplied with a single truncal branch of chorionic artery.
- And each lobule has a single vein so that so that lobules constitute functional units of placental architecture.

Placenta at term

- At term it is almost circular disc with a diameter of 15-20 cm and thickness about 3 cm at center.
- It's approximate weight is 500 gm.
- The ratio of placental: fetal weight is 1: 6 and occupies about 30% of uterine wall.
- At term, about four fifths of placenta is fetal in origin.



196. Most common histological variety of Uterine carcinoma is?

a) Squamous cell carcinoma

b) Columnar cell carcinoma

c) Adeno carcinoma

d) Mixed carcinoma

Correct Answer - C

Ans. is'c'i.e., Adenocarcinoma

Carcinoma of uterus :

- Endometrial carcinoma is the most common invasive cancer of the female genital tract and accounts for 7% of all invasive cancer in women.
- On histologic examination, most endometrial carcinomas (about 85%) are adenocarcinomas characterized by more or less well-defined gland patterns closely resembling normal endometrial epithelium.

197. Male factor is responsible for infertility in how much percentage -

a) 5%

b) 20%

c) 30%

d) 50%

Correct Answer - C

Ans. is 'c' i.e., 30%

Infertility:

- Male factor: 30%
- Tubal, uterine & peritoneal factor: 25%
- Ovarian factor: 25%
- Cervical factor: 10%
- Unexplained factor: 10%

198. In hypergonadotropic hypogonadism FSH level is?

a) <20 m IU/ ml

b) <40 m IU/ ml

c) >20 m IU/ ml

d) >40 m IU/ ml

Correct Answer - D

Ans. is'd'i.e., > 40 m IU/ml

FSH LEVEL:

- Age 0-7 years: <6.7 m IU/ml
- **Age >7 years:**
- Follicular phase: 3.1 -7.9 ml IU/ml
- Ovulation peak : 2.3 – 18.5 ml IU/ml
- Luteal phase :1.4- 5.5 ml IU/ml
- Postmenopausal: 30.6-106.3 ml IU/ml
- Hypergonadotropic hypogonadism: >40ml IU/ml

199. Nerve commonly injured in forceps delivery is ?

a) Common peroneal

b) Obturator

c) Lateral cutaneous nerve of thigh

d) Sciatic

Correct Answer - B

Ans. is'b'i.e., Obturator

- Obturator nerve injury (L2-4) may result during forceps delivery in lithotomy position resulting from acute Flexion of hip, hematoma, trauma from forceps blade.

200. Dysmenorrhoea is due to ?

a) Ovulation

b) Decreased progesterone

c) Increased progesterone

d) Secretory epithelium

Correct Answer - B

Ans. is 'b' i.e., Decreased progesterone

- Dysmenorrhoea refers to painful cramping pain accompanying menstruation.
 - Dysmenorrhoea in ovulatory cycle is due to release of PGs, in endometrium induced by progesterone
- Dysmenorrhoea is classified into :**
- Primary dysmenorrhoea refers to one that is not associated with any identifiable pelvic pathology. It is now clear that the pathogenesis of pain is attributable to a biochemical derangement.
 - Secondary dysmenorrhoea refers to the one associated with the presence of organic pelvic pathology, i.e. fibroids, adenomyosis, PID endometriosis. Unilateral dysmenorrhoea occurs in a rudimentary horn of a bicornuate uterus