

# **BIOLOGY**

# BOOKS - JMD BIOLOGY (PUNJABI ENGLISH)

A Gift Paper from the publisher



1.8-nucleate embryo sac in flowering plant is

B. Bisporic					
C. Tetrasporic					
D. All of the above					
Answer:					
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2. What happens during spermatogenesis					
A. Mitosis					

A. Monosporic

- B. Meiosis
- C. both (a) and (b)
- D. Metamorphosis



- **3.** What is function of copper-T
  - A. Stops cleavage
  - B. Stops fertilization

- C. Checks mutation
- D. Stops gastrulation



- **4.** ABO blood group is based on:
  - A. co-dominance
  - B. Incomplete dominance
  - C. Epitasis

D. Multiple allele

### **Answer:**



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**5.** Test cross of dihybrid ratio 1:1:1:1 .It proves that:

A.  $F_1$  hybrid produces four different progenesis

B.  $F_2$  hybrid in homozygous

C. Two different progenies are produced by

 $P_1$ 

D.  $F_2$ hybrid is heterozygous

### **Answer:**



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**6.** If  $F_1$ generation has all tall progenies and ratio of  $F_2$  generation is 3:1 (Tall:Dwarf),then it proves:

- A. Law of independent assortment
- B. Law of segregation
- C. Law of dominance
- D. Incomplete dominance



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**7.** Which particular process was used by Meselson and Franklin in order to study the semi-conservative replication of DNA

- A. Centrifugation
- B. Chromatography
- C. density gradient centrifugation
- D. Buoyant density centrifugation



- **8.** DNA was first discovered by,
  - A. J.D. Watson

- B. Francis Crick
- C. Friedrich-Miescher
- D. H.G. Khurana



- **9.** Which of the following is purely inactive?
  - A. Euchromatin
  - B. Heterochromatin

- C. both (a) and (b)
- D. None of these



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# **10.** DNA replication includes:

- A. DNA ligase
- B. DNA polymerase and ligase
- C. RNA polymerase

D. All of the above

### **Answer:**



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# **11.** Hodgkin's disease is:

- A. Cancer of WBCS
- B. Cancer of liver
- C. Cancer of lymphoid tissue
- D. Cancer of mammary glands



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**12.** Most of the plant derived allergies in man are caused by:

- A. Seeds
- **B.** Leaves
- C. Pollens
- D. Roots hairs



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### 13. Bubonic plague is transmitted by:

A. Rat flea

B. Cockroach

C. Aedes

D. Anopheles

#### **Answer:**

**14.** The segment of antigen that is specifically recognized by antibody is known as

A. Epitope

B. Memory regions

C. Non-determinants

D. Self-limitation

**Answer:** 



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**15.** The 'clot buster' produced by Streptococcus and modified by genetic engineering is

A. Streptokinase

B. Penicillin

C. Strepsils

D. Cyclosporin A

**Answer:** 

**16.** Which one is involved in biogas production?

A. Methanococcus

B. Halococcus

C. Thermoproteus

D. Thermoplasmam

**Answer:** 



<b>17</b> .	Fill	in	the	h	lanks
1/•	1 111	111	LIIC	$\mathbf{D}$	I GI I I N S

\_\_\_\_\_is produced by yeast Monascus.



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18. Fill in the blank

\_\_\_\_\_ is caused by Mycobacterium leprae.



**19.** Fill in the blank

Unpaired base pair of DNA end is called



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20. Fill in the blanks

\_\_\_\_\_ dissolves bacterial cell wall.



21. Fill in the blanks

ADA deficiency can be cured by\_\_.



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22. Fill in the blanks

PCR is now routinely used to detect\_.



### 23. True/false

Erythromycin is obtained from Streptomyces venezuelae



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**24.** true or false

mortality increases the population of the species in an area.



25. true or false

body temperature of a man is  $37^{\circ}$ C.



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**26.** true or false organisms tolerating a wide range of salinities are stenohaline.



27. True and False Type Questions

Fishes outnumbered all vertebrates.



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28. True and False Type Questions

India has around 1000 varieties of rice.



**29.** The generative cell of a two-celled pollen divides in the pollen tube but not in a three-celled pollen. Give reasons.



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**30.** Which type of cell division forms spermatids from secondary spermatocytes?



**31.** Comment on the essential features required for an ideal contraceptive.



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**32.** All reproductive tract infections or RTIs are STDs but all STDs are not RTIs. Justify with example.



**33.** How does a mutagen induce mutation? Explain with example.



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**34.** Do you think that alternative splicing of exons main enable a structural gene to code for several isoprotein from one and same gene? If yes ,how? If not,why so?



**35.** Comment on the utility of variability in the number of tandem repeats during DNA fingerprinting.



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**36.** What are Interferons? How do they help in controlling the disease?



**37.** Why do we prefer to call secondary wastewater treatment as biological treatment?



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38. Do biomolecules (DNA ,protein)exhibit biological activity in anhydrous conditions?



**39.** Discuss the advantages of GMOS.



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**40.** Define Habitat and Ecological niche.



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41. Write one difference between pathogen and parasite.



**42.** Why is genetic variation important on the planet Rauwolfia vomitoria?



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**43.** When a Snapdragon plant bearing pink colour flower was selfed, it was found that 69 plans were having red coloured flowers. What would be the number of plants bearing pink flowers and white flowers? Show with the help

of Punnett square. Identify the principle of inheritance involved in this experiment.



**44.** Why is human genome project called a mega project ?



**45.** "Maintenance of personal and public hygiene is necessary for prevention and

control of many infectious diseases." Justify the statement giving suitable examples.



**46.** Describe the main ideas behind the biological control of pests and diseases.



**47.** State principle underlying gel electrophoresis. Mention two applications of

this technique iri biotechnology.



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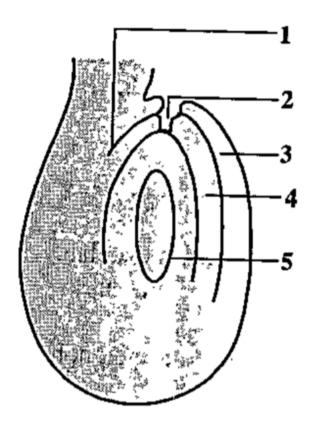
48. List advantages of recombinant insulin.



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**49.** Consider the parts labelled in 1, 2,3, 4 and 5 respectively in the following diagram of anatropous ovule and find out the correct

sequences.





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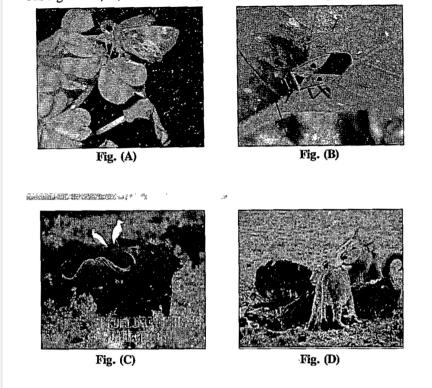
50. Ovulation occurs under the influence of

- A. a.follicle stimulating hormone
- B. b. luteinising hormone
- C. c. progesterone
- D. d.estrogen



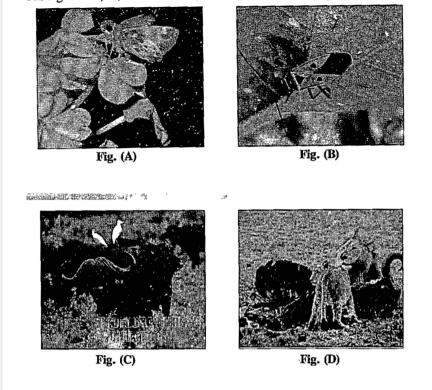
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**51.** Observe the set of four figures A,B,C and D and answer the following questions. Which one of the figure shows mutualism?



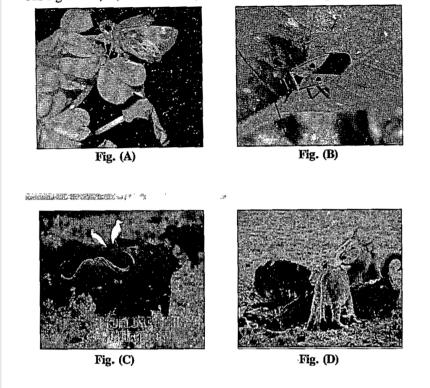


**52.** Observe the set of four figures A,B,C and D and answer the following questions. What kind of association is show in D?





**53.** Observe the set of four figures A,B,C and D and answer the following questions. Name the organisms and their association in C.





**54.** Observe the set of four figures A,B,C and D and answer the following questions. what role is the insect performing in B?

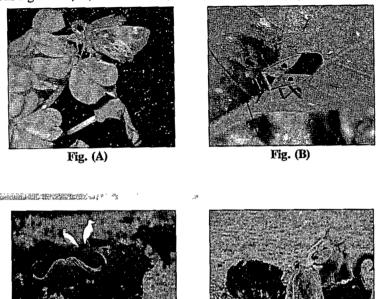






Fig. (D)



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**55.** (Consider the parts labelled 1, 2, 3 and 4, 5, 6 respectively representing global biodiversity of plants in the following diagram and find out

the correct sequence :)

