

KENDRIYA VIDYALAYA SITAPUR (FIRST SHIFT)

UNIT TEST- I (JULY -2023)

CLASS-XII

SUBJEC –BIOLOGY

MM-40

TIME-90 MINUTES

Note:- This question paper consists of four sections . Section –A (MCQs) of one mark each.

SECTION –B (CASE BASED AND SOURCE BASED QUESTIONS) of one marks each.

SECTION –C (ASSERTION & REASON BASED QUESTIONS) of one marks each.

SECTION-D (VERY SHORT /SHORT AND LONG ANSWER QUESTIONS) of1, 2,3 and 5 marks each.

SECTION –A (MCQs)

- 1) Embryo sac is a:
a. Male gamete b) Female gamete c) Male gametophyte d) female gametophyte
- 2) Middle piece of sperm has many mitochondria why?
a. To provide energy b) To increase longevity c) to insure fertilization d) none of these
- 3) Transfer of an ovum collected from a donor into the fallopian tube is called as:-
a) ZIFT b) GIFT c) ICS d) IUI
- 4) A gardener crossed one plant having red flower with other having white flower. He observed that all plants produced by this cross were with pink flower. Give a term for such cross:
a) Law of dominance c) Arteficial selection
b) Incomplete dominance d) None of these
- 5) Pollen grains can be preserve for a long time without being affected by environmental stress and chemical, because its exine which is made up of:-
a. Cuticle b) sporopollenin c) Strong epidermal cell d) None of these
- 6) Implantation of blastocyst takes place in which layer of uterus?
a. Perimetrium b) Endometrium c) Myometrium d)none of these
- 7) A hormone realizing IUD is:-
a) Multiload 375 b) Cu 7 c) CuT d) LNG 20
8. Which of the following crosses will give tall and dwarf pea plants in the same proportions:
a)TT xtt b) Tt xtt c) TTxTt d) tt xtt
- 9.Some species of Asteraceae and grasses have evolved special mechanism to produce seed without fertilization is called:
a)Polyembryony b) apomixis c) parthenogenesis d) All of these
10. corpus luteum secretes an important hormone which is necessary to maintain pregnancy. What is the name of this hormone.
a)Estrogen b) FSH c) Progesterone d) none of these

SECTION –B (CASE BASED AND SOURCE BASED QUESTIONS)

- 11.The oviducts (fallopian tubes), uterus and vagina constitute the female accessory ducts. Each fallopian tube is about 10-12 cm long and extends from the periphery of each ovary to the uterus ,, the part closer to the ovary is the funnel-shaped infundibulum. The edges of the infundibulum possess finger-like projections called fimbriae, which help in collection of the ovum after ovulation.
 - i. Which part of the of the ovary helps in the collection of ovum after ovulation?
a) Fallopian tube B) Uterus c) Fimbriae d) None of these
 - ii)Which technique is a part of ART (Assisted Reproductive technique?
a) Test tube baby b) IUT c) ZIFT D) all of the above

12. Diseases or infections which are transmitted through sexual intercourse are collectively called sexually transmitted diseases (STD) or venereal diseases (VD) or reproductive tract infections (RTI). Gonorrhoea, syphilis, genital herpes, chlamydiasis, genital warts, trichomoniasis, hepatitis-B and of course, the most discussed infection in the recent years, HIV leading to AIDS are some of the common STDs. Among these, HIV infection is most dangerous.

- ii. Which of the above STD weakens our immunity system?
- Gonorrhoea
 - Syphilis
 - Hepatitis –B
 - AIDs

SECTION –C (ASSERTION & REASON BASED QUESTIONS)

13. **Assertion:-**Endosperm is triploid in nature and provides nutrition to the developing embryo.

Reason:-endosperm is formed by the fusion of one male gamete and secondary nucleus (2n).

- Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- Assertion is true but reason is false.
- Both assertion and reason are false

14) **Assertion:-** All the haploid gametes produced by female have the sex chromosome X.

Reason:-sex of the human baby is decided by male individual only, because all male gametes have Y chromosomes only.

- Both assertion and reason are true, and the reason is the correct explanation of the assertion.
- Both assertion and reason are true, but the reason is not the correct explanation of the assertion.
- Assertion is true but reason is false.
- Both assertion and reason are false

SECTION-D (VERY SHORT /SHORT AND LONG ANSWER QUESTIONS)

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| 15) Name the innermost layer of microsporangium? What is its function? | 1 |
| 16) How many cells and nuclei are there in embryo sac? | 1 |
| 17) Expand ICSI and ZIFT. | 1 |
| 18) Family planning programme was initiated in India in which year? | 1 |
| 19) What is the term given for sterilization in human female? | 1 |
| 20) Define emasculation. | 1 |
| 21) What do mean by mutagen? | 1 |
| 22) Draw the diagram of a pollen and label any two parts correctly. | 2 |
| 23) What is incomplete dominance? Explain it by taking an example of a plant in which it occurs? | 2 |
| 24) Suggest any four ways to be safe from STDs. | 2 |
| 25) Name any three outbreeding device. What is its significance? | 2 |
| 26) What do you mean by heterogamety? Explain the sex determination in human. | 3 |
| 27) (a) Draw a well labeled diagram of human sperm and write the function of acrosome. | 3 |
| 28) (a) Draw the diagrams to show the development of female gametophyte in angiosperms. | 3 |
| (b) What is placenta? How does it form? Name any two hormones secreted by it | 2 |

THE END

