

INI CET Obstetrics and Gynaecology

Sample Paper – 4

Duration: 14 Minutes

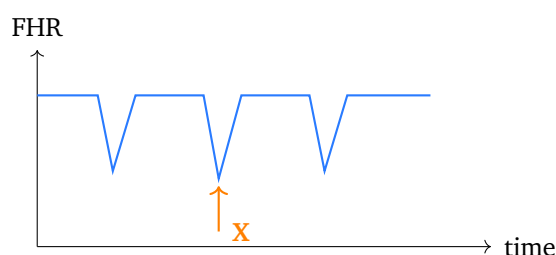
Maximum Marks: 15

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 for each clinical or basic-science stem.
- 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 cardiotocograph (CTG) tracing below shows repetitive fetal heart-rate decelerations (marked **X**) that begin and end abruptly, are sharp and V-shaped, and vary in shape and timing relative to the uterine contractions. These are:



(A) Early decelerations



- (B) Late decelerations
- (C) Sinusoidal pattern
- (D) Variable decelerations

Q2. The biophysical profile (BPP) scores five parameters, four of them assessed on real-time ultrasound (fetal breathing, gross body movement, fetal tone and amniotic fluid volume). The fifth component is:

- (A) Placental (Grannum) grade
- (B) Estimated fetal weight
- (C) Non-stress test (fetal heart-rate reactivity)
- (D) Umbilical artery Doppler flow

Q3. Absent or reversed end-diastolic flow in the umbilical artery on Doppler study of a growth-restricted fetus most directly indicates:

- (A) A normal, low-resistance placental circulation
- (B) High placental vascular resistance with severe placental insufficiency
- (C) Fetal anaemia requiring intrauterine transfusion
- (D) Maternal pre-existing diabetes mellitus

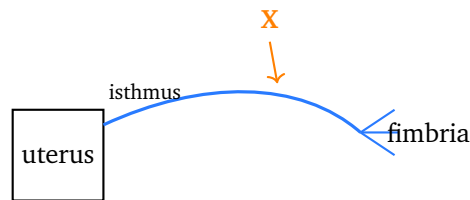
Obstetrics: Complications of Pregnancy

Q4. Hyperemesis gravidarum (severe, intractable vomiting of early pregnancy with dehydration, ketonuria and weight loss) is most strongly linked to elevated levels of which hormone, explaining its association with molar and multiple pregnancy?

- (A) Progesterone
- (B) Beta human chorionic gonadotropin (beta-hCG)
- (C) Unconjugated estriol
- (D) Prolactin

Q5. In the schematic of the fallopian tube below, the site marked X is the commonest location for a tubal (ectopic) pregnancy. It is the:





- (A) Ampulla
- (B) Isthmus
- (C) Interstitial (cornual) part
- (D) Fimbrial end

Q6. A complete hydatidiform mole classically has which genetic make-up and gross features?

- (A) Triploid 69,XXY with identifiable fetal parts
- (B) Diploid 46,XX that is entirely paternal (androgenetic), with no fetal tissue
- (C) Diploid 46,XY with a normal coexisting fetus
- (D) Haploid 23,X derived only from the ovum

Labour and Puerperium

Q7. Before any operative vaginal delivery (forceps or vacuum) is attempted, which of the following must all be satisfied?

- (A) Cervix at least 6 cm dilated with the head at the ischial spines
- (B) Intact membranes with the presenting part above the pelvic brim
- (C) A known cephalopelvic disproportion but a cooperative mother
- (D) Fully dilated cervix, ruptured membranes, engaged head with known position, and an empty bladder

Q8. Compared with forceps delivery, ventouse (vacuum) extraction is more specifically associated with which neonatal complication?

- (A) Facial nerve palsy
- (B) Skull fracture with intracranial haemorrhage

- (C) Higher rate of maternal third-degree perineal tears
- (D) Cephalohaematoma and retinal haemorrhage

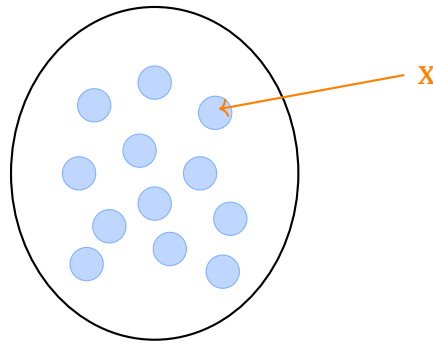
Gynaecology: Benign and Endocrine

- Q9.** The single most common site of endometriosis, where deposits form a “chocolate cyst” (endometrioma), is the:
- (A) Uterosacral ligaments
 - (B) Rectovaginal septum
 - (C) Ovary
 - (D) Umbilicus
- Q10.** Adenomyosis is best defined pathologically as:
- (A) Endometrial glands and stroma implanted on the ovarian surface
 - (B) A benign smooth-muscle tumour of the myometrium
 - (C) Endometrial glands and stroma present within the myometrium, with a thickened junctional zone on MRI
 - (D) Malignant glandular proliferation of the endometrium
- Q11.** The gold-standard investigation for the definitive diagnosis of endometriosis is:
- (A) Laparoscopy with direct visualisation and biopsy of lesions
 - (B) Transvaginal ultrasound
 - (C) Serum CA-125 estimation
 - (D) Pelvic magnetic resonance imaging (MRI)

Gynaecological Oncology

- Q12.** The ultrasound schematic below shows the uterine cavity filled with numerous small vesicles giving a “snowstorm” / cluster-of-grapes appearance (marked X), with no identifiable fetus. This is characteristic of:





- (A) Missed abortion
- (B) Multiple uterine fibroids
- (C) Hydatidiform (vesicular) mole
- (D) Normal early intrauterine pregnancy

Q13. After surgical evacuation of a hydatidiform mole, the single most important test for follow-up and for detecting progression to gestational trophoblastic neoplasia (including choriocarcinoma) is:

- (A) Serial pelvic ultrasound scans
- (B) Serial serum beta-hCG measurements
- (C) Serial serum CA-125 levels
- (D) Repeated staging chest CT scans

Contraception, Infertility and Infections

Q14. The most effective method of emergency contraception, effective up to 5 days (120 hours) after unprotected intercourse and offering ongoing contraception thereafter, is the:

- (A) Copper intrauterine device (Cu-IUD)
- (B) Single 1.5 mg levonorgestrel oral pill
- (C) Yuzpe regimen of combined oral contraceptive pills
- (D) Progestogen-only mini-pill started the next day

Q15. Under the Medical Termination of Pregnancy (Amendment) Act 2021, the upper gestational limit for termination for specified categories of

women (such as survivors of rape and those with fetal or maternal indications), on the opinion of two registered medical practitioners, was raised to:

- (A) 24 weeks
- (B) 20 weeks
- (C) 28 weeks
- (D) 12 weeks



Detailed Solutions**Q1.****Solution**

Concept – types of fetal heart-rate deceleration: The shape and timing of a deceleration relative to the contraction names it.

Step 1 – read the tracing: The dips marked X are abrupt in onset and offset and sharply V-shaped.

Step 2 – note the timing: They vary in depth, duration and position relative to contractions, which is the defining feature of **variable decelerations**.

Step 3 – mechanism: Variable decelerations are caused by umbilical cord compression.

Why the other options are wrong:

- A, early decelerations: gradual, uniform, mirror the contraction (head compression).
- B, late decelerations: gradual, with the nadir after the peak of the contraction (uteroplacental insufficiency).
- C, sinusoidal pattern: a smooth, regular wave, not abrupt dips (fetal anaemia).

Final Answer: Variable decelerations ⇒ D

Answer: (D) [Go Back to Q1](#)

Q2.**Solution**

Concept – components of the biophysical profile: The BPP combines an ultrasound assessment with a heart-rate test.

Step 1 – list the four sonographic parameters: Fetal breathing movements, gross body movements, fetal tone and amniotic fluid volume.

Step 2 – add the fifth: The fifth component is the **non-stress test**, which records fetal heart-rate reactivity.

Step 3 – scoring: Each of the five parameters scores 0 or 2, for a maximum of 10.

Why the other options are wrong:

- A, placental grade: describes placental maturity, not part of the BPP.



- B, estimated fetal weight: a growth measure, not a BPP component.
- D, umbilical artery Doppler: a separate test; the modified BPP adds amniotic fluid, not Doppler, to the NST.

Final Answer: Non-stress test ⇒

Answer: (C) [Go Back to Q2](#)

Q3.

Solution

Concept – umbilical artery Doppler: Diastolic flow reflects downstream placental resistance.

Step 1 – interpret the finding: Normally there is forward flow throughout diastole. Absent or reversed end-diastolic flow means resistance is very high.

Step 2 – link to pathology: This signals **severe placental insufficiency**, an ominous sign in a growth-restricted fetus.

Step 3 – action: It prompts close surveillance and often early delivery.

Why the other options are wrong:

- A, normal circulation: a normal placenta shows continuous forward diastolic flow, the opposite finding.
- C, fetal anaemia: assessed by middle cerebral artery peak systolic velocity, not umbilical end-diastolic flow.
- D, maternal diabetes: not directly indicated by this Doppler pattern.

Final Answer: Severe placental insufficiency ⇒

Answer: (B) [Go Back to Q3](#)

Q4.

Solution

Concept – hyperemesis gravidarum: Severe early-pregnancy vomiting tracks a placental hormone.

Step 1 – name the hormone: Beta-hCG peaks in the first trimester and its rise parallels the severity of vomiting.

Step 2 – explain the associations: Conditions with very high hCG, such as molar and multiple pregnancy, carry a higher risk of hyperemesis.



Step 3 – clinical note: High hCG can also mildly stimulate the thyroid, contributing to symptoms.

Why the other options are wrong:

- A, progesterone: slows gut motility and causes mild nausea, but does not explain the molar link.
- C, estriol: a marker of fetoplacental function, not the driver of hyperemesis.
- D, prolactin: governs lactation, unrelated to the severity of vomiting.

Final Answer: Beta-hCG ⇒ B

Answer: (B) [Go Back to Q4](#)

Q5.

Solution

Concept – site of tubal ectopic pregnancy: The fallopian tube has named segments with different implantation risks.

Step 1 – identify X: The widest, mid-portion of the tube marked X is the **ampulla**.

Step 2 – state the frequency: About 70 percent of tubal ectopic pregnancies implant in the ampulla, the commonest site overall.

Step 3 – why: Fertilisation normally occurs here, so a delayed or obstructed ovum implants at this point.

Why the other options are wrong:

- B, isthmus: the narrow medial segment; the second commonest site, more prone to early rupture.
- C, interstitial (cornual) part: rare but dangerous, with heavy bleeding when it ruptures.
- D, fimbrial end: the least common tubal site.

Final Answer: Ampulla ⇒ A

Answer: (A) [Go Back to Q5](#)



Q6.

Solution

Concept – complete hydatidiform mole: Its genetics explain the absence of a fetus.

Step 1 – state the karyotype: A complete mole is diploid **46,XX** and entirely paternal (androgenetic), arising when an empty ovum is fertilised and the paternal genome duplicates.

Step 2 – gross features: There is diffuse vesicular swelling of all chorionic villi and **no fetal tissue**.

Step 3 – risk: Complete moles carry a higher risk of progression to trophoblastic neoplasia than partial moles.

Why the other options are wrong:

- A, triploid 69,XXY with fetal parts: describes a partial mole.
- C, diploid with a normal coexisting fetus: a twin pregnancy with a mole, not a complete mole itself.
- D, haploid 23,X: not a viable molar karyotype.

Final Answer: Diploid 46,XX, entirely paternal, no fetal tissue ⇒ **B**

Answer: (B) [Go Back to Q6](#)

Q7.

Solution

Concept – prerequisites for operative vaginal delivery: Several conditions must all be met before applying forceps or vacuum.

Step 1 – recall the checklist: Cervix fully dilated, membranes ruptured, head engaged with a known position, adequate anaesthesia and an empty bladder.

Step 2 – pick the option: Only **option D** lists these mandatory prerequisites together.

Step 3 – key exclusion: Cephalopelvic disproportion must be excluded, not present.

Why the other options are wrong:

- A, only 6 cm dilated: the cervix must be fully (10 cm) dilated.
- B, intact membranes with a high head: unsafe; the head must be engaged and membranes ruptured.



- C, known cephalopelvic disproportion: an absolute contraindication.

Final Answer: Full dilatation, ruptured membranes, engaged head, empty bladder ⇒

Answer: (D) [Go Back to Q7](#)

Q8.

Solution

Concept – vacuum versus forceps complications: Each instrument has its own signature neonatal injuries.

Step 1 – name the vacuum-specific injury: The cup applies suction to the scalp, causing **cephalohaematoma and retinal haemorrhage** more often than forceps.

Step 2 – add the marker: A chignon (scalp swelling) is expected after ventouse and resolves spontaneously.

Step 3 – trade-off: Vacuum causes fewer maternal perineal tears than forceps but more neonatal scalp trauma.

Why the other options are wrong:

- A, facial nerve palsy: more typical of forceps pressure on the face.
- B, skull fracture with intracranial bleed: classically linked to forceps, not the vacuum cup.
- C, more maternal third-degree tears: forceps, not vacuum, causes more perineal trauma.

Final Answer: Cephalohaematoma and retinal haemorrhage ⇒

Answer: (D) [Go Back to Q8](#)

Q9.

Solution

Concept – commonest site of endometriosis: Ectopic endometrium settles most often at one pelvic site.

Step 1 – name the site: The **ovary** is the most common site, where cyclical bleeding forms an endometrioma or “chocolate cyst”.

Step 2 – appearance: The cyst contains altered, tarry old blood, giving the chocolate colour.



Step 3 – symptoms: Cyclical pelvic pain, dysmenorrhoea, dyspareunia and infertility are typical.

Why the other options are wrong:

- A, uterosacral ligaments: a common site for deep deposits and nodularity, but less common than the ovary.
- B, rectovaginal septum: a site of deep infiltrating disease, not the commonest.
- D, umbilicus: a rare, distant site.

Final Answer: Ovary ⇒

Answer: (C) [Go Back to Q9](#)

Q10.

Solution

Concept – adenomyosis: The word points to endometrium inside the muscle.

Step 1 – define it: Adenomyosis is the presence of **endometrial glands and stroma within the myometrium**.

Step 2 – imaging clue: MRI shows a thickened junctional zone (typically more than 12 mm); the uterus is bulky and tender.

Step 3 – symptoms: Menorrhagia and dysmenorrhoea in an enlarged, boggy uterus are characteristic.

Why the other options are wrong:

- A, glands on the ovary: describes ovarian endometriosis, not adenomyosis.
- B, benign smooth-muscle tumour: that is a leiomyoma (fibroid).
- D, malignant glandular proliferation: that is endometrial carcinoma.

Final Answer: Endometrial glands and stroma within the myometrium ⇒

Answer: (C) [Go Back to Q10](#)



Q11.

Solution

Concept – definitive diagnosis of endometriosis: Direct visualisation with tissue confirmation is the reference standard.

Step 1 – name the test: **Laparoscopy** with direct visualisation and biopsy of lesions is the gold standard.

Step 2 – what it shows: Powder-burn deposits, endometriomas and adhesions are seen and can be treated in the same sitting.

Step 3 – confirmation: Histology of biopsied deposits confirms the diagnosis.

Why the other options are wrong:

- B, transvaginal ultrasound: good for endometriomas but misses peritoneal disease.
- C, CA-125: may be mildly raised but is non-specific and not diagnostic.
- D, MRI: helpful for deep infiltrating disease but not the definitive standard.

Final Answer: Laparoscopy with visualisation and biopsy ⇒ **A**

Answer: (A) [Go Back to Q11](#)

Q12.

Solution

Concept – ultrasound of a molar pregnancy: Swollen villi produce a distinctive echo pattern.

Step 1 – read the image: The cavity is filled with numerous small vesicles (marked X) and no fetus, the classic **snowstorm** or cluster-of-grapes appearance.

Step 2 – match the diagnosis: This is a **hydatidiform (vesicular) mole**.

Step 3 – confirm: A markedly raised beta-hCG for gestational age supports the diagnosis.

Why the other options are wrong:

- A, missed abortion: shows a non-viable gestational sac or fetus, not vesicles.
- B, fibroids: solid myometrial masses, not cystic cavity vesicles.
- D, normal early pregnancy: shows a single gestational sac with a fetal pole.

Final Answer: Hydatidiform mole ⇒ **C**



Answer: (C) [Go Back to Q12](#)

Q13.

Solution

Concept – follow-up after molar evacuation: A single hormone tracks residual and malignant trophoblast.

Step 1 – name the test: Serial serum beta-hCG is the single most important follow-up investigation.

Step 2 – interpret trends: A steady fall to undetectable levels indicates cure; a plateau or rise signals gestational trophoblastic neoplasia.

Step 3 – practical point: Reliable contraception is advised during follow-up so a new pregnancy does not confuse the beta-hCG trend.

Why the other options are wrong:

- A, serial ultrasound: useful acutely but not the mainstay of ongoing surveillance.
- C, CA-125: not a trophoblastic marker.
- D, repeated chest CT: reserved for staging when neoplasia is confirmed, not for routine follow-up.

Final Answer: Serial serum beta-hCG ⇒ **B**

Answer: (B) [Go Back to Q13](#)

Q14.

Solution

Concept – emergency contraception: The methods differ in efficacy and window.

Step 1 – name the most effective: The **copper intrauterine device** is the most effective emergency method, working up to 5 days after intercourse.

Step 2 – mechanism: Copper is toxic to sperm and ova and prevents implantation; it also provides ongoing long-term contraception.

Step 3 – efficacy: Its failure rate is well below 1 percent, far lower than the oral options.

Why the other options are wrong:

- B, levonorgestrel pill: effective but less so, and best within 72 hours.



- C, Yuzpe regimen: an older, less effective and more nauseating combined-pill method.
- D, progestogen-only mini-pill: a routine ongoing method, not for emergency use.

Final Answer: Copper intrauterine device ⇒

Answer: (A) [Go Back to Q14](#)

Q15.

Solution

Concept – MTP (Amendment) Act 2021: The amendment revised the gestational limits for lawful termination.

Step 1 – state the limit: For specified categories of women, the upper limit was raised to **24 weeks** on the opinion of two registered medical practitioners.

Step 2 – context of the earlier limits: Up to 20 weeks needs one practitioner's opinion; 20 to 24 weeks needs two for the specified categories.

Step 3 – beyond 24 weeks: Termination for substantial fetal abnormality beyond 24 weeks requires approval of a State Medical Board.

Why the other options are wrong:

- B, 20 weeks: the limit under the original 1971 Act, not the 2021 amendment.
- C, 28 weeks: not a limit specified in the Act.
- D, 12 weeks: the threshold below which one practitioner's opinion suffices, not the raised upper limit.

Final Answer: 24 weeks ⇒

Answer: (A) [Go Back to Q15](#)



Answer Key

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

