INI CET Obstetrics and Gynaecology

Sample Paper – 5

Duration: 14 Minutes **Maximum Marks: 15**

Instructions

- This paper contains **15** Multiple Choice Questions (Single Best Response), modelled on the Obstetrics and Gynaecology content of **INI CET** (Institutes of National Importance Combined Entrance Test) conducted by AIIMS New Delhi.
- The **15-question** length matches the number of Obstetrics and Gynaecology items you actually meet in the real 200-question paper.
- Each correct answer carries **+1 mark**. There is **negative marking of one-third (0.33) mark** for every incorrect answer; unattempted questions carry no penalty.
- Every question has **exactly one best answer**. Choose the single most appropriate option.
- Attempt this practice paper in one timed sitting of about **14 minutes**, the pace the real computer-based test demands.

Obstetrics: Antenatal Care and Physiology

Q1. The single most accurate ultrasound parameter for dating a pregnancy during the first trimester is:

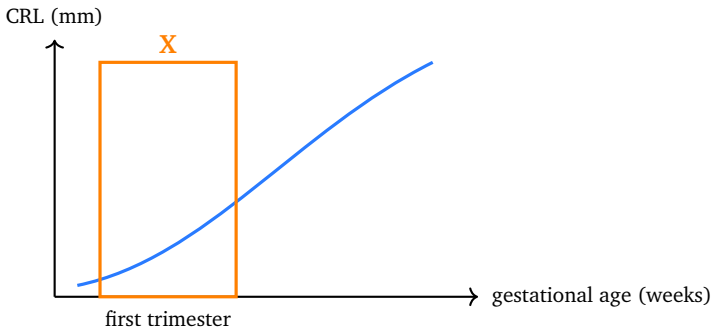
(A) Biparietal diameter

(B) Femur length

(C) Crown-rump length

(D) Abdominal circumference

Q2. The graph plots fetal crown-rump length against gestational age. The window marked **X**, in which crown-rump length dates a pregnancy to within about 5 days, corresponds to:



(A) 20 to 24 weeks

(B) 7 to 13 weeks

(C) 28 to 32 weeks

(D) 36 to 40 weeks

Q3. By Naegele's rule, the expected date of delivery is obtained from the first day of the last menstrual period (for a regular 28-day cycle) by adding:

(A) 9 months and subtracting 7 days

(B) 7 months and 7 days

(C) 9 months and 7 days

(D) 10 months and 10 days

Obstetrics: Complications of Pregnancy

Q4. Which drug is used as a tocolytic to delay uterine contractions in threatened preterm labour?

(A) Oxytocin

(B) Misoprostol

(C) Ergometrine

(D) Nifedipine

Q5. A single course of antenatal corticosteroids given to a woman in threatened preterm labour acts mainly to:

(A) Accelerate fetal lung maturity and surfactant production

(B) Stop uterine contractions directly

(C) Treat maternal chorioamnionitis

(D) Induce labour rapidly

Q6. Premature rupture of membranes is suspected on speculum examination by pooling of fluid in the posterior fornix. Which simple bedside test supports the diagnosis?

(A) Nitrazine test showing an alkaline (blue) reaction

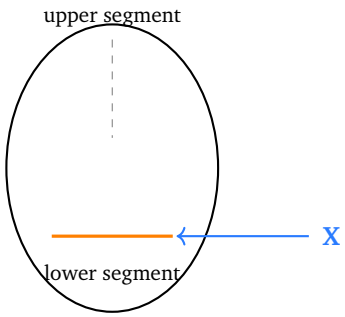
(B) A positive urine pregnancy test

(C) A reactive non-stress test

(D) A high Bishop score

Labour and Puerperium

Q7. In the schematic of the gravid uterus, the transverse incision in the lower uterine segment (marked **X**), preferred for caesarean section because of a lower risk of scar rupture, is the:



(A) Classical (upper segment vertical) incision

(B) J-shaped incision

(C) Lower segment transverse (Kerr) incision

(D) Inverted-T incision

Q8. A woman with a previous classical (upper segment vertical) caesarean scar is at greatest risk, in her next pregnancy, of which serious complication?

(A) Gestational diabetes

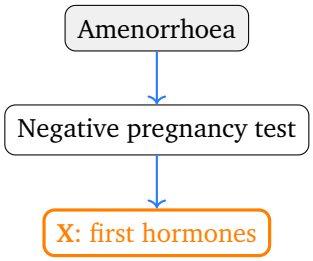
(B) Twin pregnancy

(C) Post-term pregnancy

(D) Uterine (scar) rupture

Gynaecology: Benign and Endocrine

Q9. The flow box shows the first step in evaluating amenorrhoea. After a negative pregnancy test, the initial set of hormones measured (marked **X**) to separate the common causes is:



(A) Serum testosterone alone

(B) Prolactin, TSH and FSH

(C) Serum calcium and phosphate

(D) Random blood glucose

Q10. Primary amenorrhoea is diagnosed when menstruation has not begun by the age of:

(A) 11 years, whatever the secondary sexual development

(B) 15 years despite normal secondary sexual characteristics

(C) 18 years in every girl

(D) 20 years with a normal uterus

Q11. Once pregnancy has been excluded, the most common cause of secondary amenorrhoea in a woman of reproductive age is:

(A) Polycystic ovary syndrome

(B) Premature ovarian insufficiency

(C) Asherman syndrome

(D) Sheehan syndrome

Gynaecological Oncology

Q12. The most common histological type of carcinoma of the vulva is:

(A) Squamous cell carcinoma

(B) Adenocarcinoma

(C) Malignant melanoma

(D) Basal cell carcinoma

Q13. Carcinoma of the vagina is staged clinically by the FIGO system. Its most common presenting feature is:

(A) Painful abdominal mass

(B) High fever with chills

(C) Rapid weight gain

(D) Painless vaginal bleeding or discharge

Contraception, Infertility and Infections

Q14. The two organisms most commonly responsible for pelvic inflammatory disease are:

(A) Escherichia coli and Klebsiella

(B) Candida albicans and Trichomonas

(C) Neisseria gonorrhoeae and Chlamydia trachomatis

(D) Gardnerella vaginalis and Mobiluncus

Q15. A sexually transmitted infection caused by Treponema pallidum, presenting classically with a single painless genital ulcer (chancre), is:

(A) Chancroid

(B) Syphilis

(C) Genital herpes

(D) Lymphogranuloma venereum

Detailed Solutions

Q1.

Solution

Concept – dating in the first trimester: Early growth is uniform, so the earliest measured parameter dates best.

Step 1 – name the parameter: Crown-rump length (CRL) is the length from the top of the head to the rump.

Step 2 – accuracy: Between 7 and 13 weeks it estimates gestational age to within about 5 days, the tightest of all methods.

Why the other options are wrong:

- A, biparietal diameter: used from the second trimester, less accurate for dating.
- B, femur length: a second and third trimester growth parameter.
- D, abdominal circumference: best for estimating fetal weight and growth, not early dating.

Final Answer: Crown-rump length ⇒ C

Answer: (C) Go Back to Q1

Q2.

Solution

Concept – the dating window: CRL is reliable only while embryonic growth is rapid and uniform.

Step 1 – read the graph: The boxed region **X** sits on the steep early part of the curve, in the first trimester.

Step 2 – give the range: That window is **7 to 13 weeks**, where CRL dates a pregnancy to within about 5 days.

Why the other options are wrong:

- A, C and D: 20 to 24, 28 to 32 and 36 to 40 weeks fall in the second and third trimesters, where biological variation widens the dating error.

Final Answer: 7 to 13 weeks ⇒ B

Answer: (B) Go Back to Q2

Q3.

Solution

Concept – Naegele's rule: A quick estimate of the expected date of delivery from the last menstrual period.

Step 1 – state the rule: To the first day of the LMP, **add 9 months and 7 days** (equivalently, add 1 year, subtract 3 months, add 7 days).

Step 2 – assumption: It assumes a regular 28-day cycle with ovulation on day 14.

Why the other options are wrong:

- A, subtracting 7 days: reverses the correct addition.
- B, 7 months and 7 days: wrong month count.
- D, 10 months and 10 days: not part of any recognised rule.

Final Answer: Add 9 months and 7 days $\Rightarrow$ $\boxed{C}$

Answer: (C) Go Back to Q3

Q4.

Solution

Concept – tocolysis: Tocolytics relax the myometrium to buy time in preterm labour.

Step 1 – pick the drug: **Nifedipine**, a calcium channel blocker, is a first-line tocolytic.

Step 2 – purpose: Delaying delivery by 24 to 48 hours allows corticosteroids to act and transfer to a unit with neonatal care.

Why the other options are wrong:

- A, oxytocin: stimulates contractions, the opposite effect.
- B, misoprostol: a prostaglandin used to induce labour or abortion.
- C, ergometrine: an oxytocic used for postpartum haemorrhage.

Final Answer: Nifedipine $\Rightarrow$ $\boxed{D}$

Answer: (D) Go Back to Q4

Q5.

Solution

Concept – antenatal corticosteroids: Steroids prepare the preterm fetus for extrauterine breathing.

Step 1 – name the action: Betamethasone or dexamethasone **accelerate fetal lung maturity and surfactant production**.

Step 2 – benefit: This lowers the rates of respiratory distress syndrome, intraventricular haemorrhage and neonatal death.

Why the other options are wrong:

- B, stopping contractions: that is the role of tocolytics, not steroids.
- C, treating infection: antibiotics, not corticosteroids, do this.
- D, inducing labour: steroids do not induce labour.

Final Answer: Accelerate fetal lung maturity $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q5

Q6.

Solution

Concept – confirming ruptured membranes: Amniotic fluid is alkaline, unlike acidic vaginal secretions.

Step 1 – pick the test: The **nitrazine test** turns the paper blue (alkaline pH above 6.5) when amniotic fluid is present.

Step 2 – support: A ferning pattern on a dried slide adds further confirmation.

Why the other options are wrong:

- B, urine pregnancy test: confirms pregnancy, not membrane rupture.
- C, non-stress test: assesses fetal wellbeing.
- D, Bishop score: grades cervical readiness for induction.

Final Answer: Nitrazine (alkaline) test $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q6

Q7.

Solution

Concept – caesarean uterine incisions: The site of the incision decides the risk of future rupture.

Step 1 – identify X: The transverse cut in the lower uterine segment is the **lower segment transverse (Kerr) incision**.

Step 2 – why preferred: The lower segment is thin and less contractile, so it heals well and has a low rupture risk in later pregnancies.

Why the other options are wrong:

- A, classical incision: a vertical cut in the contractile upper segment, high rupture risk.
- B and D, J-shaped and inverted-T: extensions used only when access is difficult, with higher morbidity.

Final Answer: Lower segment transverse (Kerr) $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q7

Q8.

Solution

Concept – the classical scar: An upper segment scar sits in contractile muscle.

Step 1 – name the risk: A previous classical caesarean carries a high risk of **uterine (scar) rupture** in the next pregnancy, which may occur even before labour.

Step 2 – management: Such women are usually delivered by elective repeat caesarean before labour and are not offered a trial of vaginal birth.

Why the other options are wrong:

- A, B and C: gestational diabetes, twinning and post-term pregnancy are unrelated to the type of uterine scar.

Final Answer: Uterine (scar) rupture $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q8

Q9.

Solution

Concept – first-line workup of amenorrhoea: After ruling out pregnancy, a few hormones separate the main causes.

Step 1 – identify X: The initial panel is **prolactin, TSH and FSH**.

Step 2 – interpretation: High prolactin suggests a prolactinoma, an abnormal TSH points to thyroid disease, and FSH distinguishes ovarian failure (high) from hypothalamic causes (low or normal).

Why the other options are wrong:

- A, testosterone alone: checked when hyperandrogenism is suspected, not as the whole first step.
- C, calcium and phosphate: unrelated to the menstrual axis.
- D, random glucose: screens for diabetes, not amenorrhoea.

Final Answer: Prolactin, TSH and FSH $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q9

Q10.

Solution

Concept – defining primary amenorrhoea: The cut-off depends on secondary sexual development.

Step 1 – state the definition: No menses by **15 years despite normal secondary sexual characteristics** (or by 13 years if they are absent) defines primary amenorrhoea.

Step 2 – why: By 15 years, breast development and pubic hair should long have started, so absent menses needs evaluation.

Why the other options are wrong:

- A, 11 years: too early; menarche has a wide normal range.
- C and D, 18 and 20 years: far too late; evaluation should begin much sooner.

Final Answer: 15 years with normal secondary sexual characteristics $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q10

Q11.

Solution

Concept – causes of secondary amenorrhoea: Pregnancy aside, one endocrine disorder dominates.

Step 1 – name it: Polycystic ovary syndrome (PCOS) is the commonest cause once pregnancy is excluded.

Step 2 – features: Anovulation, hyperandrogenism (hirsutism, acne) and polycystic ovaries on ultrasound support the diagnosis.

Why the other options are wrong:

- B, premature ovarian insufficiency: less common, with high FSH.
- C, Asherman syndrome: intrauterine adhesions after instrumentation, uncommon.
- D, Sheehan syndrome: postpartum pituitary necrosis, rare.

Final Answer: Polycystic ovary syndrome $\Rightarrow$ $\boxed{A}$

Answer: (A) Go Back to Q11

Q12.

Solution

Concept – vulvar carcinoma histology: The vulva is lined by squamous epithelium.

Step 1 – name the type: About 90% of vulvar cancers are **squamous cell carcinoma**.

Step 2 – risk factors: Older age, HPV infection and lichen sclerosus are the main risks.

Why the other options are wrong:

- B, adenocarcinoma: uncommon, arising from Bartholin glands.
- C, melanoma: the second most frequent but far less common than squamous.
- D, basal cell carcinoma: rare on the vulva.

Final Answer: Squamous cell carcinoma $\Rightarrow$ $\boxed{A}$

Answer: (A) Go Back to Q12

Q13.

Solution

Concept – vaginal carcinoma presentation: Like other lower genital tract cancers, bleeding is the key clue.

Step 1 – name the symptom: The commonest presentation is **painless vaginal bleeding or discharge**, often postcoital or postmenopausal.

Step 2 – staging: Vaginal cancer is staged clinically by the FIGO system, based on local and regional spread.

Why the other options are wrong:

- A, painful abdominal mass: not typical of early vaginal cancer.
- B, high fever: points to infection, not malignancy.
- C, rapid weight gain: unrelated; cancers cause weight loss if anything.

Final Answer: Painless vaginal bleeding or discharge ⇒ D

Answer: (D) Go Back to Q13

Q14.

Solution

Concept – microbiology of PID: Most pelvic inflammatory disease is sexually transmitted.

Step 1 – name the organisms: Neisseria gonorrhoeae and Chlamydia trachomatis are the two commonest causes.

Step 2 – consequences: Untreated ascending infection can cause tubal scarring, infertility and ectopic pregnancy.

Why the other options are wrong:

- A, E. coli and Klebsiella: bowel flora, more typical of urinary or postpartum infection.
- B, Candida and Trichomonas: cause vaginitis, not classic PID.
- D, Gardnerella and Mobiluncus: cause bacterial vaginosis.

Final Answer: Gonorrhoea and Chlamydia ⇒ C

Answer: (C) Go Back to Q14

Q15.

Solution

Concept – painless genital ulcer: The character of the ulcer names the infection.

Step 1 – match the organism: Syphilis, caused by *Treponema pallidum*, gives a single painless indurated ulcer (chancre) in the primary stage.

Step 2 – diagnosis: Dark-ground microscopy and serology (VDRL, TPHA) confirm it; penicillin is the treatment.

Why the other options are wrong:

- A, chancroid: a painful ulcer caused by *Haemophilus ducreyi*.
- C, genital herpes: painful grouped vesicles and ulcers.
- D, lymphogranuloma venereum: a small transient ulcer with painful inguinal buboes.

Final Answer: Syphilis $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q15

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	B	3	C	4	D	5	A
6	A	7	C	8	D	9	B	10	B
11	A	12	A	13	D	14	C	15	B