History and examination

1 With regard to clinical examination of the gynaecological patient:

a) Abdominal examination is mandatory as part of the gynaecological examination.

b) A chaperone is always needed for intimate examinations.

c) Palpation below a pelvic mass is possible.

d) Shifting dullness and fluid thrill can be seen due to urinary retention.

e) Bidigital examination can determine whether a pelvic mass is ovarian or uterine in origin.

Embryology, anatomy and physiology

2 The following statements apply to the human female pelvis:

a) The Fallopian tubes are lined by cilia to aid egg transport.

b) The middle portion of the Fallopian tube is called the ampulla.

c) The ovary is the only abdominal structure not covered by peritoneum.

d) The ovary is attached to the uterus by the round ligament.

e) The ovary has a central medulla of loose connective tissue and an outer cortex covered by cuboidal germinal epithelium.

3 Considering the bladder and rectum:

a) The bladder capacity is normally 700 mL.

b) The base of the bladder is closely related to the cervix and upper vagina, and can be damaged at hysterectomy.

c) The ureter passes in the broad ligament in its lower portion and curves beneath the uterine artery, along the lateral vaginal fornix before entering the trigone of the bladder.

d) In its upper portion the ureter lies anterior to the ovary.

e) The rectum is covered by peritoneum on its front and sides in the lower two-thirds.

Normal and abnormal sexual development and puberty

4 In the XY genotype:

a) Androgen insensitivity results in an XY genotype and female phenotype but with normal testes.

b) In 5-alpha-reductase deficiency, virilization of the cloaca fails to occur owing to the failure of the conversion of testosterone to 17-hydroxyprogesterone.

c) In androgen insensitivity,Mullerian ducts regress owing to the production of Mullerian inhibitory factor.

d) In androgen insensitivity, the Wolffian ducts regress owing to the absence of an androgen receptor.

e) In 5-alpha-reductase deficiency, the Mullerian ducts fail to regress owing to the lack of Mullerian inhibitory factor.

5 In an XX phenotype female:

a) Rokitansky's syndrome is associated with failure of development of the uterus, cervix and vagina.

b) Often the ovaries are present in patients with Rokitansky's syndrome.

c) A failure of fusion of the mesonephric ducts would cause an abnormality of the uterus and cervix, and is associated with a degree of reproductive failure.

d) In congenital adrenal hyperplasia, 21-hydroxylase deficiency prevents the production of 17-hydroxyprogesterone in the adrenal gland.

e) Virilization of the fetus can be secondary to drugs ingested by the mother.

The normal menstrual cycle

6 Within the follicular phase of the menstrual cycle:

a) The follicular phase is always 14 days long to allow development of the follicle.
b) Follicle-stimulating hormone (FSH) stimulates the granulosa cells to produce oestrogen.
c) Each cycle usually involves the development, growth and ovulation of a single follicle.
d) Follicles over 20 mm need to be drained with ultrasound guidance.
e) Oestrogen and inhibin have a positive feedback on the pituitary to release FSH and luteinizing hormone (LH).

7 In relation to ovulation:
a) LH induces thecal cells to produce oestrogen.
b) FSH induces a rise in LH receptors
c) Ovulation occurs 14 hours after the LH surge.
d) The release of an oocyte from the follicle requires a sperm to lyse the follicle membrane and results in ovulation.
e) Ovulation can be confirmed by measurement of LH on day 14.

8 Within the luteal phase of the menstrual cycle:
a) The predominant hormone in the luteal phase is progesterone.
b) The granulosa cells of the corpus luteum have a rich vascular supply and have a yellow pigment owing to accumulation of cholesterol.
c) The luteal phase varies in duration depending on the time taken to degenerate a corpus luteum.
d) The corpus luteum continues to degenerate in early pregnancy.
e) Low levels of oestrogen and progesterone are the best indicators of the perimenopause.

Disorders of the menstrual cycle

9 Definitions:
a) Polymenorrhoea is defined as prolonged increased menstrual flow.
b) Oligomenorrhoea is defined as menses occurring at a _21-day interval.
c) Hypermenorrhoea is defined as excessive regular menstrual loss.
d) Amenorrhoea is defined as absence of menstruation for more than 12 months.
e) Menorrhagia is defined as menses at intervals of _35 days.

10 Regarding the investigation of menorrhagia:
a) A full blood count is mandatory.
b) Thyroid function tests are mandatory.
c) A hysteroscopy and endometrial biopsy should be performed in women over the age of 25.
d) A pelvic ultrasound scan is only indicated if one is suspicious of a pelvic mass or fibroids.
e) A hormone profile including mid-luteal progesterone is essential to differentiate between ovulatory and non-ovulatory dysfunctional bleeding.

Fertility control

11 With regard to the progesterone-only pill:
a) The progesterone-only pill has a higher failure rate in women under the age of 40 than in women over the age of 40.
b) The progesterone-only pill has a lower risk of ectopic pregnancy.
c) The progesterone-only pill has a 3-hour window.
d) The progesterone-only pill has a better bleeding profile compared with the combined oral contraceptive pill
e) The progesterone-only pill has a quicker reversibility compared with the combined oral contraceptive pill.

12 Considering the depot injection and hormonal implants:

a) There are two types of depot injection. One contains medroxyprogesterone acetate 150 and lasts for 12 weeks, the other contains norethisterone 200 and lasts for 8 weeks.
b) The depot is licensed for 2 years only, otherwise there is an increased risk of reduced bone density and osteoporosis.
c) The depot can cause amenorrhoea but irregular bleeding is also a significant side effect
d) The Implanon implant involves five rods to be inserted in the upper arm and lasts for 5 years
e) With the Implanon implant, the return to ovulation after the implant is removed usually takes up to 1 year.

13 Concerning the intrauterine contraceptive device (IUCD):
a) Modern IUCDs can last for 5–10 years.
b) The levonorgestrel intrauterine system (Mirena) is licensed for 8 years.
c) Heavy bleeding can be a common side effect with the Mirena.
d) The risk of pelvic inflammatory disease is increased with IUCD use.
e) There is an increased risk of ectopic with IUCD use.

14 The combined oral contraceptive pill (COCP):
a) Inhibits ovulation.
b) Improves cycle control.
c) Has a 3-hour window.
d) Is relatively contraindicated in patients with acute/severe liver disease.
e) Has a risk of venous thromboembolism (VTE) of 15 per 100 000 in third-generation preparations.

Infertility

15 Considering successful conception:
a) The single most important factor affecting the chance of a couple conceiving is the age of the female partner.
b) The rates of conception rapidly decline after the age of 30.
c) Tubal infertility is the main cause of infertility in the Western world.
d) The chance of spontaneous conception in a young couple with no adverse fertility factors is 50 per cent per cycle.
e) 85 per cent of healthy women aged 25 years will conceive after 12 months.

16 With regard to the investigation of the infertile couple:
a) A full hormone profile, tubal patency testing and semen analysis should be completed on all couples attending a referral for primary infertility.
b) A mid-luteal progesterone _25 nmol/L confirms ovulation.
c) A semen analysis should be performed prior to laparoscopy and dye to test for tubal patency.
d) Hysterosalpingogram, and laparoscopy and dye insufflation will gain similar information and either can be used to assess tubal patency in all patients.
e) A single semen analysis with a volume of 1 mL, a concentration of 10 million/mL and 30 per cent reduced motility confirms oligospermia, and serum testosterone, gonadotrophins and prolactin analysis should be performed.

Disorders of early pregnancy

17 Concerning disorders of early pregnancy:
a) If the cervical os is open, it is a threatened miscarriage.
b) If transvaginal scan shows products of conception up to 20 mm in diameter, then surgical evacuation of the uterus is essential.
c) Serum β-hCG levels are useful in dating a pregnancy up to 12 weeks.

d) Ultrasound appearances of retained products of conception of _15mm would be consistent with a complete miscarriage.
e) A snowstorm appearance on ultrasound is suggestive of choriocarcinoma.

18 With regard to miscarriage:
a) Total loss of conception after fertilization is around 50–70 per cent.
b) The total rate of clinical miscarriage is around one-quarter to one-third of all pregnancies.
c) Miscarriage is much greater before 6 weeks than after 9 weeks.
d) The rate of miscarriage is the same in women over 40 years of age compared with women under 40.
e) The most common cause of spontaneous miscarriage is infection.

19 In relation to molar pregnancy:
a) The uterus often appears larger on palpation than one would expect for gestation.
b) Hyperemesis is often seen in patients with molar pregnancies.
c) Ultrasound is not useful in the diagnosis of molar pregnancy and the diagnosis is usually made on histology.
d) Complete hydatidiform molar pregnancies have a diploid chromosomal constitution owing to duplication of paternal chromosomes and no maternal complement.
e) Partial molar pregnancies are usually diploid with duplication of the maternal set of chromosomes.

20 Considering ectopic pregnancy:
a) The rate of ectopic pregnancy is 0.5 per cent of all pregnancies.
b) Ectopic pregnancy is associated with Group B streptococcus infection.
c) Laparoscopic salpingectomy is the treatment of choice if the other tube is normal.
d) The rate of persistent trophoblast is increased if the patient has a laparoscopic salpingotomy rather than salpingectomy.
e) Methotrexate is contraindicated if the mass is _1 cm in diameter on ultrasound.

Benign diseases of the uterus and cervix

21 Indicate which of the following statements are true or false:
a) The transformation zone is an area of the cervix that marks the junction of the squamous epithelium of the ectocervix and vagina and the columnar epithelium binding the endocervix and the uterine cavity.
b) The situation of the transformation zone is affected by hormones and is easily visible at ovulation, pregnancy and in women using the combined oral contraceptive pill.
c) Outpouching of the columnar epithelium is termed as cervical erosion.
d) Columnar epithelium undergoes dysplasia to squamous epithelium under normal physiological conditions.
e) Vaginal discharge and postcoital bleeding seen in association with an ectopy can be initially treated with cold coagulation.

Benign diseases of the ovary

22 In dermoid cysts:
a) The malignancy rate is low (around 2 per cent).
b) 50 per cent are bilateral.
c) They are often lined by embryonic mesodermal structures.
d) Struma ovarii are dermoid tumours predominantly made of thyroid tissue.
e) Complications include torsion, chemical peritonitis and rupture.

23 In sex cord tumours:

a) All granulosa cell tumours are malignant, but are usually confined to the ovary and have a good prognosis.
b) Call–Exner bodies are pathognomonic of theca cell tumours.
c) Many theca cell tumours cause postmenopausal bleeding and endometrial carcinoma.
d) Meigs' syndrome is the combination of fibroma, ascites and pleural effusions.
e) Virilization is seen as 75 per cent of Sertoli–Leydig cell tumours.

24 The following factors on ultrasound are suspicious of malignancy:
a) A single loculated cyst of 7 cm diameter.
b) Multiple cysts around the periphery of the ovary with a dense stroma.
c) A single frond floating within a cyst.
d) Solid elements and septae.
e) Calcification and fats.

Malignant disease of the uterus and cervix

25 With regard to cervical cancer:
a) Cervical cancer is the third commonest cancer in women worldwide.
b) The incidence of cervical cancer has become far more common in young women since the 1980s.
c) The rate of deaths from cervical carcinoma has remained steady in recent years.
d) Human papillomavirus (HPV) types 14 and 18 are the most commonly associated with cervical cancer.
e) Cervical cancer is associated with previous infection with herpes simplex virus.

26 Concerning the cervical screening programme:
a) It is important when taking a smear that the squamocolumnar junction is identified and sampled.
b) Smears should be taken between the ages of 25 and 64.
c) Smears should be taken during pregnancy.
d) The screening programme screens for pre-malignant changes in the squamous and columnar epithelia
e) Mild dyskaryosis on smear is consistent with cervical intraepithelia or neoplasia (CIN1).

27 The following are risk factors for the development of cervical cancer:
a) HPV types 14, 17 and 31.
b) HPV types 16 and 18.
c) Family history of cervical cancer.
d) Smoking.
e) Previous chlamydial infection.

28 The following are risk factors for the development of endometrial cancer:
a) Obesity.
b) Diabetes.
c) Multiparity.
d) Early menopause.
e) Unopposed oestrogen therapy.

29 Considering treatments for cervical cancer:
a) Preclinical invasive disease that is a depth of 6 mm and a width of 7 mm can be treated by large loop excision of the transformation zone alone.
b) The risk of nodal involvement is 5 per cent if the depth of preclinical invasion is _3mm.
c) A Wertheim's hysterectomy involves removal of the uterus, cervix, paracervical tissue, lymph node sampling and the upper two-thirds of the vagina.

d) At Wertheim's hysterectomy, the ovaries can be conserved.
e) One main complication ofWertheim's hysterectomy is poor bladder emptying owing to division of the S2,3,4 nerve roots of the pudendal nerve.

Carcinoma of the ovary and Fallopian tube

30 Regarding carcinoma of the ovary:
a) It is most common in developing countries.
b) The incidence is similar to carcinoma of the endometrium with similar prognosis.
c) The peak age is 80–90 years old.
d) The majority are epithelial in origin.
e) The mainstay of treatment is surgery and radiotherapy combined.

Multiple choice questions 75

31 The following primary malignancies metastasize to ovary:
a) Lung.
b) Stomach.
c) Breast.
d) Thyroid.
e) Bone.

32 The following are risk factors for ovarian cancer:
a) Early menarche.
b) Early menopause.
c) Combined oral contraceptive pill usage.
d) Infertility.
e) Implanon implants.

33 In relation to ovarian cancer:
a) In the normal population, there is a lifetime risk of developing ovarian cancer of 5 per cent.
b) This usually applies to cystadenoma malignancy.
c) If a patient has one relative with ovarian cancer, their risk is increased to 10 per cent.
d) If a patient has two first-order affected relatives, their risk increases to 20 per cent.
e) BRCA1 or 2 gene-positive patients have a lifetime risk of ovarian cancer of 25 per cent.

34 The following are appropriate investigations for ovarian cancer:
a) Computerized tomography of the abdomen and pelvis.
b) Barium enema.
c) Intravenous pyelogram (IVP).
d) Ultrasound scan.
e) CA 125.

35 The following are common side effects of cisplatin use:
a) Peripheral neuropathy and hearing loss.
b) Hyperkalaemia.
c) Hypomagnesiumaemia.
d) Renal damage.
e) Visual disturbances.

36 The following are epithelial tumours:
a) Mucinous tumour.
b) Theca cell tumour.
c) Teratoma.
d) Brenner cell tumour.
e) Androblastoma.

37 Considering dysgerminomas:

a) The peak age is over the age of 45.
b) CA 125 is elevated in 50 per cent of cases.
c) They are mainly solid rather than cystic in nature.
d) They can cause a rise in alpha-fetoprotein and β-hCG.
e) Immature teratomas are benign and are commonly called dermoid tumours.

Conditions affecting the vulva and vagina

38 The following are causes of pruritis vulvae:
a) Lichen sclerosus.
b) Nephrotic syndrome.
c) Atrophy.
d) Vaginal discharge.
e) Diabetes.

39 The following apply to lichen sclerosis:
a) Sites commonly affected are the labia majora and mons pubis.
b) Labial adhesions.
c) White plaques.
d) It is commonly associated with autoimmune disorders such as diabetes and pernicious anaemia.
e) Areas of dark red–brown pigmentation.

Infections in gynaecology

40 The following are causes of benign vulval ulcers:
a) Tertiary syphilis.
b) Chancroid.
c) Herpes.
d) HPV infection.
e) Ulcerative colitis.

41 With regard to the lower genital tract:
a) The lower genital tract is lined by stratified squamous epithelium throughout life.
b) Vaginal pH is increased under the influence of oestrogen.
c) The pH after the menopause is around 7.0.
d) Candidal infection is increased in pregnancy,with combined oral contraceptive pill usage and broad-spectrum
antibiotic usage.
e) Candida is the commonest cause of abnormal vaginal discharge in women of childbearing age.

42 Concerning herpes simplex virus:
a) The diagnosis is made on endocervical swabs.
b) Urinary retention and perineal pain are a common presentation.
c) Reactivation of the virus occurs after colonization of neurones in Onuf ’s nucleus.
d) Secondary infection in pregnancy necessitates delivery by lower segment Caesarean section.
e) Treatment with antiviral drugs is useful in established disease.

43 In relation to syphilis:
a) The causative organism is Treponema pallidum.
b) The TPHA is the most sensitive and specific test for syphilis.
c) Primary infection usually presents with a painful ulcer on the perineum.
d) Primary and secondary syphilis are not life threatening; however, tertiary neurosyphilis is life threatening, hence the importance of making the diagnosis.

e) Early treatment is with quadruple therapy of rifampicin, isoniazid, pyrazinamide and ethambutol.

Urogynaecology

44 Which of the following is true?

a) Stress incontinence is the diagnosis of involuntary loss of urine in association with a rise in intra-abdominal
pressure in the absence of detrusor contraction.

b) Detrusor overactivity is the urodynamic observation of an involuntary increase in detrusor pressure during filling, which may be spontaneous but which may also be provoked by a cough. It is associated with urgency and occasional urge incontinence, frequency and nocturia.

c) Acute urinary tract infection or constipation can present as urinary incontinence in the elderly.

d) Urodynamic stress incontinence is usually ideopathic but, in a number of patients, may be caused by neuropathy, previous incontinence surgery and outflow obstruction.

e) Poor urinary stream is diagnostic of urethral obstruction.

Uterovaginal prolapse

45 Regarding the pathophysiology of pelvic organ prolapse:

a) Pelvic organ prolapse is commoner in nulliparous women than in multiparous women.

b) Pelvic organ prolapse is never seen in nulliparous women.

c) Prolapse is commoner after the menopause partly due to oestrogen deficiency.

d) Epidural in labour is a risk factor for the subsequent development of prolapse.

e) Forceps delivery is a risk factor for the development of prolapse.

The menopause

46 Within the human ovary:

a) The follicles are centrally placed in the medulla.

b) The cortex and medulla contain stroma of endodermal origin.

c) The stromal cells of the cortex and medulla produce predominantly androgens.

d) There is a decline in the number of primordial follicles from around 7 million at 6 months gestation to 1.5 million at birth.

e) Around 400–000 follicles that are present at puberty will progress to ovulation.

47 Considering the pathophysiology of the menopause:

a) Oestrogen is produced in the granulosa cells of the developing follicle.

b) Oestrogen is produced from the precursors of androstenedione and testosterone by the enzyme 17-hydroxylase.

c) Theca cells are stimulated by FSH and granulosa cells are stimulated by LH.

d) The first change in the endocrine system associated with the menopause is a fall in the hormone inhibin produced by the ovary.

e) Levels of FSH start to fall as a secondary effect in the menopause and thus prevent stimulation of the ovaries to produce oestrogen.

Common gynaecological procedures and medico-legal aspects of gynaecology

48 With regard to abdominal and vaginal hysterectomy.

a) Vaginal hysterectomy can only be performed if there is uterovaginal prolapse.

b) Abdominal hysterectomy is indicated if there is a suspicion of malignancy.

c) The recovery from a vaginal hysterectomy is slower compared to abdominal hysterectomy.

d) Recovery from a Pfannenstiel incision is quicker than from a midline incision.

e) The incidence of haematoma formation is greater after abdominal hysterectomy than after a vaginal
hysterectomy.

49 Which of the following statements are true?
a) In induced abortion, the gestation is not to exceed 26 weeks.
b) The decision can be made by any registered doctor or medical practitioner as long as they are acting in good
faith.
c) Pre-operative assessment of patients before termination includes a vaginal examination to date the pregnancy
and, if there is any uncertainty about date, an ultrasound scan would be indicated.
d) The patient should have a chlamydia swab performed before theatre, as the incidence of chlamydia is higher
in patients attending for termination of pregnancy.
e) A failed termination of pregnancy and continuation of the pregnancy is greater if termination is performed
after 10 weeks.

MCQ answers

1 True: a, b, e. Shifting dullness and a fluid thrill are found with ascites or fluid within the peritoneal cavity.
See Chapter 1, Gynaecology by Ten Teachers, 18th edition.
2 True: a, c, e. The Fallopian tube has a lateral ampulla, middle isthmus and medial ostium. The ovary is
attached to the cornua of the uterus by the ovarian ligament and to the hilum by the broad ligament.
See Chapter 2, Gynaecology by Ten Teachers, 18th edition.
3 True: b, c. The normal bladder capacity is 400 mL. The ureter lies lateral to the ovary passing through the
ovarian fossa. The rectum is covered by peritoneum on the front and sides in its upper third, front in its middle
third and not at all in its lower third.
See Chapter 2, Gynaecology by Ten Teachers, 18th edition.
4 True: a, c, d. 5-Alpha-reductase deficiency results in failure of virilization of the cloaca owing to the failure of
conversion of testosterone to dihydrotestosterone. If this enzyme is absent, then the external genitalia will be
female but the internal genitalia will be male.Mullerian ducts will regress as the testes still produce Mullerian
inhibitory factor.
See Chapter 3, Gynaecology by Ten Teachers, 18th edition.
5 True: a, b, e. Failure of development of the paramesonephric ducts causes abnormalities in the uterus, cervix
and is associated with a degree of reproductive failure. In congenital adrenal hyperplasia, 21-hydroxylase deficiency
prevents the adrenal gland from producing cortisol. Failure of production of cortisol results via a feedback

mechanism to stimulate the hypothalamus to produce increased adrenocorticotrophic hormone (ACTH), which in turn stimulates the adrenal gland to produce excessive amounts of the steroid precursor
17-hydroxyprogesterone. As a result, the adrenal gland produces excessive androgens, which lead to virilization
of the cloaca.
See Chapter 3, Gynaecology by Ten Teachers, 18th edition.

6 True: b, c. The follicular phase varies in duration and this determines the cycle length (28–35 days). During
each cycle, several primordial follicles develop, but only one follicle becomes dominant and continues to grow
to around 20 mm in diameter. This follicle can be measured on ultrasound. It produces more oestrogen, while
other follicles degenerate (undergo atresia). Ovarian cysts can grow up to 50mm without any intervention necessary
other than ultrasound observation.When cysts grow over 50mm, there is a risk of ovarian torsion and,
therefore, if they are persistent over 6 months observation, drainage or cystectomy are required. Oestrogen
and inhibin have a negative feedback on the production of FSH.
See Chapter 4, Gynaecology by Ten Teachers, 18th edition.

7 True: b. Luteinizing hormone stimulates the thecal cells to produce progesterone. Ovulation occurs 24 hours
after the LH surge. Ovulation is caused by the enzymatic degradation of the follicle membrane by endogenous
plasminogen activators and prostaglandins. Fertilization involves the degradation of the zona pellucida
of the oocyte by enzymes released from the acrosome of the sperm. Ovulation can be confirmed by measuring
progesterone in the mid-luteal phase.
See Chapter 4, Gynaecology by Ten Teachers, 18th edition.

8 True: a, b. The luteal phase is always 14 days (i.e. progesterone peaks on day 21 of a 28-day cycle and day 28
of a 35-day cycle). If pregnancy occurs, serum beta-human chorionic gonadotrophin (sβ-hCG) is produced
by the trophoblast. This has a similar structure to LH. Both LH and sβ-hCG cause the corpus luteum to
mature (and not degenerate) in early pregnancy until the early placenta can produce progesterone, which is
the predominant hormone of the luteal phase and early pregnancy. The granulosa cells have a yellow pigment
called lutein, which is rich in cholesterol. Oestrogen and progesterone levels vary throughout the cycle.
The perimenopause is associated with a high FSH. This blood test should be taken within 5 days of the last
menstrual period, as this is when they should be at their lowest.
See Chapter 4, Gynaecology by Ten Teachers, 18th edition.

9 True: c, d. Polymenorrhoea is defined as menses occurring at a _21-day interval. Oligomenorrhoea is defined as menses at intervals of _35 days.Menorrhagia is defined as prolonged increased menstrual flow.
See Chapter 5, Gynaecology by Ten Teachers, 18th edition.
10 True: a, d. Thyroid function tests are only indicated if there is a clinical suspicion of thyroid disease. Royal College of Obstetricians and Gynaecologists (RCOG) guidelines suggest a hysteroscopy is indicated in women over the age of 40. If the cycle is regular, this is sufficient to suggest ovulation.
See Chapter 5, Gynaecology by Ten Teachers, 18th edition.
11 True: a, c, e. The progesterone-only pill has a higher risk of ectopic pregnancy compared with the combined oral contraceptive pill and has a worse bleeding profile compared to the combined pill.As it does not inhibit ovulation in all women, it is quicker to resume ovulation after stopping the progesterone-only pill, compared with the combined oral contraceptive.
See Chapter 6, Gynaecology by Ten Teachers, 18th edition.
12 True: a, b, c. The Implanon involves insertion of a single rod into the upper arm and this lasts for up to 3 years.
The previous Norplant implants were licensed for 5 years and involved five rods into the upper arm but have since been withdrawn. The return to ovulation after removal of an Implanon implant is usually within 30 days.
See Chapter 6, Gynaecology by Ten Teachers, 18th edition.
13 True: a, e. The levonorgestrel intrauterine system (Mirena) is licensed currently for 5 years. Irregular heavy bleeding is a side effect associated with the copper coil; however, the Mirena is usually associated with reduction of menstrual loss. There is no increased risk of pelvic inflammatory disease with coil use; in fact, it is the same as with other contraceptive methods. The risk of infection is only increased at the time of insertion or removal.
See Chapter 6, Gynaecology by Ten Teachers, 18th edition.
14 True: a, b. The combined pill has a 12-hour window. Acute/severe liver disease is an absolute contraindication to COCP usage. The risk of VTE is 15 per 100 000 for second-generation users, 30 per 100 000 for thirdgeneration users and 60 per 100 000 for pregnancy.
See Chapter 6, Gynaecology by Ten Teachers, 18th edition.
15 True: a, e. Rates of conception rapidly decline after the age of 35. Tubal infertility is the main cause of infertility in Africa; however, in the Western world, male factors or ovulation disorders are the most likely cause of infertility. A young couple with no adverse infertility factors have a 20 per cent chance of conceiving each cycle.
See Chapter 7, Gynaecology by Ten Teachers, 18th edition.

16 True: c. Investigations for infertility are expensive and some of them are invasive. Therefore, investigations should be directed towards each couple having gained an insight into the possible cause of infertility from the history. For example, a woman with a regular menstrual cycle need only require a mid-luteal progesterone to suggest ovulation occurs and does not need a full hormone profile. Further investigations are targeted according to the clinical picture. A low mid-luteal progesterone will confirm anovulation. A high progesterone of _30 nmol/L is certainly suggestive of ovulation but does not confirm ovulation. Ovulation can only be truly confirmed by serial scanning of ovarian follicles.However, in day to day use, a regular cycle and a progesterone level of _30 nmol/L is usually seen as indicative of ovulation.

Full investigations for ovulatory disorders and male factor infertility are mandatory prior to embarking upon laparoscopy and tubal patency testing, as this procedure does have a morbidity associated with it. A hysterosalpingogram will gain information on tubal patency and uterine cavity outline; however, this does not give any indication of pelvic disease, such as previous pelvic infection or endometriosis. Laparoscopy allows both the tubal patency to be assessed as well as staging degree of endometriosis or pelvic inflammatory disease.

A normal semen analysis obtained after 3 days abstention is sufficient to confirm a normal healthy population of sperm; however, a single suboptimal sample needs repeating to confirm oligospermia and further investigations are necessary until two suboptimal samples have been obtained. If a subsequent sample is normal, then no further action is necessary.

See Chapter 7, Gynaecology by Ten Teachers, 18th edition.

17 True: d. If the cervical os is open, it is an inevitable miscarriage. If an ultrasound scan shows products of _50mm. in diameter, one would consider evacuation of retained products of conception. If products are between 30 and 50mm, one would consider either medical or surgical evacuation of the uterus, and if _30 mm conservative treatment would be appropriate. Serum β-hCG is not useful in dating the pregnancy and levels vary considerably between patients at the same gestation. The snowstorm appearance on ultrasound scan is suggestive of hydatidiform mole pregnancy.

See Chapter 8, Gynaecology by Ten Teachers, 18th edition.

18 True: a, b, c. Miscarriage is much more likely after the age of 40 (30–40 per cent) compared to under the age of

40 (6–10 per cent). The most common cause of spontaneous miscarriage is a spontaneous chromosomal defect.
See Chapter 8, Gynaecology by Ten Teachers, 18th edition.
19 True: a, b, d. Ultrasound is very useful in assessing molar pregnancy. There is a typical 'snowstorm' appearance
but with partial molar pregnancies, one can also see a fetus.Histology is used to confirm the diagnosis.
Partial molar pregnancies are usually triploid, having two sets of chromosomes from the paternal origin and
one from maternal origin.Most have a 69XXX or 69XXY gene type.
See Chapter 8, Gynaecology by Ten Teachers, 18th edition.
20 True: c, d. The incidence of ectopic pregnancy is 22 per 1000 live births and 16 per 1000 pregnancies. Ectopic
pregnancy is associated with chlamydial infection and methotrexate is contraindicated if the mass is _2cm
in diameter.
See Chapter 8, Gynaecology by Ten Teachers, 18th edition.

21 True: a, b. The outpouching of columnar epithelium on to the ectocervix is termed as cervical ectropion or
ectopy.An erosion is a common misnomer, which should be avoided, as it conveys the impression of eroded
tissue on the surface of the cervix which is incorrect. Columnar epithelium undergoes metaplasia to a normal
squamous epithelium. The change of one normal cell type to another cell type is termed metaplasia,
whereas dysplasia describes transformation from a normal cell type to an abnormal cell type (e.g. cervical
intraepithelium neoplasia).
Vaginal discharge and postcoital bleeding should always be seen as pathological until proven otherwise.
Other causes of vaginal discharge need to be excluded prior to treatment with cold coagulation.High vaginal
swabs for bacterial vaginosis and endocervical swabs for chlamydia and gonorrhoea need to be taken and
colposcopy needs to be undertaken if the patient does not have normal cytology on smear. A physiological
vaginal discharge and postcoital bleeding are often seen with an ectopy, but a cervical malignancy or infective
lesion need to be excluded prior to treatment with cold coagulation or, occasionally, some clinicians will
use a gel to alter the vaginal pH which can shrink an ectropion.
See Chapter 9, Gynaecology by Ten Teachers, 18th edition.
22 True: a, d, e. Dermoid cysts are lined by either ectodermal tissue, such as skin, sebum or hair, or by endodermal
tissue, such as bone or teeth. Typically, only 10 per cent of dermoids are bilateral.
See Chapter 11, Gynaecology by Ten Teachers, 18th edition.
23 True: a, c, d, e. Call–Exner bodies are pathognomonic of granulosa cell tumours.

See Chapter 11, Gynaecology by Ten Teachers, 18th edition.
24 True: c, d. Single cysts with no suspicious features tend not to be malignant.Multiple cysts located round the
periphery with a dense stroma are pathognomonic of polycystic ovary syndrome. Calcification and fat are
often suggestive of a dermoid cyst, which is benign.
See Chapter 11, Gynaecology by Ten Teachers, 18th edition.
25 True: b. Cervical cancer is the second commonest cancer in women worldwide; breast cancer being the commonest.
There are approximately 1500 deaths in England and Wales from carcinoma of the cervix; however,
the rate has fallen steeply in recent years owing to the introduction of the cervical cytology screening programme.
HPV type 16 and 18 are the most commonly associated with cervical cancer. Cervical cancer is associated with previous HPV infection.
See Chapter 12, Gynaecology by Ten Teachers, 18th edition.
26 True: a, b, e. Cervical cytology is inaccurate in pregnancy and should be deferred until 12 weeks postpartum.
The cervical screening programme only screens for squamous cervical intraepithelial neoplasia. Occasionally,
abnormalities of the glandular epithelia are detected (cervical glandular intraepithelial neoplasia;
CGIN) but can also be missed if they occur high up the cervical canal.
See Chapter 12, Gynaecology by Ten Teachers, 18th edition.
27 True: b, d.
See Chapter 12, Gynaecology by Ten Teachers, 18th edition.
28 True: a, b, e. Nulliparity and late menopause are risk factors for endometrial cancer along with ovarian
tumour, previous pelvic irradiation and a family history of breast, ovary or colon cancer.
See Chapter 12, Gynaecology by Ten Teachers, 18th edition.

29 True: b, d. Preclinical invasive disease of a depth of _3 mm and a width of 7 mm can be treated with a
LLETZ.With any greater depth, there is a risk of lymph nodal involvement and local spread; therefore, a radical
hysterectomy should be performed. A Wertheim's hysterectomy involves removal of the uterus, cervix,
paracervical tissue and lymph nodes, and the upper third of the vagina. Poor bladder emptying may be a
consequence of a Wertheim's hysterectomy owing to division of the parasympathetic nerve supply to the
bladder, which runs in the uterosacral ligaments.
See Chapter 12, Gynaecology by Ten Teachers, 18th edition.
30 True: d. Carcinoma of the ovary is common in wealthy countries. It does have a similar incidence to carcinoma
of the endometrium but has a much greater mortality. The peak age is 50–60 and is rare at an age of

_35. The mainstay of treatment is surgery and chemotherapy with cisplatin and paclitaxol or carboplatin.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.
31 True: b, c.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.
32 True: a, d. Late menopause is associated with ovarian cancer and the combined pill is protective against
ovarian cancer with a lifetime instance of 4 times less than those not using the pill. Implanon has no effect
on the development of ovarian carcinoma.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.
33 True: b, e. In the normal population, there is a lifetime risk of developing ovarian cancer of 1 per cent. If a
patient has one relative with ovarian cancer, their risk remains at 1–2 per cent. If a patient has two first-order
affected relatives, their risk increases to 10 per cent.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.
34 All are true. Computerized tomography (CT) allows visualization of local invasion and spread to lymph nodes.
Barium enema and IVP evaluate tumour invasion into the rectum and descending colon and ureteric obstruction
(although these are less commonly required). Ultrasound assesses the nature, size and location of the cyst
along with CT. CA 125 is a non-specific tumour marker used to monitor treatment of ovarian cancer.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.
35 True: a, c, d. Cisplatin has a number of well-documented side effects, which include renal damage.However,
the nephrotoxicity can be prevented by the use of vigorous diuresis. Cumulative dose-related neurotoxicity
manifests as paraesthesia and ototoxicity.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.
36 True: a, d. Theca cell tumours and androblastomas are both sex-cord stroma tumours. Teratoma is a germ
cell tumour.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.
37 True: c, d. The peak age of instance is _30 years old. CA 125 is elevated in epithelial cell tumours, not dysgerminomas.
Immature teratoma is malignant and the benign form is a mature teratoma, which is called a dermoid.
See Chapter 13, Gynaecology by Ten Teachers, 18th edition.

38 True: a, c, e. Although some systemic diseases such as diabetes are associated with pruritis vulvae, nephrotic
syndrome is not.Vaginal discharge may be concurrent but is not a cause of pruritis vulvae.
See Chapter 14, Gynaecology by Ten Teachers, 18th edition.
39 True: b, c, d. Lichen sclerosis commonly affects the labia minora and the perianal region. Dark red and
brown pigmentation is more suggestive of vulval intraepithelial neoplasia.

See Chapter 14, Gynaecology by Ten Teachers, 18th edition.

40 True: b, c. Primary syphilis causes vulval ulcers but tertiary syphilis causes neurosyphilis. HPV is not associated with vulval ulcers, but is associated with cervical intraepithelial neoplasia and cervical cancer.Ulcerative colitis does not cause benign vulval ulcers, however, Crohn's disease does.

See Chapter 14, Gynaecology by Ten Teachers, 18th edition.

41 True: c, d. The lower genital tract is lined by simple cuboidal epithelium in the pre-pubertal state and changes to stratified squamous under the influence of oestrogen. Oestrogen causes the vaginal pH to be reduced to around 3.5–4.5. Bacterial vaginosis is the commonest cause of abnormal vaginal discharge in women of childbearing age.

See Chapter 15, Gynaecology by Ten Teachers, 18th edition.

42 True: b. Diagnosis of herpes simplex is made after collection of serum from vesicles. This is then analysed by electron microscopy or monolayer tissue culture.Reactivation does arise in the dorsal root ganglia. Secondary infection in pregnancy does not require delivery by lower segment Caesarean section as vertical transmission cannot occur. The fetus develops passive immunity from maternal antibodies that cross the placenta. If there is a primary infection near term, then delivery of the infant would be by Caesarean section. Antiviral treatment is not useful in established disease, as secondary infection usually resolves in the same time as viral treatment would work.

See Chapter 15, Gynaecology by Ten Teachers, 18th edition.

43 True: a, d. The most sensitive and specific test for syphilis is fluorescent treponemal antibody (FTA). This requires a skilled interpretation and most laboratories perform the Treponema pallidum haemagglutination assay (TPHA) or Treponema pallidum particle agglutination (TPPA) test instead. A non-specific test, such as the Venereal Disease Research Laboratory test (VDRL), is often used in addition. Usually primary syphilis presents as a painless ulcer (chancre) with occasional regional lymph node enlargement. Treatment for syphilis is with simple penicillin.

See Chapter 15, Gynaecology by Ten Teachers, 18th edition.

MCQ answers 85

44 True: b, c. Stress incontinence is a symptom of an involuntary loss of urine when the patient coughs or sneezes. It is not a diagnosis. Urodynamic stress incontinence (USI) is a diagnosis that is gained on filling cystometry, if the patient leaks with a rise in intra-abdominal pressure but with no subsequent rise in detrusor

pressure. Detrusor overactivity is idiopathic in 85 per cent of cases; however, it may be caused by neuropathy,
incontinence surgery or outflow obstruction. Stress urinary incontinence results from poor suburethral support and descent at the bladder neck and proximal urethra.
A total of 10–15 per cent of women have a poor urinary stream. This can be either due to urethral obstruction,
which can be as a result of scarring from previous surgery, or extraurethral compression (e.g. gravid
uterus, ovarian cyst or fibroid). However, poor voiding may also be secondary to a weak detrusor muscle.
The only way to distinguish between the two is to perform pressure flow studies on the patient. Urethral
obstruction will have a high pressure–low flow picture, whereas a poor detrusor muscle will have a low pressure–
low flow picture.
See Chapter 16, Gynaecology by Ten Teachers, 18th edition.

45 True: c, e. Pelvic organ prolapse is predominantly found in multiparous women. The risk of prolapse
increases with increasing parity. Pelvic organ prolapse affects around 2 per cent of nulliparous women and
this suggests a congenital predisposition in these women despite them not undergoing childbirth. Epidural
alone is not a risk factor for the development of prolapse; however, forceps macrosomia and malposition of
the baby are all associated with traumatic delivery and subsequent development of prolapse.
See Chapter 17, Gynaecology by Ten Teachers, 18th edition.

46 True: c, d. The follicles are located peripherally around the cortex of the ovary with the central medulla
being heavily vascularized. The central medulla is mesenchymal in origin. In a woman's lifetime she will only
have around 400 follicles that will ovulate.
See Chapter 18, Gynaecology by Ten Teachers, 18th edition.

47 True: a, d. Androgens are converted to oestrogen by an enzyme called aromatase. The process is known as
aromatization. Granulosa cells are stimulated by FSH in the developing follicle and, once ovulation has
occurred, thecal cells produce oestrogen from androgens under the stimulating effect of LH. Initially, the
levels of inhibin produced by the ovary start to fall around the menopause. This glycoprotein inhibits FSH
production by the pituitary gland and, therefore, plasma FSH starts to rise around the menopause. It is only
in the true postmenopausal state can one measure consistently elevated FSH levels, which helps with the
diagnosis of the menopause.
See Chapter 18, Gynaecology by Ten Teachers, 18th edition.

48 True: b, d. Provided there is a normal-sized uterus, vaginal hysterectomy can often be performed and extensive

prolapse is not necessary. Vaginal hysterectomy is associated with a quicker recovery. This is due to the
absence of an abdominal incision which causes much greater pain than a vaginal incision.Vaginal hysterectomy
is associated with a high risk of haematoma formation. The risk of ureteric injury is higher with abdominal surgery.

49 True: c, d. The gestation should not exceed 24 weeks. The request for termination can only be carried out
after two registered medical practitioners independently consider the effects of continuation of the pregnancy
and feel that the woman has formed a judgement that termination is in her best interest. It is recommended
that termination should be performed after 8 weeks' gestation, as the chance of missing fetal products and the pregnancy continuing are higher if the pregnancy is less than 8 weeks.