Obstetrics Notes By Dr. Kamal Deep

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1) During childbirth,the hymen is extremely lacerated and later represented by cicatrized nodules of varying size,called the **carunculae myritiformes**
2) **Opening of bartholin`s ducts** in the groove between **the hymen and the labium minus**.
3) Out of 4 fornices the posterior one is deeper,**the anterior one is the most shallow**.
4) **Vagina** mucous layer is lined by **stratified squamous** epithelium **without any secreting glands**.It is non keratinized.
5) **Development from urogenital sinus. Of vagina**
6) **Relations of lat vaginal fornix** : a)**Mackendrots ligament** (transverse cervical ligament) connect lateral aspects of cervix and of the upper vaginal wall to the lateral pelvic wall.***They form a hammock that supports the uterus.*** b)The **uterine artery** (branch of ant division of the internal iliac artery .it first runs medially towards the cervix ,crossing the ureter **above the lateral fornix** of the vagina and 2 cm lateral to the cervix.The uterine artery crosses from above and in front of the ureter.c)**ureter**
7) Mucous coat lining the endocervix is **columnar.**
8) Peritoneum in relation to the uterus when traced **laterally** forms the **broad ligament.**
9) **Lymphatic drainage** of the uterus : **1 Fundus and upper part of body –Aortic nodes,**partly to **superficial inguinal nodes** along the round ligament of the uterus. **2 Cervix—external iliac,internal iliac and sacral nodes.**
10) Lymphatic drainage **of vulva: superficial inguinal glands.**
11) In papillary ca. of uterine **cornua**,lymphatic spread will ocuur to **inguinal.(**the superolateral angles of the body of the uterus project outwards from the junction of the fundus and body and is called the cornua of the uterus**)** ***cornua drains in to superficial inguinal glands***.**Most of the tubal lymphatics and lymphatics from ovary drains into paraortic nodes.The lymphatics from the isthmus drain into superficial inguinal nodes.**
12) **In conditions such as primary sore and bartholin`s abscess,the horizontal inguinal group becomes inflamed.**

13) Obturator glands most frequently involved in **ca cervix**,drains in to **external iliac nodes.**
14) the **squamous cells of the vagina and cervix** stain a deep brown colour after being painted with iodine ,owing to the presence of **glycogen** in **healthy cells**(positive schillers test)
15) In **nulliparous women** external os **is circular/cervix is conical** ,in the **parous** Ext os is **transverse slit while cervix is cylindrical.**
16) **Before puberty** the **cervix to corpus ratio : 2:1**, **at puberty** : **1:2**,**durin reproductive years 1: 3**
17) **Round ligament** corresponds to **vas** in males.
18) **Fallopian tube** measures 4 inches or **10-12 cm** .**Interstitial portion** is the **NARROWEST PART**. Next is isthmus.Then lies laterally is ampulla,the widest and longest part.and at the end is fimbriated extremity or infundibulum where the abdominal ostium opens into peritoneal cavity.
19) **Fallopian tubes** have 3 types of cells acc to frequency1) ciliated 2) goblet cells 3) **PEG CELLS**
20) **MESONEPHRIC ELEMENTS 1) EPOOPHORON : CRANIAL end of wolffian body** 2) PARAOOPHORON) CAUDAL end of wolffian body 3) **Gartner`s duct or wolffian duct**. It passes downwards by the side of the uterus to the level of the internal os where it passes into the tissues of the cervix.it then runs forward to reach the anterolateral aspect of the vaginal wall and may reach as far as down the hymen.**THE DUCT SOMETIMES FORMS A CYST CALLED THE GARTNER`S CYST.(CONGENITAL CYST)**
21) **Female urethra measures 35MM**.
22) **MUSCLES OF THE PERINEUM :1) ISCHIOCAVERNOSUS 2)BULBOSPONGIOSUS 3) SUPERFICIAL TRANSVERSE PERINEI 4) SPHINCTER URETHRAE 5) DEEP TRANSVERSE PERINEI**. First thee muscles lie in the superficial perineal space and last 2 muscles lie in the deep perineal space.**last 2 muscles form the UROGENITAL DIAPHRAGM.**
23) PELVIC DIAPHRAGM is formed by two pelvic muscles LEVATOR ANI and COCCYGEUS.
24) **PERINEAL BODY** represented by three layers of muscles. First and superficially are **external sphincter of the anus,bulbospongiosus and superficial transverse perinei.**.Deep to thi sis urogenital diaphragm enclosing the **deep transverse perinei**. Deeper still is **levator ani(pubococcygeus part)**.All these 5 muscles converge and interlace in the perineal body to form a fibromuscular node situated in the median plane,about 1.25 cm in front of the anal margin and close to the bulb of penis.
25) Most important structure **preventing the uterine prolapse** are **Mackendrot`s ligament** and **Uterosacral ligament**.
26) **Least vascular part** of **the uterus** is in **midline**.
27) **The uterus is** supplied by **both parasympathetic and sympathetic nerves** through the **INFERIOR HYPOGASTRIC AND OVARIAN PLEXUSES**.**SYMP –T12-L1 , PARASYM. –S2 S3 S4**. Pain sensations fronm the body of the uterus pass along the sympathetic nerves and from the cervix along the parasympathetic nerves. Nervi ergentes or pelvic splanchnic nerves represent the sacral outflow s2 s3 s4 of the parasympathetic nervous system.. **PUDENDAL NERVE is the chief nerve of the perineum and external genitalia**. arises from the sacral plexus S2 S3 S4. in the pelvis like pelvic splanchnic nerves.**Pudendal nerve leaves the pelvis** to enter gluteal region by passing through **GREATER SCIATIC FORAMEN.** The nerve leaves the gluteal region by passing

through the lesser sciatic foramen and enters the pudendal canal .Pudendal canal present in the lateral wall of ischiorectal fossa contains the pudendal nerve and internal pudendal vessels.

28) The motor and sensory fibres from S2 S3 S4 **ends in GANGLIA OF FRANENHAUSER** .SURROUNDING THE CERVIX.

29) **Ilioinguinal nerve supplies the skin of anterior one third of scrotum and root of the penis in males ,in females it supplies the mons ,the upper and outer aspect of labia majora and the perineum,Rest of external genitalia and perineum supp by pudendal nerve.Pudendal block needed in vaginal deliveries.**

30) **After the first meiotic division,which results in 2 daughter cells with haploid no of chromosomes but two chromatids(2n),the two chromatids of each chromosome separate during a second meiotic division to yield four gametes with a haploid state (1n).when the egg is fertilized by sperm,the two haploid sets are combined,thereby restoring the diploid state(2n) in the zygote.(diploid no of chromosomes in diploid state,2n)**

31) Primitive germ cells(oogonia) takes their origin from the yolk sac.

32) Primary oocyte is 46 XX

33) The time required for a spermatogonium to develop into mature spermatozoon is about 61 days.

34) **The number of chromosomes after 1st meiotic division is haploid but in the diploid state (2n). The secondary oocyte is 23 X with haploid no of chromosomes (but in diploid state (2n), with two chromatids) formed after 1st meiotic division.**

35) **Polar bodies formed during oogenesis only.**At the time of birth ova undergo first meiotic division but arrest in prophase.**Just before ovulation** arrested prophase is completed to form secondary oocyte and **the first polar body**.First polar body fragments and disappears.The secondary oocyte immediately begins **second meiotic division** but arrest in metaphase which is **completed** only when a sperm penetrate the oocyte(**AFTER fertilization.,the time when second polar body is cast off)**

36) **If there is no pregnancy,the corpus luteum begins to degenerate about 4 days before the next menses(24th day of the cycle)**

37) The length of secretory phase which comes after prolif phase is remarkably constant at about 14 days,and the variations seen in the length of the menstrual cycle are due for the most part to variations in the length of the prolif phase.Thus if a lady presents with a 29 day cycle, ovulation **occurs at 15th day,+1 is added to prolif phase as secretory phase is mostly constant.**

38) The **LH SURGE STIMULATES COMPLETION OF REDUCTION DIVISION OF THE OOCYTE. AT THE TIME OF LH SURGE(OVULATION**) the steroid hormones ratio in peripheral circulation is -----**HIGH ESTROGENS TO LOW PROGESTERONES**.after LH surge both rises but ratio is more for progesterones. prolif phase maintained by estrogens and luteal or sec phase by both hormones.

39) **Morula enters the uterine cavity on 4th day after fertilization. IMPLANTATION** occurs **6 days after fertilization** (**or 2-3 days after entering into uterine cavity**)corresponds to 20th day of menstrual cycle.

40) **Expelled products in ectopic pregnancy originate from decidua vera.**The rest of the decidua lining the uterine cavity outside the site of implantation is decidua vera or parietalis.

41) Fibrinoid necrosis appears on the syncytiotrophoblast outside the trophoblastic shell and is called **NITABUCH`S MEMBRANE**.(ZONE OF **FIBRINOID DEGENERATION** *WHERE THE TROPHOBLAST AND THE DECIDUA MEET)*

42) Fetoplacental circulation ------21st -22nd day(Arteriocapillaryvenous system in the mesenchymal core of each villus is completed on 21st day)

43) Blighted ovumrepresents failed development of embryo,so that a gestational sac with or without a yolk sac is present characterised by AVASCULAR VILLI.

44) Implantation bleeding is called **HARTMAN`S SIGN**.

45) Def sign of pregnancy is fetal skeleton on XRAY. **Radiologic evidence of fetal skeletal shadow may be visible as early as 16th weeks**.FHS is also a definite **clinical** sign.(***120-140 per minute***)

46) Placenta weighs around **500 gm.roughly 1/6th or 20% of the weight of the baby at term**. Occupies about **30% of the uterine wall**.

47) Insulin ,steroids from adrenals,thyroid,hcg,or placental lactogen cross the placenta at a avery slow rate.**Neither PARATHORMONE NOR CALCITONIN CROSSES PLACENTA.**

48) Amniotic fluid is faintly alkaline ***.the rate of amniotic fluid turnover is 300 cc /hr.Volume reaches peak at 36-38 wks(1litre).*** **50 ml at 12 weeks.Normal amniotic fluid sodium content at term is 320-410 mg er 100 ml.Amniotic fluid contains estradoil and prostaglandins,prolactin ,insulin and renin.glucose,urea,protein,NPN,uric acid,creatinine,apart from inorganic constituents like Na,k,cl**

49) External genitalia develops ***at 8-12 weeks post conception.***

50) The internal urogenital tract,In the male ,the wolffian duct -----vas deferens,epididymis,seminal vesicles.mullerian duct disappears.In the female the mullerian ducts----Fallopian tubes,uterus and upper vagina.wolffian duct regress.

51) The external genitalia in both sexes from common analge.The urogenital sinus gives rise to the prostate and prostatic urethra in males ,and to the urethra and lower portion of the vagina in the female.The genital tubercle gives rise to glans and clitoris.The urogenital swellings----scrotum and labia majora.The urethral folds---labia minora / shaft of the penis and male urethra.

52) Abnormal colour of liquor,Meconium is **green** because of **the bile pigments.sugg of fetal distress**

53) Meconium contains lanugo,epithelial debris,bilirubin,mucin,salts,fats.but never bact flora.It is a sterile mixture.

54) Red cells **first** appearing at about 6 weeks after conception contain the embryonic hemoglobins **Hb Portland,Hb Gower I,Hb gower II**. At **10-11 weeks,fetal Hb(HbF;α2 γ2) becomes predominant**. The switch to nearly exclusive synthesis of **adult hemogloin (HbA;α2β2) occurs at 38 weeks.At term about 75-80% of the total Hb is still of fetal type HbF. Between 6-12 months after birth ,the fetal Hb is completely replaced by adult Hb. HbF has greater affinity for oxxygen,It is also resistant to alkali.The life span of fetal RBC is about 80 days.**

55) Fetal resp movements occur earliest at 11 wks.

56) ***Meconium is formed when the fetus commences to swallow amniotic fluid.By the third month of intrauterine life the upper third the small intestine has become filled with meconium,by the 4th month the accumulation has reached the ileocecal valve.at term it is distributed uniformly throughout the gut upto the rectum indicating the presence of***

intestinal peristalsis.In intrauterine asphyxia the anal sphincter is relaxed and the meconium may be voided in liquor amnii.(mecomium stained liquor)indicating fetal distress.First meconium is said to be formed during 3rd or 4th month of intrauterine life(?????)

57) Closure of umblical veins: after obliteraton ,the **umbilical vein form ligamentum teres** and **ductus venosus becomes ligamentum venosum**.

58) The **non pregnant uterus** weighs **50 gm**.AT term weighs 900 -1000gm**.**

59) There is preponderence of navicular cells in cluster (small **INTERMEDIATE CELLS** with elongated nuclei) in pregnancy ***in vagina nad vulva.***

60) ***The size of ovarian vascular pedicel at term is 2.5 cm***

61) Braxton`s hicks contractions: Spontaneous uterine pregnancy from ***very early weeks of pregnancy***,The contractions are irregular,infrequent,spasmodic and painless without any effect on dilatation of the cervix.(uterine contractions of labour are painful).**SIMILAR TYPE OF UTERINE CONTRACTIONS ARE FELT IN** 1***)*** ***HAEMATOMETRA,HAEMATOCOLPOS*** OR ***SUBSEROUS FIBROID***.IN **ABDOMINAL PREGNANCY .The patient is not conscious about the contractions but they can be felt on bimanual palpation.(<u>not seen in submucous fibroid</u>)**

62) **In 2nd trimester Breasts can be squeezed for secretion.**

63) **Cutaneous changes in pregnancy : 1) Pigmentation -- a) Chloasma on face b) Nipples become deeply pigmented c) Linea nigra extending from Xiphisternum to symphysis pubis d) Striae gravidaurum :represent scar tissue 2) OTHER CUTANEOUS CHANGES APART FROM PIGMENTATION 1) VASCULAR SPIDER {spider angiomata} 2)Palmar erythema 3) Falling of hairs or increase brittleness of nails. 4)"Gingivitis" the gums become congested and spongy and may bleed to touch ;[not gingival hyperplasia]**

64) **In normal pregnancy ,variable amount of weight gain is a constant phenomenon**

65) **Haematological changes -- 1] The blood volume is markedly raised 2] Plasma volume also increases 3] RBC volume is also increased 4] The disproportionate increase in plasma and RBC volume produces a state of hemodilution. 5] Diminished blood viscosity due to hemodilution. 6] Fibrinogen level is raised ,globulin is raised,therefore ESR is also raised 7] platelet count decreases 8] increase in plasminogen activity 9] Incraese in activities of all clotting factors X,IX,VIII,VII,II, The level of factors XI and XII are slightly decreased.**

66) **Heart and circulation ---1] increase in cardiac output 2] Heart rate increases 3] Peripheral resistance markedly decreased ;In the second trimester fall in BP ,otherwise BP unaffected 4] Uterine blood flow is increased from 50 ml per minute in non pregnant state to about 750 ML NEAR term. 5] During late pregnancy ,the gravid uterus produces a compression effect on inf vena cava when the patient is in supine position ,This however results in opening up of the collateral circulation by means of paravertebral and AZYGOUS VEINS. In 10% this may not occur leading to postural hypotension which can be restored by turnin the patient in lateral position.Enlargement in Azygous vein in pregnancy is due to collateral formation.**

67) **The oxygen consumption of the pregnant uterus at 28 weeks is 22ml/min.**

68) **During pregnancy serum iron conc decreases ,total iron binding capacity increases.in the absence of exogenous iron supplementation ,the Hb conc and hematocrit falls . Thus preg is an inevitable iron def state.**

69) →****Total iron req durin preg is 1000 mg or average **3.5mg/day.[1000/280days] for whole preg. (in the second half daily req. actually becomes increased to 6-7 mg [obs dutta]) .This is the iron that should be absorbed which is provided by daily RDA of 38mg/day acc to park or 30mg/day acc to harrison. TO BE SUPPLEMENTED "40 MG".[apart from normal diet]
70) In pregnancy---Resp rate unaltered ,TV increased(therefore resp minute volume also increased),VC unaltered,RV decreases.
71) Increase in GFR and Renal plasma flow.
72) MAXIMAL RISE IN PROLACTIN SEEN AT TERM.
73) Fetal growth maximally influenced by INSULIN. (Therefore in maternal diabetes there is macrosomia),{High maternal glucose crosses the placenta but maternal insulin doesn't readily crosses placenta resulting in fetal islet cell hyperplasia stimulating insulin secretion,the anabolic and growth effects of insulin results in macrosomia. } Fetal or Maternal GH is not essential for fetal growth in utero.
74) HCG produced by syncytiotrophoblast .The doubling time of hcg concentration in plasma is 1.4-2 days in early pregnancy.[first trimester] The maximum levels reach between 60-70 days of pregnancy. HCG disapperas from the circulation within 2 weeks following delivery.At 42 days of LMP level is 1.5-3.5 IU/ml (slide test positive at 42 days of LMP,sensitivity -1.5-3.5). By radioimmunoassay the level as low as .002 can be detected on 25th day of cycle or 8-9 days following ovulation.RADIOIMMUNOASSAY IS THE MOST SENSITIVE METHOD OF QUANTITATIVE MEASUREMENT OF βHCG. Early morning urine sample is collected(First voided urine inmorning). THE LOWEST OF SERUM βhcg at which a gestational sac is consistently visible using transvaginal sonography Is presently 2000 IU/ML.
75) HPL/HCS ,human chorionic somatomammotropin or human placental lactogen syn. by syncytiotrophoblast. It is lactogenic and has a small amt of growth stimulating activity.functions as maternal growth hormone.secretion of maternal GH is not increased durin pregnancy. level of hpl is high in maternal blood but very little reaches fetus.It stimulates lipolysis and decrease glucose utilization in mother ,diverting glucose to the fetus.
76) A value less than 12mg/24 hours urine of Oestriol in later months of pregnancy suggests serious fetal compromise in utero.HPL is also used for evaluating placental insufficiency like oestriol. A value of less than 5 µg/ml of HPL after 35 weeks indicated fetal distress.
77) Heat stable alkaline phosphatase in pregnancy derived from placenta.
78) Thyroid –There is rise in basal metabolic rate because of thyroid hyperplasia. The serum protein bound iodine { PBI } is increased in pregnancy.This rise is thought to reflect an increase in the concentration and binding capacity of thyroxine binding globulin (TBG) due to estrogen stimulation.What is butanol extracted iodine???????
79) Gestational age is 280 days ,ovulatory age is 266 days{ 280-14]
80) Frequency of Micturition mostly seen in 8-12 weeks of pregnancy
81) The alveolar cells begin to show secretory activity AT MIDDLE OF PREGNANCY.
82) Pelvic changes and signs in pregnancy → 1) Jacquemier`s or CHADWICK`S sign :Type of discoloration in which there is dusky hue of vestibule and anterior vaginal wall. 2) Osiander`s sign : Increased pulsation through the lateral fornices. 3)

Goodel`s sign : Softenin of cervix 4) Hegar`s sign : It can be demonstrated between 6-10 weeks .This sign is based on the fact that a)Upper part of the body of uterus is enlarged by the growing ovum. b) lower part of the body is empty and extremely soft.c) the cervix is comparatively firm.Therefore because of "softened isthmus" in between ; the approximation of the examination fingers at the isthmic region can be elicited. 5)Palmer`s sign : Regular and rhythmic uterine contractions can be elicited during bimanual examnination as early as 4-8 weeks.

83) **SONOGRAPHY→ gestational ring at 5^{th} week, cardiac pulsation at 7^{th} week, embryonic movements at 8^{th} week of gestation.Earliest sign of FETAL "life" is best detected by REAL TIME ULTRASONOGRAPHY.(CF POINT 110) Detection of FHR by transvaginal usg → 40 days ,by transabdominal → 1 week more than transvaginal ,by doppler → 10^{th} week.**

84) **Quickening (perception of fetal movement by mother) Earliest at 16^{th} week in multipara {2 weeks earlier than primi.[18week]}**

85) **Uterine souffle is due to increase in blood flow through the dilated uterine vessels. The sound is synchronous with the maternal pulse.**It is a soft blowing and systolic murmur heard low down at the sides of the uterus,best on the left side.

86) **PSEUDOCYESIS→ Psychological disorder in which woman has false but firm belief that she is pregnant although no pregnancy exists.The conspicuous feature is cessation of menses,gradual enlargement of abdomen.inspite of these confusing features pregnancy can be ruled out by THE ABSENCE OF POSITIVE SIGNS OF PREGNANCY. "There is enlargement of abdomen ,not of uterus."**

87) **Comonest lie-longitudinal,commonest presentation—cephalic,commonest presenting part – vertex.Face ,brow,vertex well flexed,vertex deflexed are varieties of cephalic presentation in different attitude. LOT is commonest type of vertex presentation. Occipito post position is least common,it ocurs in spontaneous breech delivery .the fetal trunk and head are rotated to bring them anteriorly. "Occurs during breech delivery"**

88) **Height of the uterus: conditions where the height of uterus is more than the period of amenorrhoea a) Mistaken date 2) Twins 3) Polyhydramnios 4) Big BABY 5) Pelvic tumour ovarian or fibroid 6) H mole 7) concealed acc hemorrhage. Conditions where the height of uterus is less than the period of amenorrhoea 1) Mistaken date 2) scant liq amnii 3) Fetal growth retn 4) "Intrauterine fetal death"**

89) **Commonest cause of an unengaged head at term DEFLEXED HEAD PLACING THE LARGER DIAMETER TO ENGAGE.**

90) **No of fontanelles at birth : 6 { 1 ANT CLOSES BY 18^{TH} MONTH ,1 POST and 2 sphenoid closes by 2^{nd} and 3^{rd} months ,2 mastoid closes by 12^{th} month.**

91) **Engaging Diameter of skull 1) in vertex Pt. → suboccipito-bregmatic 2) in face -→ submento-bregmatic. 3) in brow → Mentovertical. Longest diameter of fetal skull is Mento-vertical in BROW Presentation[14cm].**

92) **The Transverse diameters of skull which are concerned in mechanism of labour are: Biparietal(9.5cm), super-subparietal(8.5cm),bitemporal(8cm),bi mastoid(7.5cm). The last 2 are the shortest diameters.**

93) **True pelvis refers to the lower part of the pelvis. Divided into inlet,cavity outlet. INLET – shortest AP diameter in the AP plane of "INLET" is OBSTETRIC CONJUGATE. Most important diameter of pelvic inlet is DIAGONAL**

CONJUGATE.It can be measured clinically.True conjugate is anatomical conjugate. OUTLET – shortest diameter is Post SAGGITAL.It is bounded above by PLANE OF LEAST PELVIC DIMENSIONS and below by the anatomical outlet.PLANE OF LEAST PELVIC DIMENSIONS IS THE PLANE MOST IMP IN OBSTRUCTED LABOUR.IT IS AT THIS PLANE THAT INTERNAL ROTATION OCCURS.IT IS IRREGULARLY OVAL AND NOTCHED ON EACH SIDE BY THE ISCHIAL SPINE.

94) Pelvic assessment is best done with the onset of labour or just before induction of labour .Any history of vaginal bleeding contraindicates vaginal examination eg PPH.??

95) The increased calorie req in preg is to the extent of 300kcal over the non preg state during sec half of preg.So 2200+300=2500 kcal is needed in preg.calcium req is 1000mg. Iron is always supplemented in addition to intake of food iron from a varied diet. Folate is also supp acc to harrison amt is 400 µg to prevent neural tube defects.

96) No treatment is req for physilogical edema or orthostatic edema .edema subsides on rest with slight elevation of limbs.Diuretics should`nt be prescribed.

97) Amniocentesis- 15-18 weeks, CVS – 10-12 WEEKS,PUBS – during second and third trimester.Maternal serum screenin of hormones in second trimester.

98) MSAFP elevated in OPEN NEURAL TUBE DEFECTS like spina bifida ,anencephaly etc.,IUFD, low levels are found in down`s .AFP increased in esophageal atresia also. AFP levels are highest in fetal serum.

99) Triple test includes MSAFP, HCG and UE 3[unconjugated estriol].Inhibin can also be measured to increase the sensitivity of down syn detection.low leavels of afp and ue3 are found in downs syn but hcg is elevated. Triple test done in second trimester screening.

100) First trimester screening for downs syn -Maternal serum associated Plasma protein A and the free β subunit of of HCG IN combination with ultrasonographic measurement of nuchal translucency.(10-14 weeks of pregnancy).

101) CVS is ass with greater risk of spontaneous abortion than amniocentesis but allows for elective abortion earlier during pregnancy.Also in CVS there is increased risk of limb defects when the procedure is performed earlier(<10 weeks). CVS is applicable during very narrow window of time of gestation.

102) The most specific finding in amniotic fluid to diagnose neural tube defects is Ache elevation.It has got better diagnostic value than AFP.

103) NTDs best detected by Amniocentesis.Amniocentesis more accurate than CVS.CVS not helpful in NTDs.

104) Culture and chromosomal studies of the desquamated fetal cells in the amniotic fluid are carried out for women above age of "35"YEARS .

105) In practice only a small number of tissues are used for routine chromosomal analysis : Amniocytes , or chorionic villi for prenatal testing …..For post natal studies ; Blood ,bonemarrow,or skin fibroblasts can be used. [harr 397] Q : All are used for karyotyping except : A) lymphocytes B) Amnion cells C) fibroblasts D) Monocytes. Ans is monocytes. Lymphocytes acc to robbins 182. ??????????

106) Ultrasound : best inv to diagnose fetal age. ,most reliable to diagnose fetal well being ,best method and most precise to diagnose placenta praevia. . *****Crown lump length at 9-11 weeks is the best parameter measured by usg to assess fetal maturity

and gives the best predictive value for accurate determination of gestational age which is helpful later in pregnancy when IUGR is suspected. CRL accurate upto 14 weeks.CRL length of 120 mm means the gestational age is 14 weeks????.At 7 weeks is 10 mm. Normal CRL at birth is 33-35 cm.(CRL in cm + 6.5 =weeks of pregnancy,obs dutta.)

107) Normal size of CBD on usg in pregnancy is 10-15 mm.

108) TESTS FOR FETAL WELL BEING--→ Clinical- (girth of abdomen in last trimester steadily increasing,size of uterus in earlier weeks,BP,weight gain, scanty liq etc.) ,biochemical (hpl,estriol-poor pred value), and biophysical assessment for fetal well being (fetal movement count by patient ,NST,cardiotocography,USG)……Fetal movement count is performed 3 or 4 times a week.(less than 10 kicks in 12 hours indicates failing placental function) .Loss of fetal movements is commonly followed by disappearance of FHR within next 24 hrs.in either of the methods(cardif count 10 or Daily fetal movement count,DFMC) ,if the result is ominous ,the candidate is subjected to NST. (non stress test).

109) Non stress test for fetal well being ,it is an observed variation of FHR acceleration with fetal movements ,which when present ,indicates a healthy fetus.(continuous electronic monitoring of FHR along with recording of fetal movements.)

110) Manning score is a biophysical profile made up of 5 components .Apart from standard NST,THE OTHER 4 PARAMETERS ARE observed using real time ultrasonography. → 1) non stress test 2) Fetal breathing movements 3) gross fetal movements 4) fetal tone 5) Amniotic fluid volume.

111) Fetal cardiotocography – in normal tracing →There should be no deceleration or there may be early deceleration of very short duration .Importantly there should be 2 or more accelerations during a 20 min period. Sure sign of fetal distress in fetal ECG is Late deceleration(chronic placental insufficiency). Variable deceleration indicates cord compression. Early deceleration is due to head compression.

112) Evidences of distress –1)An Increase in FHR to over 160/min or a decrease in rate to less than 120/min. Fetal bradycardia is defined as less than 120 beats /min for a period of 15 minutes continuous monitoring .2) Meconium staining of LIQ. Most sensitive test for acute fetal distress is fresh meconium on induction of labour.?????? 3) Excessive fetal movements may be a manifestation of fetal distress 4) Fetal blood PH less than 7.2 is an indication for urgent interference.(sample from scalp).(due to asphyxia or hypoxia).

113) *****Management of fetal distress during labour→During labour when is the diagnosis of fetal distress established by continuous cardiotocographic tracing supplemented by fetal scalp blood PH estimation ,the baby should be delivered urgently by the safest route –vaginal or abdominal. In the absence of continuous monitoring facilities,deterioration of FHR pattern and presence of meconium stained liquor dictates an urgent delivery.

114) Amniotic fluid volume should be assessed at least weekly,

115) Assessment of lung maturation : L :S greater than 2. , Identification of phosphatidyl glycerol→The best test in diabetic mother to diagnose baby lung maturity.

116) An invasive test for assessing fetal well being : Oxytocin challenge Test : (OCT) syn contraction stress test to detect fetal hypoxia during inducing contraction.

Contraindication: Previous history of caesarean section , complications likely to produce preterm labour, APH, thus its use is very selective.

117) Based on the Naegle`s formula Labour starts approximately on the expected date in 4% .

118) (Ganong 454) Mechanism of initiation of labour : CRH -→ ↑↑CORTISOL → CORTISOL hastens the maturity of the resp systm. Thus in sense the fetus picks the time to be born by increasing CRH secretion. Fetal adrenal also increases the DHEA`s at the same time-→increase in estrogens→ increase in prostaglandins and in oxytocin receptors.

119) 1] First stage of labour – starts from the onset of tue labour pain and ends with Full dilatation of the cervix; Intrauterine prssure is raised to 40-50 mm hg 2] Second stage –starts from full dilatation of cervix and ends with expulsion of the fetus from the birth canal;Intrauterine pressure is raised to 100-120 mm hg. 3] Third stage – starts after expulsion of the fetus and ends with expulsion of placenta

120) With the full dilatation of cervix ,the membranes usually rupture,but rupture of membranes is not taken for staging labour.

121) Mechanism of control of bleeding after placental seperation.: The arterioles as they pass tortuosly through the INTERMEDIATE LAYERS OF THE MYOMETRIUM ARE LITERALLY CLAMPED by complete retraction of these muscles. Thus INTERMEDIATE LAYERS ARE CALLED as *Lining ligature of uterus..* Also Thrombosis occurs to occlude the torn sinuses. {facilitated by hypercoagulable state of pregnancy}.

122) Partogram is a composite graphical record of cervical dilatation and descent of the head against duration of labour in hours. Cervical dilatation is a sigmoid curve and the first stage of labour has got two phases- a latent phase and an active phase. In primi latent phase is long ,8 rs, in multi it is short only 4 hrs ,During latent phase(.35cm/hr only) **– from 0 to 3 cm dilatation.After latent phase is over cervix is 3 cm dilated. Dilatation of cervix in active phase is 1 cm per hour in primi and 1.5 cm per hour in multi.**

123) Earliest sign of placental seperation –uterus becomes globular,firm and balottable,the fundal height is slightly raised as the seperated placenta comes down in the lower segment. Def sign of placental seperation ---Per vaginum ,Permanent lengthening of cord is established. There may be slight gush of free bleeding ,not free bleeding.

124) At term uterus is 1000gm or 35 cm in height. Immediately following delivery ,the height of uterus corresponds to 20 weeks.or 5 months / 13.5 cm or 5 & half inch above pubic symphysis. ***By the end of second week or after 12-14 days the uterus becomes a pelvic organ.***

125) Vaginal examination is done in DORSAL POSITION.

126) *****Early clamping not done in - POST MATURE { beneficial for baby if there is delay in clamping as more blood is transferred,but deleterious in premature as hypervolemia can occur in them} . Early clamping done in Premature babies or babies born asphyxiated AND in cases of Rh incompatibility;also includes growth retarded fetus or one of a diabetic mother.

127) Puerperium is the period following childbirth and lasts for approx 6 weeks(1 & a half months). *AT THE END OF 6 WEEKS UTERUS WEIGHS ABOUT 60 GM ,SIMILAR TO THAT OF NON PREGNANT STATE.*

128) The ext os is most patulous in multiparous state.never reverts back to nulliparous.

129) The regn of endometrial surface uterus begins 1 week after labour.Regeneration of epithelium is completed by 10th day. And the entire endometrium is restored durin the 3rd week except at the placental site where it takes about 6 weeks.

130) Lochia is the vaginal discharge for the first fortnight (14 days) during puerperium. The normal duration of lochia varies from 14 – 21 days(3 weeks). Depending on the colour : Lochia rubra →1-4 days Lochia serosa → 5-9 days Lochia alba→ 10-15 days *****SEQUENCE IS RUBRA –SEROSA – ALBA .Lochia rubra consists of blood,sheds of fetal membranes, and decidua,vernix caseosa,lanugo and meconium. ****So decidua is cast off in lochia rubra.Lochia serosa consists of less RBCs,more leukocytes ,wound exudate,mucus from cervix and microorganism(anaerobic strep and staph) the presence of bact is not pathognomic unless ass with clinical signs of sepsis.

131) In non lactating mothers ovulation occurs as early as 4 weeks and menstruation by 6th week. In lactating women ovulation occurs at 10 weeks{2 and a half months} after delivery and menstruation returns by 25-30 weeks.*{ THUS 100% PROTECTION AGAINST CONCEPTION IN A " LACTATING" MOTHER IS FOR 2 MONTHS APPROX " ovulation is taken into consideration" }* ovulation may precede the first menstrual period in about one third and it is possible for the patient to become pregnant before she menstruates following her confinement.

132) Suckling is the strongest stimulus of lactation.

133) Suppression of lactation becomes necessory if the baby is born dead or dies in the neonatal period or if breast feeding is contraindicated.

134) Retention of urine and constipation in puerperium is attributed to normal physiology.The patient is encouraged to pas urine 6-8 hrs following delivery.

135) Hyperemesis gravidarum (SEVERE VOMITING)is more common in first pregnancy. Eye complications as diplopia ,dimness of vision or even blindness can occur.The following are the indications for therapeutic termination 1) A steady deterioration inspite of theray 2) A rising pulse of 100/mim or over 3) Temp consisitently above 38° c 4) Gradually increasing oliguria and proteinuria 5) App of jaundice 6) App of neurological comp.(wernicke`s,korsakoff,peripheral neuritis ,eye comp etc

136) Abortion is the termination of pregnancy before the period of viability which is considered to occur 28th week,However for international acceptance the limit of viability is brought down to either 20th week or fetus weighing 500 gm .in MTP termination is permitted upto *******20 weeks of pregnancy.

137) Spontaneous abortion commonly occurs during First and second months. Common causes of abortion during 1st trimester 1) Defective germ plasm (def genes) 2) trauma 3) hormonal def 4) acute infection during mid trimester : Cervical incompetence., uterine malformations,low placenta,twins and polyhydramnios. Sp abortion in first trimester is mostly due to DEFECTIVE GENES..(COMMONEST BEING TRISOMYor MONOSOMY ???? CF HARRSION 401) acc to harr its sex chrmosome monosomy followed by trisomy 16.

138) Intrauterine fetal death occuring before 28 th week has got a distinct etiology and if retained inside it is called MISSED ABORTION.Thus for practical purposes antepartum death occuring after 28 weeks is termed as intrauterine death. *Diagnosis*: *symptoms*: -absence of fetal movements which were previously experienced by the patient, *signs* :- Gradual retrogression of the height of the uterus so that it becomes smaller than the period of amenorrohoea. Spalding`s sign : irregular overlapping ofcranial bones on one another appearing 7 days after death . Roberts` sign : Appearance of gas shadow in the chambers of the heart and great vessels may appear as early as 12 hours,though difficult to interpret ,But when detected provides conclusive evidence{ sure sign of IUD}. *Complications* (also of missed abortion) :-- Blood coagulation disorders (silent DIC) –if the fetus is retained for more than 4 weeks. Infection,psychological upset,during labour uterine inertia,retained placenta and PPH. **Management (same for missed abortion more than 12 weeks): In about 80 % of caeses ,spontaneous expulsion occurs within 2 weeks of death. If spontaneous expulsion fails to occur within 2 weeks.,the patient is admitted. But always wait for spontaneous expulsion even when admitted . Fibrinogen level estimated evry week. A falling fibrinogen level should be arrested by controlled infusion of heparin. Interference done when psychological upset,infection, Falling fibrinogen level(fibrinogen level corrected before doin interference),tendency to be retained more than 2 weeks. Early termination is now favoured to avoid complication.**

139) Septic abortion → Any abortion associated with clinical evidence of infection of uterus and its contents. Acute renal failure is common in infection with Cl welchii and Is the most life threatening complication of septic abortion.

140) The commonest chromosomal abnormality in early spontaneous abortion?????? (first trimester abortion) /still birth/live birth is Autosomal trisomy. TRISOMY 21 is the most common chromosomal abnormality in LIVE BORN INDIVIDUALS and STILL BIRTHS. Sex chromosome monosomy is the most common chromosomal abnormality in early Spontaneous abortion . Non disjunction at maternal meiosis I appears to be the most common source of TRISOMY. Acc to harrison 401 frequency and distribution of chromosome abnormality namely sex chromosome Monosomy followed by +16 autosomy are the highest in spontaneous abortion.

141) Threatened abortion : Clinical features : bleeding is slight and bright red in colour. Pain appears usually following Hemorrhage. Otherwise painless bleeding.(in ectopic bleeding is slight also but continuous and dark coloured. Amenorhoea followed by abdominal pain and lastly vaginal bleeding.) The uterine size corresponds to the period of amenorrhoea.(in ectopic uterus remains normal in size)

142) Inevitable abortion : Clinical features : Increased vaginal bleeding ,aggravation of pain in lower abdomen which may be colicky in nature,INTERNAL EXAM REVEALS DILATED INTERNAL OS OF THE CERVIX THROUGH WHICH PRODUCTS OF CONCEPTION ARE FELT.

143) Circlage operation for cervical incompetence are SHIRODKAR and WURM and Mc Donald`s.

144) MTP act passed in 1971. (PREGNANCY in a minor girl {below 18 years } and *****in lunatics even if they are older than 18 cannot be terminated without written consent of the parents or legal gaurdians. Termination is permitted upto 20 weeks of

pregnancy. When the pregnancy exceeds 12 weeks opinion of two medical practitioners is required.

145) Methods of termination in first trimester (upto 12 weeks) :- - - > 1) Menstrual Regulation is the aspiration of the endometrial cavity(employing suction with plastic cannula and employin suction with 50 ml plastic syringe,{in suction evacuation cannula fitted with suction apparatus}) within 14 days of missed period in a previously normal cycle when the presence of an early pregnancy cannot be diagnosed accurately. Done as an outdoor procedure,paracervical block anaeesthesia may be employed. 2) suction evacuation and / or curettage : not suitable for uterus of more than 10 weeks. The pressure of suction is 400 – 600 mmm hg. It is better to curette the uterine cavity by a small flushing curette at the end of suction and the cannula is reintroduced to suck out any remains. 3) Dilatation and evacuation : slow dilatation of cervix is achieved by inserting LAMINARIA TENTS. In rapid method tents are not used ;dilatation and evacuation done in same sitting,while in slow method laminaria tents are introduced and further dilatation and evacuation done after 12 hrs 4) Pharmacologic : *Prostaglandins PGE 1*(as adjunct) : Before surgical methods of termination ,cervical ripening canbe achieved by use of 1 mg PGE 1 vaginal pessary (gemeprost) in post fornix. this is done 3 hrs before procedure . This is also used as an adjunct to mifepristone and methotrexate therapy. *Mifepristone* (progesterone antagonist) :Effective upto 9 weeks. A single dose of 600 mg orally .If abortion fails to occur PGE1 is used to complete the abortion process. Misoprostol (another PGE 1 analogue like gemeprost) is equally effective and has fewer side effects.

146) Size of suction cannula 5 or 6 mm for MTP in early pregnancy.

147) Methods of termination in Mid trimester. :---- Between 13 -15 weeks—1) To allow the pregnancy to continue so that uterus will be enlarged to about 16 weeks when available intrauterine instillation techniques using pharmacologic agents can be used. 2) Prostaglandins , 3) *transcervical* intraamniotic instillation of hypertonic saline or extraamniotic instillation of .1% ethacrydine lactate. 4) Hysterectomy. Between 16- 20 weeks : 1) intrauterine instillation of intraamniotic hypertonic saline (20%) or extraamniotic instillation of ethacrydine lactate.(uterus should be atleast 16 weeks size in intramniotic instillation). DOC for MTP in a second gravida with asthma at 16 weeks gestation *(as prostaglandins are contraindicated and extraamniotic instillation with .1% ethacrydine lactate also releases prostaglandins from decidua by stripping the membranes)* is intramniotic instillation of hypertonic saline in uterus. In second trimester intramniotic injection of 30% or 50% glucose is unsafe .Instead 5% of dextrose is used. DIC is comp of intraamniotic istillation,also contraindicated in cardiovascular or renal disease or in severe anemia because of sodium load.in that case extraamniotic ethacrydine may be used. 2) Prostaglandins –Best method for inducing mid trimester abortion. *Intravenous route is not used because of high toxicity.* It is contraindicated in asthma. Vaginal ,intramuscular,extraamniotic and intraamniotic instillation.

148) Ectopic pregnancy : *Extrauterine* –Tubal (commonest) ,Ovarian and abdominal (intraperitoneal, extraperitoneal{rare}) . *Intrauterine* – cervical ,angular ,cornual. Most common cause of ectopic is Previous Tubal Disease.(history of PID;Salpingitis) . Etiology : PID (Loss of cilia of the epithelium and impairment of muscular

peristalsis), IUCD(Progestasart has got the highest rate ,cut and levonorgestrel devices have got lowest rate of ectopic) , Use of progestin only pill or post coital estrogen preparation,Tubal surgery, Tubal Endometriosis (Facilitating nidation in the tube). Changes in uterus : The decidua develops all the characteristics of intrauterine pregnancy except that it contains no evidence of chorionic villi. Arias stella reaction is characterised by a typical adenomatous changes of endometrial glands .This is strikingly due to progesterone influence . It is present in 10-15 % cases of ectopic and is not specifc. Clinical features of ectopic –The classic triad of disturbed tubal pregnancy are Amenorrhoea followed by abdominal pain aand lastly ,appearance of vaginal bleeding .Most common feature is abdominal pain .The pain may be referred to the shoulder due to diaphragmatic irritation. On examination -> pallor, the abdomen is tense, tumid and tender. No mass is usually felt. When shoulder pain develops in a case of tubal pregnancy it indicates severe internal bleeding. (peritoneal irritation) . Diagnosis :-- Laparoscopy is the best inv to diagnose ectopic. Transvaginal Sonography is also very helpful. Next choice to laparoscopy for the diag of unruptured ectopic. The diagnostic features are 1) Absence of intrauterine pregnancy (characteristic finding in USG AND and most reliable indicator) with a positive pregnancy test . 2) Fluid in the pouch of douglas 3) Adnexal mass clearly seperated from the ovary . Combination of hcg and TVS :- When the hcg value is greater than 2000 iu/ml AND THERE IS an empty uterine cavity (The lowest level of serum hcg at which a gestational sac is consistently visible using TVS is 2000 IU/ml.),ectopic preg is more likely. Also failure to double the value of hcg by 48 hours along with an empty uterus is very much diagnostic. Management :---- After detailed history and examination ,serum hcg ,Trasvaginal USG ,1) if ectopic is suspected and patient in shock -resuscitation and laparotomy and after shock treatment if rupured tubal ectopic do salpingectomy. 2) If patient is stable do laparoscopy,in case unruptured tubal ectopic is found either conservative medical(MTX,potassium chloride, Hyperosmolar glucose,prostaglandins,mifepristone) or conservative surgery(toc is nullipara with an unruptured ectopic is linear salpingectomy) is done or else extirpative management i.e. salpingectomy. Conservative is preferred in unruptured ectopic hemodynamically stable.

149) Abdominal pregnany – Studiford criteria is used to diagnose primary abdominal pregnancy. Signs –fetal parts are felt easily,abnormal high position of the fetus is commonly found in intraperitoneal pregnancy ,the fetus is lying low in extraperitoneal(rare type). *On LATERAL xray on standing position:- superimposition of fetal skeleton with the maternal spinal shadow.(Fetus appears lateral to the lumbar spine) is pathognomic.*

150) Hydatidiform Mole :Complete moles have 46 XX karyotype ,the molar chromosomes are derived entirely from the father.Haploid sperm duplicates its own chromosomes after meiosis. No trace of embryo or amniotic sac. Principally a disease of chorion in which there is partly degenerative changes and party hypertrohic changes in young chorionic villi ,it is a benign neoplasia with a malignant potential.(choriocarcinoma) Ovarian changes: - Bilateral lutein cysts are present ,these are due to excessive prodn of HCG. The contained fluid is rich in chorionic gonadotrophin. Clinical features :-- The patient gives history of Amenorrhoea 8-12

weeks with initial features suggestive of normal preganancy but subsequently presents with the following manifestations (often confused with abortion) . Vaginal bleeding is the commonest manifestation . Thyrotoxic features of tremors or tachycardia are present on occasion(10%). Per abdomen :- the size of uterus is more than expected for the period of Amenorrhoea. The feel of uterus is firm elastic(Doughy) . Vaginal examination :- Most important part is examination of vagina.. Internal ballotment can not be elicited. Finding of grape like vesicles in the vaginal discharge is pathognomonic of hydatidiform mole. Sonography is the best method to diagnose HMOLE. (SNOWSTORM APPEARANCE). Complications :---- Commonest is sepsis. Treatment of Choice :-→ Suction "Evacuation" of the uterus is done as soon as the diagnosis is made.The immediate comp. of evacuation is bleeding.. Follow UP-→ Essential investigation in FU is hcg Assay.

151) Partial or incomplete mole : The karyotype is triploid. (69 XXY or 69 XYY)

152) Twins :- 1) Dizygotic or fraternal : From fertilization of 2 ova , 2) Monozygotic or identical : results from fertilization of a single ovum.In thisdivision takes place after fertilization.Mostly diamniotic –monochorionic(division between 4^{th} to 8^{th} day). On rare occasions however, If the division takes place within 72 hrs after fertilization the resulting embryo will have 2 seperate placenta .chorions and amnions(diamniotic-dichorionic) and in extremely rare occasion division occurs after the development of embryonic disc resulting in the formation of conjoined twins called SIAMESE TWINS. **If the division occurs after 8^{th} day of fertilization ,when the amniotic cavity has already formed ,a monoamniotic –monochorionic twin develops. Monoamniotic – monochorionic twins have highest mortality. Easiest method of determining zygosity is examination of placenta and membranes.** In binovular there are two placenta and as such the intervening membranes consists of 4 layers –amnion,chorion,chorion,amnion. In uniovular there is single placenta. And as such the intervening membranes consists of two layers of amnion only. **Prevalence of binovular twins is related to Race : The Frequency Is highest among Negroes., Drugs used for induction of ovulation may produce multiple fetuses to the extent of 20-40% following gonadotrophin therapy,although to a lesser extent (5-6%) following clomiphene citrate. In india advancing age is not the cause of increase in incidence,Hereditary predisposition,**the incidence is also increased with increasing parity specially from 5^{th} gravida onwards.
Complications : A} *Antepartum Hemorrhage*:→ The increased incidence of Placenta Praevia is due to the bigger size of placenta enchroachin on to the lower segment. The separation of Normally situated placenta (causes same as of abruptio placentae in red colour) may be due to –1) Increased incidence of PIH 2) Sudden escape of liquor following rupture of the membranes of the hydramniotic sac, 3) Deficiency of folic acid 4) Following delivery of the first baby due to sudden shrinkage of the uterine wall adjacent to the placental attachment. B} *During labour cord proplapse and early rupture of membranes. Post partum hemorrhage is the most important complication in twins because it is the cause of real danger;it is commonest during delivery*. All these were maternal complications.. Fetal comlications:-- Most common cause of perinatal mortality in twins is premature rate(80%).
Indications of cesarean section other than associated causes(fetal causes) : --- a) Both the babies or even the first baby with transverse lie. Imp.-→ second twin in transverse lie or in other noncephalic presentation is not a valid indication for CS. b) Nonvertex

twins with estimated weight 2000 gm or less. C) Conjoined twins D) Collision of both t he heads at brim preventing engagement of eihher head D) Monoamniotic twins.

153) Polyhydramnios :--- State where liquor amnii exceeds 2000ml/2 litres. Etiology : 1) Fetal anomalies associated *: Anencephaly*(transudation from exposed meninges,absence fetal swallowing reflex**) , *esophageal atresia*(**preventing swallowing of liq**) or tracheoesophageal fistula**(esophageal atresia is ass with tracheo-esophageal fistula. **2) Chorioangioma of placenta 3) *Multiple pregnancy* 4) Maternal - *Diabetes* (**raised fetal sugar->fetal diuresis ->hydramnios)

154) Oligohydramnios - Def in amt to the extent of 100 ml or less(scanty liq should`nt be designated as oligamnios) .Sonographic diagnosis is made when amniotic fluid index is less than 5 cm. Etiology : often ass with a) Amnion nodosum b) Renal agenesis c) IUGR d)postmaturity. Oligohydramnios with fetal symmetric growth retardation is ass with increased chromosomal abnormality . Complications : "Fetal pulmonary Hypoplasia.(may be the cause or effect)"

155) Cord abnormailities 1) BATTLEDORE PLACENTA :---- The cord is attached to the margin of the placenta 2) Velamentous placenta :----The cord is attached to membranes .The branching vessels traverse between the membranes for a varying distance before they reach and supply the placenta. If the leash of blood vessels happen to traverse through membranes overlying internal os in front of the presenting part ,the condition is called VASA PRAEVIA. Rupture of membranes in that case leads to vaginal bleeding and **the blood is of fetal therefore in case of VASA PRAEVIA.____3)Single Umbilical artery : It is more common in TWINS and in babies born of diabetic mothers or in polyhydramnios. It is frequently associated with congenital malformation of the fetus . There is ncreased chances of miscarriage ,prematurity,IUGR, and increased perinatal mortality.**

156) Preeclampsia -::: The new onset of hypertension (140 /90mmhg) , Proteinuria (> 300 mg/24hr). and pathologic edema. The end result of causes which are in known leads to vasopspasm and injury in multiple organs. Edema : Rapid gain in weight of more than 1 lb a week or more than 5 lb a month (> 2 kg in one month). The most reliable sign in pre eclampsia is HYPERTENSION. The Earliest sign of Pre eclampsia is excessive Weight gain/rapid. Severe preeclampsia is the presence of new onset hypertension and proteinuria accompained by CNS dysfunction (headaches, blurred vision, seizures, coma), marked elevations of blood pressure (> 160/110 mmhg), severe proteinuria(> 5g per 24 hour) ,oliguria or renal failure,pulmonary edema, hepatocellular injury,thrombocytopenia or DIC. Eclampsia :- Preeclampsia when complicated with convulsion and / or coma is called eclampsia. (THE FIRST THING TO DO IN A FIT IS ALWAYS TO ENSURE AIRWAY) . Mostly seen antepartum. Antepartum eclampsia has the worst prognosis. First AID treatment outside the hospital :the patient either at home or in the peripheral health centre should be shifted urgently to the referral hospital.THERE IS NO PLACE OF CONTINUING THE TREATMENT IN SUCH PLACES.THE PATIENT MUST BE HEAVILY SEDATED BEFORE MOVING HER TO THE HOSPITAL. Mag sulfate is DOC.Patient in labour or not ,anticonvulsant etc are given in eclampsia. No of fits is not a prerequisite for giving mag sulfate. There should be availability of calcium gluconate(antidote). Repeat injections are given only if the knee jerks are present,urine output exceeds 30ml/hr and the respiration rate is more

than 12 per minute. The therapeutic level of serum magnesium is 4-7 meq/L. **At necropsy pathognomonic lesion of eclampsia is senn in kidney?????**
The HELLP (hemolysis,elevated liver enzymes,low platelets) syndrome is a special subgroup of severe preeclampsia and is a major cause of morbidity and mortality in this disease..Thrombocytopenia is due to intravascular platelet aggregation. Detailed examination of ocular fundi is mandatory as fundoscopic findings provide one of the best indicators of the duration of hypertension and prognosis.. Treatment :-- Intravenous labetalol or hydralazine are the drugs most commonly used to manage preeclampsia.The definitive treatment of preeclamsia is delivery of the fetus and placenta. Magnesium sulfate is the treatment of choice for the prevention and treatment of eclamptic seizures. Given the difficulty of predicting eclamptic seizures on the basis of disease severity,it is recommended that once the decision to proceed with delivery is made ,all patients carrying a diagnosis of preeclampsia be treated with magnesium sulfate. Screening test for prediction and prevention of preeclampsia are not helpful. One such is Giant`s roll over test :-This screening test is done between 28-32 weeks. (an increase of 20 mmhg in diastolic pressure from side to back position indicates a "positive roll over test".)

157) Antepartum hage :--bleedin after 28th week but before the birth of the baby. Causes of APH :-- Placenta Praevia :-The blood is almost always maternal . Painless bleeding. First trimester bleeding is uncommon. { Stallworthy`s sign :- Slowing of FHS on pressing the head down into the pelvis which soon recovers promptly as the pressure is released is suggestive of the presence of low lying placenta specially of the posterior type. } Vaginal exam must not be done outside OT as it can provoke further separation of placenta with torrential bleeding and may be fatal. Sonography provides the simplest ,most precise and safest method of placental localisation. In vasa praevia detection of fetal blood ,collected from vaginal blood by singer`s test (alkali denaturation) is diagnostic. Malpresentation and premature labour are common in PP. The ultimate cause of death are hemorrhage and shock. There has been a substantial reduction of maternal deaths but the reduction of the perinatal fetal mortality is not so gratifying as compared to that of maternal mortality. Expectant line of treatment. The Aim is to allow the pregnancy to continue until the baby has grown sufficient enough to survive ex utero.(carried upto 37 completed weeks) . Expectant line of management in PP is c/I in the following(or active interference(definitive treatment) indications) :---a) Bleeding occurs at or beyond 37 weeks of pregnancy. B) patient is in labour c) patient is exsanguinated d)baby is dead or known to be congenitally deformed. In definitive treatment i.e. delivery : Caesarean section is done in severe/major degrees of PP (Type II Post,Type III, and Type IV). This is indicated for maternal interest even where the baby is dead. While in type I ,II (ant) :- A.R.M ± Oxytocin.

158) Difference between Abruptio placenta and Placenta Praevia :--→ a) PP is painless ,AP is painful. B) Features of preeclampsia present in one third cases of AP ,while it is not relevant in PP. C) Malpresentation is common in PP.,While it is unrelated in AP. D) FHS is usually absent specially in concealed type in AP. While it is present in PP. E) general condition and anaemia isout of proportion to the visible blood loss in concealed or mixed variety of AP,while proportional to visual blood loss.

159) **Abruptio placentae also called as Accidental hemorrhage** :- see point 152 For causes of seperation of normally situated placenta : **PIH, smoking(smoking also ass with IUGR) ,malnutrition, Folic acid def. Treatment(same as of PP) The first consideration always in both PP and AP is prompt restoration of an effective circulation with IV fluids. Couvelaire Uterus (uteroplacental apoplexy):- Association with severe form of concealed abruptio placentae.The condition can only be diagnosed on naked eye appearance.**

160) **Complications of severe anemia during pregnancy:**- !) Pre-Eclampsia 2)Intercurrent infection 3) Heart failure 4) Preterm labour **During labour :- PPH, During Puerperium :- Perperal sepsis, subinvolution , Failing lactation, Puerperal venous thrombosis, Pulmonary thrombosis. The expected rise in Hb concentration after parenteral therapy is 0.7 to 1 gm/100ml per week. The total elemental iron required in an anaemic patient is calculated as follows : (0.3 × wt in lbs × % Hb deficit. (to convert pounds to 1 kg = 2.222 lb) .**

161) **Heart Disease in pregnancy :--- The cardiac failure occurs soon after pregnancy around 30 weeks, during labour, and mostly soon after delivery. Maternal Mortality is lowest in rheumatic heart diseases ,and acyanotic heart diseases. It is highest in cyanotic heart diseases; most of he deaths occur due to heart failure. Presence of any of the following criteria confirms the diagnosis of organic heart lesions :-- Presence of diastolic murmur, 2)cardiac enlargement 3) presence of loud systolic murmur associated with a thrill 4) presence of arrythmia . GRADINGS :--- Depending upon the cardiac response to physical activity,the heart diseases are graded according to the classification of the NYHA. GRADE/CLASS I :-No limitation of physical activity,no symptoms with ordinary exertion GRADE II :- slight limitation of physical activity.Ordinary physical activity causes discomfort. The patients are comfortable at rest. GRADE III:- Marked limitation of physical activity, less than ordinary activity causes symptoms,asymptomatic at rest. GRADE IV:- inability to carry out any physical activity without discomfort,symptoms at rest.**
{{{ The american society of anaesthesiologists classified patients into a number of grades according to their general condition. ASA 1: -no organic, physiological,biochemical or psychiatric or systemic disturbance.the pathological process for which operation is to be performed is localized and does not entail a systemic disturbance. ASA 2) mild to moderate systemic disturbance. ASA 3) Limitation of lifestyle, severe systemic disturbance. ASA 4) Severe systemic disorders that are already life threatening ASA 5) Moribund. little chance of survival,but submitted to operation in desperation.little if any anaesthesia required. }}}} Considering high maternal deaths ,cases of pulmonary hypertension ,eisenmenger`s syndrome and pulmonary venoocclusive disease are absolute indications for termination of pregnancy. In coarctation of aorta always caesarean section is done for termination at any time. In eisenmengers, Maternal mortality and perinatal loss is 50%. Termination is seriously considered and suction evacuation is the preferred method. ROLE OF ANTICOAGULANTS :- Anticoagulants are necessary in cases of congenital heart disease who have pulmonary hypertension,artificial valve replacements or atrial fibrillation. The patient having warfarin should discontinue it as soon as pregnancy is diagnosed and replaced by heparin 5000 units twice daily subcutaneously upto 12th week. This is then replaced by

warfarin tablets 3 mg daily to be taken at the same time each day and continue upto 36 weeks .There after it is replaced by heparin upto 7 days postpartum . Warfarin is then to be continued. WARFARIN IS NOT CONTRAINDICATED IN BREAST FEEDING WOMEN. {Heparin doesn't cross placenta.} Risk of thrombosis recurring is 10-12% in a patient with history of DVT in puerperium. Warfarin therapy is contraindindicated in the first trimester due to its association with Fetal Chondrodyplasia Punctata. Management during labour :-- There is no place for induction. Most patients with cardiac disease go into spontaneous labour and deliver without any difficulty. However ,induction (vaginal PGE 2) may be employed in very selected cases for obstetrical indications.One should guard against infection. ******Prophlactic antibiotics :-- Antibiotic prophylaxis durin labour and 48 hours after delivery is considered appropriate. Tendency to delay in the second stage of labour is to be curtailed by forceps or ventouse under pudendal block.Difficult forceps it to be avoided. Ventoues is preferred. IV ergometrine with the delivery of the anterior shoulder should be withheld . During third stage conventional management done. Slight blood loss is beneficial but if it is in excess,oxytocin can be given by infusion.This may be accompanied by IV furosemide. It is better to administer oxytocin in preference to ergometrine in all casese of heart disease in third stage. Role CS.:---In general there is no indication of caesarean section for heart disease. It is mainly done for obstetrical indications. Tendency of prolonged labour should be curtailed by caesarean section. However in coarctation of aorta ,elective caesarean section is indicated to prevent rupture of aorta or mycotic cerebral aneurysm. Steroidal contraception is contraindicated. IUD is also contraindicated for fear of infection. Barrier method of contraceptives is the best.

162) Specific heart diseases in pregnancy :--- Considering high maternal deaths ,cases of pulmonary hypertension ,eisenmenger`s syndrome and pulmonary venoocclusive disease are absolute indications for termination of pregnancy. In coarctation of aorta always caesarean section is done for termination at any time. In eisenmengers, Maternal mortality and perinatal loss is 50%. Termination is seriously considered and suction evacuation is the preferred method. In patients with pulmonary hypertension,vaginal delivery is less stressful hemodynamically than cesarean section. Mitral stenosis is the commonest heart lesion met during pregnanacy and most likely to cause death during pregnancy.MR and AR are generally well tolerated during pregnancy.As a rule ,mitral valve proplapse doesn not present problems for pregnant patients and aortic stenosis,unless very severe is also well tolerated. Atrial or Ventricular septal defect is usually well tolerated durin pregnancy in the absence of pulmonary hypertension.**** Primary pulmonary hypertension is a contraindication to pregnancy. Corrective cardiac surgery is commonly indicated in Mitral Stenosis. Best time of surgery is between 14-18 weeks. Open heart surgery is associated with increase in fetal loss. {{{ Development of septal defects in the fetal heart occurs at 5-8 weeks }}}.

163) Gestational diabetes. :--The potential candidates are : A) Positive family history of Diabetes. B) Unexplained perinatal loss. C) Presence of polydramnios D) Having a previous birth of an overeight baby of 4 kg or more. A Typical two step strategy for establishing the diagnosis of gestational diabetes involves administration of 50g oral glucose challenge with a single serum glucose measurement at 60 min.if the serum

glucose is <7.8mmol/l (<140 mg/dl) warrants administration of a 100 gm (WHO 75 gm) oral glucose challenge with serum glucose measurements obtained in the fasting state, and at 1 ,2 and 3 h. Normal values are serum glucose concentrations <5.8mmol/l (105 mg/dl), 10.5 mmol/l (190 mg/dl), 9.1 mmol/l (165 mg/dl), and 8.0 mmol/l (145 mg/dl), respectively. Investigation of choice in diabetic mother with a doubtful abnormal fetus – SONAR. Ketoacidosis can be precipitated during hyperemesis in early pregnancy , infection and fasting of labour. Shoulder dystocia is the most common complication during vaginal delivery in a diabetic mother. Polyhydramnios is also a common complication (25-30%). Fetal hazards :- Fetal macrosomia (30-40%)(because of fetal hyperinsulinemia) or large of date baby ,neonatal hypoglycemia(because of relative hyperinsulinemia), congenital malformations like VSD,Sacral agenesis(caudal regression syndrome) and neural tube defects(anencephaly,spina bifida,microcephaly). Sacral agenesis is a characteristic congenital anomaly in fetus of a diabetic women (williams). Estimation of glycosylated hemoglobin A(HbA1c) can predict affection of the fetus. Note :-Large for date babies also seen in beckwith-wiedemann syndrome (macrosomia,macroglossia,omphalocoele),genetic predisposition.Neonatal complications include a) hypoglycemia B) respiratory distress syndrome c) hypocalcemia D)polycythemia e) hypomagnesemia f)cardiomyopathy g) mental retardation. The neonatal deaths are due to hypoglycemia,respiratory distress syndrome,polycythemia and jaundice. Management :- oral antidiabetic drugs should not be used during pregnancy. These drugs cross the placenta and may have teratogenic effect or produce neonatal hypoglycemia. The fact that majority of the intrauterine deaths of the fetus occur in the last two weeks of pregnancy,the termination should be done after 37 completed weeks. The indications for cesarean section are 1)Elderly primigravidae 2) Multigravidae with a bad obstetric history 3) Diabetes,difficult to control 4) obstetric complication. Barrier method of contraceptives is ideal for spacing of births.

164) Viral infection in pregnancy:- Fulminant hepatitis seen with hepatitis E virus. In toxoplasmosis and rubella only transplacental infection occurs.it is not transmitted to the baby at delivery like gonococcus,HSV II (transplacental infection is not usual,during delivery risk of transmission of mat infection to the fetus is highest in HSV.therefore cesarean section is indiacted in an active primary genital HSV infection.) and hepatitis B.Other infections in which transplacental infection is important are cytomegalovirus,Chicken pox,Parvovirus.In case of HIV,The vertical transmission to the neonates is about 30% in seropositive mothers.(the probability of transmission of HIV from mother to infant/fetus is 30%).Maternal transmission to the fetus occurs most commonly in the perinatal period.(out of various types of vertical transmission :-in utero i.e. transplacentally (30-35%), *during delivery (60-65%)*,during breast feeding (3-10%). Transplacentally acquired HIV antibody is cleared off by around 18 months of age.Perinatal period extends from 22nd week of gestation to less than 7 days of life after birth.The most common cause of intrauterine infection is cytomegalovirus. In case of toxoplasmosis, if there is no evidence of placental/fetal infection ,single –drug treatment with spiramycin is recommended.Triple drug therapy with spiramycin ,pyrimethamine and sulfa is recommended if there is evidence of fetal infection (PCR of the amniotic fluid) and the woman does not wish to

terminate the pregnancy or cannot terminate.There is essentially no risk if the mother becomes infected ≥ 6 months before conception.if infection is acquired < 6 months before conception,the likelihodd of transplacental infection increases as the interval between infection and conception decreases.In pregnancy ,if the mother becomes infected during the first trimester the incidence of transplacental infection is lowest ,but the disese in the neonate is most severe.If the maternal infection occurs durin the third trimester ,the incidence of transplacental infection is greatest,but the infant is usually asymptomatic at birth. But in case of rubella,percentage of fetuses infected as well as overall risk of damage to fetus is maximum during first trimester .like toxoplasmosis ,fetal affection is by transplacental route throughout preganancy.

165) **There is no C/I for vaginal delivery in carcinoma – in – situ**. Cases showing dyskaryotic smear are subjected to **COLPOSCOPIC DIRECTED BIOPSY** from the suspected site for confirmation of diagnosis. **Vaginal delivery shouldn't be allowed in cases of invasive cancer** because of cervical dystocia and injuries.classical cesarean section should be done. In first trimester radical surgery or radiotherapy should be done with fetus in situ. Beyond 12 weeks uterus is to be evacuated only by abdominal hysterectomy or classical cesarean. ,after 10-14 days radical surgery is to be done. If the pregnancy is near term, a few weeks postponement may be considered to get a viable baby. But in most of the cases either sugery or radiotherapy is employed as in the nonpregnant state ,the sooner the better ,irrespective of the duration of pregnancy. **VAGINAL DELIVERY SHOULD NEVER BE DONE IN INVASIVE CANCER**.

166) **Fibroid with pregnancy**:- Commonest presentation of a large cervical fibroid is **RETENTION OF URINE IN BLADDER. Preterm labour and prematurity ae other effects on pregnancy. Secondary PPH in puerperium. Effect of pregnancy on fibroid -----→Red degeneration:-it predominantly occurs in large fibroid during the second half of pregnancy or puerperium.the cause is not known but is probably vascular in origin.infection doesnot play any merit.<u>The basic principle in the management of fibroid complicated by a fibroid is not to do anything to the fibroid whenever possible.</u>**

167) **Ovarian tumour in pregnancy:- management :-<u>the principle is to remove the tumour as soon as the diagnosis is made.</u> During pregnancy,the best time of elective operation is <u>between 14-18th week</u> as chances of abortion is less and access to pedicel is easy.if the diagnosis is made before this time,the patient should be kept under observation.Beyond 36 weeks- the operation is better to be withheld till delivery and the tumour is removed as early in puerperium as possible. <u>In complicated –the tumour should be removed irrespective of the period of gestation . During puerperium :the tumour should be removed as early in puerperium as possible.(within 48 hrs following delivery)</u>**

168) **<u>Morbid anatomic changes in retroverted uterus if left uncared</u> for:**-In the majority spontaneous rectification of the position of the uterus occurs.In the minority and on rare occasions,spontaneous rectification doesn't occur between **12-16 weeks**. The developing uterus gradually fills up the pelvic cavity and becomes incarcerated. Anatomical changes :- The cervix is pointed upwards and forwards,rarely the uterus continues to grow at the expense of the anterior wall **called anterior sacculation** while the thick posterior wall lies in the sacral hollow. Anterior sacculation is the condition where a thin walled sac develop in myometrium often containing fetal parts. **Symptoms appear between 12-16 weeks therefore .Acute urinary retention in gravid retroverted uterus occurs in 12-16**

weeks.(after incarceration). Changes following incarceration :-The initial symptom is frequency of urination followed by difficulty in micturition which ultimately culminates into retention of urine.

169) **Genital prolapse :-** management during pregnancy:- In a young woman following childbirth it is a great mistake to advise treatment for proplapse, if the operation is performed within six months of delivery , there is always the posiibility of recurrence of proplapse. Besides these women rapidly improve if well directed conservative measures are adopted for 3 or 4 months following childbirth..**Surgery is also contraindicated during pregnancy**. Ring pessary is indicated in women who is unfit for sugery or is a high risk case for surgery on account of some medical disorders.**A pregnant woman with proplapse also needs a ring pessary in the first trimester of pregnancy**. Also in a young woman planning to concieve in the near future ,surgery is better postponed till after the childbirth,because a good surgical result could be ruined by vaginal delivery.Surgery is advised in women over 40 unless it is contraindicated or is hazardous on account of some medical disorders.abdominal sling operations have been designed for young women suffering from second or third degree uterovaginal proplapse and who are desirous of retaining their childbirth and menstrual function.

170) **Preterm labour :-** high risk factors:-**previous history of induced or spontaneous abortion or preterm delivery, asympomatic bacteriuria or recurrent UTI, smokinghabits, low socio –economic and nutritional status, bacterial vaginosis,multiple pregnancy.**

171) **Prelabour rupture of membranes :-** Spontaneous rupture of the membranes any time beyond 28th week of pregnancy but before the onset of labour is called PROM. Confirmation of diagnosis :- to examine the collected fluid from the posterior fornix (vaginal pool) for : a) Detection of **pH** by litmus or **nitrazine paper**.The pH becomes 6-6.2. **(**normal vaginal Ph during pregnancy is 4.5-5.5 whereas that **of liquor amnii is 7-7.5**). **BLOOD WILL INTERFERE WITH THE NITRAZINE TEST BECAUSE IT IS ALKALINE**. Centrifuged cells stained with 0.1 % nile blue sulphate showing orange blue colouration of the cells.(**stain used for maturity assesment of amniotic fluids is NILE BLUE SULPHATE.) use of antibiotics:-prophlactic antibiotics are given to mother to minimise maternal and perinatal risk of infection.**

172) **Post maturity :- A pregnancy continuing beyond two weeks of the expected date of delivery/OR BEYOND 294 DAYS is called postmaturity or post term pregnancy. If a patient comes with complaints of post dated pregnancy the first thing to do is review the menstrual history once more. Accurate assesment of gestational age is the most useful contribution of ultrasound.Estimation of fetal maturity by BPD sonic measurements is accurate to within ± 10 days in second trimester and in third trimester it is ± 2-3 week. There is proplongation of pregnancy in anencephaly without polyhydramnios.there is increased chance of fetal hypoixia in Postmaturity.**

173) **Isoimmunization :-** There is chance of feto maternal bleed in abortion,CVS,amniocentesis,antepartum hemorrhage,attempted version.This is much more likely to take place during third stage of labour and **following caesarean section**.The fetal red cells containing Rh antigen mixes with the maternal blood.The affection of the baby can occur due to Rh incompatibility.(detectable antibodies usually develop after 6 months following larger volume of fetal maternal bleed.but if the fetal maternal bleed is less than 0.1 ml,the antibody may not be detected until boosted by further rh stimulus).Albumin

agglutinin cause damage to the placenta. VARIOUS MANIFESTATIONS OF THE HEMOLYTIC DISEASE(erythroblastosis fetalis) :- HYDROPS FETALIS :- MOST SERIOUS FORM Of Rh hemolytic disease.(most gravely ill neonates of erythroblastosis fetalis presents as hydrops fetalis.).Hyperplasia of the placental tissue(**large placenta**) occurs in an effort to increase the transfer of oxygen but the available fetal red cells are progressively diminshed. As a result of fetal anoxemia,there is damage to the liver leading to hypoproteinemia which is responsible for generalised edema (hydrops fetalis),**ascites** and hydrothorax. Other **non immune causes** (accumulation of serous fluids in tissues and serous cavities in conditions other than rh incompatibility)of hydrops fetalis are:- **chromosomal abnormality ,congenital cardiac Lesions, renal abnormality, alfa thalessemia, rubella, syphilis.** In USG there is **edema of skin** ,scalp **and pleural or pericardial effusion**. There is also **ascites**. **Placenta is large** pale and edematous. Earliest in usg is skin edema???????????? **Prevention of Rh immunization** :-To prevent active immunisation:- Rh anti –D immunoglobin is administered intramuscularly to the mother following childbirth and abortionit should be **administered within 72 hrs** preferably earlier following delivery or abortion.**it should be given provided the baby born is Rh positive** and **the direct coomb`s test become negative.if already coombs test is positive,that means immunisation has developed already,so no use of anti-DIgG. DOSE IS 300 µg following delivery,100 µg following abortion beyond 20 weeks and 50 µg following abortion below 20 weeks and in cases of ectopic. Approximate volume of the fetal blood entering into the maternal blood is to be estimated by "Kleihauer count". The amount of anti D gamma globulin is calculated (100 µg neutralize 5 ml of Rh positive red cells) .This constitutes a form of therapeutic titration. Antenatal investigation protocol of Rh negative mothers:----- Rh grouping of husband (if husband is found to be Rh neg then no problem cause baby will be Rh negative too),coombs test, Amniocentesis:-The optical density of the liquor containing the bilirubin pigment is observed.The O.D. difference at 450 nm wavelength gives the prediction of the severity of fetal hemolysis. If falls in zone III (HIGH ZONE) ,the fetus is severely affected and death is imminent.**If the pregnany is beyond 34 weeks,termination is done.**If the pregnancy is below 34 weeks,intrauterine fetal transfusion may be alternative.**If falls in Zone I fetus is unlikely to be affected and pregnancy is continued to term. If falls in Zone II premature termination beyond 34 weeks may be required**..

174) **Elderly primigravidae:- above the age of 30 years.**

175) **Grand multipara:**- 4 or more viable births. Complications:- **Malpresentation, Placenta praevia ,Anemia,PPH (****hyperemesis is more common in primigravidae than multigravidae,so not seen here).**

176) **Anatomical and obstetric features of parent pelvic tye:- Gynaecoid:- most common type of female pelvis,**ant and post segment are equal and spacious,cavity is wide and shallow**, No difficulty ,engagement in usual mechanism. Anthropoid :- associated with negroid races & persistent posterior postions. Ant and post segments of inlet are both increased with slight anterior narrowing,sacro sciatic notch in cavity is more wide and shallow.,more incidence of face to pubis delivery. Android:- worst**, post segment short and anterior segment shallow**,diameter of engagement is transverse or oblique like others but engagement is delayed and difficult,associated with DEEP TRANSVERSE ARREST. Platypelloid :-is least common,both anterior and posterior segments are**

reduced and FLAT,sacro sciatic notch in cavity is narrow and deep with side walls convergent.

177) **Osteomalacic pelvis :- triradiate** shape of inlet **(**the promontry is pushed downwards and forwards and the lateral pelvic walls are pushed inwards causing the ant wall to form a beak.) **Naegele`s pelvis:- it is produced due to arrested development of one ala of the sacrum. Robert`s pelvis:- Ala of both sides are absent.**

178) **Cephalo Pelvic disproportion is best assessed by x ray pelvimetry??????:-** The advantages of X ray pelvimetry are:- gives precise measurements of important diameters in accessible to clinical examination. Indications:- in clinically suspected pelvic contraction and disproportion in primigravidae 2) Suspected pelvic contraction in multiparae with previous history of tedious or prolonged labour ending in difficult forceps or cesarean 3) Primigravidae with malpresentation like breech or face specially where the baby seems to be big on clinical examination. CPD at brim :- Ultrasonographic measurement of the biparietal diameter of head gives superior information than the X ray cephalometry. **CPD at term is best assessed by a) external pelvimetry b) internal pelvic exam c) USG d) All. ?????????? X ray pelvimetry reveals the measurement of the obstetric conjugate as 7.6 cm -9.5 cm--→ moderate disproportion,** less than 7.5 cm is severe disproportion. 9.6 cm -10 cm is slight.

179) **Trial labour:- It is conduction of spontaneous labour in am moderate degree (7.6-9.5 cm) of CPD.critical obstetric conjugate for trial labour is 9.5 cm therefore. In breech presentation there is trial of breech. Contraindications for trial labour :- 1)Associated midpelvic and outlet contraction (2)Presence of complicating factors like elderly primigravidae,malpresentation,postmaturity,post cesarean pregnancy,**

180) **Midpelvic and outlet disproportion :-Symphysiotomy** as an alternative to cesarean section in women of the underpriviliged section of the developing countries.

181) **Constriction ring :-** It is one form of **incoordinate uterine action** where there **is localised spastic contraction of a ring of circular muscle fibres of the uterus** .It is usually situated at the junction of the upper and lower segment around a constricted part of the fetus usually around the neck in cephalic presentation.it is usually reversible and complete. Its occurrence is associated with 1**) injudicious administration of oxytocics 2) premature rupure of the membranes 3) premature attempt at instrumental delivery specially under light anaesthesia**. (**NOT ASSOCIATED WITH OBSTRUCTED LABOUR).**

182) **Cervical Dystocia :- occurs at the level of external OS. External os fails to dilate.**

183) **Precipitate labour :-** when the combined duration of the first and second stage is **less than 2 hours.**

184) **Bandl`s ring:- Pathological retraction ring.:- Due to tonic uterine contraction there is circumferential dilatation and progressive stretching of the lower segment with corresponding thickening of the upper segment and rise in the level of retraction ring following obstruction.. It occurs due to tonic uterine contraction(hypertonic dysfunctional labour) and retraction which is predominantly due to obstructed labour.(CPD etc). Internal examination reveals that vagina is dry and hot and the discharge is offensive. There is Exhaustion and sepsis early. Fetal death is also usually early.**

185) **Commonest cause of maternal mortality is bleeding per vaginum *(post natal hemorrhage)* .**

186) Mechanism of normal labour :- As the Occipito-lateral position is the commonest ,the mechanism of labour in such position will be described. :--→ Engagement → Increasing flexion →internal rotation of occiput anteriorly to 2/8th of circle,simultaneous rotation of the shoulders to 1/8th of circle,placing occiput behind pubic symphysis → Crowning → Delivery of the head by extension → Restitution (passive movement of the head due to untwisting of the neck caused because of the 1/8th torsion left behind during internal rotation) → External Rotation-(through 1/8th of a circle in the same direction as restitution due to the internal rotation of the shoulders placing the occiput to the side in which it was originally directed at the time of engagement) → Delivery of the shoulders and trunk by lateral flexion. Mechanism of labour in occipito-posterior position:--- Increasing flexion with engagement → Long anterior internal rotation of the occiput 3/8th of circle,simultaneous rotation of the anterior shoulder through 2/8th of circle placing occiput behind pubic symphysis with 1/8th torsion left behind.→ Delivery of the head by extension→ Restitution(1/8th of circle)-→ External rotation (1/8th of circle) . In majority delivery is spontaneous or can be accomplished by low forceps or ventouse.

187) Persistent occipito posterior position:-- It is an abnormal mechanism of the occipito-posterior position where there is malrotation of the occiput posteriorly towards the sacral hollow (occipito sacral position). As previously mentioned delivery may occur spontaneously as Face to pubis but arrest may occur in this position and is called **occipito - sacral arrest.** In the wider sense POP also includes two other arrested positions namely **,deep transverse arrest and oblique posterior arrest. In these cases of arrest ,Manual rotation until the occiput is behind pubic symphysis followed by forceps extraction is done.**

188) In various varieties of breech presentation engagement takes place earliest in breech with extended legs (Frank Breech).

189) *Etiology of breech presentation*:- ******Prematurity is the commonest cause of breech presentation. 1)Preventing spontaneous version:-Septate or bicornuate uterus, Twins, oligohydramnios 2)Favourable adaptation:- Hydrocephalus , Contracted pelvis 3) Undue mobility of fetus :-Hydramnios.

190) Antenatal management in breech presentation:- Perinatal mortality is much higher in case of vaginal breech delivery,therefore External Cephalic Version is done if not contraindicated (Sonography is particularly useful to detect congenital malformations of the fetus,the precise location of the placenta (PP), and congenital malformations of the fetus) .The success rate of version is about 70-80% The ideal time for version has been considered to be 37 weeks but can be attempted at any time therafter upto early labour. Contraindications of version:- suspected placenta praevia , severe degree contracted pelvis , fetal malformations , hydrocephalus , specially valuable baby . Successful version reduces the risk of cesarean section significantly. Successful version is likely in cases of 1) Adequate liquor (hydramnios) , Non obese patient , Complete breech ,non engaged breech ,sacro –anterior position. **Dangers of version** :- **placental seperation and bleeding** ,premature onset of labour, premature rupture of membranes , cord entaglement or formation of true knot. **If version fails or is contraindicated** the pregnancy is continued ,one may find that spontaneous version has occurred. If not **two methods can be planned** :- 1) **Elective cesarean section**:- Because of the risk (big baby ,hyerextension of head and even footling presentation and even a slight

complicating factor is an indication of cesarean) involved in vaginal breech delivery ,there is tendency to liberalize the use of cesarean section 2) **Vaginal breech delivery(assisted)** :- Young primigravidae with good pelvis and average size baby ,or multigravidae with good obstetric history are the candidates for vaginal delivery. In case of vaginal breech delivery ,there are 3 methods of delivery :- 1) *spontaneous* (this method should not be encouraged 2) ***Assisted breech* :- This method should be employed in all cases** 3) *Breech extraction*:- minimal aid from mother,entire body is extracted by obstetrician .Its Indications are a) appearance of maternal and/or fetal distress, b) cord proplapse c) extended legs arrested in the cavity or the outlet and d) following internal version . **In case of assisted breech delivery ,delivery of the aftercoming head is the most crucial stage of delivery. The following are the methods employed for the delivery of aftercoming head:- 1) "Burns Marshall method" 2) "Mauriceau-smellie-veit method" (malar flexion and shoulder traction) 3) Forceps delivery. # In cases when the vaginal delivery is contemplated in frank breech ,bringing down a leg by "pinard`s manoeuvre" is done when the legs are extended (frank breech) . # In cases where arms are extended along the side of the head or lie behind the neck ,arrest occurs with the delivery of trunk upto costal margins .The delivery of arms in such cases occuring due to faulty technique in vaginal breech delivery may be accomplished by adopting "lovsets manoeurve" for the delivery of arm.**

191) **Lovsets manouvere :-** Step 1:-The baby is lifted slightly to cause lateral flexion .The trunk is rotated through 180 ˚ keeping the back anterior and maintaining a down ward traction.this will bring the posterior arm to emerge under the pubic arch which is then hooked out. Step 2 : The trunk is then **rotated in the " reverse direction**" keeping the back anteriore to deliver the erstwhile anterior shoulder inder the pubic symphysis.

192) **Arrest of aftercoming head in breech with chin to pubis : – posterior rotation of chin & piper`s forceps. # If the arrest of the aftercoming head is due to contracted pelvis or hydrocephalus, perforation of the head is to be done.The usual site of perforation is through the occipital bone.**

193) **Face presentation :-** The cause of extreme extension of the head in face presentation is not clear in all the cases **.The commonest congenital anomaly associated with face presentation is anencephaly . Also most common presentation in anencephaly is FACE .** There are 4 positions of face according to the relation of chin to the left and right sacroiliac joints.:-LMA,RMA,RMP,LMP.The commonest is LMA(left mento anterior).Most infavourable presentation is **Mento-Posterior**.(rt or left).**There is no possibility of spontaneous delivery in persistent mento –posterior.**

194) **Brow presentation**:- The mechanism is more or less the same **as face to pubis delivery.**

195) **In transverse lie there is shoulder presentation. Neglected shoulder :-** The **series of complications** that may arise out of shoulder presentation when the labour is left uncared for or cesarean section was not done. Such complications are impacted shoulder → obstructed labour→ rupture uterus with clinical evidence of dehydration .Treatment is decapitation .{Shoulder dystocia is not a complication of neglected shoulder,it is something else. Shoulder dystocia is defined to describe a wide range of difficulty encountered in the delivery of shoulders.Anencephaly is one of the predisposing factor,short cord or cord tightly around the neck is another factor. Shoulder dystocia can lead to various complications like brachial plexus injury ,increased operative delivery and morbidity.} **Management of transverse lie:**-external cephalic version should be done in all cases

beyond 32 weeks provided there are no contraindications as mentioned in breech presentation.if version fails or c/I ,elective cesarean section is done.

196) **Leopold manoeuvere refers to method of Examination of abdomen.**

197) **Unstable lie**:- Presentation of the fetus is constantly changed even beyond 36th week when it should have been stabilized. Causes :- The causes are those which **prevent the presenting part to remain fixed in the lower pole of the uterus** .like **Placenta praevia,** grand multipara,hydramnios,contracted pelvis,pelvic tumour.

198) **Cord prolapse(most commonly ass with transverse lie)**:- Anything that interferes with perfect adaptation of the presenting part to the lower uterine segment ,disturbing the ball valve action may favour cord proplapse like :- **The commonest malpresentation associated is transverse and breech specially with flexed legs. *.Cord roplapse is seen least in frank type of breech.***

199) **Prolonged labour:- Prolonged latent phase may be worrisome to the patient but doesnot endanger the mother or fetus . Partogram helps in detection of obstructed or prolonged labour.**

200) **In obstructed labour** :- **Blood stained urine** is a common finding. Mother is **dehydrated.rapid pulse** and **low BP**, **FHS are absent**, **Cervix may be fully dilated but the presenting part is arrested due to mechanical obstruction.Vagina is dry and hot and the discharge is offensive. (like in tonic uterine contraction and retraction,POINT 184).**

201) **Hydrocephalus:- The head is high up and impossible to push down in the pelvis., The fontanelles and sutures are wide.**

202) **Anencephaly :- Earliest fetal anomaly to be detected by USG,** Typically there is **marked dimunition of the size of the adrenal glands** probably secondary to the absence of the pitiutary gland(**not hypertrophy**). Best diagnosis is at 10-12 weeks ,earliest diagnosis at 10 weeks. Complications include:- 1) Hydramnios 2) Malpresentation 3) Premature labour specially associated with hydramnios 4) "**postmaturity"(not prematurity) . folic acid supplementation has reduced the incidence of NTDs considerably.**

203) **Post partum hemorrhage :**- The amount of blood loss **in excess of 500 ml**. **Primary hemorrhage** : -Haemorrhage occurs **within 24 hours following the birth of the baby. Primary hage is of 2 types 1) Third stage Hage :- Bleeding occurs before expulsion of placenta 2) *True PPH* :- Bleeding occurs subsequent to expulsion of placenta (*majority*). Secondary hemorrhage:- Hemorrhage occurs beyond 24 hours and within puerperium,also called delayed or late puerperal hemorrhage. # Causes of PPH:- Atonic uterus is the commonest cause of PPH . The following are the conditions which often interfere with the retraction of the uterus as a whole and of the placental site in particular. ---A) Grand multipara , B) overdistension of the uterus as in multiple pregnancy,hydramnios, and large baby. Imperfect retraction and a large placental site are responsible for excessive bleeding,C) Prolonged labour. Scheme of management of true PPH :- Immediate measures. Treat shock with IV fluids .Feel the uterus by abdominal palpation-→ Uterus flabby-→ Massage** the uterus to make it **hard ,inj. Methergin** 0.2 mg I.V., To add **oxytocin** 10 units in 500 ml of N saline at the rate of 40 drops per minute.**- → still flabby → Exploration of the uterus → Remains flabby (continuing BT and oxytocin drip)→ Administration of 15 methyl PGF2 α 250 µg I.M./intramyometrial→ fails → bimanual compression → fails-→ intrauterine**

pluging → fails → ligation of uterine or "anterior" division of internal iliac arteries (bilateral).

204) **Secondary PPH:- (OR PPH With retracted uterus/or LATE PPH) :- The cause of Late PPH are :1)Retained bits of cotyledon or membranes (commonest) 2) seperation of slough over a deep cervico –vaginal laceration following infection 3) seperation of sloufg exposing a bleeding vessel or granulation tissue**

205) **Placenta Accreta** :- **Placenta is directly anchored to the myometrium partially or completely without any intervening decidua.**The condition is usually associated when the placenta happens to be implanted in the lower segment (**placenta praevia**) or over the **previosly injured sites as in cesarean section**,**dilatation and curettage operation ,**manual removal.Diagnosis can be made during manual removal when the plane of cleavage cant be made out or by USG clour dopplerMRi etc**. Pathological confirmattion** includes :- a) absence of decidua basalis b) **absence of nitabuch`s fibrinoid layer** c) **varying degree of penetration of the villi into the muscle bundles(increta) or upto the serosal layer(percreta).** Management :-**Def treatment is hysterectomy** ,preferable in parous women.

206) **Inversion of the uterus :-** The inversion may be **spontaneous** or more commonly **induced . Induced :- This is due to the mismanagement of the third stage of labour** .1**) Pulling the cord** when the uterus specially when combined with fundal pressure .2) **Faulty technique in manual removal** :- attempted shearing off the placenta from its attachment during manual removal by pulling the partially seperated placenta or firmly pressing on atonic uterus by the external hand or rapidly withdrawing the internal hand thereby creating a negative pressure.

207) **Perineum :-** Degrees of tear ;1) First degree :- involves lacerations of the remnants of the hymen, the fourchette , lower part of the vagina and the perineal skin but the perineal body remains intact 2) Second degree :- involves lacerations of the posterior vaginal wall and varying degrees *of tear of the perineal body excluding the anal sphincter* 3**) Third degree** { **COMPLETE**}:- involves major lacerations of the post vaginal wall and *tear of the perineal body including the anal sphincter* with or without involvement of the anal canal or even the rectum. **Complete** perineal tear should **be repaired after 3 months (12 weeks) if left delayed beyond 24 hours.**

208) **Cervical tear :- Left lateral tear i.e 3' o clock position is commonest.**

209) **Pelvic hematoma:-** Anatomical types 1) **infralevator hematoma (common) :- the commonest one is the vulval hematoma** .2) supralevator hematoma (rare) **Vulval hematoma**:- Etiology is improper hemostasis during repair of vaginal or perineal tears or **episiotomy wound**. Treatment :- A small hematoma may be treated conservatively with cold compresses.large hematomas detected early should be explored in OT under general anaesthesia . **The blood clots are to be scooped out and the bleeding points are to be secured**. Management of supra levator hematoma /broad ligament hematoma: -The anterior leaf of the broad ligament is incised and blood clot is scooped out.**The bleeding points,if visible ,are to be secured and ligated** .Random blind sutures shouldnot be placed to prevent ureteric damage .if the oozing continues ,one may have **to tie the anterior division of the internal iliac artery.**

210) **Rupture of the uterus(obstructed labour is the commonest cause,the patient is usually a multipara) :- 1) *Spontaneous rupture(intact uterus)* :- Spontaneous rupture involves the upper segment (body) in non obstructive type . *whereas in***

obstructive type ,the rupture involves the anterior lower segment transversely. **2) Scar rupture(scarred uterus) :- Rupture over previous scar is almost always located at the site of the scar:-Least common in LSCS (lowersegment) type scar ,more common in classical upper segment) one. Uterine scar following operation on nonpregnant uterus such as myomectomy or uteroculoplasty hardly rupture as the wound heals well because the uterus remains quiescent following operation .Uterine scar following hysterotomy behaves like that of a classical scar and is of growing concern.Classical or hysterotomy scar are therefore likely to give way during later months of pregnancy. 3) Iatrogenic or traumatic:-** ***During pregnancy***:- injudicious use of oxytocin,use of prostaglandins for induction of abortion or labour,forcible external version,fall or blow on abdomen ***During labour:-*** **Internal podalic version specially following obstructed labour.**

211) Puerperal pyrexia:- a rise of temp. **above 100.4˚ f (38˚c)** or more on 2 separate occasions at 24 hours apart (excluding 1st 24 hours) within first 10 days following delivery **. Commonest cause predisposing to puerperal pyrexia is *malnutrition.* *Anaerobic streptococci is the predominant one.also staphylococcus pyogenes, non hemolytic streptococcus,ecoli ,bacteroids* Most common cause of post partum endometritis is streptococcus α. The uterus is the most common site of puerperal infection**.The remnants of the decidua **specially over the placental site** are the common sites. **Spread of infection**(pelvic cellulitis) can occur through **direct,lymphatic and secondary to thrombophlebitis**(thrombus becomes purulent which leads to necrosis of the venous wall and which in turn ruptures to the surrounding tissues). **Hysterectomy is indicated in gangrenous uterus or gas gangrene infection.**

212) Subinvolution:- When the involution is impaired or retarded .Aggravating factors are 1) retained products of conception 2) Uterine sepsis

213) White Leg (phlegma alba dolens) :- Retrograde extension of pelvic thrombophlebitis to involve the ilio-femoral vein.In this interstitial tissue pressure may exceed the capillary perfusion pressure.No lymphatic obstruction.

214) Changes durin the first week in baby :- Changes in genitalia:- vulval engorgement ,leucorrhoea or at times vaginal bleeding may occur during first week and last for 24-48hours.**It is due to "withdrawal" of maternal estrogen** from the newborn .changes in stools:- meconium is normally passed 3-4 times a day for 2-3 days.A delay in the initial passage of meconium for more than 12 hours after birth requires observation.From the **3rd or 4th day**, **"changing stools"** are passed. **In a baby clinic a neonate is brought with liver 2 fingers enlarged. It is a normal phenomenon. # A healthy baby is put to breast fed ½ - 1 hour following normal delivery.** Following cesarean section a period of 4-6 hrs may be sufficient .

215) IUGR :- Symmetrical (20%) :- Thefetus is affected from the noxious stimuli very early in the phase of cellular hyperplasia.the total cell number is less. This form of growth retardation is most often caused by structural or chromosomal abnormalities or congenital infection(TORCH). **The pathologic process is intrinsic to the fetus and involves all the organs *including the head.*** **Asymmetrical (80%)**:-fetus is affected in later months during the phase of cellular hypertrophy.The total cell number remains the same but size is smaller than normal.The pathologic process that too often result in this type are maternal diseases extrinsic to the fetus.These diseases alter the fetal size by reducing uteroplacental blood flow or by restricting the oxygen and nutrient transfer or by reducing the placental

size.***In asymmetrical IUGR brain is not affected.*** **Etiology :- 1) Toxins :- Alcohol ,smoking, chronic renal failure , chronic urinary tract infection,propranolol(through decreased fetal blood flow). Organ which is affected least in IUGR????????? *(****** In preterm ,Rh incompatbility or DM there is no IUGR,not at all related).* Allyl estranol ,high protein diet,intermittent oxygen therapy, all these improve fetoplacental function in women with IUGR except the left lateral position.???????????**

216) Head paradoxical reflex:- with inflation of lungs,there is augmentation of respiratory effort (due to irritant receptors of the lung) . (in newborns)

217) Formation of Hyaline membrane :- Preterm,Diabetic, Caesarean,Breech,Hypothermic,Hypovolemic. (IUGR not related)

218) There is one advantage of Formula fed that It contains Vit K. (Breast milk contains very little vitamin K) Breast fed babies have less diarrhoea(necrotising enterocolitis) and fewer respiratory and middle ear infections(ottitis media) than artificially fed babies.Breast feeding also protects against neonatal hypocalcemia(due to its ideal 2:1 calcium phosphorus ratio and better calcium absorption).

219) Cephalhaematoma:- (newborn head injury)It is collection of blood in between the pericranium and the flat bone of the skull,usually unilateral and over a parietal bone.It is due to rupture of emissary vein from the skull and may be associated with fracture of the skull bone.This may be caused by forceps delivery but may also be met with following a normal labour.Ventouse application doesnot increase the incidence of cephalhaematoma**.It is never present at birth** but gradually develops after 12-24 hrs.**The swelling is limited by suture lines** of the skull as the pericranium is fixed to the margins of the bone(meningocele always lies over the suture lines or fontanelle and there is impulse on crying) .It is circumscribed,soft and fluctuant and incompressible.**The blood is absorbed in course of time(6-8 weeks) leaving an entirely normal skull.**

220) Sternomastoid Hematoma(tumour):- appears about 7-10 days after birth and is usually situated at the junction of upper and middle third of the muscle.It is caused by rupture of the muscle fibres and blood vessels,followed by a hematoma and cicatricial contraction.It is associated with difficult breech delivery or attempted delivery following shoulder dystocia or excessive lateral flexion of the neck even during normal delivery. There is transient torticollis and it is wise **The swelling disappears by 6 months of age. No immediate therapy is needed like in cephalhaematoma**

221) Pharmacotherapy in obs:- Oxytocin has a half life of 3-4 minutes.Oxytocin challenge test(contraction stress test) to detect fetal well being . contraindications:- previous history of cesarean section 2) preterm labour 3) APH ,thus its use is very much selective. # The indications of ergometrine or methergin is to stop the atonic uterine bleeding following delivery ,abortion, or expulsion of Hmole. It can b used therapeutically as well prophylactically. Contraindications when used for prophylaxis:- 1) suspected twins 2) organic cardiac disease 3) severe pre eclampsia and eclampsia. 4) Rh negative mother. c/I even when used therapeutic (absolute c/i) :- Heart disease or severe hypertensive disorder ,oxytocin is a better substitute. # oxytocin is preferred over ergometrine in induction of labour because it is short lived and faster in action. # Tocolytic agents :- Isoxsurpine,Ritodrine,Salbutamol,Ethanol,(progesterone and diazoxide also inhibits

labour). Prostaglandin synthetase inhibitors not used for tocolysis because they may cause premature closure of PDA and congestive heart failure may occur.

222) Paracervical block can only relieve the pain of uterine contraction,doesn't relieve pain of episiotomy.For episiotomy.perineal infiltration is done.Paracervical block is ass. with danger of fetal bradycardia. # Most important and major cause of maternal mortality from obstetrical anaesthesia is Aspiration of gastric contents(mendelson`s syndrome).

223) Induction of labour :- indications :- Preeclapmsiaand eclampsia,minor degree of Placenta Praevia.C/I :- Heart disease.(imp). The ripeness of cervix can be effectively achieved by PGE2

224) Bishop`s pre-induction cervical scoring system:- Favourable score -6-13 (more than 6 indicates labour has begun). *****Factors include 1) CERVICAL --- a) *Dilatation(cm*) b) *Cervical length* (*effacement of cervix*)(cm) c) *Consistency* d) *Position* & 2) HEAD *station.*

225) Surgical induction :-The initiation of labour is attempted by sugical method and is almost exclusively done by rupture of membranes. C/I :- IUD (IUD Is an indication for medical induction but c/I for surgical induction).

226) Partogram :-It is a composite graphical record of cervical dilatation and descent of head against duration in hours .It also gives information about fetal and maternal condition that are all recorded on a single sheet of paper. Its other components are :- 1) Patient identification 2) Time 3) Fetal heart rate 4) state of membranes and colour of liq 5) cervical dilatation and descent of head 6) uterine contractions 7) Drugs and fluids 8) BP 9) Oxytocin(conc and dose) 10) Urine analysis 11) Temp

227) Progestasert is not so long acting like other IUDs .It should be replaced after one year.

228) Indications of removal of IUDevice :- pregnancy occuring with the device insitu .Best inv for detection of missing IUD is USG. Best method of post coital contraception is Copper i.u.d. (preg rate only 0-0.1 out of various post coital contraceptives). # Best method for a 20 yr old nulliparous is Low dose Pills. # OCPs are also best choice for a working women with irregular and profuse bleeding. # In a newly married couple Pill is recommended provided there is no contraindication. # In lactating women Pill is better withheld.Minipill or injectable steroids if available,is ideal. Alternatively IUD is to be introduced. # Also for a postpartum village woman with onechild(lactating) → cu T is choice as others are not available.

229) Uterus is elevated or pushed to one side or the other by the elevator that has already been introduced transvaginally into the uterine cavity in mini-lap .while minilap canbe done anytime but Laparoscopic sterilization shouldnot be done within 6 weeks following delivery.

230) Episiotomy :- Only median or mediolateral episiotomy is done commonly.1) In median the blood loss is least, healing is superior ,dyspareunia is rare,post op comfort is maximum ",but extension if occurs may involve the rectum." 2) In mediolateral relative safety from rectal extension,{blood loss,dyspareunia and post op discomfort is comparatively more.} .TREATMENT OF EPISIOTOMY INFECTION :- to facilitate drainage of pus,local dressing with antibiotic ointment or powder and systemic antibiotics.

231) Forceps operations are carried according to the station of the fetal head(station of biparietal diameter)It is the most important point of reference in the use of forceps. Fetal indications:- Appearance of fetal distress in the second stage of labour when prospect of vaginal delivery is safe,aftercoming head of breech .Maternal indications :- A) Maternal distress (*********vacuum is C/I in fetal distress as it takes longer time,forceps used in fetal distress******}. # Conditions to be fulfilled:- cervix must be fully dilated and effaced :-temptation to apply forceps through the cervical rim is to be checked.(cf ventouse)

232) Ventouse :- Indications :- Deep transverse arrest with adequate pelvis As an alternative to forceps operation except :-a) Face presentation and aftercoming of breech b) Fetal distress or prematurity ADVANTAGE OF VENTOUSE OVER FORCEPS :- It can be used with adv in unrotated and malrotated occipito post position of the head. # Conditions to be fulfilled:- cervix should be atleast 6 cm dilated(preferably only cervical rim may be left behind)

233) The only indication of internal version is Transverse lie in case of the second baby of twin.it is hardly indicated in a singleton pregnancy in present day obs.Patient should be deeply anaesthetised(GA).

234) Caesarean section:- Absolute indications:- central placenta praeviae,severe degree of contracted pelvis with true conjugate less than 7.5 cm,cervical or broad ligament fibroid,vaginal atresia,advanced ca cervix(not Carcinoma in situ). Relative indications:- Previous CS,Previous scar following classical or hysterotomy should be dealt with elective caesarean section because of risk of scar rupture.Myomectomy scar should be dealt with judiciously,as per se it is not an indication for section.(described previously in rupture uterus). CS is also indicated following successful VVF repair or difficult repair of stress incontinence. # Indications of classical cesarean section i.e. incision made in upper segment are very much limited such as :- 1)Big fibroid on the lower segment, 2)ca cervix, 3) repair of difficult and high VVF ,4) severe degree of PP with engorged vessels in the lower segment.To minimise blood loss when adequate blood is not available and the patient is in extremes. 5) postmortem section contemplating to have a live baby. 6)lower segment app is difficult like in dense adhesions due to previous operations and in severe contracted pelvis with pendulous abdomen.

235) About 2/3rd of neonatal deaths are related to prematurity.(MC)

236) Most important cause of coagulation failure in obstetrics is abruptio placentae. Other pathological conditions ass with acquired coagulopathy are:- septic abortion 2) liq amnii embolism 3) severe pre eclampsia,eclampsia and Hellp syndrome 4)prolonged retention of dead fetus in utero 5) others like shock cesarean section. # Treatment :- replacement of fibrinogen (massive BT{most imp} ,FFP, cryoprecipitate & fibrinal) ,fibrinolytic inhibitors (EACA-inhibits plasminogen and plasmin) and heparin. Dextrans should be avoided as they adversely affect platelet function and blood cross matching tests.

237) High risk cases /factors in reproductive history(according to WHO) are:- During pregnancy:- 1)Threatened abortion and APH 2) Twins and hydramnios 3) Previous still birth,IUD,manual removal of placenta 4)elderly primi 5)short statured primi 6)Malpresentations 7) Preeclampsia and eclampsia 8) Elderly grand

multipara 9) prolonged pregnancy 10) history of previous CS and instrumental delivery 11)Anaemia

238) 10 day rule:- No Woman should be exposed to x ray for a non urgent indication outside 10 days from her last period during reproductive period.It means radiography should be restricted to 1st 10 days of menstrual cycle outside from her last period.