INI CET Obstetrics and Gynaecology

Sample Paper – 8

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. Which antihypertensive drug is contraindicated in pregnancy because it is teratogenic and causes fetal renal damage and oligohydramnios?

(A) Labetalol

(B) Methyldopa

(C) Enalapril (an ACE inhibitor)

(D) Nifedipine

Q2. Which vaccine is contraindicated during pregnancy because it is a live attenuated vaccine?

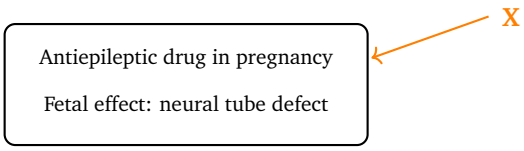
(A) Tetanus toxoid

(B) Inactivated (killed) influenza vaccine

(C) Rubella (MMR) vaccine

(D) Hepatitis B vaccine

Q3. In the box shown, the antiepileptic drug marked **X**, which classically causes fetal neural tube defects (spina bifida) when taken in early pregnancy, is:



(A) Sodium valproate

(B) Levetiracetam

(C) Lamotrigine

(D) Magnesium sulfate

Obstetrics: Complications of Pregnancy

Q4. Which maternal cardiac condition carries the highest risk of maternal death, so that pregnancy is generally contraindicated and termination is advised?

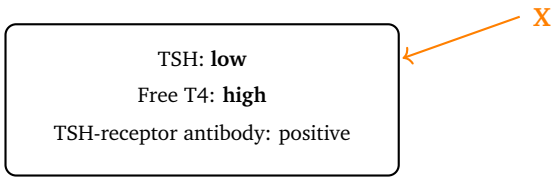
(A) Mild mitral valve prolapse

(B) Eisenmenger syndrome

(C) Surgically corrected atrial septal defect

(D) Isolated mild pulmonary stenosis

Q5. The thyroid-function box shows a persistently **low TSH** with a **high free T4** and positive TSH-receptor antibodies (marked **X**). In a symptomatic pregnant woman this pattern most likely indicates:



(A) Primary hypothyroidism

(B) Subclinical hypothyroidism

(C) A normal first-trimester finding needing no thought

(D) Overt hyperthyroidism (Graves disease)

Q6. Untreated overt maternal hypothyroidism in pregnancy is most strongly associated with which fetal or neonatal risk?

(A) Fetal macrosomia

(B) Neonatal thyrotoxicosis

(C) Impaired fetal neurodevelopment (lower childhood IQ)

(D) Polyhydramnios

Labour and Puerperium

Q7. Which organism is the classic, highly virulent cause of puerperal sepsis (postpartum genital tract infection) historically linked to childbed fever?

(A) Group A Streptococcus (Streptococcus pyogenes)

(B) Candida albicans

(C) Herpes simplex virus

(D) Trichomonas vaginalis

Q8. Which hormone is chiefly responsible for the milk-ejection (let-down) reflex during breastfeeding?

(A) Oxytocin

(B) Prolactin

(C) Estrogen

(D) Progesterone

Gynaecology: Benign and Endocrine

Q9. The most common benign ovarian germ-cell tumour, containing hair, teeth and sebaceous material, is:

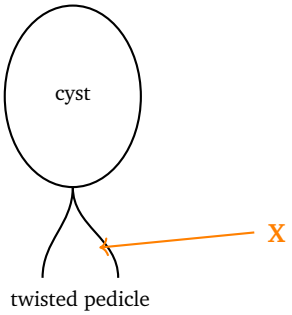
(A) Serous cystadenoma

(B) Mature cystic teratoma (dermoid cyst)

(C) Follicular cyst

(D) Corpus luteum cyst

Q10. The schematic shows an ovarian cyst hanging on a twisted vascular pedicle (marked **X**). The classic clinical presentation of this ovarian torsion is:



(A) Painless, slowly progressive abdominal distension

(B) Cyclical pain occurring only at menstruation

(C) Postmenopausal bleeding

(D) Sudden severe unilateral lower-abdominal pain with nausea and vomiting

Q11. A young woman is found to have a simple, thin-walled, unilocular ovarian cyst under 5 cm that typically resolves on its own over 6 to 8 weeks. This is most likely a:

(A) Endometrioma (chocolate cyst)

(B) Dermoid cyst

(C) Functional (follicular) cyst

(D) Mucinous cystadenoma

Gynaecological Oncology

Q12. The most common uterine sarcoma, arising from the smooth muscle of the myometrium, is:

(A) Endometrial stromal sarcoma

(B) Carcinosarcoma (malignant mixed Mullerian tumour)

(C) Adenosarcoma

(D) Leiomyosarcoma

Q13. Which type of endometrial hyperplasia carries the highest risk of progression to endometrial carcinoma?

(A) Simple hyperplasia without atypia

(B) Atypical hyperplasia (endometrial intraepithelial neoplasia)

(C) Complex hyperplasia without atypia

(D) Cystic glandular hyperplasia

Contraception, Infertility and Infections

Q14. Female genital tuberculosis most commonly affects which part of the genital tract, making it an important cause of tubal-factor infertility?

(A) Fallopian tubes

(B) Vulva

(C) Cervix

(D) Ovary

Q15. In a woman of reproductive age, the most common gynaecological cause of chronic cyclical pelvic pain with progressive dysmenorrhoea is:

(A) Uterine fibroid

(B) Endometriosis

(C) Ovarian dermoid cyst

(D) Cervical polyp

Detailed Solutions

Q1.

Solution

Concept – antihypertensives in pregnancy: Some agents are safe, others are teratogenic.

Step 1 – identify the contraindicated drug: Enalapril is an ACE inhibitor.

Step 2 – fetal effects: ACE inhibitors (and ARBs) cause fetal renal hypoperfusion, oligohydramnios, skull hypoplasia and renal failure, so they are contraindicated throughout pregnancy.

Why the other options are wrong:

- A, labetalol: a first-line safe antihypertensive in pregnancy.
- B, methyldopa: the classic safe drug for chronic hypertension in pregnancy.
- D, nifedipine: a safe calcium-channel blocker used in pregnancy.

Final Answer: Enalapril (ACE inhibitor) $\Rightarrow$ C

Answer: (C) Go Back to Q1

Q2.

Solution

Concept – vaccines in pregnancy: Live vaccines are avoided; killed and toxoid vaccines are allowed.

Step 1 – identify the live vaccine: Rubella (MMR) is a live attenuated vaccine.

Step 2 – reason: The theoretical risk of fetal infection means it is contraindicated in pregnancy and for one month before conception.

Why the other options are wrong:

- A, tetanus toxoid: recommended in pregnancy.
- B, inactivated influenza: safe and advised in pregnancy.
- D, hepatitis B: a killed/recombinant vaccine, safe in pregnancy.

Final Answer: Rubella (MMR) vaccine $\Rightarrow$ C

Answer: (C) Go Back to Q2

Q3.

Solution

Concept – antiepileptics and neural tube defects: The box links a drug to its classic fetal anomaly.

Step 1 – identify X: Sodium valproate carries the highest risk of neural tube defects (spina bifida) and is the most teratogenic common antiepileptic.

Step 2 – prevention: It is avoided in women of childbearing potential; high-dose folic acid is given if an antiepileptic is unavoidable.

Why the other options are wrong:

- B, levetiracetam: one of the safer antiepileptics in pregnancy.
- C, lamotrigine: relatively low teratogenic risk.
- D, magnesium sulfate: not an antiepileptic in this sense; used for eclampsia prophylaxis, not linked to neural tube defects.

Final Answer: Sodium valproate $\Rightarrow$ A

Answer: (A) Go Back to Q3

Q4.

Solution

Concept – heart disease in pregnancy: Risk depends on the lesion and pulmonary pressures.

Step 1 – pick the highest-risk lesion: Eisenmenger syndrome (pulmonary hypertension with reversed shunt) carries maternal mortality of about 30 to 50 percent.

Step 2 – reason: The fixed high pulmonary resistance tolerates the volume shifts of pregnancy poorly, so pregnancy is contraindicated.

Why the other options are wrong:

- A, mild mitral valve prolapse: usually well tolerated.
- C, corrected ASD: repaired shunt carries low risk.
- D, mild pulmonary stenosis: generally tolerated in pregnancy.

Final Answer: Eisenmenger syndrome $\Rightarrow$ B

Answer: (B) Go Back to Q4

Q5.

Solution

Concept – interpreting thyroid function: TSH and free T4 move in opposite directions in overt disease.

Step 1 – read the box: Low TSH with high free T4 and positive TSH-receptor antibodies point to **overt hyperthyroidism from Graves disease**.

Step 2 – significance in pregnancy: Uncontrolled disease risks miscarriage, growth restriction and thyroid storm; TSH-receptor antibodies can also cross the placenta and cause fetal thyrotoxicosis.

Why the other options are wrong:

- A, primary hypothyroidism: would show high TSH with low free T4.
- B, subclinical hypothyroidism: high TSH with normal free T4.
- C, normal first-trimester finding: hCG can mildly suppress TSH, but positive antibodies with symptoms indicate true Graves disease.

Final Answer: Overt hyperthyroidism (Graves disease) $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q5

Q6.

Solution

Concept – maternal hypothyroidism: Thyroid hormone is essential for fetal brain development.

Step 1 – name the key risk: Untreated overt hypothyroidism causes **impaired fetal neurodevelopment with lower childhood IQ**.

Step 2 – other associations: It also raises the risk of miscarriage, pre-eclampsia and low birth weight, so early thyroxine replacement is vital.

Why the other options are wrong:

- A, macrosomia: linked to maternal diabetes, not hypothyroidism.
- B, neonatal thyrotoxicosis: a complication of maternal Graves disease.
- D, polyhydramnios: associated with diabetes and fetal anomalies, not hypothyroidism.

Final Answer: Impaired fetal neurodevelopment $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q6

Q7.

Solution

Concept – puerperal sepsis: Postpartum genital infection has a classic virulent cause.

Step 1 – name the organism: Group A Streptococcus (Streptococcus pyogenes) is the classic, highly virulent cause of puerperal (childbed) fever.

Step 2 – historical link: Semmelweis reduced these deaths with hand hygiene; the organism can cause fulminant sepsis.

Why the other options are wrong:

- B, Candida albicans: causes vulvovaginal thrush, not puerperal sepsis.
- C, herpes simplex virus: causes genital ulcers, not this syndrome.
- D, Trichomonas vaginalis: causes vaginitis, not childbed fever.

Final Answer: Group A Streptococcus $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q7

Q8.

Solution

Concept – hormones of lactation: Two hormones divide the work of milk supply and release.

Step 1 – name the let-down hormone: Oxytocin drives the milk-ejection (let-down) reflex by contracting myoepithelial cells around the alveoli.

Step 2 – contrast: Suckling triggers oxytocin release from the posterior pituitary.

Why the other options are wrong:

- B, prolactin: drives milk production (synthesis), not ejection.
- C and D, estrogen and progesterone: high levels in pregnancy actually inhibit lactation; their fall after delivery permits it.

Final Answer: Oxytocin $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q8

Q9.

Solution

Concept – benign ovarian tumours: Germ-cell origin gives a characteristic content.

Step 1 – name the tumour: A **mature cystic teratoma (dermoid cyst)** is the commonest benign ovarian germ-cell tumour.

Step 2 – features: It contains tissues from all three germ layers, so hair, teeth and sebaceous material are seen.

Why the other options are wrong:

- A, serous cystadenoma: a benign epithelial tumour, thin serous fluid.
- C, follicular cyst: a functional cyst, not a germ-cell tumour.
- D, corpus luteum cyst: another functional cyst.

Final Answer: Mature cystic teratoma (dermoid) $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q9

Q10.

Solution

Concept – ovarian torsion: Twisting of the pedicle (X) cuts off blood supply.

Step 1 – name the presentation: Torsion causes **sudden severe unilateral lower-abdominal pain with nausea and vomiting**.

Step 2 – why: The twisted pedicle first obstructs venous drainage, then arterial inflow, threatening ovarian viability; it is a surgical emergency.

Why the other options are wrong:

- A, painless distension: suggests a slow-growing mass or ascites, not torsion.
- B, cyclical menstrual pain: suggests endometriosis or dysmenorrhoea.
- C, postmenopausal bleeding: an endometrial pathology sign, unrelated to torsion.

Final Answer: Sudden severe unilateral pain with vomiting $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q10

Q11.

Solution

Concept – functional ovarian cysts: They arise from normal ovulation and self-resolve.

Step 1 – name the cyst: A simple, thin-walled, unilocular cyst under 5 cm that resolves in 6 to 8 weeks is a **functional (follicular) cyst**.

Step 2 – management: Expectant management with a repeat ultrasound after one to two cycles is appropriate.

Why the other options are wrong:

- A, endometrioma: shows ground-glass echoes and does not resolve.
- B, dermoid: a complex cyst with fat and calcification.
- D, mucinous cystadenoma: a multiloculated neoplasm that persists.

Final Answer: Functional (follicular) cyst $\Rightarrow$ $\boxed{C}$

Answer: (C) Go Back to Q11

Q12.

Solution

Concept – uterine sarcomas: Different sarcomas arise from different tissues.

Step 1 – name the commonest: **Leiomyosarcoma** arises from myometrial smooth muscle and is the most common uterine sarcoma.

Step 2 – clue: A rapidly enlarging uterine mass, especially after the menopause, raises suspicion.

Why the other options are wrong:

- A, endometrial stromal sarcoma: less common, arises from stroma.
- B, carcinosarcoma: has both epithelial and mesenchymal elements; classified separately.
- C, adenosarcoma: a rare mixed tumour, not the commonest.

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

Answer: (D) Go Back to Q12

Q13.

Solution

Concept – endometrial hyperplasia: Cytological atypia is the key risk factor.

Step 1 – pick the highest-risk type: Atypical hyperplasia (endometrial intraepithelial neoplasia) carries the greatest risk of progression to carcinoma, around 25 to 30 percent.

Step 2 – management: Hysterectomy is usually advised, given the coexisting carcinoma risk.

Why the other options are wrong:

- A and C, hyperplasia without atypia: low progression risk (about 1 to 3 percent).
- D, cystic glandular hyperplasia: a benign pattern without atypia.

Final Answer: Atypical hyperplasia $\Rightarrow$ B

Answer: (B) Go Back to Q13

Q14.

Solution

Concept – female genital tuberculosis: It spreads to the genital tract mostly by blood.

Step 1 – name the commonest site: The **fallopian tubes** are affected in almost all cases (about 90 to 100 percent).

Step 2 – consequence: Tubal damage and blockage make genital TB an important cause of tubal-factor infertility.

Why the other options are wrong:

- B, vulva: very rarely involved.
- C, cervix: involved in a minority of cases.
- D, ovary: involved less often than the tubes, and usually secondarily.

Final Answer: Fallopian tubes $\Rightarrow$ A

Answer: (A) Go Back to Q14

Q15.

Solution

Concept – chronic pelvic pain: The commonest gynaecological cause is cyclical.

Step 1 – name the cause: Endometriosis is the leading gynaecological cause of chronic cyclical pelvic pain with progressive (secondary) dysmenorrhoea.

Step 2 – mechanism: Ectopic endometrial tissue bleeds cyclically, causing inflammation, adhesions and pain, often with deep dyspareunia.

Why the other options are wrong:

- A, uterine fibroid: often causes heavy bleeding or pressure rather than cyclical pain.
- C, ovarian dermoid: usually asymptomatic unless it undergoes torsion.
- D, cervical polyp: typically causes bleeding, not chronic pelvic pain.

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

Answer: (B) Go Back to Q15

Answer Key

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